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ACCORDING TO THE SYLLABUS BY HEC

ULTIMATE GUIDE FOR

USAT

UNDERGRADUATE STUDIES
ADMISSION TEST

Salient Features:

- Verbal Reasoning
- Quantitative Reasoning
- Essay Writing
- 1000+ Practice MCQs with Explanations

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About the Book

The Ultimate Guide for USAT is the ideal source to prepare for the **Undergraduate Studies Admission Test (USAT)** conducted by the **Higher Education Commission of Pakistan (HEC)**. The book has been designed on the **Pattern** of the **Scholastic Aptitude Test (SAT)**, which the USAT shall follow, as per the instructions of the HEC. The aim of this book is to help students prepare for the USAT by practicing 1000+ Questions along with learning unique concepts from the Detailed Explanations.

- **1000+ MCQs** are present in this book, all prepared according to the standards of the SAT. These MCQs comprehensively cover the entire syllabus.
- **Detailed Explanations** accompany all MCQs. These Explanations help the students in preparing for different topics that are included in the exam and cover all possible test areas.
- **Effective Preparation Tips** are offered regarding questions related to both of the reasoning sections (Verbal and Quantitative) as well as for the Essay Writing Skills, to help students ace each section.

Why Choose this Book?

The Ultimate Guide for USAT provides the students a chance to analyze their preparation by attempting a large variety of MCQs that are paired with Answers and Elaborate Explanations. *Answers with Detailed Explanations* have been added to enhance the students' learning of various concepts. The explanations also help the user improve the areas they are weak in. By practicing more questions, the score increases.

The book is divided into three sections, namely, Verbal Reasoning, Quantitative Reasoning, and Essay Writing Skills. Questions covering all topics within these sections, along with useful tips on how to effectively tackle the questions of each section are provided.

The Verbal Reasoning section of the book includes topics such as vocabulary, synonyms, antonyms, prepositions, grammar/grammatically correct sentences, and reading comprehension. **One important thing to note** here is that although the book follows the structure of the SATs, the vocabulary used herein is based upon the study material used at the FSc level i.e. the kind of vocabulary students are familiar with.

The Quantitative Reasoning section of the book covers numerous topics, such as fractions, functions, mathematical word problems, trigonometry, among many others.

The Essay Writing Skills section provides students with guidance regarding the fundamental components of an essay. It also offers useful tips and explanations on how to construct the ideal essay in order to obtain high scores in this section of the exam. Example essays constructed upon the mechanics explained are also given to provide students comprehensive guidance.

The combination of Questions with Detailed Explanations, Effective Tips and Tricks as well as guidance for students is what sets this book apart. Students can conveniently gauge their level of preparation after attempting the Practice Questions along with making use of the Explanations to improve the areas they are weak in.

*Students are advised to consult various sources to cover the vast syllabus in order to achieve an all-rounded preparation.

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Higher Education Commission
www.hec.gov.pk

UNDERGRADUATE STUDIES
ADMISSION TEST (USAT)

The Higher Education Commission Viz Education Testing Council (ETC) will conduct Undergraduate Studies Admission Test (USAT) for admission at the undergraduate level in universities operating all over Pakistan.

The USAT is designed on the Scholastic Aptitude Test (SAT) pattern and covers all known disciplines of Engineering, Medicine, IT, Management and Social Sciences at the undergraduate entry level. The students after qualifying USAT would stand eligible to all universities like the SAT.

Who can Apply for Undergraduate Studies Admission Test (USAT)?

Students who have passed the Higher Secondary School Certificate (HSSC) or equivalent/Grade 12 education	Students who have appeared in the final examination and are awaiting results

Test Breakup/ Marks Distribution

Undergraduate Studies Admission Test (USAT)		
USAT HAVING 12 YEARS/ EQUIVALENT EDUCATION IN ANY DISCIPLINE	**PART 1** NUMBER OF TEST ITEMS (75 MCQS) - TIME ALLOWED 100 MINUTES	
	VERBAL REASONING	QUANTITATIVE REASONING
	35	40
	PART II TIME ALLOWED 40 MINUTES	
	ESSAY WRITING SKILLS 400-500 WORDS (EITHER ON ENGLISH OR URDU)	
	25	

Any score above and equal to 50 will be considered as a qualifying USAT score. The maximum anyone can score on USAT would be the perfect score of 100.

Proposed Test Schedule

Test is initially proposed on a quarterly basis in the major cities of Pakistan to be held simultaneously. More tests can however be arranged if the need existed. The yearly test calendar will be uploaded on the ETC website and candidates may register themselves through online registration portal.

Role of Universities

Universities will continue to announce their admission program independently. Students will apply to universities and will submit the USAT ETC score card for inclusion in the weightage-based merit determining formula.

How to Apply for (USAT)

- For registration, please visit the following link: http://etc.hec.gov.pk
- In case of any query during the online registration, please visit onlinehelp.hec.gov.pk or visit HEC regional offices for guidance.
- Application Submission comprises of two steps: profile completion using "My Profile" section and application submission using "Undergraduate Studies Admission Test" links on the menu panel on the left-hand side bar of online portal.
- Only SUBMITTED applications will be considered for USAT Test and applications in SAVE or INCOMPLETE mode will not be entertained.
- The test fee for Undergraduate Studies Admission Test (USAT) is PKR 1,200/- per candidate. Candidates will deposit the fee amount in Habib Bank Limited Account no. 1742 7900 1334 01. Title of Account: Higher Education Commission.
- Applicants are required to send a copy of Fee Deposit Slip/ATM/Online transfer through courier at the address: Member's house, HEC Sector H-8, Islamabad on before the last date of registration. The test fee is non-refundable and non-transferable.

Last date for online registration is:
August 30, 2021

USAT test will be held on
September 12, 2021 tentatively

Helpline: 051-111-119-432 0334-111-9432
hec.gov.pk   etc.hec.gov.pk

Education Testing Council, Higher Education Commission, Sector H-9, Islamabad

1

VERBAL REASONING

2

IMPORTANT VOCABULARY

Sr. #	Word	Meaning	Example Sentence
			A
1.	Ascend	To climb	The mountaineers ascended the mountain in two days.
2.	Abreast	To keep up to date.	The Captain has to keep abreast of the team's morale.
3.	Amuse	Entertain	Playing video games is a great source of amusement for children these days.
4.	Avert	Prevent	The efforts of the authorities averted the loss of any more lives due to the disaster.
5.	Ancestors	A person's forefathers	His ancestors were from Africa.
6.	Apprentice	A person who works with and learns from a skilled professional.	The blacksmith had taught his apprentice very well.
7.	Agility	Nimbleness, dexterity, ability to be quick and graceful	The runner's agility enabled him to be selected for the Olympics team.
8.	Anxiety	Nervousness	The delay in response from the company's HR department regarding the results of the interviews caused a lot of anxiety to all the candidates.
9.	Antipathy	Strong opposition or dislike	There was an antipathy between the two political candidates.
10.	Antique	Produced in earlier times	His collection of antique coins is quite amazing.
11.	Avow	Admit publicly	He avowed himself as an opponent of dictatorships.
12.	Alleviate	To ease or reduce something (usually pain or suffering)	The medicine could not alleviate his headache.
13.	Accentuate	Make something more noticeable	The dark color of his shirt accentuated his fair complexion.
14.	Ace	An expert	The ace pilot shared tips with the new recruits.
15.	Apostle	Someone who strongly supports a cause/belief etc.	The apostles of free speech stood up against media censorship.
16.	Assent	Acceptance	The authorities assented to the changes recommended by the labor union.
17.	Astray	To move away from the correct way	We went astray for a while but were able to rejoin our original path.
18.	Angularity	Quality of being angular	The angularity of his face was made more prominent by his shaved head.
19.	Appalling	Something very bad that causes shock and horror.	Everyone found his mistreatment of animals to be appalling.
20.	Avarice	Greediness for wealth	His avarice proved to be his downfall.
21.	Annihilate	To completely destroy	The bomb annihilated the buildings.
22.	Adjure	To ask someone to do something earnestly	I adjure you to reconsider your decision to sell this house.
23.	Ancient	Belonging to earlier times	The ancient cave had markings from thousands of years ago.
24.	Abode	Where one lives	The poor man invited everyone to his humble abode.
25.	Adverse	Negative, unwanted	The medicine had no adverse side-effects.
26.	Aboriginal	Original inhabitants of an area.	The invaders killed the aboriginal people and stole their lands.
27.	Adversary	Opponent, rival, enemy	He defeated all his adversaries with his skill.
28.	Anarchic	Lawless	The anarchic community quickly fell apart.
29.	Archive	Historical records	The archives were lost in the library fire.
30.	Artisan	A person skilled at a certain craft.	There were many artisans in the *bazaar*.
31.	Adieu	An expression of good wishes when someone leaves.	He bid his friends adieu and went on his way.
32.	Agony	Extreme suffering	His broken leg caused him much agony.
33.	Abate	To lessen something unpleasant.	The encouragement from his friends abated his anxiety.
34.	Astonish	Amaze	He was able to astonish everyone with his skills.
			B

35.	Butchered	To kill someone or something mercilessly or brutally	The terrorists butchered the innocent children.
36.	Beneath	Below	She put the spare mattress beneath the bed.
37.	Brink	On the verge of	He was on the brink of death when the paramedics found him.
38.	Blaze	A strong fire	The firefighters tried their best to fight the blaze but they could not save everyone inside the building.
39.	Blank	Ignore	He blanked his old friends when he heard that they talked negatively behind his back.
40.	Bonfire	A controlled outdoor fire used to dispose of rubbish or as part of a celebration.	The campers gathered around the bonfire to tell their stories.
41.	Board	A flat piece of a material (usually wood)	The books were placed on a wooden board.
42.	Bleat	A weak cry	The injured animal bleated helplessly.
43.	Budge	Make a slight movement	Despite all his efforts, the huge rock did not budge from its position.
44.	Boon	Blessing	The roadside restaurants are a boon for all travelers.
45.	Bestow	To confer or present someone with something.	He was bestowed with the title of Sir.
46.	Breeze	A light, cool wind.	The gentle breeze blowing by the sea was very pleasant to experience.
47.	Bum	A loafer, lazy person	He tried his best to convince the bum to start working somewhere.
48.	Banter	Speak or act playfully and wittily	The banter between the fans of the opposing teams was fun to watch.
49.	Bereaved	Greatly saddened by the loss of a loved one (usually due to death).	The bereaved mother wept for days due to the death of her son.
50.	Beacon	Something that guides	The eldest brother serves as a moral beacon for all the siblings.
51.	Belligerent	Acting in a hostile manner	The belligerent soldiers were on the verge of breaking the ceasefire.
52.	Bewilder	To confuse or amaze someone.	The magician bewildered the crowd with his tricks.
53.	Budding	New, something at an early stage	Their budding friendship was cut short due to their fight.
54.	Bandit	Armed robbers (especially those belonging to a gang).	The bandits along the highway have caused much trouble to travelers.
55.	Bosom	The front of the chest	The mother held her child to her bosom.
56.	Banish	Send someone away from an area as punishment.	The criminals were banished to live on an island, away from civilization.
		C	
57.	Chastened	To have a humbling effect on.	The team was chastened due to their recent losses.
58.	Convocation	A formal gathering of people	The students are all excited for their convocation as it marks the day they will graduate and enter professional life.
59.	Cackle	To laugh out in a loud and harsh manner	The bullies cackled at the crying of the small children.
60.	Chasm	A cleft, abyss, ravine	The earthquake caused a chasm in the road.
61.	Commence	Begin	The ceremony will commence shortly.
62.	Curvet	An energetic leap.	The racehorses crossed the barriers in graceful curvets.
63.	Closet	A tall cupboard.	He put his winter clothes in the closet.
64.	Chore	A daily task	He is in the habit of completing his chores, such as disposing the trash, early in the morning.
65.	Counsel	Advice, guide	He is always there to counsel his younger siblings.
66.	Career	Occupation	He decided that he would pursue a career in writing.
67.	Canyon	A deep gorge.	There was a vast canyon between the mountains.
68.	Carcass	Remains of a dead animal etc.	The wolves feasted on the carcasses of the dead livestock.
69.	Creed	A faith	Followers of the pagan creeds were persecuted.
70.	Condescending	Considering oneself to be superior to others.	The member of the royalty spoke condescendingly with the commoners.
71.	Crucial	Vital, important	He left the project at a crucial stage, which is what led to its failure.
72.	Colossal	Huge, gigantic	The colossal explosion caused by the bomb killed many people.
73.	Confess	To admit to something	The criminal confessed to his crimes in the court.
74.	Contemplate	To deeply think about something	I have decided that I will not contemplate any further and will just sell my car.
75.	Cunning	Deceitful	The cunning thief was able to escape from the guards.

76.	Cohesion	Unity, sticking together	The team's cohesion is the reason for its success.
77.	Clasp	Hold something firmly	He clasped the railing to not fall due to the strong winds.
78.	Collude	Cooperate in some deceitful initiative	The two brothers colluded against the rest of the family to gain ownership of the property.
79.	Conducive	Ensuring the right conditions for something to happen.	The environment of planets such as Mars is not conducive to human life.
80.	Custodian	Caretaker	Due to working here for twenty years, the custodian of the library knows where each and every book is placed.
81.	Clumsy	Having little grace, awkward, not refined	The father acts in a clumsy manner with his children whenever he is in a playful mood.
82.	Credible	Trustworthy	Social media is not a credible source of news.
83.	Constitute	Be part of a whole	About three hundred employees constitute this organization.
84.	Contentious	Something that is not agreed upon, controversial.	Whether government should intervene in the market is still a contentious issue.
85.	Curse	Something that brings upon harm	The house was believed to be cursed as three different families had been murdered there.
86.	Countenance	Allow	He was unwilling to countenance his manager's rude behavior.
87.	Comrade	Partner	He is always there to help his comrades.
88.	Covenant	Agreement	The two groups made a covenant with each other for peaceful co-existence.
89.	Consternation	Amazement or dismay	His student's inability to concentrate caused him much consternation.
90.	Commend	Praise	My superiors commended me for my good performance on the project.
91.	Cluster	Similar things held together.	There was a cluster of law colleges in that area.
92.	Chuckle	A quiet laugh.	He chuckled at the foolishness of the situation.
93.	Compendious	Brief expression of a comprehensive matter.	His compendious report was praised by all.
94.	Consent	Agreement	The event cannot go on without the consent of all the members.
95.	Contempt	Considering something worthless, lowly.	There was contempt in the voice of the noble when he was talking to the commoners.
			D
96.	Dingy	Gloomy	He has been living in that dingy basement apartment for years.
97.	Disgruntled	Extremely unhappy or angry.	The employees were disgruntled with the company's new policies.
98.	Daintily	In an attractive/elegant manner.	The experienced batsman plays daintily.
99.	Derisively	Mockingly	He derisively challenged the newcomer, just to embarrass him.
100.	Desperate	Careless, reckless	He paid no heed to his already injured body while desperately trying to escape the wild animal.
101.	Dizzy	Feeling faint or woozy.	She felt dizzy after riding on the merry-go-round.
102.	Devour	To eat hungrily/quickly	The lion devoured the deer.
103.	Doze	Sleep lightly	He found his son dozing with a book in his hand.
104.	Deftly	With neat and skillful movements.	The batsman deftly managed the skillful bowler's over.
105.	Disposition	A person's nature, character or quality of mind.	The girl had a shy disposition so she was not able to speak confidently in front of the crowd.
106.	Dormitory	A bedroom for multiple people.	The new children at the hostel were shown the dormitory which they would be sleeping in.
107.	Dangle	Hanging loosely	The cloth was dangling from the pole.
108.	Debris	Scattered remains of something.	There was debris from buildings and other structures all over the area after the bomb blast.
109.	Defile	Spoil something.	The tomb was defiled by robbers and raiders.
110.	Despoiler	Looter	The despoilers took the weapons and armor of the dead soldiers.
111.	Decrepit	In poor condition	The beggar was wearing decrepit clothes.
112.	Dictate	Command forcefully	The authorities did not allow the protestors to dictate the terms of the agreement.
113.	Distressing	Something that is a source of worry and mental pain	The distressing news of the death of his friend caused him to go into depression.
114.	Deference	Respect shown to another	The arrogant amateur did not offer any deference to his experienced

12

		person	colleagues.
115.	Discounted	To disregard something due to it being improbable/not credible.	He has discounted the rumors of his friend being untrustworthy.
116.	Declamation	Rhetorical speech, oration	He practiced the art of declamation in front of the mirror every day.
117.	Deter	To discourage or restrain someone from an act.	The anger of their father is able to deter the siblings from being too rowdy.
118.	Detrimental	Harmful	Eating too much fast-food is detrimental to the body.
119.	Diverge	Follow a different direction than the common way.	He decided to diverge from his daily routine and visit a friend's house after work.
120.	Distractedly	Without paying much attention to what you are doing	He looked at his watch distractedly multiple times but could not note what time it was.
121.	Decree	An order by someone in a position of authority.	He was put under arrest by decree of the Chief Justice.
122.	Desolate	Deserted, barren	The desolate island cannot sustain human life.
123.	Discontent	Not satisfied	He was discontent with his life so he decided to change his career.
124.	Discord	A state of conflict, disagreement	The assembly was full of discord over the recent bill.
125.	Defiance	Opposition, resistance.	He stood in defiance of his elders and pursued his dream career.
126.	Deprive	To take something away or prevent from having.	He tries his best to provide his children all the luxuries that he was deprived of in his childhood.
127.	Dismantle	Break or divide into parts.	He dismantled the machine to understand how it works.
128.	Dissipate	Disappear, dissolve	The love that he had for his friend quickly dissipated once he learned of his evil intentions.
129.	Discern	Find out, figure out	The doctor was able to discern the cause of my headache.
130.	Daunting	Something that is difficult	Renovating the entire house seemed like a daunting task but she was up to the challenge.
131.	Dismay	Shock, alarm caused by something distressing.	The news of the scholar's death spread dismay in the community.
132.	Disguise	To hide one's identity	His mask served as a good disguise.
133.	Desist	To stop doing something.	The criminal was ordered to desist from any further actions by the police officers.
		E	
134.	Exploit	To take advantage of a situation, sometimes even unfairly.	The kidnappers exploited the innocent and trusting nature of the children to lure them in their vehicle.
135.	Eager	Impatient	I was eager to see what gift my brother had bought me for my birthday.
136.	Expanse	A large and wide area.	The astronauts set out on their journey into the wide expanse of space.
137.	Ephemeral	Not lasting long.	Fitted jeans were an ephemeral fashion.
138.	Erode	Wear away	The metal tools have eroded due to the carelessness of the owners.
139.	Enraged	To be very angry	He was enraged at the salesman for cheating him.
140.	Entrepreneur	A business owner who attempts to make a profit through risks and initiatives.	The government has made attempts to facilitate young entrepreneurs to enhance economic growth.
141.	Emaciated	Very thin or weak (usually due to illness)	He had become emaciated due to his prolonged stomach disorders.
142.	Eradicate	Completely end or destroy	A nuclear war has the potential to eradicate all life on Earth.
143.	Expeditious	Fast, prompt, quick	The expeditious investigation of the air crash revealed it was due to a technical fault.
144.	Emancipate	To free	He fought for the emancipation of his people from the oppressive rulers.
145.	Exalt	To praise highly, hold in high regard.	The exalted judge has served the people with dignity.
146.	Exhilarating	Something that causes excitement.	The final match was exhilarating.
147.	Enumerate	To name/mention things separately, one by one.	He enumerated the reasons for his decision.
148.	Endow	Provide someone with	He has been endowed with a sharp intellect.

		something.	
149.	Endeavour	Try to do something	He is always engaged in challenging endeavours of all sorts.
150.	Expedient	Convenient	I'd go meet him myself if it were expedient for me to do so.
F			
151.	Flap	Moving arms or wings up and down.	The children flapped their arms imitating the flight of birds.
152.	Fugitive	An escaped prisoner.	The police was finally able to find and capture the fugitive before he could cause any more trouble.
153.	Fence	A barrier that encloses an area.	The house had a wooden fence around it.
154.	Forlorn	Miserable, unhappy.	The defeated team had a forlorn look on their faces.
155.	Familial	Similar to that in a family.	Their shared interests in studies has created a familial bond between them.
156.	Feeble	Weak	The old man was too feeble to take care of himself.
157.	Fleck	Small mark or spot	Her blue shirt had flecks of black on it.
158.	Fretful	Behaving in a manner that shows you are worried, restless, or irritable.	She was fretful about her examination results.
159.	Footling	Trivial	His footling complaints about the taste of the canteen food were ignored by his colleagues.
160.	Feat	An achievement that requires great ability	The batsman achieved the remarkable feat of scoring the fastest century.
161.	Flimsy	Lacking in substance/strength	He offered flimsy arguments in favor of his position.
162.	Ferocious	Violent and frightening	The ferocious barbarians killed the animals and mutilated their carcasses.
163.	Fangs	Long, sharp tooth	The snake grabbed the small animal with its fangs.
164.	Forfeit	Lose something as a penalty.	The employee knowingly forfeited his right to vote by misbehaving with the others.
165.	Feign	Pretending to have a condition.	He feigned sickness to skip work today.
166.	Fidelity	The quality of being faithful or loyal.	There is strong fidelity between the couple.
167.	Fierce	Intense	He is a fierce competitor.
168.	Frantic	Being out of control emotionally.	The parents became frantic at the news of their daughter's death.
G			
169.	Gnaw	To constantly bite or nibble at something.	The lion gnawed at the bone.
170.	Gaily	Cheerfully	The children waved gaily towards their parents.
171.	Gay	Carefree and happy	The team had a positive and gay attitude due to their recent victories.
172.	Glint	Shine	The jewelry was glinting.
173.	Gambol	Playfully jump and run about.	Her children gamboled in the park.
174.	Grim	Worried, stern, gloomy	He had a grim look on his face ever since he lost his wallet.
175.	Grave	Urgent, serious	Rising child mortality is a grave issue.
176.	Gale	A very strong wind	The gale blew the shed away.
177.	Gaze	Look at something for a long.	He gazed at the sky, lost in thought.
178.	Glimpse	A momentary/complete view	The witness saw a glimpse of the murderer's face but could not see him clearly.
179.	Growl	A low and rough sound made in anger.	The dog growled at the children to protect its puppies.
180.	Gratis	Without any charges/cost.	The food was distributed gratis.
181.	Grudge	Ill will towards someone due to a past incident.	He has held a grudge against his brother ever since their heated argument from two months ago.
H			
182.	Hanker	To have strong desire for something.	The childhood friends sat together and hankered after the days of their youth.
183.	Headlong	With reckless haste.	The soldier charged headlong into battle.
184.	Hump	A mound or bulge.	There were many humps in the pathway to the village.
185.	Hatch	The opening of an egg producing a young animal.	The eggs hatched and baby chickens came out from them.

186.	Haltingly	Hesitantly	He haltingly decided to submit his resignation to the company that he had been working for, for the past twenty years.
187.	Hideous	Having a very ugly and unpleasant appearance.	In the movie, the witch was shown to have a hideous appearance.
188.	Hem	The edge of a cloth.	The hem of her dress was torn.
189.	Howl	A long, wailing cry	The hungry wolves were howling in the forest.
190.	Hardly	Barely, only just	He was hardly ten years old when he was diagnosed with the disease.
191.	Haste	Hurry	He made his way to the hospital with haste as soon as he heard his friend had been admitted there.
192.	Hysterical	Uncontrollably emotional	The crowd broke into hysterical laughter by the comedian's performance.
193.	Hindrance	Something that blocks or slows down another thing.	Traffic proved to be a great hindrance in our attempts to reach the venue on time.
194.	Hallowed	Greatly honored	The hallowed grounds of the Church were cleaned every day.
195.	Heir	Successor	He is the heir to a great business empire.
196.	Hazy	Reduced visibility	The collision left his vision hazy.
197.	Haul	To pull something with difficulty.	The labors hauled the bags onto the truck.
198.	Harness	To control something so that it can be used.	Solar panels harness the light and heat from the Sun to produce energy.
199.	Hinder	To make something difficult to happen, to limit.	My illness proved to be a hindrance in my studies.
			I
200.	Incumbent	Binding or necessary	It is incumbent upon the employees to arrive at 9:00AM for work.
201.	Instance	An example	Her lashing out today is an instance of anger and is not reflective of her usual self.
202.	Inconsequential	Of little importance.	The lone batsman's fighting innings proved inconsequential as the rest of the team played poorly, causing the team to lose the match.
203.	Immense	Huge, very big.	He had immense respect for his teachers.
204.	Immigrant	A person living in a foreign country.	The immigrants protested outside the President's office for their rights.
205.	Indiscriminately	At random	The terrorists fired indiscriminately at adults and children alike.
206.	Impoverished	Made poor	The farmlands were impoverished due to a lack of rain.
207.	Improvidence	Acting rashly	His improvidence during his innings cost his team the match.
208.	Incarnate	In human form.	His extremely rude and cruel nature makes people consider him to be evil incarnate.
209.	Instill	Implant	He almost drowned once when he was young. That incident has instilled a fear of all water bodies in him.
210.	Intently	With determination or attention	The inspector intently looked at the scene of the crime to find clues.
211.	Immerse	To plunge into or get deeply involved in something.	The dyers immersed the fabric in the dye-bath.
212.	Intramural	Done within the walls of a structure	Basketball is an intramural sport.
213.	Inflict	Strike against	His strikes inflicted great pain upon the animal.
214.	Impartial	Unbiased	A judge must always be impartial.
215.	In vogue	Popular	Black colored clothing is always in vogue.
216.	Inclusive	Without excluding something	The company's has set a new standard for workplace inclusiveness by hiring transgender persons.
217.	Inhabitant	The people who live somewhere	The inhabitants of the city had to be evacuated due to the flood.
218.	Invigorate	Something that freshens up	The jog in the morning is invigorating for the body.
219.	Intimately	Very closely, personally	He has an intimate understanding of my problems as he himself has gone through similar ones.
220.	Ignominy	Public embarrassment	His recent scandal caused him much ignominy.
221.	Impostor	Someone pretending to be someone else.	The real dictator had died a few months back and an impostor took his place so that the powerful people would keep their authority.
222.	Indomitable	Something that cannot be defeated or conquered.	His willpower was indomitable.
223.	Ironic	Something being odd or	It was ironic that the robbers turned out to be low ranking police

			humorous because of having a different or opposite result from what is expected	officers.
224.	Indispensable	Vital, necessary		The wicket-keeper is an indispensable part of any cricket team.
225.	Intrigue	Curiosity, interest		He is intrigued by machines.
226.	Immense	A large amount of something.		He has immense respect for his teacher.
227.	Interpose	To place between two things to stop them.		He interposed words of kindness to stop the quarrel between the other two.

J

228.	Jagged	Spiky, rough, uneven	Years of hard labor had turned the skin of his hands quite jagged.
229.	Junk	Trash, rubbish	There was a lot of junk lying around near the dustbin.
230.	Jobbery	Receiving personal advantages from a position of trust (such as a government office).	The government must take steps to reduce jobbery.
231.	Jeer	To make mocking remarks	The children jeered at his unusual appearance.
232.	Jester	A person who jokes around.	He has a reputation of being a jester.

L

233.	Laurels	Honors awarded due to achievements.	The team earned many national and international laurels due to their success.
234.	Ledge	A narrow surface projecting from a wall or cliff.	He jumped over the ledge.
235.	Limp	Infirm, weak.	His body had become limp due to the prolonged illness.
236.	Lean out	To suspend oneself out of something.	He leaned out of his apartment window to smell the fresh morning air.
237.	Lope	Move with a long bounding stride.	His pet cat loped along his side.
238.	Lea	Pasture, grassland	The animals were grazing in the lea.
239.	Limbo	An intermediate, uncertain state	The fate of the house's real owner is stuck in a limbo due to the ongoing legal battle.
240.	Lethal	An amount of something enough to cause death.	His body had a lethal dose of venom due to the snakebite.
241.	Legacy	Something transmitted through generations.	A career in law has been our family's legacy.
242.	Liberal	Related to a political/social philosophy that promotes civil liberties, individual rights, democracy, and freedom.	The liberal party won the elections this year.
243.	Languish	Grow weak	His health has languished due to the disease.
244.	Latent	Not obvious	His latent ability to handle pressure became clear to everyone during today's match.
245.	Liberty	The state of being free	The state acts to preserve the liberty of the people.

M

246.	Monstrous	Huge	The movie had a scene in which the heroes fought a monstrous demon.
247.	Muster	Gather, collect	He finally mustered up the courage to confront his bullies.
248.	Motive	Reason, intention	His only motive to do the task was to earn some extra money.
249.	Meek	Gentle, submissive	His meek disposition led to him being bossed around by others younger than him.
250.	Mumble	To speak in a quiet, unclear manner.	The students mumbled during the lecture.
251.	Minimal	Very little	He always puts minimal efforts into his studies yet always scores very high grades.
252.	Mythology	A body of myths, usually religious in nature.	Greek mythology is a fascinating subject with many metaphorical lessons.
253.	Maladjustment	Unable to properly get adjusted/involved.	His selfish attitude became the reason for his maladjustment in the team.
254.	Manifestation	Demonstration, display	Buying a new gift for his fiancé every other week is a manifestation of

			his love for her.
255.	Morbid	Suggestive of an unhealthy mental state.	He had a morbid fascination with death.
256.	Munitions	Materials used in war especially weapons and ammunition.	By destroying the enemy's munitions warehouse the army was able to get a decisive advantage over them.
257.	Mutilate	To disfigure	Mutilating human bodies is an intolerable act even in war.
258.	Maniac	A mad or crazy person	Shouting and screaming like a maniac is not a good way to debate or argue.
259.	Murmur	Humming, continuous low noises	The murmur of the children in the school next-door could be heard.
260.	Momentous	Something of great significance.	Getting a degree was a momentous achievement for her as she was the first woman from her village to do so.
261.	Meticulous	Paying attention to details.	His meticulousness enabled him to become a great editor.
262.	Modify	To change something	He modified his plan owing to the changing circumstances.
263.	Mellow	To become more calm and relaxed.	The rowdy child became a mellow adult.
264.	Manor	A large private house in the country side.	That manor has been in their family for seven generations.
265.	Mediate	Intervene in a dispute for the purpose of bringing about agreement.	The parents from both sides decided to mediate the dispute between the couple.
266.	Musing	Reflecting, thinking about something.	His musings are always interesting to listen to.
267.	Malady	Sickness	Cancer is known as the emperor of all maladies.
		N	
268.	Nightmarish	Like a frightening dream, scary.	The monster in the film had a nightmarish appearance.
269.	Numeracy	An ability to understand numbers and work using them.	His exceptional numeracy skills enabled him to become an accountant.
270.	Nurture	To take care of something in its youth/early days.	He took on the responsibility to nurture his children after his wife's death.
271.	Nebulous	Having no clear form	The fog in the forest made the trees look nebulous.
272.	Nexus	Causal link	The damage to the nexus of the railway lines has caused all trains to be delayed.
273.	Nerve-wracking	Stressful, tense	The nerve-wracking final match ended in great disappointment for the home fans as their team lost.
274.	Nettle	Irritate, annoy	The crying of the baby on the plane nettled all the passengers.
275.	Nullify	To make something legally ineffective.	The Supreme Court nullified the decision of the High Court.
276.	Numb	Desensitize	The anesthesia made his body numb.
277.	Nipped	Cut, pinch, bite	The puppy nipped the boy on his arm.
		O	
278.	Occasionally	Sometimes	I occasionally go to meet my childhood friends.
279.	Outfit	Attire	He is known for always wearing attractive outfits.
280.	Outworn	Something that is ancient, out of date.	His outworn sense of fashion set him apart from all the youngsters.
281.	Overarching	Encompassing everything that is within its scope.	The overarching themes of religious extremism in the novel made it very controversial.
282.	Orientation	A position relative to something, or familiarization and adaption, or interests/beliefs.	The increasing orientation of the youth towards drugs is alarming.
283.	Obliterate	Completely destroy	The air crash completely obliterated all the houses in the area.
284.	Onerous	Something that is burdensome.	I will take upon the onerous task of painting the house myself.
285.	Opulent	Showing great wealth	Their family has always lived an opulent lifestyle.
286.	Offend	Annoy, disrespect	He tries his best not to offend anyone with his words.
287.	Obstinate	Stubborn	His obstinate attitude is a double-edged sword.
		P	
288.	Plaintively	With sadness, mournfully	He plaintively buried his pet dog.
289.	Plateau	A flat area of an elevated land.	We stopped at the plateau on our way to the mountain top.

290.	Plunge	Jump, dive, thrust, throw.	The athletes plunged into the swimming pool.
291.	Precipice	A steep rock or cliff face.	I was afraid to look down at the bottom from the edge of the precipice.
292.	Preen	An act done by birds to clean their feathers with their beaks.	The parrots were sitting preening in their cages.
293.	Patriarch	The father, founder of something (an order, a religion, etc.).	It was the village's custom to consult the patriarch on all important matters.
294.	Pester	Annoy with frequent interruptions.	The students pestered their teacher with unnecessary questions to disturb his lecture.
295.	Poignant	Something that evokes a sense of sadness.	The poignant passage in the book regarding the loss of a parent reminded him of the death of his mother.
296.	Pampering	Treat with excessive care and love.	He is in the habit of pampering his children.
297.	Pediatric	The branch of medicine that deals with the care and treatment of children.	The parents consulted a doctor who was a specialist in pediatrics, to treat their son.
298.	Pragmatic	Considering things practically	He has a very pragmatic outlook on life.
299.	Peck	Bite (by a bird).	The sparrows were pecking at the windows.
300.	Ponder	Think deeply about something.	He stopped and took time out to ponder over his mistake.
301.	Parable	A short story intended to make a moral point.	The parable of the turtle and rabbit teaches us the value of persistent hard work.
302.	Profuse	Plentiful	Her profuse affection and leniency towards her children led to them becoming ill-mannered.
303.	Pretty	Pleasing to the eye.	Her pretty dress earned her praise from everyone.
304.	Protest	A strong complaint.	There was protest from the employees against the company building's poor safety standards.
305.	Plead	To beg or to passionately try to persuade someone.	The parents pleaded with the kidnappers to release their children.
306.	Phenomenon	Something experienced or felt	Seeing mirages is a common phenomenon in the desert.
307.	Punk	A useless, petty person	None of the punks that are a part of the current team could match up to the legendary players of the past.
308.	Pugnacious	Argumentative, quarrelsome	Pugnacious people have a difficulty making friends.
309.	Pretension	A claim	His pretension that he was an expert driver proved to be an exaggeration.
310.	Prevail	Succeed	I hope our team prevails in today's match.
311.	Privilege	Benefit, special right	I had the privilege of serving as the company's President for many years.
312.	Pivotal	Occupying a central or very important position/role.	The position of the Chief Financial Officer is pivotal for any organization.
313.	Prodigal	Giving or having something in excess amounts.	The company's prodigal supply of capital helped them overcome the crisis.
314.	Pernicious	Destructive, evil	His pernicious nature has ensured that he has no friends in life.
315.	Pandemic	A disease spread across a whole country or the world.	The Covid-19 pandemic has resulted in the loss of millions of lives.
316.	Pestilence	An infectious/epidemic disease.	The pestilence spread across the land, causing much loss of life.
317.	Paltry	Very small amount	The rich man gave the beggar a paltry sum of just ten rupees.
318.	Peril	Risk, dangers	Great perils lay along the journey of the two warriors.
319.	Pretend	To behave as if something is the case when it is really not.	He pretended to not be hurt by the injury although it caused him much pain.
320.	Pomp	Colorful, extravagant ceremonies	There was a high degree of pomp in the welcome ceremony for the team when they got back home.
321.	Preposterous	Completely unreasonable, contrary to the way things are.	His preposterous claims were rejected by the majority.
			Q
322.	Quilted	A garment or bed-covering etc. made of two layers of cloth filled with padding held in place by	He was wearing a quilted black sweater.

		lines of stitching.	
323.	Quest	A journey in search of something.	In the book, the group of heroes set out on a journey to find the magic item.
		R	
324.	Rut	A track made passage of vehicles.	The constant passage of trucks has filled the road with ruts and bumps.
325.	Rake (v)	To bring together with a rake.	He raked the leaves and cleaned up after the storm had passed.
326.	Replenish	Refill	He replenished his bottle with water from the cooler.
327.	Reflect	To think and ponder deeply	He reflected on his mistakes and decided to never repeat them.
328.	Retrospect	Looking back at and reviewing the past.	He realized that, in retrospect, he had lived a life devoid of any adventure.
329.	Ravine	A deep gorge	The earthquake caused a ravine in the road.
330.	Refuse	Rubbish	Animal refuse was lying all over the farmland.
331.	Remote	Far away in distance	The sailors arrived on a remote island in the middle of the ocean.
332.	Relent	To change one's mind about a decide course.	He had made his mind up about becoming a lawyer and was not willing to relent.
333.	Reckon	Consider	When deciding to go to war, an enemy's ammunition supply is to be reckoned with.
334.	Redemption	Being saved	The fighting innings by the tail-ender proved to be a source of redemption for the team as they were able to achieve a draw.
335.	Reconciliation	Restoring friendly relations.	All efforts for reconciliation have been from his side alone.
336.	Reign	Rule	The intelligent king had a long and successful rule.
337.	Rent	Tear, split	The cloth was rent by the branches.
338.	Reproach	Express disapproval for someone's actions.	The parents reproached their child for his bad behavior.
339.	Robe	A long and loose outer garment.	The scholar was wearing a white robe.
340.	Rash	Carelessly	His rash driving resulted in the accident.
341.	Remnant	Remains	There were no remnants of the building after the detonation.
342.	Resentment	A feeling of bitterness and anger for having been wronged.	I hold no resentment for your past actions towards me.
343.	Retract	To take something back.	He retracted his original words which were considered offensive by many people.
344.	Revile	Verbally abuse	The supporters of the two political parties reviled each other.
		S	
345.	Shackles	Fetters used to fasten the wrists of prisoners.	The prisoners had shackles on their wrists to restrain their movement.
346.	Scrap	A fragment	There were scraps of burnt metal everywhere at the site of the air crash.
347.	Sheer	Perpendicular	He tried to get up the sheer slope of the mountain.
348.	Shrill	A sharp and high pitched voice/sound.	She had a shrill voice which was unpleasant to listen to.
349.	Swish	To move with a hissing/rustling sound.	We could hear the cars swish by from afar.
350.	Seize	Capture, grab.	The police seized the drugs from the criminals.
351.	Skim	To move lightly over a surface.	The mother skimmed her fingers through her daughter's hair.
352.	Soar	To rise, fly upwards.	The eagle spread its wings and soared into the sky.
353.	Stretch	Extend.	He stretched his arms to warm up before it was his turn to bowl.
354.	Swoop	Quickly move upwards.	The little bird swooped up in the air after catching its prey.
355.	Scrubby	Something that is inferior in quality or size.	The family decided to sell their scrubby little apartment and move into a beautiful house.
356.	Smolder	Slowly burning with a lack of flame.	The bonfire smoldered long after the campers had left.
357.	Smother	Killing someone by suffocating them.	The killer used a pillow to smother his victim.
358.	Smudge	A smeared mark.	There was a smudge of blood on his shirt.
359.	Snap	Break something suddenly.	He snapped the stick into two pieces.
360.	Snug	Comfortable, cozy.	The blanket was warm and snug.

361.	Splinter	A smaller, sharper piece of a material broken from a larger piece.	There were splinters of wood lying around in the area where the wood cutting was done.
362.	Spook	A ghost.	It is believed that the house is haunted by a spook.
363.	Squishing	Make a soft sound when walked upon.	The mud was squishing under the shoes of the children as they walked through the forest.
364.	Stack	A pile of objects.	The carpenter had a stack of wood in his workspace.
365.	Surmount	Overcome	He was able to surmount his depression and make his life better.
366.	Snuggled	Nestled/arranged together closely.	The children were snuggled together in bed.
367.	Surplus	Excess	The surplus food was distributed among the needy.
368.	Squander	Wasting something recklessly.	He has a habit of squandering his money on videogames.
369.	Stigma	Negative attitude towards something.	There is a stigma attached with marrying without the consent of one's parents in our culture.
370.	Scorn	To treat with great lack of respect	The tyrant treated his defeated enemies with scorn.
371.	Stoop	To bend one's head and/or body forwards.	He stooped in front of his grandparents so that they could place their hands on his head.
372.	Sordid	Selfish, vile	His sordid behavior with his teammates led to him being disliked by everyone.
373.	Suckle	Feed a baby	The mother cow was suckling her calf.
374.	Stumble	To trip, miss one's step, or walk in an awkward manner.	She was stumbling as this was the first time she wore high heels.
375.	Shatter	Break or fall into pieces.	The glass shattered as it fell to the floor.
376.	Sneer	Smiling or laughing with contempt or scorn.	He sneered at the dressing style of the simple villagers.
377.	Speck	A tiny spot	He can notice every speck of dust on his furniture.
378.	Squeal	Making a shrill cry or noise	The animal squealed in pain.
379.	Squint	To look or peer with the eyes partly closed.	The brightness of the sunlight made the children squint.
380.	Sabotage	To ruin, stop, destroy	He sabotaged his opponent's car to gain an unfair advantage in the race.
381.	Slurred	Difficult to understand	The drunk man's slurred words were not understandable to anyone.
382.	Succumb	Submit, surrender	The parents succumbed to the demand of their children to buy them new phones.
383.	Simulation	A model or imitation of something	These days, pilots receive extensive training in flight simulations before they fly an actual plane.
384.	Sparkle	Glittering, shining brightly	The sparkle of the stars lit up the beautiful night sky.
385.	Stupendous	Amazing, extremely impressive	His innings from last night was a stupendous display of batting talent and skill.
386.	Sovereign	Absolute, highest authority	The President serves as the sovereign of that country.
387.	Secular	Not connected to religion	European countries mostly follow secular laws.
388.	Subjection	Being under the authority of something.	This area is under military subjection.
389.	Splendor	Great beauty	The splendor of the waterfall caught everyone's attention.
390.	Sacred	Something regarded with high respect.	The constitution occupies a sacred position in modern states.
391.	Sweltering	Extremely hot	June was sweltering this year.
392.	Seething	Extremely agitated	The coach was left seething after his team's horrible performance.
393.	Swirling	Moving in a spiral/circular manner.	The swirling waves of the sea storm sank the ship.
394.	Scowl	Using the face (especially brows) to express anger.	The mother scowled at her children for their unruly behavior.
395.	Scrap	Discard.	He decided to scrap his initial plan and come up with a better one.
396.	Servile	One who behaves like a slave	The nation's servile attitude ensures that it will not gain independence any time soon.
397.	Silhouette	The outline or dark shape of	The witnesses recorded their statements in front of the camera in the

		something.	form of silhouettes.
398.	Scoff	To laugh or talk about something in a mocking manner.	He always scoffs at his brother's suggestions because he is secretly jealous of him.
399.	Speculation	Guess	His actions were based purely on speculation.
400.	Sagacity	The quality of having wisdom.	The old man's sagacity was a result of many years of experience.
401.	Shrug	Raising one's shoulders to express lack of knowledge or care about a matter.	She shrugged her shoulders at the matter.
			T
402.	Thwart	To stop or ruin someone's actions.	The evil plans of the terrorists were thwarted by the law enforcement agencies.
403.	Taunt	To mock	The bullies taunted the boy for his weak physique.
404.	Trot	Moving at a moderate pace.	The children trotted along behind their teacher.
405.	Tuck	Fold or turn	The mother tucked her children into their beds.
406.	Tumble	Fall	The earthquake caused the furniture to tumble.
407.	Tedious	Difficult, laborious	Even though it was a tedious task, he managed to help all the needy people in his neighborhood all by himself.
408.	Tacks	A broad-headed nail that is sharp and small.	The wall art was hung using tacks.
409.	Timid	Afraid, lacking courage	The timid little boy was not able to scare away the angry dog that was chasing him.
410.	Thrift	Careful use of money (or other resources).	Practices such as thrift and saving money made him financially strong.
411.	Tyrant	An unjust and cruel ruler.	The tyrant was defeated and dethroned by the public uprising.
412.	Tardy	Not on time	He has a reputation for being tardy when it comes to arriving at work.
413.	Torment	Severe suffering (mental or physical)	The patient was in severe torment due to his brain tumor.
414.	Trickle	Move slowly/gradually	The economy is trickling its way upwards.
415.	Trodden	Walked along/on	To learn about the roads in the area, I decided to stray from my usually trodden path and find a new way to my house.
416.	Titanic	Very large	The titanic skyscraper rose high above the sky.
417.	Tranquility	Peacefulness	The feeling of tranquility in the mountains is what makes me love mountaineering.
418.	Threshold	Starting point	He is at the threshold of his career.
419.	Tarry	Stay or wait somewhere longer than you should.	I refuse to tarry here while my friends could be in danger.
420.	Temper	Tendency to become angry easily.	His bad temper gets him in a lot of trouble.
421.	Treason	Betraying one's country/homeland.	He was convicted of the crime of treason.
422.	Triumph	A great success/victory	Pakistan Cricket Team's triumph at the Champions Trophy 2017 will be remembered for many years to come.
			U
423.	Upheaval	Violent and sudden change.	The city faced mass riots and upheaval due to the inability of the authorities to stop the series of murders.
424.	Upbraid	Scold	He was upbraided by his father for his careless behavior.
425.	Untethered	To free from restraints.	The animals were untethered and left to graze about freely in the farmland.
426.	Utopia	A place of ideal perfection.	To some people, a world built on economic equality is a utopia.
427.	Utterance	A statement	The utterance of a simple, heartfelt apology is all it took for her to forgive her friend.
428.	Undergrowth	A mass of bushes, small plants etc.	The undergrowth in the backyard trees of the abandoned house had many insects in it.
429.	Ultimatum	A final proposition, warning etc.	The authorities gave an ultimatum to the inhabitants to vacate the building within a week.
430.	Unhinged	Deranged, mentally unstable	Spending many lonely years on the island, away from society, had made his mind unhinged.

431.	Unprecedented	Something that has not happened before.	Such high prices of household goods are unprecedented.
432.	Utmost	Highest, greatest	He is a professional of the utmost caliber.
		V	
433.	Virtually	Nearly	The earthquake has virtually destroyed all infrastructure of the city.
434.	Vanity	Excessive pride in one's own self.	His vanity prevents him from self-improvement.
435.	Verge	Edge, border	She was on the verge of losing her life when she reached the hospital.
436.	Vicious	Brutal, savage, very dangerous and violent.	The vicious robbers murdered the family and took all their possessions.
437.	Visceral	Instinctive rather than intellectual.	He had a visceral fear about losing his family.
438.	Void	Containing nothing.	Outer space seems like a void.
439.	Visage	A person's face, with special reference to their features, expressions etc.	His anger changed the visage of his face into an unpleasant form.
440.	Variegated	Having spots of many different colors	His garden is full of beautiful, variegated plants.
441.	Vivid	Very strong or bright	The vivid colors of his paintings have earned him praise.
442.	Validate	To confirm	He used advanced software to validate the authenticity of the data.
443.	Viable	Able to succeed, practical	Long-term lockdowns are not a viable solution to the covid-19 pandemic for economically struggling countries.
444.	Vanish	To go out of sight, stop being visible	The airplane vanished into the sky.
445.	Verdict	Decision	Everyone waited anxiously for the court's verdict.
446.	Veteran	Experienced	The veteran actor delivered an informative lecture to the aspiring artists.
447.	Vaguely	In an unclear manner	I vaguely remember the details of the story.
448.	Vestige	Remnants	There was no vestige of the structure left after the explosion.
449.	Vulnerable	Able to be easily damaged, hurt, influenced.	Without proper guard posts, the base was vulnerable to potential enemy attacks.
450.	Vandalism	Intentionally damaging the property of others.	Many cases of vandalism were reported during the riots.
451.	Vow	Promise or pledge	I vowed that I would take care of the matter myself.
452.	Vexation	Being in a state of annoyance, worry, or disturbance.	He was left in vexation after his friend's hurtful and confusing remarks.
		W	
453.	Whet	To sharpen the blade of a tool or weapon.	The blacksmith started to whet the blade of the sword he had created.
454.	Wreck	Destroy	The waves caused by the thunderstorm wrecked the ship.
455.	Wander	Aimlessly move about	They wandered through the forest trying to find their way back to the road.
456.	Wear	Damage	The wear of the coat is due to it being used by all the brothers.
457.	Wither	To decay	The dead body of the animal withered away in a few days.
458.	Wallow	To lie about	The animals wallowed in the mud.
459.	Wretched	Extremely sad, miserable, unfortunate	The country is in a wretched state due to the civil war.
460.	Wanton	Unprovoked	The wanton display of violence from the security forces was very unfortunate to see.
461.	Wonder	Feeing surprised or amazed	The magician sparked wonder among the children with his tricks.
462.	Wage	To continue or carry on	The countries waged war on each other.
463.	Wrath	Strong/extreme anger	He invited his father's wrath upon himself by misbehaving with the guests.
464.	Wretch	Someone in a state of misfortune	The police found the corpse of the wretch near the river.
		Y	
465.	Yield	Amount produced of a product.	The cotton yield was poor this year.

VOCABULARY FOR SYNONYMS, ANTONYMS AND SENTENCE COMPLETION QUESTIONS

The following list of synonyms and antonyms has been derived from the past papers as well as vocabulary similar to the questions asked before for extra help in preparation. Most of these have been recurring throughout the previously held exams and the chances of repetition will allow candidates to prepare well. An added variety of synonyms and antonyms have been added for further help of candidates.

Easy-Medium Words

Accomplish	Essential	Reason
Adaptation	Estimate	Recognize
Approached	Evidence	Recommend
Argued	Example	Represent
Automatically	Except	Result
Avoid	Exclaimed	Scarce
Border	Experiment	Select
Calculate	Flexible	Separate
Cause	Fortunate	Simplify
Circular	Frequent	Summarize
Compare	Furious	Surround
Concluding	Increasing	Support
Confirm	Infer	Temporary
Contrast	Inform	Threatens
Convince	Insert	Tradition
Critical	Maximum	Minimum
Decrease	Typical	Usually
Defend	Observe	Demonstrate
Organized	Describe	Obvious
Detail	Passage	Develop
Persuade	Difference	Predict
Prefer	Disappointed	Distribute
Previous	Effective	Purpose
Eliminate	Prediction	Rarely
Entirety		

Difficult Words

Word	Synonyms (Similar)	Antonyms (Opposite)
Abate	moderate, decrease	aggravate, supplement
Abject	despicable, servile	commendable, praiseworthy
Abjure	forsake, renounce	approve, sanction
Abnormal	Aberrant, atypical, exceptional	everyday, frequent, familiar
Abortive	vain, unproductive	effectual productive
Absolute	Complete, total, utter	Partial, qualified
Absolve	pardon, forgive	compel, accuse
Abstruse	Deep, complex, arcane	Easy, simple, straightforward
Accord	agreement, harmony	disagreement, discord
Acrimony	harshness, bitterness	courtesy, benevolence
Adamant	stubborn, inflexible	flexible, soft
Adherent	follower, disciple	rival, adversary
Adjunct	joined, added	separated, subtracted
Admonish	counsel, reprove	approve, applaud
Adversity	misfortune, calamity	prosperity, fortune
Alien	foreigner, outsider	native, resident
Allay	pacify, soothe	aggravate, excite
Alleviate	abate, relieve	aggravate, enhance
Allure	entice, fascinate	repulse, repel
Amalgamation	admixture, alloy, amalgam, blend, cocktail, combination	component, constituent, element, ingredient
Ambiguous	Dual, confusing	Clear, indisputable
Amplify	enlarge, extend	lessen, contract
Antipathy	hostility, aversion	admiration, fascination
Annihilate	crush, decimate, demolish, eradicate, exterminate, extinguish, finish off	bear, build, construct, create, fix, aid, approve
Apathy	unconcern, indifference	concern, care
Arraign	charge, blame	exculpate, pardon
Audacity	boldness, arrogance	mildness, cowardice
Authentic	genuine, reliable	fictitious, unreal
Awkward	clumsy, rough	clever, apt

Word	Synonyms	Antonyms
Axiom	maxim, truth	absurdity, blunder
Baffle	frustrate, perplex	compose, facilitate
Bane	affliction, curse, nemesis, scourge	benefit, blessing, boon, felicity
Barbarous	uncivilized, savage	cultured, humane
Bellicose	Aggressive, hostile	Peaceable, uncombative
Benevolence	humanity, generosity	malevolence, inhumanity
Bewitching	magical, fascinating	repulsive, repugnant
Bizarre	absurd, crazy, fanciful, fantastic	realistic, reasonable
Bleak	dismal, gloomy	bright pleasant
Blunt	Sharp, bold, direct	Subtle, careful
Bristle	Fibre, filament, hair to make Aggressive angry	
Brittle	delicate, fragile	tough, enduring
Brusque	A	
Bustle	haste, flurry	slowness, quiet
Canny	astute, clear-eyed, clear-sighted	unknowing
Calamity	adversity, misfortune	happiness, fortune
Callous	obdurate, unfeeling	compassionate, tender
Calumny	defamation, aspersion	commendation, praise
Capable	competent, affable	incompetent, inept
Captivate	charm, fascinate	disillusion, offend
Captivity	imprisonment, confinement	freedom, liberty
Cataclysm	alluvion, bath, cataract, deluge, flood, flood tide, inundation, Niagara, overflow	blessing, boon, good fortune, good luck, happiness miracle wonder success
Cavity	depth, depression	elevation, projection
Cease	terminate, desist	begin, originate
Chaste	virtuous, pure	sullied, lustful
Cheeky	bold, brash, saucy, impudent, insolent, nervy,	meek, mousy (or mousey), retiring, shy, timid
Chastise	punish, admonish	cheer, encourage
Cogent	Convincing, forceful, potent	Vague, Unconvincing, Muffled
Conjecture	guess, shot, supposition, surmise	proof, reality, truth, calculation, certainty, fact, measurement
Compassion	kindness, sympathy	cruelty, barbarity
Comprise	include, contain	reject, lack
Complex	compound, network, structure system	division, separation
Concede	yield, permit	deny, reject
Concur	approve, agree	differ, disagree
Consent	agree, permit	object, disagree
Consequence	effect, outcome	origin, start
Consolidate	solidify, strengthen	separate, weaken
Conspicuous	prominent, obvious	concealed, hidden
Convenient	acceptable,	bad, disadvantageous,

Word	Synonyms	Antonyms
	advantageous, agreeable, available, beneficial, comfortable, conducive	disagreeable, harmful, hindering, hurtful
Convoluted	Complicated, intricate	Simple, straightforward
Contempt	scorn, disregard	regard, praise
Contradict	deny, oppose	approve, confirm
Contrary	dissimilar, conflicting	similar, alike
Corpulent	Fat, obese, overweight	Thin, slim, lean
Covert	Secret, clandestine, stealthy	Overt, aboveboard
Crumble	atrophy, decay, decline, degenerate, descend	ameliorate, improve, meliorate
Curious	Inquisitive	Ordinary
Cynical	misanthropic, pessimistic	un-cynical
Dainty	elegant, delicate	clumsy, coarse
Dangle	droop, flap, hang, sling, sway, swing	disenchant, disgust, dissuade, repulse, turn off
Decay	collapse, decompose	flourish, progress
Deceit	deception, artifice	veracity, sincerity
Decipher	interpret, reveal	misinterpret, distort
Dedicate	devote, consecrate	refuse, negate
Defer	prolong, suspend	accelerate, expedite
Defile	contaminate, pollute	purify, sanctity
Defray	spend, pay	disclaim, repudiate
Deficit	crunch, dearth, deficiency, drought (also drouth), failure	abundance, adequacy, amplitude, opulence,
Deliberate	cautious, intentional	rash, sudden
Delicious	palatable, tasteful	distasteful, unsavoury
Demolish	ruin, devastate	repair, construct
Deprive	despoil, divest	restore, renew
Deride	mock, taunt	inspire, encourage
Despicable	worthless, shameless	worthy, decent
Devilish	baroque, excessive, exorbitant, extravagant, extreme, fancy, immoderate, inordinate	middling, moderate, modest, reasonable, temperate
Disdain	detest, despise	approve, praise
Disgorged	regurgitate, discharge, retch, spew	bottle (up), contain, restrain, shut
Disparate	different, dissimilar, distant,	alike, identical, indistinguishable, kin

	distinct, distinctive	
Dullard	idiot, simpleton	intellectual, sage
Eccentric	strange, abnormal	natural, conventional
Ecstasy	delight, exultation	despair, calamity, depression
Efface	destroy, obliterate	retain, maintain
Elaborate	Detailed	Plain
Elevate	dignify, heighten	deprecate, denounce
Eliminate	expel, oust	restore, accept
Eloquence	expression, fluency	halting, stammering
Emaciated	Bony, skeletal	Fat, overweight
Emancipate	discharge, disenthrall, enfranchise, enlarge,	bind, confine, enchain, fetter, restrain
Emolition	Moisturizing, soothing, calm	Irritating, aggravating
Encumbrance	hindrance, obstacle	incentive, stimulant
Endeavour	undertake, aspire	cease, quit
Enormous	colossal, mammoth	diminutive, negligible
Epitome	precise, example	increment, expansion
Equivocal	uncertain, hazy	obvious, lucid
Eradicate	destroy, exterminate	secure, plant
Esteem	respect, regard	ridicule, spurn
Eternal	perpetual, endless	temporary, momentary
Euphonious	Lyrical, mellifluent, mellifluous	Non-lyrical
Evade	avoid, elude	acknowledge, confront
Evident	obvious, apparent	obscure, concealed
Exclude	remove from consideration, deny (Access)	include, make part of
Expedient	advantageous, desirable, feasible	
Exposure	Vulnerability, Submission	protected, covered
Excoriate	Scrape, chafe, damage	Praise, commend, hail
Exemplify	demonstrate, illustrate, instance	demonstrate, illustrate, instance
Fabricate	construct, produce	destroy, dismantle
Fallacy	delusion, mistake	veracity, truth
Falter	stumble, demur	persist, endure
Fanatical	narrow-minded, biased	liberal, tolerant
Fantastic	fanciful, uncommon	ordinary, normal
Feeble	weak, frail	strong, robust
Ferocious	cruel, fierce	gentle, sympathetic
Feud	strife, quarrel	fraternity, harmony
Fleeting	transient, temporary	enduring, eternal
Flimsy	trifling, transparent	firm, tenacious
Fluctuate	deflect, vacillate	stabilize, resolve
Forbid	Prohibited, stopped, unlawful	Allowed
Forsake	desert, renounce	hold maintain
Fragile	weak, infirm	enduring, tough
Frantic	violent, agitated	subdued, gentle

Frivolous	petty, worthless	solemn, significant
Frugality	economy, providence	lavishness, extravagance
Futile	Abortive, barren, fruitless	Earnest, serious
Garner	Gather, accumulate, amass	Disperse, dissipate, scatter
Gambol	dance, skip, playful skipping	Mope, sulk
Gloom	obscurity, darkness	delight, mirth
Glut	stuff, satiate	starve, abstain
Glid	bowl, breeze, brush, coast	flounder, struggle
Gorgeous	magnificent, dazzling	dull, unpretentious
Gracious	courteous, beneficent	rude, unforgiving
Grisly	disgusting, atrocious	pleasing, attractive
Grudge	hatred, aversion	benevolence, affection
Gaunt	Skinny, bony	Plump, obese
Guile	cunning, deceit	honesty, frankness
Hallucination	illusion, phantom, aberration, apparition, fantasy	reality, experience, fact, truth
Hamper	retard, prevent	promote, facilitate
Haphazard	random, unsorted	considered, arranged
Hapless	unfortunate, ill-fated	fortunate, lucky
Hanged	attach, bend, drape, drift, flap, float	abandon, detach, disregard, forget
Harass	irritate, molest	assist, comfort
Haughty	arrogant, pompous	humble, submissive
Hazard	Peril, danger	conviction, security
Heretic	non-conformist, secularist	conformable, religious
Hideous	frightful, shocking	attractive, alluring
Hypocrisy	deception, affectation	sincerity, honesty
Hypothetical	debatable, imaginary, problematic, speculative, theoretical, vague	certain, definite, factual, real sure
Icon	figure, idol, picture, portrait, symbol	nobody, non-celebrity
Illustration	Explanation	Obscure
Indigenous	aboriginal, autochthonous, born	nonindigenous, nonnative
Infinitesimal	atomic, bitsy, bitty, itty-bitty (or itsy-bitsy), little bitty, microscopic	astronomical (also astronomic), colossal, cosmic (also cosmical), elephantine, enormous, giant
Investigate	consider, examine, explore, inspect interrogate	answer, forget, ignore, neglect
Immaculate	unsullied, spotless	defiled, tarnished

Immense	huge, enormous	puny, insignificant
Immerse	submerge, involve	emerge, uncover
Imminent	impending, brewing	distant, receding
Immunity	prerogative, privilege	blame, censure
Impair	diminish, deteriorate	restore, revive
Impartial	just, unbiased	prejudiced, biased
Impediment	hurdle, obstruction	assistance, concurrence
Impious	irreligious, unholy	pious, devout
Impugn	Question, challenge, dispute	Support, agree, approve
Impute	attribute, ascribe	exculpate, support
Inane	empty, meaningless, pointless, senseless	meaningful, significant
Inclination	disposition, affection	disinclination, Indifference
Incompetent	inefficient, unskilled	dexterous, skilled
Incongruous	inappropriate, absurd	compatible, harmonious
Indubitable	Certain, unquestionable, undoubtable	Doubtful, arguable
Inevitable	unavoidable, ascertained	unlikely, doubtful
Infringe	violate, encroach	comply, concur
Ingenuous	undisguised, naïve	wily, crafty
Insinuate	allude, hint	conceal, camouflage
Insipid	tasteless, vapid	delicious, luscious
Insolvent	indigent, destitute	wealthy, solvent
Instil	inculcate, inject	eradicate, extract
Intricate	tangled,, complicated	regulated, orderly
Intrigue	scheme, conspiracy	candour, sincerity
Intrinsic	genuine,, fundamental	extraneous, incidental
Invective	accusation, censure	approval, acclamation
Invincible	unconquerable, impregnable	effeminate, languid
Inquisitive	analytical, nosy, big-eyed, challenging, forward, impertinent, inquiring	incurious, indifferent, unconcerned, uninterested
Irrepressible	irresistible, unconfined	composed, hesitant
Jaded	tired, exhausted	renewed, recreated
Jejune	dull, boring	interesting, exciting
Jingoism	Blind patriotism, Chauvinism, Sectarianism	Unpatriotic, Multiculturalism
Jovial	frolicsome, cheerful	solemn, morose
Jubilant	rejoicing, triumphant	melancholy, depressing
Judicious	thoughtful, prudent	irrational, foolish

Just	honest, Impartial	unequal, unfair
Justify	defend, exculpate	impute, arraign
Juvenile	young, tender	dotage, antiquated
Keen	sharp, poignant	vapid, insipid
Kindred	relation, species	unrelated, dissimilar
Knave	dishonest, scoundrel	paragon, innocent
Knell	death knell, last, blow	reconstruction, rediscovery
Knotty	Complicated, difficult	simple, manageable
Lavish	abundant, excessive	scarce, deficient
Lax	slack, careless	firm, reliable
Lenient	compassionate, merciful	cruel, severe
Lethargic	Dull, inactive, inert	Active
Liable	accountable, bound	unaccountable, apt to
Liberal	magnanimous, generous	stingy, malicious
Linger	loiter, prolong	hasten, quicken
Listless	indifferent, inattentive	brisk, attentive
Literary	Bookish, erudite, learned	Colloquial, casual, non-literary
Lucid	sound, rational	obscure, hidden
Lunacy	delusion, insanity	normalcy, sanity
Lure	attract, entice	repel, dissuade
Lurid	exaggerated, ghastly, gory, grim, grisly, horrifying, macabre, obscene	clean, delightful, dull, mild, moral, nice, pleasant, pleasing, upright, humble, modest
Luscious	palatable, delicious	unsavoury, tart
Luxuriant	profuse, abundant	scanty, meagre
Malice	animosity, animus, antipathy, bitterness, enmity, grudge, hatred	friendliness, friendship, good will, happiness, kindness
Melodious	melodic, musical, tuneful	discordant, grating, inharmonious
Mettle	Spirit, tenacity, fortitude	Cowardice, timidity
Merry	Blithe, festive, gay	Aggrieved, anguish, blue
Minute	diminutive, miniature	large, colossal
Miraculous	marvelous, extraordinary	ordinary, trivial
Mitigate	alleviate, relieve	augment, enhance
Modest	humble, courteous	arrogant, pompous
Molest	harass, tease	console, soothe
Mollify	appease, assuage	irritate, infuriate
Momentous	notable, eventful	trivial, insignificant
Monotonous	irksome, tedious	varied, pleasant
Munificent	liberal, hospitable	frugal, penurious
Murky	dusky, dreary	bright shining
Mutinous	recalcitrant, insurgent	submissive, faithful
Mutual	joint, identical	separate, distinct

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Word	Synonyms	Antonyms
Myopic	nearsighted, shortsighted, biased, half-sighted	
Negligent	inattentive, careless	vigilant, careful
Niggardly	miser, covetous	generous, profuse
Nimble	prompt, brisk	sluggish, languid
Nonchalant	indifferent, negligent	attentive, considerate
Notion	approach, assumption, conception, impression, opinion, perception	being, concrete, reality, ignorance, misunderstanding, stupidity
Novice	tyro, beginner	veteran, ingenious
Noxious	baneful, injurious	healing, profitable
Nullify	cancel, annual	confirm, uphold
Numerous	profuse, various	scarce, deficient
Obfuscate	Obscure, confuse, blur	clarify
Obstruct	impede, prevent	hasten, encourage
Obvious	evident, apparent	obscure, ambiguous
Occult	latent, ambiguous	intelligible, transparent
Odious	malevolent, obnoxious	engaging, fascinating
Offensive	abhorrent, arrogant	docile, compliant
Offspring	descendant, sibling	ancestor, forefather
Opaque	obscure, shady	transparent, bright
Opine	Suggest, propose, volunteer	Calculate, measure
Oracular	cryptic, vague	lucid, distinct
Ordain	order, impose	revoke, abolish
Ornamental	decorative, adorned	unseemly, plain
Outbreak	eruption, insurrection	compliance, subjection
Outrage	offence, maltreatment	praise, favour
Overwhelm	triumph, subjugate	flounder, falter
Paen	Accolade, commendation	Tirade, reprimand, rebuke
Pallid	Pale, white, colorless	Flushed, rosy, lively
Pacify	Appease, conciliate	Anger, enrage, inflame
Pamper	flatter, indulge	deny, disparage
Paramount	foremost, eminent	trivial, inferior
Peerless	matchless, unrivalled	mediocre, commonplace
Peevish	perverse, sullen	suave, amiable
Pertness	flippancy, impudence	modesty, diffidence
Pithy	Succinct, concise, brief	Diffuse, lengthy, tedious
Perverse	petulant, obstinate	complacent, docile
Placid	tranquil, calm	turbulent, hostile
Pompous	haughty, arrogant	unpretentious, humble
Proliferate	accelerate, accumulate, appreciate, balloon,	contract, decrease, diminish, dwindle, lessen
Prodigal	Wasteful,	Thrifty, economical

Word	Synonyms	Antonyms
	Extravagant, Irresponsible	
Precarious	doubtful, insecure	assured, undeniable
Predicament	plight, dilemma	resolution, confidence
Premature	precocious, untimely	belated, opportune
Prepossessing	Attractive, fetching, handsome	Ugly, unattractive, unprepossessing
Pristine	Immaculate, perfect	Impure, unclean
Prodigious	vast, enormous	unimpressive, diminutive
Prodigy	miracle, marvel	normal, average
Profligate	dissolute, degenerate	virtuous, upright
Profuse	lavish, abundant	scarce, scantly
Proscribe	prohibit, exclude	solicit, include
Protract	prolong, delay	abbreviate, curtail
Provoke	inflame, incite	pacify, comfort
Prudent	cautious, discreet	impetuous, unwise
Puerile	Adolescent, babyish, childish	Adult, grown-up, mature
Quack	impostor, deceiver	upright, unfeigned
Quaint	queer, strange	familiar, usual
Quaff	Drink, Swallow, slurp	Vomit, spew, disgorge
Quarantine	seclude, screen	befriend, socialize
Quell	subdue, reduce	exacerbate, agitate
Questionable	dubious, disputable	reliable, authentic
Quibble	equivocate, prevaricate	unfeigned, plain
Radiant	aglow, beaming, bright, glowing, sunny	dim, dull, lackluster, unbright, un-brilliant
Raconteur	Storyteller, narrator	
Ratify	consent, approve	deny, dissent
Ravage	destroy, ruin	reconstruct, renovate
Rebate	abatement, deduction, discount reduction	increase, rise, escalation
Recalcitrant	Uncooperative, unmanageable, intractable	Amenable, docile, compliant
Redeem	recover, liberate	conserve, lose
Relinquish	renounce, give up	keep, retain, continue
Remnant	residue, piece	entire, whole
Remonstrate	censure, protest	agree, loud
Remorse	regret, penitence	ruthlessness, obduracy
Remote	inaccessible, farther	adjoining, adjacent
Repudiate	Reject, renounce, abandon	Confirm, embrace, acknowledge
Repulsive	distasteful, disgusting	Delightful, pleasant
Rescind	annul, abrogate	delegate, permit
Resentment	displeasure, wrath	content, cheer
Reticent	Reserved, introverted, modest	Expansive, garrulous, forward

Retract	recant, withdraw	confirm, assert
Reverence	respect, esteem	disrespect, affront
Rout	vanquish, overthrow	succumb, withdraw
Rife	Widespread, common, ubiquitous	scarce, unknown
Rustic	rural uncivilised	cultured, refined
Ruthless	remorseless, inhumane	compassionate, lenient
Sage	Philosopher, Scholar, Writer	Unintelligent
Sarcastic	ironical, derisive	courteous, gracious
Saucy	impudent, insolent	modest, humble
Scanty	scarce, insufficient	lavish, multitude
Scurrilous	Abusive, derogatory	Moral, civil, unoffending
Shabby	miserable, impoverished	prosperous, thriving
Shrewd	cunning, crafty	simple, imbecile
Slander	defame, malign	applaud, approve
Sleazy	Corrupt, immoral, sordid	Reputable, principled
Smudge	befoul, begrime, bemire, besmirch, blacken	clean, cleanse
Sneer	mock, scorn	flatter, praise
Solicit	entreat, implore	protest, oppose
Sporadic	intermittent, scattered	incessant, frequent
Spurn	Refuse, decline, scorn	Adore, honor, respect
Squalid	dirty, filthy	tidy, attractive
Stain	blemish, tarnish	honour, purify
Strident	Blatant, vociferous	Calm, hushed, silent
Stupor	lethargy, unconsciousness	sensibility, consciousness
Subsequent	consequent, following	Preceding, Previous
Substantial	considerable, solid	tenuous, fragile
Subvert	demolish, sabotage	generate, organise
Sully	Taint, tarnish, stain	Purify, pristine, immaculate
Superficial	partial, shallow	profound, discerning
Sycophant	parasite, flatterer	devoted, loyal
Taboo	prohibit, ban	permit, consent
Tacit	Implicit, inferred, hinted	Explicit, stated
Taciturn	reserved, silent	talkative, extrovert
Tedious	wearisome, irksome	exhilarating, lively
Temperate	cool, moderate	boisterous, violent
Throng	assembly, crowd	dispersion, sparsity
Timid	diffident, coward	bold, intrepid
Tranquil	peaceful, composed	violent, furious
Transient	temporal, transitory	lasting, enduring
Trenchant	assertive, forceful	feeble, ambiguous
Trivial	trifling, insignificant	significant veteran

Tumultuous	violent, riotous	peaceful, harmonious
Tyro	beginner, learner.	proficient, veteran
Umbrage	resentment, bitterness	sympathy, goodwill
Uncouth	awkward, ungraceful	elegant, graceful
Usurp	seize, wrest	restore, compensate
Utterly	completely, entirely	deficiently, incompletely
Vagrant	wanderer, roaming	steady, settled
Valid	genuine, authentic	fallacious, deceptive
Valour	bravery, prowess	fear, cowardice
Vanity	conceit, pretension	modesty, humility
Venerable	esteemed, honoured	unworthy, immature
Venom	poison, malevolence	antidote, benevolent
Veteran	ingenious, experienced	novice, tyro
Vicious	corrupt, obnoxious	noble, virtuous
Vilification	Condemnation, criticism, denunciation	Praise, glorify, commend
Vigilant	cautious, alert	careless, negligent
Volatile	light, changing	heavy, ponderous
Vouch	confirm, consent	repudiate, prohibit
Vulgar	inelegant, offensive	elegant, civil
Waive	relinquish, remove	impose, clamp
Wan	pale, faded	bright, healthy
Wane	decline, dwindle	ameliorate, rise
Wary	cautious, circumspect	heedless, negligent
Wed	marry, combine	divorce, separate
Wicked	vicious, immoral	virtuous, noble
Wield	use, employ	forgo, avoid
Wilt	wither, perish	revive, bloom
Wither	Wilt, fade, perish	Thrive, flourish, grow
Yearn	languish, crave	content, satisfy
Yell	shout, shriek	whisper, muted
Yield	surrender, abdicate	resist, protest
Yoke	connect, harness	liberate, release
Zeal	eagerness, fervour	apathy, lethargy
Zenith	summit, apex	nadir, base
Zest	delight, enthusiasm	disgust, passive
Zig-zag	oblique, wayward	straight, unbent

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SYNONYMS

1. *Abate* means:
   A. Intensify
   B. revive
   C. escalate
   D. diminish
   Correct answer: d
   Explanation: Abate means to decrease or lessen so diminish is the correct option which means the same.

2. *Aboriginal* means:
   A. Indigenous
   B. emigrant
   C. uncanny
   D. foreign
   Correct answer: a
   Explanation: Aboriginal means being the first of its kind in a region. Indigenous is the Correct answer which means native or primitive.

3. *Abridge* means:
   A. Extend
   B. enlarge
   C. dilate
   D. condense
   Correct answer: d
   Explanation: Abridge means to lessen or shorten so Condense is the right answer which means to compress or make precise.

4. *Bane* means:
   A. Disaster
   B. comfort
   C. felicity
   D. blessing
   Correct answer: a
   Explanation: Bane means cause of ruin, misery. Disaster means state of extreme misfortune or misery.

5. *Barren* means:
   A. Fertile
   B. fruitful
   C. verdant
   D. infertile
   Correct answer: d
   Explanation: Barren means unproductive and desolate. Infertile is the correct option which means the same as barren.

6. *Caliber* means:
   A. Destitution   B. inadequacy
   C. quality   D. scarcity
   Correct answer: c
   Explanation: Caliber means a degree of worth or excellence. Quality means the same.

7. *Capricious* means:
   A. Fickle
   B. predictable
   C. uniform
   D. invariable
   Correct answer: a
   Explanation: capricious means unpredictable. Fickle means the same.

8. *Abhorrent* means:
   A. Agreeable
   B. loathsome
   C. savory
   D. pleasing
   Correct answer: b
   Explanation: Abhorrent means something that is offensive. Loathsome means a highly offensive thing. Both have the same meaning.

9. *Repressed* means:
   A. Stifled
   B. confessed
   C. declared
   D. emitted
   Correct answer: a
   Explanation: Repressed means suppression of impulses or emotions. Stifle means to restrain oneself from acting on emotions.

10. *Monetary* means:
    A. Non-financial
    B. fiscal
    C. fleck
    D. whiff
    Correct answer: b
    Explanation: Monetary and fiscal both mean involving financial matters.

11. *Intrigue* means:
    A. Dismiss
    B. monotone
    C. fascinate
    D. neglect
    Correct answer: c
    Explanation: Intrigue and fascinate both means cause to be interested or curious.

12. *Impulsively* means:
    A. Deliberately   B. cautiously
    C. consciously   D. rashly
    Correct answer: d
    Explanation: Impulsively and rashly both means doing something in a foolhardy, incautious manner.

13. *Scoff* means:
    A. Praise
    B. agree
    C. taunt
    D. accept
    Correct answer: c
    Explanation: Scoff and taunt both means to harass with continuous criticism or shoeing contemptuous disregard.

14. *Incredulous* means:
    A. believable
    B. skeptical
    C. convinced
    D. naive
    Correct answer: b
    Explanation: Incredulous and skeptical both mean not willing to accept something or having doubt about the truth of that thing.

15. *Shudder* means:
    A. Steady
    B. firm
    C. tremble
    D. invoice

Correct answer: c
Explanation: Shudder and tremble both means to shake or vibrate involuntary.

16. *Vague* means:
    A. Ambiguous
    B. define
    C. obvious
    D. specific
    Correct answer: a
    Explanation: Vague and ambiguous both means not clearly understood or expressed. Something lacking clarity or distinctness.

17. *Contemptuous* means:
    A. Admiring
    B. applauding
    C. considerate
    D. scornful
    Correct answer: d
    Explanation: Contemptuous and scornful both mean manifesting or expressing ridicule or disdain.

18. *Appalled* means:
    A. Brave
    B. bold
    C. frightened
    D. adventurous
    Correct answer: c
    Explanation: Appalled and frightened both mean to strike with fear, horror etc.

19. *Furore* means:
    A. Please
    B. rage
    C. pleasure
    D. tameness
    Correct answer: b
    Explanation: Furore and rage both means a sudden outburst especially of anger.

20. *Sapling* means:
    A. Seedling
    B. roots
    C. uproot
    D. adult
    Correct answer: a
    Explanation: Sapling and seedling both means a young tree.

21. Brace means:
    A. Weaken
    B. support
    C. loosen
    D. relax
    Correct means: b
    Explanation: Brace and support both means to keep something firm or upright using woods iron etc. or material assistance.

22. *Loam* means:
    A. Soil
    B. rinse
    C. wash
    D. cleanliness
    Correct answer: a
    Explanation: Loam is a kind of rich soil consisting of clay and sand and other organic materials.

23. *Offend* means:
    A. Please
    B. gratify
    C. annoy
    D. reverence
    Correct answer: c
    Explanation: Offend means to annoy, to hurt, to displease etc.

24. *Whiff* means:
    A. Sniff
    B. fragrance
    C. essence
    D. aroma
    Correct answer: a
    Explanation: whiff and sniff both mean to perceive by inhaling through the nose.

25. *Fleck* means :
    A. Mass   B. spot
    C. stack   D. mess
    Correct answer: b
    Explanation: Fleck and spot both means a small contrary part of something. A small part different from the whole lot.

26. *Hollow* means:
    A. Massive
    B. peak
    C. cavity
    D. solid
    Correct answer: c
    Explanation: Hollow cavities both mean something having an empty space within a solid substance. Something excavated in the interior.

27. *Willow* means:
    A. Oak
    B. widow
    C. animals
    D. wax
    Correct answer: a
    Explanation: Willow is any of the numerous deciduous trees and shrubs of the genus Salix like oak, Cypress, avocado, etc.

28. *Rattle* means:
    A. Silence
    B. harmonious
    C. clatter
    D. hush
    Correct answer: c
    Explanation: Rattle and clatter means to make sharp loud continuous sounds.

29. *Suede* means:
    A. Nylon
    B. shoes
    C. dusk
    D. suite
    Correct answer: a
    Explanation: Suede and nylon are forms of synthetic fibers. Suede is a leather with a napped surface.

30. *Indignation* means:
    A. Pleasure
    B. delight
    C. rage
    D. affinity
    Correct answer: c

Explanation: Indignation and rage both mean the feeling of anger.

31. *Delirium* means:
    A. Insanity
    B. harmony
    C. dusk
    D. dejection
    Correct answer: a
    Explanation: Delirium and insanity are both states of mind in which the actions are incoherent, irregular and wild. State of violent mental agitation.

32. *Havoc* means:
    A. Cosmos
    B. adjustment
    C. chaos
    D. haven
    Correct answer: c
    Explanation: Havoc and Chaos both mean wide and general destruction, needless disturbance.

33. Stout means:
    A. Sturdy
    B. thin c)
    C. slender
    D. sleek
    Correct answer: a
    Explanation: Stout and sturdy both mean firm, materially strong, something having rugged physical strength.

34. *Profusion* means:
    A. Scarcity
    B. plenty
    C. paucity
    D. deprivation
    Correct answer: b
    Explanation: profusion and plenty both mean state of abundance; lavish supply.

35. *Heifer* means:
    A. calf
    B. cow
    C. bull
    D. hen
    Correct answer: a
    Explanation: Heifer is a calf; Young cow. Young of domestic cattle.

36. *Clench* means:
    A. Break
    B. grip
    C. kick
    D. liberate
    Correct answer: b
    Explanation: clench means to grip, hold in a tight grasp.

37. *Tyrant* means:
    A. Oppressor
    B. fair
    C. loving
    D. victim
    Correct answer: a
    Explanation: a person who uses power in a cruel way. An absolute ruler.

38. *Decree* means:
    A. Plea
    B. claim
    C. order
    D. appeal
    Correct answer: c
    Explanation: Decree is a legally binding order or command made by a court.

39. *Versatile* means:
    A. Limited   B. static
    C. variable   D. monotonous
    Correct answer: c
    Explanation: Versatile and variable both mean changeable or inconstant; competent in many areas and able to turn from one thing to another with ease.

40. *pacify* means:
    A. soothe
    B. excite
    C. enrage
    D. annoy
    Correct answer: a
    Explanation: Pacify and sooth both means to suppress anger, agitation or excitement.

41. *Afflict* means:
    A. Solace
    B. delight
    C. distress
    D. assist
    Correct answer: c
    Explanation: Afflict and distress both mean to cause great trouble and physical or psychological pain.

42. *Trifling* means:
    A. Significant
    B. trivial
    C. pivotal
    D. tickling
    Correct answer: b
    Explanation: Trifling and trivial both mean something that is of very low importance.

43. *Feeble* mean:
    A. Frail
    B. mighty
    C. strong
    D. sturdy
    Correct answer: a
    Explanation: Feeble and fail both mean someone pathetically lacking physical energy, force or effectiveness.

44. *Exhort* means:
    A. Dissuade
    B. forbid
    C. encourage
    D. dismay
    Correct answer: c
    Explanation: Exhort and encourage both to use words such as cheers and shouts to incite good deeds.

45. *Prodigious* mean:
    A. Ordinary
    B. Immense
    C. oblivious
    D. slight
    Correct answer: b
    Explanation: Prodigious and immense both mean so great in size and extent.

46. *Clamour* means:
    A.   Outcry
    B.   silence
    C.   mutism
    D.   calmness
    Correct answer: a
    Explanation: Clamour and outcry both mean loud and persistent noise from people.

47. *Oppressive* mean :
    A.   Tyrannical
    B.   mild
    C.   submissive
    D.   gentle
    Correct answer: a
    Explanation: Oppressive and tyrannical both mean someone marked by unjust severity and arbitrary behavior.

48. *Queer* means:
    A.   Regular
    B.   ordinary
    C.   standard
    D.   peculiar

Correct answer: d
Explanation: Queer and Peculiar both mean something deviating from the usual or expected. Something extraordinary.

49. *Acrid* means:
    A.   Pungent
    B.   pleasant
    C.   savory
    D.   cordial
    Correct answer: a
    Explanation: Imminent and pungent both mean strong and sharp, harsh or bitter.

50. *Myriad* means:
    A.   Limited
    B.   little
    C.   infinite
    D.   enumerable
    Correct answer: c
    Explanation: Myriad and infinite mean something too much to be countable. A large indefinite number.

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PRACTICE EXERCISE

1. Select the word most closely resembling "Mighty"
   a. Heavy
   b. Large
   c. Weak
   d. Powerful

2. Select the most appropriate synonym for "Content"
   a. Eager
   b. Restless
   c. Satisfied
   d. Worried

3. Which of the following resembles most in meaning the word "Precious"
   a. Useless
   b. Cheap
   c. Valuable
   d. Useful

4. Which is the most appropriate synonym for "Analyze"
   a. Dissect
   b. Simplify
   c. Explain
   d. Destroy

5. Select the word most similar to "Enthusiastic"
   a. Dull
   b. Apathetic
   c. Excited
   d. Engaged

6. Which word most closely resembles in meaning the word "Dynamics"
   a. Shape
   b. Appearance
   c. Properties
   d. Body

7. Which word in meaning most closely resembles "Swiftly"
   a. Gently
   b. Quickly
   c. Carelessly
   d. Roughly

8. Select the word closest in meaning to "Grief"
   a. Sorrow
   b. Relief
   c. Serenity
   d. Happiness

9. Select the word most similar to "Silly"
   a. Smart
   b. Serene
   c. Mature
   d. Foolish

10. Which of the following most closely resembles in meaning the word "Myth"
    a. Story
    b. Account
    c. Legend
    d. Tale

11. Which of the following resembles in meaning most closely the word "Fondly"
    a. Affectionately
    b. Kindly
    c. Gently
    d. Slowly

12. Which word is most similar to "Rapidly"
    a. Carefully
    b. Carelessly
    c. Quickly
    d. Slowly

13. Which word in meaning most closely resembles "Symbolize"
    a. Represent
    b. Understand
    c. Select
    d. Appreciate

14. Select the word closest in meaning to "Grace"
    a. Kindness
    b. Ugliness
    c. Helpfulness
    d. Charm

15. Select the most appropriate synonym for "Avail"
    a. Utilize
    b. Discard
    c. Attract
    d. Arrange

16. Which word is the most appropriate synonym for "Indicate"
    a. Call
    b. Question
    c. Denote
    d. Verify

17. Which word resembles most closely in meaning the word "Noble"
    a. Virtuous
    b. Helpful
    c. Immoral
    d. Humble

18. Which is an appropriate synonym for "Resound"
    a. Resent
    b. Appreciate
    c. Celebrate
    d. Forget

19. Select a word closely resembling in meaning the word "Injure"
    a. Wound
    b. Support
    c. Fight
    d. Strike

20. Which of the following is an appropriate synonym for "Conventions"

a. Rights
b. Customs
c. Laws
d. Feelings

21. Select the word which most closely resembles in meaning the word "Narrative"
    a. Dream
    b. Story
    c. Novel
    d. Incident

22. Select the most appropriate synonym for "Prosperity"
    a. Hardship
    b. Joyfulness
    c. Affluence
    d. Freedom

23. Select the most appropriate synonym for "Elaborate"
    a. Simplify
    b. Explicate
    c. Cut
    d. Enlarge

24. Which is the most appropriate synonym of "Astound"
    a. Amaze
    b. Simplify
    c. Clarify
    d. Disappoint

25. Select the word most similar in meaning to "Appropriate"
    a. Authentic
    b. Reliable

c. Suitable
d. Faulty

26. Select the most appropriate synonym for "Propose"
    a. Suggest
    b. Handover
    c. Deliver
    d. Send

27. Select the word most closely resembling "Lofty"
    a. Towering
    b. Giant
    c. Huge
    d. Large

28. Which word most closely resembles in meaning "Recognize"
    a. Acknowledge
    b. Capture
    c. Clarify
    d. Misunderstand

29. Which word is most similar in meaning to "Intervene"
    a. Attack
    b. Stop
    c. Interfere
    d. Participate

30. Select the word most similar in meaning to "Suffer"
    a. Enjoy
    b. Abate
    c. Endure
    d. Resist

ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: d
Explanation: Mighty means something characterized by possessing strength and might. Heavy means something that has great weight, while large means exceeding most other things of like kind especially in quantity or size. Powerful refers to having great power (such as physical strength), prestige, or influence, and thus most closely resembles 'Mighty'.

Question Number: 2
Correct Option: c
Explanation: Content means to be in a state of peaceful happiness. Eager means strongly wanting to do something, while restless means being unable to relax. Satisfied refers to being pleased with matters, and is thus the most appropriate synonym.

Question Number: 3
Correct Option: c
Explanation: Precious means something that is of great value or high price. Useful is something that can be put to use, while cheap refers to something that does not have a very high price. Valuable means something worth a good price, and is thus the closest in meaning.

Question Number: 4
Correct Option: a
Explanation: To analyze something means separating or distinguishing the component parts of something (such as a substance, a process, a situation) so as to discover its true nature or inner relationships. To simplify means to cut down on unnecessary details, while to simply explain means to make understandable. Dissect means to separate into pieces or expose the several parts of (something, such as an animal) for scientific examination. It is thus the most appropriate synonym.

Question Number: 5
Correct Option: c
Explanation: Enthusiastic means having or showing intense and eager enjoyment, interest, or approval. Engaged means being occupied or busy with something, while apathetic means being careless about something. Excited refers to showing eagerness for something, and is thus most similar in meaning.

Question Number: 6
Correct Option: c
Explanation: Dynamics refers to patterns, forces or processes of change, growth, or activity. Properties refers to qualities or traits belonging to someone or something, and this most closely resembles the word 'Dynamics', as opposed to the other simple-meaning options.

Question Number: 7
Correct Option: b
Explanation: Swiftly means 'with speed'. Carelessly refers to being negligent, while roughly refers to doing something in a crude manner. Quickly means to acting with speed, and thus most closely resembles 'Swiftly'.

Question Number: 8
Correct Option: a
Explanation: Grief means a deep and poignant distress caused by or as if by bereavement. Relief means a feeling of reassurance and relaxation following release from anxiety or distress, while serenity means the state of being calm, peaceful, and untroubled. Sorrow refers to deep distress, sadness, or regret especially for the loss of someone or something loved, and is thus closest in meaning.

Question Number: 9
Correct Option: d
Explanation: Silly means exhibiting or indicative of a lack of common sense or sound judgment. Serene refers to being marked by utter calmness. Foolish means having or showing a lack of good sense, judgment, or discretion, and is thus most similar.

Question Number: 10
Correct Option: c
Explanation: A myth refers to a widely held but false belief or idea. A story or tale both refer to an account of people or events (real or imaginary). Legend refers to a traditional story sometimes popularly regarded as historical but not authenticated, and thus most closely resembles 'Myth'.

Question Number: 11
Correct Option: a
Explanation: Fondly means done with liking. Kindly means in manner characterized by consideration of others, while gently means to do something in a tender manner. Affectionately also refers to something done with liking and warm regard, and thus most closely resembles 'Fondly'.

Question Number: 12
Correct Option: c
Explanation: X: Rapidly means being marked by a fast rate of motion, activity, succession, or occurrence. All the other options are simple/common words that do not fit with the meaning of rapidly, apart from quickly, which means fast in development or occurrence. It is thus the most similar word.

Question Number: 13
Correct Option: a
Explanation: Symbolize means to express, or identify by means of a symbol. To select means to choose something, while to appreciate means to recognize the full worth of something. Represent means to serve as a sign or symbol of something, and thus most closely resembles the word in question.

Question Number: 14
Correct Option: d
Explanation: Grace refers to a pleasing appearance or effect. Helpfulness refers to having an obliging nature towards others. Kindness refers to the quality of being friendly, generous, and considerate, while ugliness refers to being aesthetically unappealing. Charm refers to a compelling attractiveness or a trait that fascinates, allures, or delights, and is thus closest in meaning.

Question Number: 15
Correct Option: a
Explanation: To avail means to make use of something. To discard means to throw away, while to arrange means to make preparations for. Utilize means to make use of or to turn to practical use or account, and is thus the most appropriate synonym.

Question Number: 16
Correct Option: c
Explanation: To indicate means to point out or point to. Verify means to confirm the authenticity of something, while to call means to speak in a loud distinct voice so as to be heard at a distance. Denote means to serve as a sign of something, and is thus the most appropriate synonym.

Question Number: 17
Correct Option: a
Explanation: Noble means possessing very high or excellent qualities or properties. Helpful refers to someone who is ready to help others, while humble refers to having or showing a modest or low estimate of one's importance. Virtuous refers to having or showing high moral standards and qualities, and thus most closely resembles 'Noble'.

Question Number: 18
Correct Option: c
Explanation: Resound means to be much talked of, to extol loudly or widely. Resent means to feel bitter, while appreciate means to recognize the full worth of. Celebrate means to hold up or play up for public notice, and is thus the most appropriate synonym.

Question Number: 19
Correct Option: a
Explanation: To injure means to inflict bodily harm or damage upon someone. To fight means to engage in a physical battle with someone, while to strike means to attempt to harm something. To wound someone means to inflict a wound upon them in order to harm them, and thus this most closely resembles 'Injure'.

Question Number: 20
Correct Option: b
Explanation: Conventions are the ways things are usually done. Rights refers to a moral or legal entitlement to have or do something, while laws refer to something regarded as having binding force or effect. Customs, on the other hand, mean a traditional and widely accepted way of behaving or doing something that is specific to a particular society, place, or time. Thus, customs is the most appropriate synonym.

Question Number: 21
Correct Option: b
Explanation: Narrative is a way of presenting or understanding a situation or series of events that reflects and promotes a particular point of view or set of values. Novel refers to a literary genre, while incident refers to an occurrence of an action or situation that is a separate unit of experience. Story refers to an account of incidents or events, and thus most closely resembles the word 'Narrative'.

Question Number: 22
Correct Option: c
Explanation: Prosperity refers to the condition of being successful or thriving. Joyfulness refers to the condition of expressing great happiness and pleasure. Freedom means the state of not being subject to or affected by (something undesirable). Affluence means having an abundance of wealth, and is the most appropriate synonym for the word.

Question Number: 23
Correct Option: b
Explanation: To elaborate means to expand something in detail. To simplify something means to cut something down to its essentials, while to enlarge means to simply increase the size of something. To explicate means to explain something in great detail – this is the most appropriate synonym.

Question Number: 24
Correct Option: a
Explanation: Astound means to fill with bewilderment or wonder. To clarify means to make understandable, while to simplify means to decrease the complexity of something. Amaze means to fill with wonder and astonishment, and is the most appropriate synonym.

Question Number: 25
Correct Option: c
Explanation: Appropriate means right with respect to some end, need, use, or circumstance. Authentic means something that is genuine, while reliable means something that is trustworthy. Faulty means having defects. Suitable means right for a particular person, purpose, or situation, and is thus the most similar in meaning.

Question Number: 26
Correct Option: a
Explanation: To propose means to form or put forward a plan or intention. To handover means to yield control of, while to deliver means to take and hand over to or leave for another. Suggest means to offer for consideration or as a hypothesis, and is thus the most appropriate synonym.

Question Number: 27
Correct Option: a
Explanation: Lofty means something rising to a great height, or something that is impressively high. Giant and huge both refer to something that is large in size. Towering means impressively high or great, and thus most closely resembles 'Lofty'.

Question Number: 28
Correct Option: a
Explanation: To recognize means to show appreciation of the existence, validity, or legality of. To capture means to record accurately or to take into possession by force. To acknowledge means to accept the validity or legitimacy of, and thus most closely resembles in meaning.

Question Number: 29
Correct Option: c
Explanation: To intervene means to occur, fall, or come between events, or take part in something so as to prevent or alter a result or course of events. Participate means to simply take part in something. Interfere means to prevent (a process or activity) from continuing or being carried out properly, and is thus most similar in meaning.

Question Number: 30
Correct Option: c
Explanation: To suffer means to endure death, pain, or distress. Abate means to reduce something, while resist means to counteract something. Endure means to remain firm under misfortune without yielding, and is thus most similar.

ANTONYMS

From the given options choose a word most opposite in meaning to the one in question.

1. Mangle
   A. Disfigure
   B. damage
   C. mend
   D. wreck
   Correct Answer: c
   Explanation: Mangle means to injure badly or alter in such as form as unrecognizable. Mend means to alter for the better; heal or cure.

2. Exalt
   A. Condemn
   B. glorify
   C. worship
   D. praise
   Correct Answer: a
   Explanation: Exalt means to heighten or intensify, to praise or honor. Condemn means to express strong disapproval or declare or Judge unfit for something.

4. Persecute
   A. Harass
   B. comfort
   C. torture
   D. afflict
   Correct Answer: b
   Explanation: Persecute means to cause to suffer, to annoy. Comfort is an act of consoling, to relieve from affliction/pain.

5. Redemptive
   A. Rescue
   B. cleansing
   C. danger
   D. heaven
   Correct Answer: c
   Explanation: Redemptive means to save someone from evil or danger. Danger means possibility of some threat or evil.

6. Wallow
   A. Rejoice
   B. roll
   C. delight
   D. dislike
   Correct Answer: d
   Explanation: Wallow means to engage oneself entirely in a task with pleasure. Dislike means to feel aversion towards something.

7. Censure
   A. Rebuke
   B. criticize
   C. praise
   D. condemn
   Correct Answer: c
   Explanation: Censure means harsh criticism or to condemn someone or something. Praise means to express approval or to value.

8. Blurt
   A. Hold one's tongue
   B. utter
   C. exclaim
   D. give away
   Correct Answer: a
   Explanation: Blurt means to utter impulsively, to speak without thinking. Hold one's tongue means to stop talking, speak carefully.

9. Preliminary
   A. Beginning
   B. concluding
   C. foremost
   D. primal
   Correct Answer: b
   Explanation: preliminary means to something that serves as a preceding event or introduces what follows. Concluding means an event occurring at the end.

10. Solitude
    A. Isolation
    B. crowd
    C. union
    D. association
    Correct Answer: a
    Explanation: Solitude means a state of being alone or withdrawn from society. Isolation means a state of separation between persons and groups.

11. Oblivious
    A. Cautious
    B. unaware
    C. heedless
    D. insensible
    Correct Answer: a
    Explanation: Oblivious means lacking conscious awareness of something. Cautious means showing careful forethought.

12. Gaiety
    A. Cheer
    B. sadness c)
    C. glee
    D. festivity
    Correct Answer: b
    Explanation: Gaiety is a state of being cheerful or light-hearted. Sadness is the emotion experienced when not in a state of well-being.

13. Pedestrian
    A. Walker
    B. humdrum
    C. monotonous
    D. motorist
    Correct Answer: d
    Explanation: Pedestrian is a person who travels by foot. Motorist is a person who drives an automobile.

14. Amiable
    A. Friendly
    B. sympathetic
    C. irritable
    D. charming
    Correct Answer: c

Explanation: Amiable means possessing sweetness, diffusing warmth or friendliness. Irritable means sensitive to stimulus; easily annoyed.

15. Peculiar
   A. Strange
   B. unusual
   C. ordinary
   D. strange
   Correct Answer: c
   Explanation: peculiar means deviating from the usual or expected. Ordinary means not special in any way especially in quality or degree.

16. Sleek
   A. Glossy
   B. polished
   C. lustrous
   D. coarse
   Correct Answer: d
   Explanation: sleek is something having a smooth, beaming surface. Coarse are textures that are rough to touch.

17. Dandy
   A. Quality
   B. splendid
   C. substandard
   D. nifty
   Correct Answer: c
   Explanation: Dandy means a person who is concerned about his appearance. Substandard means a person falling short of some standards/prescribed norms.

18. Sob
   A. Cry
   B. giggle
   C. creep
   D. moan
   Correct Answer: b
   Explanation: sob means to weep convulsively. Giggle means to laugh nervously.

19. Vicious means:
   A. Benevolent
   B. sinful
   C. ferocious
   D. nasty
   Correct Answer: a
   Explanation: vicious means able or disposed to inflict pain or suffering. Benevolent means intending or showing kindness.

20. Unctuous
   A. Flattering
   B. sleek
   C. bland
   D. blunt
   Correct Answers: d
   Explanation: Unctuous means excessively charming in manner or speech. Blunt means someone characterized by directness in manner or speech, without being subtle.

21. Fidget
   A. Trifle
   B. twitch
   C. relax
   D. jiggle
   Correct Answer: c
   Explanation: fidget means uneasiness or restlessness. Relax means to become less tight.

22. Ominous
   A. Threatening
   B. propitious
   C. gloomy
   D. scary
   Correct Answer: b
   Explanation: ominous means threatening or tragic developments. Propitious means presenting favorable circumstances, kind, gracious, helpful etc.

23. Hunch
   A. Prediction
   B. suspicion
   C. forecast
   D. proof
   Correct Answer: d
   Explanation: Hunch means an expression that something might be the case. Proof is actual evidence to establish the truth of something.

24. Gad
   A. Roam
   B. drift
   C. stay put
   D. stray
   Correct Answer: c
   Explanation: Gad means to walk about or to roam about. Wander aimlessly. Stay put means to remain at a place without moving.

25. Sordid
   A. Reputable
   B. filthy
   C. shabby
   D. nasty
   Correct Answer: a
   Explanation: Sordid means morally degraded, unethical or dishonest. Reputable means having or worthy of something; praise worthy.

26. Slumber
   A. Nap
   B. peace
   C. nap
   D. wakefulness
   Correct Answer: d
   Explanation: slumber means a periodic state of the world in which the consciousness is suspended. Wakefulness is a periodic state in which one is conscious of the world.

27. Diligent
   A. Tireless
   B. inactive
   C. persistent
   D. energetic
   Correct Answer: Diligent is being characterized by care in carrying out tasks. Inactive is someone who is ignorant and not active physically or mentally.

28. Wick
   A. Match
   B. dissipate

C.   spotlessness
D.   sate
Correct Answer: c
Explanation: Wick is a loosely woven cord that draws fuel by capillary action. Spotlessness is a state of being absolutely clean; a tightly woven surface.

29. Undulant
A.   Wavy   B.   crinkle
C.   curvy   D.   straight
Correct Answer: d
Explanation: Undulant is a surface having a rising or falling appearance/ wavy appearance. Straight is a surface without deviation.

30. Tread
A.   Crawl
B.   walk
C.   pace
D.   footstep
Correct Answer: a
Explanation: Tread is a step in walking or running. Crawl is slow locomotion on hands and knees/ dragging the body.

31. Visage
A.   Face
B.   look
C.   features
D.   elude
Correct Answer: d
Explanation: Visage is an expression conveyed by a person's face. Elude means escape either physically or mentally, escape understanding by.

32. Pedestal
A.   Support
B.   ceiling
C.   foundation
D.   pillar
Correct Answer: b
Explanation: pedestal means an architectural support or base. Ceiling is the overhead surface of a covered space.

33. Colossal
A.   Minute
B.   immense
C.   huge
D.   tremendous
Correct Answer: a
Explanation: colossal means so great in size and extent. Minute means infinitely small.

34. Fissure
A.   Tear
B.   gap
C.   closing
D.   cleavage
Correct Answer: c
Explanation: Fissure is a narrow opening made by parting of any substance. Closing is the act of closing something/ to close a substance.

35. Concord
A.   Harmony
B.   violence
C.   peace

D.   unity
Correct Answer: b
Explanation: concord means to agree, to act together. Violence is to injure, an act of aggression.

36. Woeful
A.   Afflicted
B.   harmed
C.   injured
D.   joyous
Correct Answer: d
Explanation: woeful means affected by or full of grief. Joyous means full of or characterized by joy.

37. Aghast
A.   Carefree
B.   brave
C.   astonished
D.   stunned
Correct Answer: a
Explanation: Aghast means terrified, struck with fear. Carefree means free of trouble and worry.

38. Shriek
A.   Scream
B.   howl
C.   holler
D.   whisper
Correct Answer: d
Explanation: shriek is to utter a shrill cry/ piercing cry. Whisper is to speak softly, in a low voice.

39. Cascade
A.   Drizzle
B.   rush
C.   spout
D.   squirt
Correct Answer: a
Explanation: cascade is a sudden downpour. To rush down in great quantity. Drizzle means to shed in drops/minute particles.

40. Sojourn
A.   Stopover
B.   vacation
C.   break
D.   reside
Correct Answer: d
Explanation: sojourn is a temporary stay. Stay to spend a short length of time. Reside means to make one's home in a particular place.

41. Rampart
A.   Barrier
B.   fence
C.   jeopardy
D.   embankment
Correct Answer: c
Explanation: Rampart is an embankment built around a space for defensive purposes. Jeopardy is a source of danger; a possibility of incurring loss.

42. Niche
A.   Solid
B.   hole
C.   hollow
D.   corner

Correct Answer: Niche is a small concavity. A substance having holes inside. Solid is something of entirely one substance with no holes inside.

43. Epilogue:
   A. Conclusion
   B. preface
   C. ending
   D. termination
   Correct Answer: b
   Explanation: Epilogue is the closing part of a speech/ discourse. Preface is a short introductory essay at the start of a book/ discourse.

44. Pretentious
   A. Humble
   B. arrogant
   C. inflated
   D. proud
   Correct Answer: a
   Explanation: pretentious is someone making claims to be important or distinct. Humble means claiming little for one's self. Someone who's not boastful of himself or his abilities.

45. Placid
   A. Serene
   B. calm
   C. violent
   D. peaceful
   Correct Answer: c
   Explanation: placid is someone who is not easily irritable, peaceful, pleased. Violent is someone with or marked by great force or emotional intensity.

46. Relish
   A. Enjoy
   B. abhor
   C. savor
   D. delight
   Correct Answer: b
   Explanation: relish means to take pleasure in, get enjoyed from. Abhor means to hate or strongly dislike something or someone.

47. Reprehensible
   A. Shameful   B.   obnoxious

C.   sinful   D.   creditable
Correct Answer: d
Explanation: Reprehensible means someone deserving severe rebuke/ scolded. Creditable means someone who deserves praise, who is worthy of belief and credit.

48. Glimpse:
   A. Glance
   B. sight
   C. stare
   D. spy
   Correct Answer: c
   Explanation: glance is a quick look while stare is a fixed look with wide eyes for a notable amount of time.

49. Trivial
   A. Conventional
   B. significant
   C. slight
   D. unimportant
   Correct Answer: Trivial means something of small or no importance. Significant is something important in meaning or value.

50. Mock
   A. Ridicule
   B. taunt
   C. tease
   D. flatter
   Correct Answer: d
   Explanation: Mock means to treat with contempt. The act of ridicule. Flatter means to praise somewhat dishonestly or to favor bias.

51. Triumphant
   A. Pleased
   B. depressed
   C. victorious
   D. joyous
   Correct Answer: b
   Explanation: triumphant means to be joyful or proud especially because of success. Depressed means to be filled with melancholy. To feel low and unhappy than usual.

PRACTICE EXERCISE

1. Eminent is nearly opposite to:
   a. imminent
   b. obscure
   c. retire
   d. unsure

2. Prodigal can have the following antonym:
   a. thrifty
   b. secondary
   c. distant
   d. squalid

3. Heartfelt can have the antonym near to:
   a. loving
   b. insincere
   c. unhealthy
   d. humorous

4. Prudent is most dissimilar to
   a. simple
   b. rapid
   c. foolish
   d. verbose

5. Ecstasy can have the following antonym?
   a. hate
   b. agony
   c. languor
   d. fatigue

6. Temperate is nearly opposite to:
   a. Celsius
   b. inordinate
   c. lukewarm
   d. safely

7. Denounce is most dissimilar to:
   a. covet
   b. condemn
   c. blame
   d. deplore

8. Forced is nearly opposite to
   a. quick
   b. solid
   c. trusting
   d. natural

9. Choose the antonym for colossal.
   a. easy
   b. tiny
   c. graceful
   d. roof

10. Contrary can have the following antonym:
    a. urbane
    b. agreeable
    c. unpleasant
    d. despicable

11. The antonym of talent is:
    a. ungrateful
    b. silent
    c. show

    d. inability

12. Which word is nearly opposite to punctual?
    a. close
    b. tardy
    c. sloppy
    d. precious

13. Which among the following words is opposite to frivolous?
    a. pious
    b. inexpensive
    c. serious
    d. contemptuous

14. Plain can have the following antonym:
    a. meadow
    b. ugly
    c. lovely
    d. unadorned

15. What must be an antonym of license?
    a. restriction
    b. allow
    c. join
    d. gather

16. Famous is most opposite to
    a. boring
    b. poor
    c. obscure
    d. untalented

17. Kinetic is most dissimilar to
    a. cold
    b. static
    c. lewd
    d. foolish

18. Pacify is opposite to:
    a. excite
    b. land
    c. coddle
    d. unhand

19. Permanent is most dissimilar to:
    a. loose
    b. fierce
    c. fleeting
    d. unhappy

20. Dubious is most dissimilar to:
    a. reliable
    b. pleasing
    c. rhythmic
    d. careful

21. What can be the opposite of concede?
    a. sit
    b. withstand
    c. dismiss
    d. elaborate

22. Abrupt is most dissimilar to:
   a. continue
   b. laudable
   c. anticipated
   d. careless

23. Which word is nearly opposite to expect?
   a. attend
   b. regret
   c. despair
   d. loathe

24. Droll is most opposite to:
   a. forget
   b. charm
   c. sedate
   d. absurd

25. Abolish is nearly opposite to:
   a. vote
   b. punish
   c. avoid
   d. establish

26. Able is most dissimilar to:
   a. willful
   b. inept
   c. careful
   d. feasible

27. Subsequent is nearly opposite to:
   a. aloof
   b. previous
   c. following
   d. dismissive

28. Expound can have the following antonym:
   a. besmirch
   b. confuse
   c. confine
   d. condemn

29. What can be an antonym of malice?
   a. goodwill
   b. bitterness
   c. coddle
   d. distress

30. Peaked should have the following the antonym:
   a. tired
   b. arrogant
   c. pointy
   d. ruddy

31. Cursed is most opposite to:
   a. swore
   b. pious
   c. unfortunate
   d. lucky

32. Most dissimilar word to stingy is:
   a. wasteful
   b. democratic
   c. spiteful
   d. liberal

33. Which among the following words can be the antonym for tacit?
   a. grand
   b. dictated
   c. illicit
   d. messy

34. Which word is nearly opposite to ductile?
   a. unfeeling
   b. arrogant
   c. precious
   d. rigid

35. Flaunt can have the following antonym:
   a. regard
   b. sink
   c. hide
   d. propose

36. Deviant is most dissimilar to:
   a. winding
   b. careful
   c. normal
   d. sad

37. Fickle is most opposite to:
   a. steady
   b. kind
   c. please
   d. finagle

38. Which among the following words is opposite to valor?
   a. cowardice
   b. false
   c. drop
   d. heavy

39. Candid can have which of the following word as antonym?
   a. unkind
   b. blunt
   c. valid
   d. dishonest

40. What should be the word most closely related to the antonym of inept?
   a. clumsy
   b. infer
   c. competent
   d. foolish

41. Which word from the following can be an antonym of pit:
   a. group
   b. peak
   c. select
   d. marry

42. Which word is most closely related to the antonym of astute?
   a. distraught
   b. careful
   c. generous
   d. gullible

43. Antonym for brazen can be:
   a. bashful

b. boisterous
c. noisy
d. heated

44. Perilous can have the following antonym:
a. disciplined
b. similar
c. safe
d. honest

45. What should be the antonym of assure?
a. alarm
b. reassure
c. quiet
d. unsure

46. Which antonym is most suitable for gracious?
a. cordial
b. rude
c. furious
d. tactile

47. What is the antonym for stamina from the following words?
a. weakness
b. clear
c. decisive
d. calmness

48. Ample is most dissimilar to:
a. complete
b. insufficient
c. quiet
d. supple

49. Which word can be the antonym of exact?
a. join
b. sympathetic
c. Incorrect
d. whole

50. Fallacious is most opposite to:
a. perfect
b. truthful
c. accidental
d. disarming

51. What should be an antonym of foster?
a. discourage
b. believe
c. heal
d. brag

52. The opposite of word impartial is:
a. hostile
b. biased
c. dislike
d. worried

53. Haste is nearly opposite to:
a. delay
b. frugal
c. debauchery
d. solemnity

54. What can be the opposite word to meager?

a. kind
b. generous
c. thoughtful
d. copious

55. What can be the opposite of obtuse?
a. slim
b. acute
c. opaque
d. thick

56. Which among the following words is most dissimilar to abdicate?
a. deny
b. usurp
c. blame
d. renounce

57. Animosity can have the following opposite word:
a. love
b. plantlike
c. barren
d. tiny

58. The near to opposite word for awe is:
a. borrow
b. shallow
c. low
d. contempt

59. Popular is most dissimilar to:
a. empty
b. uncommon
c. famous
d. feisty

60. Which of the following word can be opposite to sullen?
a. dirty
b. cheerful
c. clean
d. risen

61. Cautious is most dissimilar to:
a. reasonable
b. careful
c. illogical
d. reckless

62. What should be the antonym of pivotal?
a. turning
b. wavy
c. unimportant
d. clear

63. Delude is most dissimilar to
a. drought
b. clever
c. enlighten
d. enrage

64. Labor is most opposite to:
a. amuse
b. cat
c. rest
d. strive

65. Pristine is nearly opposite to:
   a. free
   b. sullied
   c. wide
   d. thorough

66. Fluid can have the following antonym:
   a. solid
   b. liquid
   c. afraid
   d. decent

67. Entice is nearly opposite to:
   a. piece
   b. repulse
   c. attract
   d. repeat

68. What should be an antonym of expansive?
   a. generous
   b. honest
   c. narrow
   d. troublesome

69. Tedious is most dissimilar to:
   a. unwavering
   b. frightening
   c. horrible
   d. pleasurable

70. Conserve is most dissimilar to:
   a. waste
   b. silence
   c. liberal
   d. complicate

71. What should an antonym of taint?
   a. cheer
   b. worry
   c. clear
   d. purify

72. What among the following should be an antonym of resilient?
   a. stubborn
   b. careless
   c. substantial
   d. flimsy

73. Which word is most dissimilar to severe?
   a. lenient
   b. cautious
   c. join
   d. one

74. Which word among the following is most dissimilar to extravagant?
   a. unknown
   b. homebody
   c. punctual
   d. moderate

75. Rough can have following antonym?
   a. tumble
   b. sleek
   c. fast

76. Heal is most opposite to:
   a. sew
   b. foot
   c. good
   d. maim

77. What should be an antonym of curtail?
   a. remain
   b. detain
   c. placate
   d. prolong

78. Belittle is nearly opposite to:
   a. plain
   b. detract
   c. magnify
   d. torment

79. Which word is nearest to the antonym of dearth?
   a. lack
   b. poverty
   c. abundance
   d. foreign

80. The nearly opposite word to kindle is:
   a. Smother
   b. detest
   c. enemy
   d. discourage

81. Which word can be considered as an antonym of Secret:
   a. friendly
   b. covert
   c. hidden
   d. overt

82. Detain is most opposite to:
   a. release
   b. silence
   c. forget
   d. prosper

83. The closest word to the opposite of Helpful is:
   a. supportive
   b. useless
   c. sympathetic
   d. obliged

84. Tractable can have the following antonym:
   a. invisible
   b. stubborn
   c. unadvisable
   d. special

85. Which word is nearly opposite to garner?
   a. unravel
   b. mar
   c. squander
   d. tarnish

86. What is the antonym of abate?
   a. free
   b. augment
   c. provoke

d. wane

87. Which of the following word is most closely related to the antonym of brawny?
a. swift
b. weak
c. strong
d. pale

88. Which among the following words can be an antonym of felicitous?
a. morbid
b. boorish
c. inopportune
d. delightful

89. What should be the antonym of continue?
a. curve
b. argue
c. carry
d. pause

90. Which word is the antonym of luminous?
a. clear
b. dim
c. brittle
d. clever

91. Which of these words is nearly opposite to the word Withdraw:
a. reduce
b. need
c. advance
d. want

92. Attain can have the following antonym:
a. crave
b. lose
c. harbor
d. credit

93. What is the antonym for abridge?
a. shorten
b. extend
c. stress

d. easy

94. Knowing is most dissimilar to:
a. wasteful
b. dense
c. clumsy
d. fast

95. Enigmatic can have the following antonym:
a. healthy
b. watchful
c. disastrous
d. obvious

96. Benign can have the following antonym:
a. malignant
b. converse
c. cautious
d. malicious

97. What can be the antonym for imaginative?
a. playful
b. written
c. small
d. dull

98. What can be an antonym of tragic?
a. boring
b. mysterious
c. comic
d. incredulous

99. Which word among the following should be an antonym of tireless?
a. exhausted
b. unfailing
c. broke
d. driving

100. Which word is most closely related to the antonym of common?
a. strange
b. uneasy
c. quick
d. fast

ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: b

Explanation: Eminent means prominent, or famous; obscure means not prominent, or unknown.

Question Number: 2
Correct Option: a

Explanation: Prodigal means wasteful or extravagant; thrifty means thriving by industry and frugality.

Question Number: 3
Correct Option: b

Explanation: Heartfelt means expressing genuine feeling, or sincere, so insincere is its opposite.

Question Number: 4
Correct Option: c

Explanation: Prudent means marked by wisdom or good judgment; foolish means marked by a lack of good sense or prudence.

Question Number: 5
Correct Option: b

Explanation: Ecstasy means a state of rapturous delight; agony means intense pain of mind or body.

Question Number: 6
Correct Option: b

Explanation: Temperate means moderate; inordinate means excessive or immoderate.

Question Number: 7
Correct Option: a

Explanation: One meaning of to denounce is to speak out against; to covet means to wish for enviously

Question Number: 8
Correct Option: d

Explanation: Forced means produced with effort; natural means uncultivated or spontaneous.

Question Number: 9
Correct Option: b

Explanation: Colossal means incredibly large, therefore tiny is the opposite

Question Number: 10
Correct Option: b

Explanation: Contrary means unwilling to accept control or advice; agreeable means ready or willing to agree.

Question Number: 11
Correct Option: d

Explanation: A talent is a special creative or artistic ability, therefore inability is the opposite.

Question Number: 12
Correct Option: b

Explanation: punctual means on time; tardy means late

Question Number: 13
Correct Option: c

Explanation: Frivolous means lacking seriousness, therefore serious is the most dissimilar

Question Number: 14
Correct Option: c

Explanation: Plain means lacking in beauty; lovely means beautiful

Question Number: 15
Correct Option: a

Explanation: One meaning of a license is permission; restriction means limitation

Question Number: 16
Correct Option: c

Explanation: Famous means widely known; obscure means little known.

Question Number: 17
Correct Option: b

Explanation: Kinetic means relating to motion, or dynamic; static means at rest, or stationary

Question Number: 18
Correct Option: a

Explanation: To pacify means to soothe, or calm, therefore excite is the opposite.

Question Number: 19
Correct Option: c

Explanation: Permanent means lasting; fleeting means passing quickly or temporary

Question Number: 20
Correct Option: a

Explanation: Dubious means questionable or unreliable, therefore reliable is the most dissimilar

Question Number: 21
Correct Option: b

Explanation: To concede means to yield; to withstand means to successfully resist.

Question Number: 22
Correct Option: c

Explanation: Abrupt means occurring without warning, or sudden; anticipated means expected

Question Number: 23
Correct Option: c

Explanation: To expect is to wait for or to look forward to; to despair is to lose all hope.

Question Number: 24
Correct Option: c

Explanation: Droll means to have a humorous or odd quality; sedate means unruffled or serious.

Question Number: 25
Correct Option: d

Explanation: To abolish means to do away with entirely; to establish means to bring into existence

Question Number: 26
Correct Option: b

Explanation: Able means having skill or ability; inept means lacking skill

Question Number: 27
Correct Option: b

Explanation: Subsequent means following in time or order; previous means going before in time or order

Question Number: 28
Correct Option: b

Explanation: To expound means to explain; to confuse, or confound, is the opposite of expound.

Question Number: 29
Correct Option: a

Explanation: Malice means a desire to see another suffer; goodwill means desire to see another benefit

Question Number: 30
Correct Option: d

Explanation: To be peaked is to appear pale or wan; to be ruddy is to have a healthy, red complexion

Question Number: 31
Correct Option: d

Explanation: Cursed means to be the subject of misfortune, or to be unlucky, therefore lucky is the opposite.

Question Number: 32
Correct Option: d

Explanation: One meaning of liberal is giving freely, or generous; stingy means lacking generosity

Question Number: 33
Correct Option: b

Explanation: Tacit means unspoken, or implied; dictated means spoken.

Question Number: 34
Correct Option: d

Explanation: One meaning of ductile is easily led or influenced; one meaning of rigid is inflexible, set in opinion.

Question Number: 35
Correct Option: c

Explanation: To flaunt means to display showily, or to show off, therefore hide is the opposite.

Question Number: 36
Correct Option: c

Explanation: Deviant means departing from the established norm, or abnormal, therefore normal is the most dissimilar.

Question Number: 37
Correct Option: a

Explanation: Fickle means to lack steadiness, therefore steady is the opposite

Question Number: 38
Correct Option: a

Explanation: Valor means strength of mind or spirit, or courage; cowardice means lack of courage.

Question Number: 39
Correct Option: d

Explanation: Candid means to be frank, or honest, therefore dishonest is the opposite.

Question Number: 40
Correct Option: c

Explanation: Inept means to lack competence, therefore competent is the opposite

Question Number: 41
Correct Option: b

Explanation: A pit is a hole and a peak is the top of a hill or mountain.

Question Number: 42
Correct Option: d

Explanation: Astute means shrewd or showing acute mental vision; gullible means easily duped or cheated.

Question Number: 43
Correct Option: a

Explanation: Brazen means to be defiant or insolent; bashful means to be shy or timid.

Question Number: 44
Correct Option: c

Explanation: Perilous means dangerous, therefore safe is the opposite

Question Number: 45
Correct Option: a

Explanation: To assure means to make sure by removing doubt or worry; alarm means to give warning or to arouse fear.

Question Number: 46
Correct Option: b

Explanation: Gracious means to be pleasant in a social situation, or cordial; rude means to be unpleasant.

Question Number: 47
Correct Option: a

Explanation: Stamina means strength or endurance, therefore weakness is the opposite.

Question Number: 48
Correct Option: b

Explanation: Ample means more than adequate in size, scope, or capacity, or sufficient, therefore, insufficient is the most dissimilar

Question Number: 49
Correct Option: c

Explanation: Exact means in complete accordance with fact, or correct, therefore incorrect is the opposite.

Question Number: 50
Correct Option: b

Explanation: Fallacious means tending to deceive; truthful means disposed to tell the truth.

Question Number: 51
Correct Option: a

Explanation: To foster means to encourage; to discourage means to deprive of courage or confidence

Question Number: 52
Correct Option: b

Explanation: Impartial means to be without prejudice or bias, therefore biased is the opposite.

Question Number: 53
Correct Option: a

Explanation: Haste means hurry; delay means postponement or procrastination

Question Number: 54
Correct Option: d

Explanation: Meager means lacking in quality or quantity; copious means present in large quantity, or abundant.

Question Number: 55
Correct Option: b

Explanation: Obtuse means insensitive or stupid; acute means marked by keen perception or shrewd.

Question Number: 56
Correct Option: b

Explanation: To abdicate means to renounce power or high office; to usurp means seize power or high office

Question Number: 57
Correct Option: a

Explanation: Animosity means resentment or hostility, therefore love is the opposite.

Question Number: 58
Correct Option: d

Explanation: Awe means a sense of deep respect or veneration; contempt means a lack of respect, or disdain.

Question Number: 59
Correct Option: b

Explanation: Popular means frequently encountered or accepted, or common, therefore uncommon is the opposite.

Question Number: 60
Correct Option: b

Explanation: Sullen means showing a disagreeable mood, or lacking cheer,
therefore cheerful is the opposite.

Question Number: 61
Correct Option: d

Explanation: Cautious means careful; reckless means lacking caution

Question Number: 62
Correct Option: c

Explanation: Pivotal means very important, or crucial, therefore unimportant is the opposite.

Question Number: 63
Correct Option: c

Explanation: To delude means to mislead the judgment of someone, or to trick; to enlighten means to give knowledge to someone

Question Number: 64
Correct Option: c

Explanation: To labor means to work; to rest means to cease working

Question Number: 65
Correct Option: b

Explanation: Pristine means unspoiled or pure; sullied means spoiled or tarnished.

Question Number: 66
Correct Option:

Explanation:

Question Number: 67
Correct Option: b

Explanation: To entice means attract seductively, or to lure; to repulse means to cause aversion to, or to disgust

Question Number: 68
Correct Option: c

Explanation: Expansive means sizeable or extensive; narrow means restricted

Question Number: 69
Correct Option: d

Explanation: Tedious means boring; pleasurable means enjoyable or delightful

Question Number: 70
Correct Option: a

Explanation: To conserve means to keep safe or preserve, which is the opposite of to waste

Question Number: 71
Correct Option: d

Explanation: To taint means to contaminate or corrupt; to purify means to make pure

Question Number: 72
Correct Option: d

Explanation: Resilient means capable of withstanding shock; flimsy means lacking in physical strength or substance.

Question Number: 73
Correct Option: a

Explanation: One meaning of severe is strict; lenient means mild.

Question Number: 74
Correct Option: d

Explanation: Extravagant means lacking in restraint and moderation, therefore moderate is the opposite.

Question Number: 75
Correct Option: b

Explanation: Rough means having an uneven, coarse surface; sleek means having a smooth, bright surface.

Question Number: 76
Correct Option: d

Explanation: To heal means to restore to health; to maim means to injure.

Question Number: 77
Correct Option: d

Explanation: To curtail means to cut short; to prolong means to lengthen or extend.

Question Number: 78
Correct Option: c

Explanation: To belittle means to make seem little or less; to magnify means to enlarge

Question Number: 79
Correct Option: c

Explanation: Dearth means an inadequate supply or lack of something; abundance means an ample quantity, or wealth

Question Number: 80
Correct Option: a

Explanation: To kindle means to start burning or ignite; to smother means to stifle or suppress.

Question Number: 81
Correct Option: d

Explanation: Secret means hidden or covert; overt means open to view.

Question Number: 82
Correct Option: a

Explanation: To detain means to hold or keep back; to release means to let go.

Question Number: 83
Correct Option: b

Explanation: Helpful means to give help. Supportive means to provide help or any kind of support, while sympathetic means to show concern and obliged means to feel worthy of duty.

Question Number: 84
Correct Option: b

Explanation: Tractable means easily handled or managed; stubborn means difficult to handle or manage

Question Number: 85
Correct Option: c

Explanation: To garner means to gather or to store; to squander means to cause to disperse or to scatter.

Question Number: 86
Correct Option: b

Explanation: To abate means to reduce in degree or intensity; to augment means to increase.

Question Number: 87
Correct Option: b

Explanation: Brawny means muscled or strong, therefore weak is the opposite.

Question Number: 88
Correct Option: c

Explanation: Felicitous means very well-suited or apt; inopportune means inconvenient or not well-suited.

Question Number: 89
Correct Option: d

Explanation: To continue means to act without interruption; to pause means to stop temporarily

Question Number: 90
Correct Option: b

Explanation: Luminous means radiating or reflecting light, or glowing; dim means dark or dull.

Question Number: 91
Correct Option: c

Explanation: To withdraw means to remove or retreat; to advance is the opposite of retreat.

Question Number: 92
Correct Option: b

Explanation: To attain means to achieve or to gain, therefore to lose is the most dissimilar

Question Number: 93
Correct Option: b

Explanation: To abridge means to shorten and to extend means to lengthen

Question Number: 94
Correct Option: b

Explanation: Knowing means having information or knowledge; dense means dull or stupid.

Question Number: 95
Correct Option: d

Explanation: Enigmatic means mysterious or obscure, therefore obvious is the opposite.

Question Number: 96
Correct Option: d

Explanation: One meaning of benign is of a gentle disposition; malicious means marked by mischievous impulse

Question Number: 97
Correct Option: d

Explanation: Imaginative means having imagination; dull means lacking imagination.

Question Number: 98
Correct Option: c

Explanation: Tragic means regrettably serious or sorrowful; comic means humorous

Question Number: 99
Correct Option: a

Explanation: Tireless means filled with energy; exhausted means depleted of energy

Question Number: 100
Correct Option: a

Explanation: Common means ordinary or familiar; strange means unfamiliar.

PREPOSITIONS

Complete the following sentences with the most appropriate preposition listed below.

1. Do you take pride ——— your appearance?
   A. In
   b. at
   c. about
   d. of
   Correct Answer: a
   Explanation: In use to show that something is inside something else or someone or something is available like Is Farah in? or something is coming into something like the rain is coming In through the window.

2. Ali is always ——— time.
   a. In
   b. on
   c. over
   d. at
   Correct Answer: b
   Explanation: On tells us when something is attached to or touching a surface. In the given example on is touching the surface of time.

3. The horses ran ——— the garden.
   a. Over
   b. up
   c. through
   d. onto
   Correct Answer: c
   Explanation: through is used as a preposition when it is followed by a noun. 'Through' shows moving from one end to another.

4. The show starts——— midnight.
   a. By
   b. at
   c. on
   d. to
   Correct Answer: b
   Explanation: At is used for specific points in time on the clock or points of time in a day.

5. We made it ——— time.
   a. In
   b. on
   c. through
   d. at
   Correct Answer: a
   Explanation: In use to show that something is inside something else or someone or something is available like Is Farah in? or something is coming into something like the rain is coming in through the window.

6. Be there — noon — we'll be late.
   A. By, or
   B. by, and
   C. and, or
   D. at, else
   Correct Answer: a
   Explanation: By shows time limit for start or end of an activity. It also shows when something /someone is near, beside or by something/someone. Or is used as a function word to pinpoint alternative/different situations.

7. There is also Christmas ——— Haram's Birthday ——— Saturday.
   A. and, on
   B. but, at
   C. on, by
   D. while, by
   Correct Answer: a
   Explanation: used to show connection or addition of items or events within the class. On tells us when something is attached to or touching a surface or used to indicate the days of the week.

8. There is a cat —— the tree along —— the dog.
   A. In, by
   B. at, over
   C. under, with
   D. inside, in
   Correct Answer: c
   Explanation: under is used to show In or into a position below something like the cat is under the tree. In the given example, with is used to show the combination of two things.

9. When I sleep, I have to get my books—— the bed.
   A. In
   B. into
   C. onto
   D. off
   Correct Answer: d
   Explanation: off is used to show a state of discontinuance. Like the books have to be removed from a place where they were already present this shows discontinuance from the previous state.

10. This paper was based ——— history
    A. over
    B. at
    C. into
    D. on
    Correct Answer: d
    Explanation: On tells us when something is attached to or touching a surface. Also use to indicate the source of dependence. Like the Correct Answer is based on means the source of the paper was history subject.

11. The Eagle flew low—— our heads.
    A. Under
    B. at
    C. over
    D. by
    Correct Answer: c
    Explanation: over Is used to indicate motion or situation in a position higher than or above another.

12. I've not seen Ramsha——— last month.
    A. For
    B. from
    C. since
    D. on
    Correct Answer: c
    Explanation: since is used to indicate a definite past time until now. As last month is a definite time in the past so since is used here.

13. I stood ----- her in the lane.
    A. next to
    B. over
    C. below
    D. past
    Correct Answer: a
    Explanation: next to indicates immediately following or next to.

14. We washed all the crockery------the dinner.
    A. By
    B. between
    C after
    D. at
    Correct Answer: c
    Explanation: After this MCQ is used to show something subsequent in time i.e. after the dinner. It is also used to show something behind in place like people are standing one after the other.

15. Come -------- the classroom with me.
    A. On
    B. onto
    C. over
    D. into
    Correct Answer: d
    Explanation: used as a function word to show insertion, introduction or positioning. It is used to show movement or when someone or something gets involved with the other.

16. Fredrick is dying. I am afraid he is------ his last legs.
    A. in
    B. at
    C. on
    D. over
    Correct Answer: c
    Explanation: On his last legs is an idiom which means about to come to an end.

17. I was ----- a bad temper so I fought with my friend.
    A. in
    B. on
    C. at
    D. with
    Correct Answer: a
    Explanation: In a bad temper. In is used with a state of mind like in a mood, in anger, etc.

18. There is some dispute------- the shop.
    A. Among
    B. in
    C. over
    D. about
    Correct Answer: c
    Explanation: Dispute over is used when there is a disagreement among things.

19. I am bit weak----- geography but I am trying hard.
    A. At b)
    B. in
    C. over
    D. on
    Correct Answer: b
    Explanation: we are weak in something like weak in calculations etc.

20. I can't even think ---travelling --- public bus.

A. of, by
B. off, to
C. by, in
D. of, to
Correct Answer: a
Explanation: By shows time limit for start or end of an activity. It also shows. when something /someone is near, beside or by something/someone but the preposition by is sometimes used with the transport as in the given example. 'Of' Is used to show component or contents of something like in the given MCQ travelling is a component of thinking.

21. Don't depend ---- others.
    A. Upon
    B. on
    C. onto
    D. for
    Correct Answer: b
    Explanation: On tells us when something is attached to or touching a surface. It also indicates a source of dependence. Like here the source of dependence are others.

22. He would surely tide ---- the crisis.
    A. Against
    B. at
    C. over
    D. among
    Correct Answer: c
    Explanation: over is used to indicate motion or situation in a position higher than or above another.

23. He was unfit ----- the job as he was lacking — communication.
    A. for, in
    B. to, on
    C. for, at
    D. among, under
    Correct Answer: a
    Explanation: For is used to show purpose like unfit for the job. In use to show that something is inside something else or someone or something is available like Is Farah In? Or something is coming into something like the rain is coming in through the window.

24. He had longing ----- a dessert so we went out.
    a. About
    b. for
    c. to
    d. in
    Correct Answer: b
    Explanation: For is used to show purpose like longing for dessert.

25. He was roaming ---- the garden.
    a. On
    b. in
    c. at
    d. under
    Correct Answer: b
    Explanation: In is used to show that something is inside something else or someone or something is available like Is Farah in? Or something is coming into something like the rain is coming in through the window.

26. Life promises a lot ---- pleasure.
    a. Of

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b. for
-c. about
d. more
Correct Answer: a
Explanation: Of is used to show component or contents of something. It also indicates the action of object implied by the preceding noun.

27. He knows German and Italian ------- Chinese.
    a. Beside
    b. besides
    c. by
    d. except
    Correct Answer: b
    Explanation: besides here is used in the sense of together with. Like he knows Chinese together with German and Italian.

28. Taylor was pleased--------- my work.
    A. At
    B. for
    C. over
    D. with
    Correct Answer: d

Explanation: with is used as a conjunction or addition but also to show the manner of action like pleased with work.

29. We've been living in the house ------1997.
    A. For
    B. from
    C. since
    D. to
    Correct Answer: c
    Explanation: since is used to indicate a definite past time until now. As last month is a definite time in the past so since is used here.

30. There is something admirable ------ him.
    A. To
    B. for
    C. about
    D. with
    Correct Answer: c
    Explanation: about is used to show things in regard to or concerned with. In the given MCQ admiration is concerned with him so something is admirable about him.

PRACTICE EXERCISE – 1

1. Fill in the blank with the correct preposition
Fatima asked her mother to buy her a present ___ her birthday.
   a. Between
   b. On
   c. In

2. Fill in the blank with the correct Article. (A, An, The)
___ ticket for Paris is extremely expensive.
   a. A
   b. An
   c. The

3. Identify the preposition in the following sentence
He disappeared very mysteriously on Saturday.
   a. He
   b. Disappeared
   c. On

4. Identify the preposition in the following sentence
I went on a trip with my friends.
   a. I
   b. Went
   c. On

5. Fill in the blank with the correct preposition
Sarmad travelled ___ Europe for vacations.
   a. Between
   b. Across
   c. On

6. Fill in the blank with the correct Article. (A, An, The)
___ Statue of Liberty is a beautiful monument.
   a. A
   b. An
   c. The

7. Fill in the blank with the correct preposition
Amna prefers to study ___ the library.
   a. At
   b. On
   c. In

8. Fill in the blank with the correct preposition
The painting hanging ___ the wall was beautiful.
   a. On
   b. At
   c. In

9. Fill in the blank with the correct preposition
I am ___ your place.
   a. Near
   b. By
   c. Between

10. Fill in the blank with the correct preposition
Sahar is ___ the kitchen.
   a. In
   b. Over
   c. With

11. Identify the preposition in the following sentence
The train passed through the tunnel in the blink of an eye.
   a. Train
   b. Passed
   c. Through

12. Fill in the blank with the correct Article. (A, An, The)
___ hole was dug in the cabinet.
   a. A
   b. An
   c. The

13. Identify the preposition in the following sentence
Omer threw the bag under the stairs quickly.
   a. Omer
   b. Threw
   c. Under

14. Fill in the blank with the correct preposition
He arrived ___ 11 AM for the class.
   a. On
   b. In
   c. At

15. Fill in the blank with the correct preposition
The guests refused to leave ___ the dessert was served.
   a. Before
   b. After
   c. Between

16. Fill in the blank with the correct preposition
I met John ___ January.
   a. In
   b. From
   c. By

17. Identify the preposition in the following sentence
The paintings are hanging on the wall.
   a. Paintings
   b. Hanging
   c. On

18. Fill in the blank with the correct Article. (A, An, The)
They were searched for ___ apartment.
   a. A
   b. An
   c. The

19. Fill in the blank with the correct Article. (A, An, The)
___ principal scolded his students for misconduct.
   a. A
   b. An
   c. The

20. Identify the preposition in the following sentence
I shall go to bed because I am exhausted.
   a. I
   b. To
   c. Go

21. Fill in the blank with the correct preposition
James is ___ Spain for the holidays.
   a. On
   b. In
   c. At

22. Fill in the blank with the correct preposition
Alina went _____ the room to find her jeans.
a. Into
b. On
c. Across

23. Identify the preposition in the following sentence
Alan took his dog outside for a walk.
a. Alan
b. Took
c. Outside

24. Fill in the blank with the correct preposition
She was _____ a mask.
a. Without
b. Between
c. At

25. Fill in the blank with the correct Article. (A, An, The)
We will go to __ restaurant for dinner tonight.
a. A
b. An
c. The

26. Identify the preposition in the following sentence
We went up the hill for a picnic.
a. We

b. Went
c. Up

27. Fill in the blank with the correct preposition
The key is _____ the car.
a. Inside
b. Between
c. At

28. Identify the preposition in the following sentence
I learned how to paint during the summer vacations.
a. I
b. Learned
c. During

29. Identify the preposition in the following sentence
The children go to school on weekdays.
a. Children
b. Go
c. On

30. Fill in the blank with the correct Article. (A, An, The)
She rode _____ horse.
a. A
b. An
c. The

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ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: b

Explanation: the correct answer is 'On' because it is used for specific days and dates. 'In' is used specifically for bigger periods, such as months or years. 'Between' refers to being within an interval.

Question Number: 2
Correct Option: c

Explanation: the correct answer is 'The' because the noun is clearly specified, so a definite article will be used.

Question Number: 3
Correct Option: c

Explanation: the correct answer is 'on' which demonstrates exactly when the action occurred. 'He' is the pronoun. 'Disappeared' is the verb, demonstrating the action being performed.

Question Number: 4
Correct Option: c

Explanation: the correct answer is 'On' which shows the course of action being performed by the noun or pronoun. 'We' is the pronoun performing the action. 'Went' is the verb, demonstrating the action being performed.

Question Number: 5
Correct Option: b

Explanation: the correct answer is 'Across' which refers to moving from one place to another. 'Between' refers to being in the middle of two places or points. 'On' indicates the position of something on top of another.

Question Number: 6
Correct Option: c

Explanation:
Question Number: 7
Correct Option: c

Explanation: the correct answer is 'in' because it clearly indicates that she will study inside the library. 'At' is used when an exact location or place is being indicated. 'On' usually is used when a certain period of time is being indicated.
Question Number: 8
Correct Option: a

Explanation: the correct answer is 'On' because it indicates something being present on a certain surface. 'In' is used to refer to something within certain boundaries. 'At' is used to refer to something at a specific point.

Question Number: 9
Correct Option: a

Explanation: the correct answer is 'Near'. 'By' is used to communicate when a person is beside something or someone.

'Between' is used to indicate that something is on a middle ground. 'Near' most exactly demonstrates the location of the person, and makes sense grammatically.

Question Number: 10
Correct Option: a

Explanation: the correct answer is 'In' which indicates that Sahar is inside the kitchen. 'Over' indicates that the person is crossing an area from place to another. 'With' indicates that the person is personally next to the object, which doesn't apply here.

Question Number: 11
Correct Option: c

Explanation: The correct answer is 'Through' which indicates the direction or position of the noun. 'Train' is the noun performing the action. 'Passed' is the verb, demonstrating the action being performed.

Question Number: 12
Correct Option: a

Explanation: the correct answer is 'A' because a general noun is mentioned starting without a vowel.

Question Number: 13
Correct Option: c

Explanation: the correct answer is 'Under', which is a preposition to demonstrate the position of the object upon which the action is being performed. 'Omer' is the noun performing the action. 'Threw' is the action being performed so it is the verb.

Question Number: 14
Correct Option: c

Explanation: the correct answer is 'At' because is used to refer to something at a specific point. 'On' indicates something being present on a certain surface. 'In' is used to refer to something within certain boundaries.

Question Number: 15
Correct Option: a

Explanation: the correct answer is 'Before' because it refers to something not happening till the agenda is achieved. 'After' as a preposition is used to indicate something that comes in a manner following a series of events. 'Between' refers to something happening in the middle of two events.

Question Number: 16
Correct Option: a

Explanation: the correct answer is 'In' because this preposition is used for years, months, seasons etc. 'From' refers to continuity of an event, and doesn't apply here because you meet someone for the first time only once. 'By' refers to proximity which does not apply here.

Question Number: 17
Correct Option: c

Explanation: the correct answer is 'On' showing the location of the object. 'hanging' is the verb. 'Paintings' is the noun.

Question Number: 18
Correct Option: b

Explanation: the correct answer is 'An' because apartment starts with a vowel and is not a specified noun.

Question Number: 19
Correct Option: c

Explanation: the correct answer is 'The' because the noun is specified, which is why a definite article will be used.

Question Number: 20
Correct Option: b

Explanation: the correct answer is 'To' which is a preposition for movement. 'I' is the pronoun performing the action. 'Go' is the verb, demonstrating the action being performed.

Question Number: 21
Correct Option: b

Explanation: the correct option is 'In' because it refers to something or someone being within the confines or boundaries of something. 'At' refers to something being present at a certain point.

Question Number: 22
Correct Option: a

Explanation: the correct answer is 'Into' because it refers to someone entering some place. 'On' refers to something being placed on a surface. 'Across' refers to something moving between two points.

Question Number: 23
Correct Option: c

Explanation: The correct answer is 'Outside' which shows where the action is being performed. 'Alan' is the noun performing the action. 'Took' is the verb, demonstrating the action being performed.

Question Number: 24
Correct Option: a

Explanation: the correct option is 'Without' which indicates that the person wasn't with a certain item, i.e. a mask. 'Between' refers to someone between in the middle of two points. 'At' refers to someone being at a very specific location.

Question Number: 25
Correct Option: a

Explanation: the correct answer is 'A' because the noun is general and does not start with a vowel.

Question Number: 26
Correct Option: c

Explanation: The correct answer is 'Up' which indicates the location or movement of the noun or pronoun. 'We' is the pronoun. 'Up' is the verb demonstrating the action.

Question Number: 27
Correct Option: a

Explanation: The correct answer is 'Inside' because it indicates the exact location or position of the object. 'Between' refers to something in the middle of two objects. 'At' refers to an object arriving at a location which does not apply in this case.

Question Number: 28
Correct Option: c

Explanation: the correct answer is 'During' indicating the time when the action was performed. 'Learned' is the verb demonstrating the action that was performed. 'I' is the pronoun performing the action.

Question Number: 29
Correct Option: c

Explanation: the correct answer is 'On' indicating the exact time of the action. 'Go' is the verb, demonstrating the action being performed. 'Children' is the noun.

Question Number: 30
Correct Option: a

Explanation: the correct answer is 'A' because horse is an unspecified noun, and is not started with a vowel.

PRACTICE EXERCISE – 2

1. Complete the sentence with the appropriate preposition:
   Jamal was seated _____ Hashim and Farhan.
   a. because
   b. chair
   c. between
   d. table

2. Which is the preposition in the sentence?
   There were puppies on the roof.
   a. roof
   b. puppies
   c. the
   d. on

3. Which of these is a preposition?
   a. Kitchen
   b. Tired
   c. Exhausted
   d. Until

4. Which is the preposition in the sentence?
   Dinner will be served after 8pm
   a. after
   b. served
   c. dinner
   d. 8pm

5. Which is the preposition in the sentence?
   The cat was hiding under the table.
   a. under
   b. table
   c. cat
   d. hiding

6. Which is the preposition in the sentence?
   I let the birds out of their cage.
   a. cage
   b. birds
   c. out
   d. their

7. Which is the preposition in the sentence?
   He slipped and fell on the rocks below
   a. below
   b. slipped
   c. fell
   d. rocks

8. Which of these is a preposition?
   a. Beautiful
   b. Across
   c. Handsome
   d. Swimming

9. Which is the preposition in the sentence?
   The Zebras ran along the river.
   a. along
   b. river
   c. the
   d. Zebras

10. Complete the sentence with the appropriate preposition:
    I am jealous ------- them
    a. pencil
    b. of
    c. roaming
    d. sleeping

11. Complete the sentence with the appropriate preposition:
    The diary belongs _____ Jamil.
    a. to
    b. his
    c. lunch
    d. book

12. Which is the preposition in the sentence?
    The sun is shining above.
    a. sun
    b. the
    c. above
    d. shining

13. Complete the sentence with the appropriate preposition:
    I saw kittens _____ the tree.
    a. kittens
    b. I
    c. beneath
    d. tree

14. Which is the preposition in the sentence?
    We drove through the forest.
    a. drove
    b. forest
    c. we
    d. through

15. Complete the sentence with the appropriate preposition:
    They flew _____ the city.
    a. the
    b. country
    c. they
    d. over

16. Which is the preposition in the sentence?
    The cat slept beneath the bed
    a. cat
    b. slept
    c. beneath
    d. bed

17. Which of these is a preposition?
    a. Chips
    b. Coke
    c. Along

d. Burger

18. Complete the sentence with the appropriate pronouns:
Fahad studies _____ a tree _____ the lawn.
   a. under, in
   b. books, plants
   c. kittens, under
   d. reads, in

19. Complete the sentence with the appropriate preposition:
Complete this homework --------- next Friday
   a. month
   b. year
   c. until
   d. teaching

20. Which is the preposition in the sentence?
The car sped towards the gate.
   a. towards
   b. gate
   c. sped
   d. car

21. Which is the preposition in the sentence?
I put flowers by the window.
   a. window
   b. flowers
   c. put
   d. by

22. Which is the preposition in the sentence?
The train went through a tunnel.
   a. train
   b. through
   c. went
   d. tunnel

23. Complete the sentence with the appropriate preposition:
I typed ___ my laptop.
   a. computer
   b. laptop
   c. on
   d. this

24. Complete the sentence with the appropriate preposition:
This building was empty ------ a week.
   a. room
   b. walking
   c. door
   d. for

25. Which is the preposition in the sentence?
Kamran travelled across Punjab.
   a. Kamran
   b. travelled
   c. across
   d. Punjab

26. Complete the sentence with the appropriate preposition:

Hira will be home _____ Friday.
   a. because
   b. her
   c. so
   d. by

27. Complete the sentence with the appropriate preposition:
The shopkeeper was stocking jars _____ the shelves.
   a. jars
   b. because
   c. on
   d. and

28. Complete the sentence with the appropriate preposition:
He will arrive _____ 8 o'clock.
   a. time
   b. room
   c. at
   d. because

29. Complete the sentence with the appropriate preposition:
I found my book _____ a pile of papers.
   a. notebook
   b. pen
   c. lying
   d. underneath

30. Complete the sentence with the appropriate preposition:
Laila waited_____ six hours.
   a. and
   b. home
   c. long
   d. for

31. Which is the preposition in the sentence?
Sana has to reach the office before 9 am
   a. Sana
   b. reach
   c. before
   d. office

32. Which is the preposition in the sentence?
Aimen is working below.
   a. Aimen
   b. below
   c. is
   d. working

33. Which is the preposition in the sentence?
The milk was boiling on the stove.
   a. stove
   b. milk
   c. boiling
   d. on

34. Which of these is a preposition?
   a. Sky
   b. Grass
   c. Under

d.   Tree

35. Complete the sentence with the appropriate preposition:
She went ------ the house
a.   water
b.   air
c.   them
d.   inside

36. Which is the preposition in the sentence?
Tehreem went for a walk.
a.   walk
b.   for
c.   went
d.   Tehreem

37. Which in the sentence is a preposition?
The necklace was in the box.
a.   necklace
b.   box
c.   the
d.   in
e.   park
f.   we
g.   around
h.   ran

38. Which of these is a preposition?
a.   Sad
b.   Happy
c.   Hungry
d.   Between

39. Which is the preposition in the sentence?
He sat on the chair.
a.   He
b.   on
c.   Sat
d.   chair

40. Which is the preposition in the sentence?
I put soup in the bowl.
a.   soup
b.   bowl
c.   put
d.   In

41. Complete the sentence with the appropriate preposition:
Hina came to school _____ the assembly.
a.   after
b.   school
c.   bag
d.   none of these

42. Complete the sentence with the appropriate preposition:
Saad slept _____ his bedroom.
a.   bedroom
b.   in
c.   far

d.   soundly

43. Which of these is a preposition?
a.   On
b.   Books
c.   Girl
d.   Blanket

44. Complete the sentence with the appropriate preposition:
Ali sat ----- the cat
a.   beside
b.   uncle
c.   aunt
d.   boy

45. Complete the sentence with the appropriate preposition:
She went ------- school
a.   to
b.   bowl
c.   plate
d.   glass

46. Which is the preposition in the sentence?
The ball rolled between the desks
a.   ball
b.   rolled
c.   desks
d.   between

47. Which of these is a preposition?
a.   Mother
b.   Kids
c.   Brother
d.   After

48. Which is the preposition in the sentence?
She is sitting at her desk.
a.   she
b.   sitting
c.   at
d.   desk

49. Which is the preposition in the sentence?
Daniyal's family came back from Murree.
a.   Daniyal
b.   family
c.   Murree
d.   from

50. Complete the sentence with the appropriate preposition:
Ahmad is worried ------ the exam
a.   arrow
b.   mouse
c.   about
d.   Sweater

51. Complete the sentence with the appropriate preposition:
Minister will appear _____ television.
a.   kitten

b. on
c. puppy
d. because

52. Which is the preposition in the sentence?
Beautiful flowers were placed on the table
a. beautiful
b. on
c. table
d. flowers

53. Which is the preposition in the sentence?
I have been awake since 6 o'clock.
a. awake
b. I
c. have
d. since

54. Which is the preposition in the sentence?
Birds flew over the sea.
a. Birds
b. flew
c. sea
d. over

55. Complete the sentence with the appropriate preposition:
There are blankets _____ the cabinet.
a. inside
b. cupboard
c. pillows
d. shiny

56. Complete the sentence with the appropriate preposition:
I was angry _____ Ahmad.
a. furious
b. tired
c. but
d. at

57. Which is the preposition in the sentence?
They cooked the meal inside the kitchen
a. cooked
b. kitchen
c. meal
d. inside

58. Complete the sentence with the appropriate preposition:
The assembly will begin _____ 7 o'clock.
a. by
b. school
c. but
d. Time

59. Complete the sentence with the appropriate preposition:
My book was ____ history.
a. history
b. book
c. on

d. geography

60. Which is the preposition in the sentence?
The horse rode around the park.
a. park
b. horse
c. around
d. rode

61. Which is the preposition in the sentence?
Don't throw trash on the road.
a. throw
b. trash
c. on
d. road

62. Which is the preposition in the sentence?
There are apples in the fridge.
a. apples
b. fridge
c. are
d. in

63. A preposition is defined as _____
a. pairs of conjunctions that work together.
b. a word that names something, such as a person, place, thing, or idea.
c. a word or group of words used before a noun, pronoun, or phrase to link nouns, and other words, or indicate direction, introduce an object, time, place, spatial relationships in a sentence.
d. None of the above

64. Which in the sentence is a preposition?
The girls were outside playing.
a. girls
b. outside
c. the
d. playing

65. Which is the preposition in the given sentence?
I was walking to school.
a. I
b. walking
c. to
d. School

66. Which is the preposition in the sentence?
We were studying in the classroom
a. studying
b. in
c. we
d. classroom

67. Complete the sentence with the appropriate preposition:
Alina was reading ____ the lake.
a. by
b. ships
c. ducks

d. her

68. Complete the sentence with the appropriate preposition:
I ran _____ the hill.
a. up
b. water
c. walked
d. kilometers

69. Which is the preposition in the sentence?
The dog ran up the street.
a. dog
b. ran
c. street
d. up

70. Which of these is a preposition?
a. He
b. Pants
c. Car
d. Above

71. Which of these is a preposition?
a. Among
b. Red
c. Butterfly
d. Garden

72. Which of these is a preposition?
a. Fan
b. Bulb
c. Towards
d. Cooking

73. Which is the preposition in the sentence?
I will work and eat afterwards.
a. Work
b. I
c. eat
d. afterwards

74. Complete the sentence with the appropriate preposition:
The assignment isn't due _____ Wednesday.
a. Monday
b. until
c. exam
d. None of these

75. Which of these is a preposition?
a. Beneath
b. Sleepy
c. Excited
d. Laughing

76. Which is the preposition in the sentence?
She hid under the bed.
a. hid
b. bed
c. under

d. She

77. Which of these is a preposition?
a. Candle
b. boy
c. Paper
d. At

78. Complete the sentence with the appropriate preposition:
Amina is interested ------ history
a. in
b. going
c. because
d. washing

79. Complete the sentence with the appropriate prepositions:
Sara's plane lands _____ 9 o'clock, she will be home _____ 10 o'clock.
a. flies, at
b. at, by
c. today, at
d. plane, by

80. Complete the sentence with the appropriate preposition:
He slept ------ the tree
a. flying
b. under
c. apple
d. although

81. Which of these is a preposition?
a. Through
b. Swings
c. Playing
d. We

82. Which of these is a preposition?
a. Wallet
b. In
c. Chair
d. Pen

83. Which is the preposition in the sentence?
The virus spread throughout the world.
a. throughout
b. world
c. spread
d. virus

84. Which is the preposition in the sentence?
Saira's horse ran through the bushes.
a. through
b. Saira
c. horse
d. bushes

85. Which is the preposition in the sentence?
The store is across the lake
   a. store
   b. lake
   c. across
   d. the

86. Which of these is a preposition?
   a. Dancing
   b. Before
   c. Walking
   d. Tea

87. Which of these is a preposition?
   a. Father
   b. Milk
   c. To
   d. Candy

88. Which is the preposition in the sentence?
We spoke during the ceremony.
   a. spoke
   b. ceremony
   c. during
   d. we

89. Which is the preposition in the sentence?
Ahmad is playing near his house.
   a. Near
   b. house
   c. Ahmad
   d. his

90. Which of these is a preposition?
   a. Beside
   b. They
   c. Her
   d. Went

91. Which of these is a preposition?
   a. From
   b. Turkey
   c. China
   d. plane

92. Which of these is a preposition?
   a. She
   b. Inside
   c. Driving

   d. Cat

93. Complete the sentence with the appropriate preposition:
The weather was pleasant _____.
   a. pleasant
   b. nice
   c. sun
   d. outside

94. Complete the sentence with the appropriate preposition:
His bag fell _____ the well.
   a. the
   b. into
   c. and
   d. pencil

95. Which of these is a preposition?
   a. Beneath
   b. Sleepy
   c. Excited
   d. Laughing

96. Complete the sentence with the appropriate preposition:
She waited _____ the fence.
   a. the
   b. built
   c. because
   d. behind

97. Which is the preposition in the sentence?
You should walk towards the road
   a. towards
   b. road
   c. walk
   d. you

98. Which is the preposition in the sentence?
Fahad's bike fell off the cliff.
   a. Fahad
   b. bike
   c. off
   d. cliff

99. Which is the preposition in the given sentence?
I completed my work on time.
   a. on
   b. time
   c. completed
   d. work

ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: c

Explanation: Jamal was seated between Hashim and Farhan. "Between" is the appropriate preposition for the given sentence as it indicates a spatial relationship. "Chair" and "table" are nouns. "Because" is a conjunction.

Question Number: 2
Correct Option: d

Explanation: "On" is the preposition in the given sentence as it indicates place and spatial relationship. "Roof" and "Puppies" are nouns. "The" is a grammatical article.

Question Number: 3
Correct Option: d

Explanation: "Until" is the preposition in the given sentence. "Until" is typically used to indicate time. "Kitchen" is a noun and, "exhausted" and "tired" are both adjectives.

Question Number: 4
Correct Option: a

Explanation: "After" is the appropriate preposition in the given sentence as it indicates time. "Dinner" and "8pm" are both nouns while "served" is a verb.

Question Number: 5
Correct Option: a

Explanation: "Under" is the preposition in the given sentence as it indicates place and spatial relationship. "Cat" and "table" are nouns while "hiding" is a verb.

Question Number: 6
Correct Option: c

Explanation: "Out" is the preposition in the given sentence as it indicates spatial relationship. "Cage" and "birds" are nouns while "their" is a pronoun.

Question Number: 7
Correct Option: a

Explanation: "Below" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Fell" and "slipped" both are verbs while "rocks" is a noun.

Question Number: 8
Correct Option: b

Explanation: "Across" is the preposition out of the given options. "Across" is typically used to indicate spatial relationship or place. "Beautiful" And "handsome" are adjectives and "swimming" is a verb.

Question Number: 9
Correct Option: a

Explanation: "Along" is the preposition in the given sentence as it indicates spatial relationship. "Zebras" and "river" are nouns while "the" is a grammatical article.

Question Number: 10
Correct Option: b

Explanation: I am jealous of them. "Of" is the correct preposition for the given sentence as it links the adjective "jealous" with the pronoun "them". "Pencil" is a noun and "roaming" and "Sleeping" are verbs.

Question Number: 11
Correct Option: a

Explanation: The diary belongs to Jamil. "to" is the appropriate preposition in the given sentence as it links two nouns. "Lunch" and "Book" are nouns while "his" is a pronoun.

Question Number: 12
Correct Option: c

Explanation: "Above" is the preposition in the given sentence as it indicates spatial relationship. "Sun" is a noun. "Shining" is a verb and "the" is a grammatical article.

Question Number: 13
Correct Option: c

Explanation: I saw kittens beneath the tree. "Beneath" is the appropriate pronoun for the given sentence as it indicates place and spatial relationship. "Kittens" and "tree" are nouns while "I" is a pronoun.

Question Number: 14
Correct Option: d

Explanation: "Through" is the preposition in the given sentence as it indicates place and spatial relationship. "Forest" is a noun. "Drove" is a verb and "we" is a pronoun.

Question Number: 15
Correct Option: d

Explanation: They flew over the city. "Over" is the appropriate preposition in the given sentence as it indicates place and spatial relationship. "Country" is a noun while "they" is a pronoun. "The" is a grammatical article.

Question Number: 16
Correct Option: c

Explanation: Beneath" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Cat" and "bed" are both nouns while "slept" is a verb.

Question Number: 17
Correct Option: c

Explanation: "Along" is the preposition in the given sentence. "Along" is typically used to indicate place or spatial relationship. "Chips" "coke" and "burger" are all nouns.

Question Number: 18
Correct Option: a

Explanation: Fahad studies under a tree in the lawn. "Under" and "in" are the appropriate prepositions for the given sentence as they indicate spatial relationship and place.

"Kittens", "books" and "plants" are nouns while "reads" is a verb.

Question Number: 19
Correct Option: c

Explanation: Complete this homework until next Friday, "Until" is the correct preposition for the given sentence as it indicates time. "Month" and "year" are both nouns while "teaching" is a verb.

Question Number: 20
Correct Option: a

Explanation: "Towards" is the preposition in the given sentence as it indicates direction. "Gate" and "car" are nouns while "sped" is a verb.

Question Number: 21
Correct Option: d

Explanation: "By" is the preposition in the given sentence as it indicates a spatial relationship. "Window" and "flowers" are nouns while "put" is a verb.

Question Number: 22
Correct Option: b

Explanation: "Through" is the preposition in the given sentence as it indicates a spatial relationship. "Train" and "tunnel" are nouns while "went" is a verb.

Question Number: 23
Correct Option: c

Explanation: I typed on my laptop. "On" is the appropriate preposition for the given sentence as it links the verb "typed" with pronoun "my" and noun "laptop". "Computer" is a noun while "this" is a pronoun.

Question Number: 24
Correct Option: d

Explanation: This building was empty for a week. "For" is the correct preposition for the given sentence as it indicates time. "Room" and "door" are both nouns while "walking" is a verb.

Question Number: 25
Correct Option: c

Explanation: "Across" is the preposition in the given sentence as it indicates a spatial relationship. "Kamran" and "Punjab" are both nouns while "travelled" is a verb.

Question Number: 26
Correct Option: d

Explanation: Hira will be home by Friday. "By" is the appropriate preposition for the given sentence as it indicates time. "Because" and "so" are conjunctions. "Her" is a pronoun.

Question Number: 27
Correct Option: c

Explanation: The shopkeeper was stocking jars on the shelves. "On" is the appropriate preposition for the given

sentence as it indicates place. "Jars" is a noun. "Because" and "and" are conjunctions.

Question Number: 28
Correct Option: c

Explanation: He will arrive at 8:00 o'clock. "At" is the appropriate pronoun for the sentence as it indicates time. "Time" and "Room" are nouns and "because" is a coordinating conjunction.

Question Number: 29
Correct Option: d

Explanation: I found my book underneath a pile of papers. "Underneath" is the appropriate preposition for the given sentence as it indicates place and spatial relationship. "Lying" is a verb. "Notebook" and "pen" are nouns.

Question Number: 30
Correct Option: d

Explanation: Laila waited for six hours. "For" is the appropriate preposition for the given sentence as it indicates time. "Long" is an adjective while "home" is a noun. "And" is a conjunction.

Question Number: 31
Correct Option: c

Explanation: "Before" is the appropriate preposition in the given sentence as it indicates time. "Sana "and "office" are both nouns while "reach" is a verb.

Question Number: 32
Correct Option: b

Explanation: "Below" is the preposition in the given sentence as it indicates place and spatial relationship. "Working" is a verb while "is" is a verb.

Question Number: 33
Correct Option: d

Explanation: "On" is the preposition in the given sentence as it indicates place and spatial relationship. "Stove" and "milk" are nouns while "boiling" is a verb.

Question Number: 34
Correct Option: c

Explanation: "Under" is the preposition in the given sentence as it indicates place or spatial relationship. "Sky", "Grass" and "Tree" are all nouns

Question Number: 35
Correct Option: d

Explanation: She went inside the house. "Inside "is the correct preposition for the given sentence as it indicates place or spatial relationship. "Water" and "air" are nouns and "them" is a pronoun.

Question Number: 36
Correct Option: b

Explanation: "For" is the preposition in the sentence as it links the verb "went" with noun "walk". "Tehreem" is a proper noun.

Question Number: 37
Correct Option: d

Explanation: "In" is the correct preposition in the given sentence as it indicates place. "Necklace" and "box" are nouns while "the" is a grammatical article.
30Which is the preposition in the sentence?
We ran around the park.
park
we
around
ran
"Around" is the preposition in the given sentence as it indicates spatial relationship. "We" is a pronoun while "park" is a noun. "Ran" is a verb.

Question Number: 38
Correct Option: d

Explanation: "Between" is the preposition out of the given options. "Between" is typically used to indicate a place, time or special relationship. "Sad", "happy" "hungry" are all adjectives.

Question Number: 39
Correct Option: ab

Explanation: "On" is the preposition in the given sentence. "On" in the sentence indicates place. "Chair" is a noun and "He" is a pronoun. "Sat" is a verb.

Question Number: 40
Correct Option: d

Explanation: "In" is the preposition in the sentence as it indicates spatial relationship. "Soup" and "bowl" are nouns while "put" is a verb.

Question Number: 41
Correct Option: a

Explanation: Hina came to school after the assembly. "After" is the appropriate preposition for the given sentence as it indicates time. "School" and "bag" are nouns.

Question Number: 42
Correct Option: b

Explanation: Saad slept in his bedroom. "In" is the appropriate preposition for the sentence as it indicates place. "Bedroom" is a noun while "far" is an adjective. "Soundly" is a verb.

Question Number: 43
Correct Option: a

Explanation: "On" is the prepositions in the given sentence. "On" is typically used to indicate direction and place. "Girl", "books" and "blanket" are all nouns.

Question Number: 44
Correct Option: a

Explanation: Ali sat beside the cat. "Beside" is the correct preposition for the given sentence as it indicates place or spatial relationship. "Aunt" "uncle" and "boy" are all nouns.

Question Number: 45
Correct Option: a

Explanation: She went to school. "To" is the correct preposition for the given sentence as it indicates direction. "Plate" "bowl" and "glass" are all nouns.

Question Number: 46
Correct Option: d

Explanation: "Between" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Ball "and "desks" both are nouns while "rolled" is a verb.

Question Number: 47
Correct Option: d

Explanation: "After" is the preposition in the given sentence. "After" is typically used to indicate time or place "Mother", "brother" and "kids" are all nouns.

Question Number: 48
Correct Option: c

Explanation: "At" is the preposition in the given sentence as it indicates place. "She" is a pronoun. "Sitting" is a verb and "desk" is a noun.

Question Number: 49
Correct Option: d

Explanation: "From" is the preposition in the given sentence as it indicates place and spatial relationship. "Daniyal", "family" and "Murree" are all nouns.

Question Number: 50
Correct Option: c

Explanation: Ahmad is worried about the exam. "About" is the correct preposition for the given sentence as it links two nouns; "Ahmad" and "exam". "Arrow" "mouse" and "sweater" are all nouns.

Question Number: 51
Correct Option: b

Explanation: Minister will appear on television. "On "is the correct preposition for the given sentence as indicates place. "Puppy and "kitten" are both nouns and "because "is a conjunction.

Question Number: 52
Correct Option: b

Explanation: "On" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Table" and "flowers" both are nouns while "beautiful" is an adjective

Question Number: 53
Correct Option: d

Explanation: "Since" is the preposition in the given sentence as it indicates time and links the adjective "awake" with noun "6 o'clock". "I" is a pronoun and "have" is a verb.

Question Number: 54
Correct Option: d

Explanation: "Over" is the correct preposition in the given sentence as it indicates place and spatial relationship. "Flew" is a verb while "birds" and "sea" are nouns.

Question Number: 55
Correct Option: a

Explanation: There are blankets inside the cabinet. "Inside" is the appropriate preposition for the given sentence as it indicates place and spatial relationship. "Cupboard" and "pillows" are nouns while "shiny" is an adjective.

Question Number: 56
Correct Option: d

Explanation: I was angry at Ahmad. "At" is the appropriate preposition for the given sentence as it links the verb "angry" with noun "Ahmad". "Furious" and "rious" and "tired" are adjectives while "but" is a conjunction.

Question Number: 57
Correct Option: d

Explanation: "Inside" is the appropriate preposition in the given sentence as it indicates place. "Meal "and "kitchen" both are nouns while "cooked" is a verb.

Question Number: 58
Correct Option: a

Explanation: "By" is the appropriate preposition for the given sentence as it indicates time. "But" is a conjunction while "school" and "time" are both nouns.

Question Number: 59
Correct Option: c

Explanation: My book was on history. "On" is the appropriate preposition for the given sentence as it links the noun "book" with noun "history. "Geography" is a noun.

Question Number: 60
Correct Option: c

Explanation: "Around" is the preposition in the given sentence as it indicates spatial relationship. "Horse" and "park" are nouns. "Rode" is a verb.

Question Number: 61
Correct Option: c

Explanation: "On" is the preposition in the given sentence as it indicates place. "Throw" is a verb while "trash" and "road" are nouns.

Question Number: 62
Correct Option: d

Explanation: "In" is the preposition in the given sentence. "In" indicates place. "Apples" and "fridge" are nouns and "are" is a linking verb.

Question Number: 63
Correct Option: c

Explanation: A preposition is defined as a word or group of words used before a noun, pronoun, or phrase to link nouns, and other words, or indicate direction, introduce an object, time, place, spatial relationships in a sentence. Words such as to, as, on, of, at, in, near, between, opposite, underneath, beneath, under, over, from, during, among, along, through, within and by are some examples of simple prepositions. Pairs of conjunctions that work together are "coordinating conjunctions" and a word that names something, such as a person, place, thing, or idea is a "noun".

Question Number: 64
Correct Option: b

Explanation: "Outside" is the correct preposition in the given sentence as it indicates place. "Girls" is a noun while "playing" is a verb. "The" is a grammatical article.

Question Number: 65
Correct Option: c

Explanation: "To" is the preposition in the given sentence as it indicates direction. "I" is a pronoun. "Walking" is a verb and "School" is a noun.

Question Number: 66
Correct Option: b

Explanation: "In" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Studying" is a verb and "we" is a pronoun while "classroom" is a noun.

Question Number: 67
Correct Option: a

Explanation: Alina was reading by the lake. "By" is the appropriate preposition for the sentence as it indicates place and spatial relationship. "Ships" and "Ducks" are both nouns while "Her" is a pronoun.

Question Number: 68
Correct Option: a

Explanation: I ran up the hill. "Up" is the appropriate preposition for the given sentence as it indicates direction. "Walked" is a verb. "Water" and "kilometers" are nouns.

Question Number: 69
Correct Option: d

Explanation: "Up" is the preposition in the given sentence as it indicates place and spatial relationship. "Dog" and "street" are nouns, while "ran" is a verb.

Question Number: 70
Correct Option: d

Explanation: "Above" is the preposition out of the given options. "Above" is typically used to indicate a place or special relationship. "Car" and "Pants" are nouns and "He" is a pronoun.

Question Number: 71
Correct Option: a

Explanation: "Among" is the preposition in the given sentence. "Among" is typically used to indicate spatial relationship or place. "Butterfly", "red" and "garden" are all nouns.

Question Number: 72
Correct Option: c

Explanation: "Towards" is the preposition in the given sentence. "Towards" is typically used to indicate place or a direction. "Fan" and "bulb" are nouns. "Cooking" is a verb.

Question Number: 73
Correct Option: d

Explanation: "Afterwards" is the preposition in the given sentence as it indicates time. "Eat" and "work" are both verbs while "I" is a pronoun.

Question Number: 74
Correct Option: b

Explanation: The assignment isn't due until Wednesday. "Until" is the appropriate preposition for the given sentence as it indicates time. "Monday" and "exam" are nouns.

Question Number: 75
Correct Option: a

Explanation: "Beneath" is the preposition in the given sentence. "Beneath" is typically used to indicate place or spatial relationship. "Excited" and "sleepy" are adjectives. "Laughing" is a verb.

Question Number: 76
Correct Option: c

Explanation: "Under" is the preposition in the given sentence as it indicates place and spatial relationship. "She" is a pronoun while "bed" is a noun. "Hid" is a verb.

Question Number: 77
Correct Option: d

Explanation: "At" is the preposition out of the given options. "At" is typically used to indicate a place, location, or time. "Candle" and "Paper" and "Boy" are all nouns.

Question Number: 78
Correct Option: a

Explanation: Amina is interested in history. "In "is the correct preposition for the given sentence as it links adjective "interested" with noun "history". "Because" is a conjunction while "going" and "washing" are both verbs.

Question Number: 79
Correct Option: b

Explanation: Sara's plane lands at 9 o'clock, she will be home by 10 o'clock. "At" and "by" are the appropriate prepositions for the given sentence as they indicate time. "Today" and "plane" are nouns while "flies" is a verb.

Question Number: 80
Correct Option: b

Explanation: He slept under the tree. "Under" is the correct preposition for the given sentence as indicates direction. "Flying" is a verb. "Apple" is a noun and "although" is conjunction.

Question Number: 81
Correct Option: a

Explanation: "Through" is the preposition in the given sentence. "Through" is typically used to indicate place and spatial relationship. "Playing" is a verb. "Swing" is a noun and "we" is a pronoun.

Question Number: 82
Correct Option: b

Explanation: "In" is the preposition out of the given options. "In" is typically used to indicate place or time. "Wallet", "Chair" and "Pen" are all nouns.

Question Number: 83
Correct Option: a

Explanation: "Throughout" is the preposition in the given sentence as it indicates spatial relationship. "Spread" is a verb. "Virus" and "world" are both nouns.

Question Number: 84
Correct Option: a

Explanation: "Through" is the appropriate preposition in the given sentence as it indicates place or spatial relationship. "Saira", "horse" and "bushes" all are nouns.

Question Number: 85
Correct Option: c

Explanation: "Across" is the appropriate preposition in the given sentence as it indicates place or direction. "Store" and "lake" both are nouns while "the" is a grammatical article.

Question Number: 86
Correct Option: b

Explanation: "Before" is the preposition in the given sentence. "Before" is typically used to indicate place or time. "Dancing" and "walking" are verbs. "Tea" is a noun.

Question Number: 87
Correct Option: c

Explanation: "To" is the preposition in the given sentence. "To "is typically used to indicate direction or time. "Father" "Milk" and "Candy" are all nouns.

Question Number: 88
Correct Option: c

Explanation: "During" is the preposition in the given sentence as it indicates time. "Spoke" is a verb. "Ceremony" is a noun and "we" is a pronoun.

Question Number: 89
Correct Option: a

Explanation: "Near" is the preposition in the given sentence. "Near" indicates place and spatial relationship. "Ahmad" and "House" are nouns. "His" is a pronoun.

Question Number: 90
Correct Option: a

Explanation: "Beside" is the preposition out of the given options. "Beside" is typically used to indicate a place, location and special relationship. "They" and "Her" are pronouns and "Went" is a verb.

Question Number: 91
Correct Option: a

Explanation: "From" is the preposition in the given sentence "From" similar to "on" similar to "By" is a preposition in the sentence, indicating a direction and place. "boy", "bed" and "school" are all nouns.

Question Number: 92
Correct Option: b

Explanation: "Inside" is the preposition out of the given options. "Inside" is typically used to indicate a place or spatial relationship. "She" is a pronoun, "driving" is a verb and "cat" is a noun.

Question Number: 93
Correct Option: d

Explanation: The weather was pleasant outside. "Outside" is the appropriate preposition for the given sentence as it indicates place and spatial relationship. "Pleasant" and "nice" are adjectives while "sun" is a noun.

Question Number: 94
Correct Option: b

Explanation: His bag fell into the well. "Into" is the appropriate preposition in the given sentence as it indicates place and spatial relationship. "The" is a grammatical article while "and" is a conjunction. "Pencil" is a noun.

Question Number: 95
Correct Option: a

Explanation: "Beneath" is the preposition in the given sentence. "Beneath" is typically used to indicate place or spatial relationship. "Excited" and "sleepy" are adjectives. "Laughing" is a verb.

Question Number: 96
Correct Option: d

Explanation: She waited behind the fence. "Behind" is the appropriate preposition for the given sentence as it indicates place and spatial relationship. "The" is a grammatical article and "because" is a conjunction. "Built" is a verb.

Question Number: 97
Correct Option: a

Explanation: "Towards" is the appropriate preposition in the given sentence as it indicates direction. "Walk" is a verb. "Road" is a noun while "you" is a pronoun.

Question Number: 98
Correct Option: c

Explanation: "Off" is the preposition in the given sentence as it indicates spatial relationship. "Fahad", "bike" and "cliff" are all nouns.

Question Number: 99
Correct Option: a

Explanation: "On" is the preposition in the given sentence as it indicates times. "Time" and "work" are nouns while "completed" is a verb.

GRAMMAR

1. Which of the following is the correct Indirect Speech of the following sentence
   She said, 'I have been exercising regularly.'
   a. She said that she will be exercising regularly.
   b. She said that she had been exercising regularly.
   c. She says that she will be exercising regularly.
   d. She says that she might be exercising regularly.

2. Choose the correct response. 'They have been there'
   They said that they ___ there.
   a. Had been
   b. Have been
   c. Will be

3. Which of the following is the correct Indirect Speech of the following sentence
   Natasha says, 'It is too hot outside.'
   a. Natasha was saying that it will be too hot outside.
   b. Natasha says that it is too hot outside.
   c. Natasha said that it was too hot outside.
   d. Natasha said that it will be too hot outside.

4. Change the following Indirect Speech sentence into Direct Speech
   Sana says that she had been absent for a reason.
   a. Sana says, 'I have been absent for a reason.'
   b. Sana said, 'I will be absent for a reason.'
   c. Sana said, 'I might be absent for a reason.'

5. Which of the following is the correct Indirect Speech of the following sentence
   Mahnoor said, 'I have finished my book.'
   a. Mahnoor said that she will finish her book.
   b. Mahnoor says that she will finish her book.
   c. Mahnoor said that she has finished her book.
   d. Mahnoor says that she shall finish her book.

6. Change the following Indirect Speech sentence into Direct Speech
   Raza said that he was working.
   a. Raza said, 'I am working.'
   b. Raza says, 'I was working.'
   c. Raza says, 'I will be working.'

7. Which of the following is the correct Indirect Speech of the following sentence
   They said, 'They take cooking classes every week.'
   a. They said that they took cooking classes every week.
   b. They says that they take cooking classes every week.
   c. They say that they will take cooking classes every week.
   d. They said that they should take cooking classes every week.

8. Change the following Indirect Speech sentence into Direct Speech
   The nanny said that he had finished his homework.
   a. The nanny said, 'He has finished his homework.'
   b. The nanny says, 'He will finish his homework.'
   c. The nanny says, 'He could finish his homework.'

9. Which of the following is the correct Indirect Speech of the following sentence
   Amna said, 'I took the dog out.'
   a. Amna said that she had taken the dog out.
   b. Amna said that she will take the dog out.
   c. Amna says she shall take the dog out.
   d. Amna said that she might take the dog out.

10. Which of the following is the correct Indirect Speech of the following sentence
    She said, 'I ate the dinner.'
    a. She says that she will eat dinner.
    b. She said that she had eaten the dinner
    c. She says that she might eat dinner.
    d. She says that she had eaten dinner.

11. Which of the following is the correct Indirect Speech of the following sentence
    Nayyab said, 'Noor will finish the task.'
    a. Nayyab said that Noor would finish the task.
    b. Nayyab said that Noor might finish the task.
    c. Nayyab says that Noor would finish the task.
    d. Nayyab will say that Noor might finish the task.

12. Change the following Indirect Speech sentence into Direct Speech
    Ben said that he had been very tired.
    a. Ben said, 'I had been very tired.'
    b. Ben said, 'I have been very tired.'
    c. Ben said, 'I might be very tired.'

13. Change the following Indirect Speech sentence into Direct Speech
    Naima said that she had taken offense.
    a. Naima said, 'I have taken offense.'
    b. Naima says, 'I will take offense.'
    c. Naima said, 'I shall take offense.'

14. Which of the following is the correct Indirect Speech of the following sentence
    He says, 'He is a little busy.'
    a. He says that he is a little busy
    b. He said that he is a little busy
    c. He says that he will be a little busy.
    d. He says that he was a little busy.

15. Which of the following is the correct Indirect Speech of the following sentence
    They said, 'They have finished dinner.'
    a. They said that they had finished dinner.
    b. They say that they will finish dinner.
    c. They said that they will finish dinner.
    d. They say that they will finish dinner.

16. Change the following Indirect Speech sentence into Direct Speech
    They said that they had planned a picnic.
    a. They said, 'We will plan a picnic.'
    b. They said, 'We have planned a picnic.'
    c. They say, 'We shall plan a picnic.'

17. Which of the following is the correct Indirect Speech of the following sentence

Laila said, 'I slept early.'
a.   Laila said that she had slept early.
b.   Laila said that she will sleep early.
c.   Laila will say that she slept early.
d.   Laila said that she might sleep early.

18. Which of the following is the correct Indirect Speech of the following sentence
They said, 'We will do yoga.'
a.   They said that they might do yoga.
b.   They say that they will do yoga.
c.   They said that they would do yoga.
d.   They say that they have done yoga.

19. Which of the following is the correct Indirect Speech of the following sentence
Ahmed said, 'I have taken the class.'
a.   Ahmed said that he had taken the class
b.   Ahmed says that he has taken the class.
c.   Ahmed said that he will take the class
d.   Ahmed says that he might take the class.

20. Change the following Indirect Speech sentence into Direct Speech
He said that he had finished the school project.
a.   He said, 'I will finish the school project.'
b.   He said, 'I have finished the school project.'
c.   He said, 'I could finish the school project.'

21. Choose the correct response. 'Open the door!'
He asked me ____ the door.
a.   Open
b.   Opened
c.   To open

22. Which of the following is the correct Indirect Speech of the following sentence
He said, 'I have been nominated for the award.'
a.   He says that he will be nominated for the award.
b.   She said that he might be nominated for the award.
c.   He said that he had been nominated for the award.
d.   He says that he has been nominated for the award.

23. Which of the following is the correct Indirect Speech of the following sentence
She said, 'I will go to the trip.'
a.   She said that she would go to the trip.
b.   She says that she will go to the trip.
c.   She says the she might go to the trip.
d.   She said that she will have to go to the trip.

24. Which of the following is the correct Indirect Speech of the following sentence
Maham says, 'I wrote a poem.'
a.   Maham says that she wrote a poem.
b.   Maham said that she wrote a poem.
c.   Maham says that she will write a poem.
d.   Maham said that she has written a poem.

25. Which of the following is the correct Indirect Speech of the following sentence
They said, 'They have been working tirelessly on the thesis.'
a.   They said that they had been working tirelessly on the thesis.

b.   They says that they had been working tirelessly on the thesis.
c.   They said that they will be working tirelessly on the thesis.
d.   They said that they shall be working tirelessly on the thesis.

26. Change the following Indirect Speech sentence into Direct Speech
She said that she was going away.
a.   She says, 'I will go away.'
b.   She said, 'I will go away.'
c.   She said, 'I am going out'

27. Choose the correct response. 'She will call you'
She said that she ____ call him.
a.   Would
b.   Will
c.   Would have

28. Change the following Indirect Speech sentence into Direct Speech
He said that he had been sleeping a lot.
a.   He said, 'I have been sleeping a lot.'
b.   He says, 'I will be sleeping a lot.'
c.   He said, 'I might sleep a lot.'

29. Change the following Indirect Speech sentence into Direct Speech
Haris said that he was working.
a.   Haris says, 'He is working.'
b.   Haris said, 'I am working.'
c.   Haris said, 'I will be working.'

30. Change the following Indirect Speech sentence into Direct Speech
The Pope said that he had given the sermon.
a.   The Pope said, 'I had given the sermon.'
b.   The Pope said, 'I have given the sermon.'
c.   The Pope said that I have given the sermon.
d.   The Pope said, 'He have given the sermon.'

31. Choose the correct response. She says, 'I am sad'
She says that she ____ sad.
a.   Is
b.   Has been
c.   Would be

32. Which of the following is the correct Indirect Speech of the following sentence
They said, 'We watched a movie'
a.   They said that they might watch a movie.
b.   They said that they will watch a movie.
c.   They said that they had watched a movie.
d.   They say that they had watched a movie.

33. Which of the following is the correct Indirect Speech of the following sentence
Haider says, 'I finished the task on time.'
a.   Haider says that he will finish the task on time.
b.   Haider says that he shall finish the task on time.
c.   Haider said that he might finish the task on time.
d.   Haider says that he finished the task on time.

34. Change the following Indirect Speech sentence into Direct Speech
Omer said that he has a new computer.

a. Omer said, 'I have a new computer.'
b. Omer says, 'I have had a new computer.'
c. Omer will say, 'I will have a new computer.'

35. Change the following Indirect Speech sentence into Direct Speech
She said that she was unwell.
a. She said, 'I will be unwell.'
b. She said, 'I am unwell.'
c. She said, 'I might be unwell.'

36. Which of the following is the correct Indirect Speech of the following sentence
She said, 'She is walking to the house every day.'
a. She said that she will be walking to the house every day.
b. She says that she might walk to the house every day.
c. She said that she was walking to the house every day.
d. She said that she has been walking to the house every day.

37. Which of the following is the correct Indirect Speech of the following sentence
He said, 'I stood outside for an hour.'
a. He said that he had stood outside for an hour.
b. He said that he might stand outside for an hour.
c. He says that he had stood outside for an hour.
d. He says that he will stand outside for an hour.

38. Choose the correct response. He said, 'I will be studying tomorrow'
He said that he _____ tomorrow.
a. Will be
b. Would be
c. Will study

39. Which of the following is the correct Indirect Speech of the following sentence
Kamran said, 'They have been visiting daily.'
a. Kamran said that they had been visiting daily.
b. Kamran will say that they have been visiting daily.
c. Kamran says that they are visiting regularly.
d. Kamran says that they might be visiting regularly.

40. Change the following Indirect Speech sentence into Direct Speech
The President says that he had helped the nation.
a. The President says, 'I have help the nation.'
b. The president says, 'I have helped the nation.'
c. The President says, 'I might have helped the nation.'
d. The President says, 'He has helped the nation.'

41. Change the following Indirect Speech sentence into Direct Speech
He said that he was prepared.
a. He said, 'I am prepared.'
b. He said, 'I was prepared.'
c. He said, 'I am prepare.'

42. Change the following Indirect Speech sentence into Direct Speech
Ali said that he will sing.
a. The Ali said, "He will sing.'
b. Ali said, 'I will sing.'
c. Ali said, 'He will sing.'

d. Ali said, 'I will sang.'

43. Choose the correct response. "She will come today"
She said that she _____ today.
a. Is coming
b. Will come
c. Would come

44. Which of the following is the correct Indirect Speech of the following sentence
They said, 'They have come home.'
a. They said that they will come home.
b. They said that they had come home.
c. They say that they will come home
d. They say that they might come home.

45. Which of the following is the correct Indirect Speech of the following sentence
He said, 'I will make a pie.'
a. He says that he will have to make a pie.
b. He said that he must make a pie.
c. He said that he would make a pie.
d. He says that he will make a pie.

46. Which of the following is the correct Indirect Speech of the following sentence
William says, 'I am working on my school project.'
a. William says that he will be working on a school project.
b. William says that he was working on a school project.
c. William will say that he is working on a school project.
d. William says that he is working on a school project.

47. Which of the following is the correct Indirect Speech of the following sentence
She says, 'She cleaned her room.'
a. She says that she cleaned her room.
b. She said that she cleans her room.
c. She was saying that she has cleaned her room.
d. She said that she will clean her room.

48. Change the following Indirect Speech sentence into Direct Speech
They say that they had done the task.
a. They say, 'They have done the task.'
b. They say, 'They will have done the task.'
c. They say, 'We have done the task.'
d. They say, 'Us have done the task.'

49. Change the following Indirect Speech sentence into Direct Speech
My mother said that she was cooking.
a. My mother says, 'I will be cooking.'
b. My mother says, 'I might cook.'
c. My mother said, 'I am cooking.'

50. Change the following Indirect Speech sentence into Direct Speech
He explained that he was late because of the accident.
a. He explained, 'I will be late because of the accident.'
b. He explained, 'I am late because of the accident.'
c. He explained, 'I could be late because of the accident.'

ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: c

Explanation: the correct answer is 'c' because in the Direct Speech, Present Perfect Continuous Tense is being used, which will be converted to Past Perfect Continuous Tense in the Indirect Speech. 'Have been' and 'has been' will change to 'has been'.

Question Number: 2
Correct Option: a

Question Number: 3
Correct Option: b

Explanation: the correct answer is 'b' because Natasha is talking in present tense about an action that is currently happening. In the Indirect Speech, the message is being conveyed in the same tense without any change in the meaning.

Question Number: 4
Correct Option: a

Explanation: the correct answer is 'a' because Past Perfect Continuous Tense will change into Present Perfect Continuous Tense. 'Had been' will change into 'have been'.

Question Number: 5
Correct Option: c

Explanation: The correct answer is 'c' because in the Direct Speech Present Perfect Tense is being used. By this rule, the tense will change to Past Perfect Tense in the Indirect Speech. 'Have' will change to 'had'.

Question Number: 6
Correct Option: a

Explanation: the correct answer is 'a' because the present form of 'was' is 'am'. Simple Present Tense changes to Simple Past Tense.

Question Number: 7
Correct Option: a

Explanation: The correct answer is 'a' because in the Direct Speech, Present Indefinite Tense is being used. Hence, in the Indirect Speech, it will change into Past Indefinite Tense by the rule.

Question Number: 8
Correct Option: a

Explanation: the correct answer is 'a' because Present Perfect Tense changes to Past Perfect Tense. 'had' will change to 'has'.

Question Number: 9
Correct Option: a

Explanation: The correct answer is 'a' because Past Indefinite Tense will change to Past Perfect Tense as a rule. 'Took' will change to 'had taken'.

Question Number: 10
Correct Option: b

Explanation: The correct answer is 'b' because Past Indefinite Tense will change to Past Perfect Tense as a rule. 'ate' will change to 'had eaten'.

Question Number: 11
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, Future Tense is being used, which will be converted into Indirect Speech by changing 'shall' and 'will' into 'would'.

Question Number: 12
Correct Option: a

Explanation: the correct answer is 'a' because Past Perfect Continuous Tense will change into Present Perfect Continuous Tense. 'Had been' will change into 'have been'.

Question Number: 13
Correct Option: a

Explanation: the correct answer is 'a' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'.

Question Number: 14
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, the boy is talking in present tense. In the Indirect Speech, the message is being conveyed in the same tense without any change in the meaning.

Question Number: 15
Correct Option: a

Explanation: The correct answer is 'a' because in the Direct Speech Present Perfect Tense is being used. By this rule, the tense will change to Past Perfect Tense in the Indirect Speech. 'Have' will change to 'had'.

Question Number: 16
Correct Option: b

Explanation: the correct answer is 'b' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'.

Question Number: 17
Correct Option: a

Explanation: The correct answer is 'a' because Past Indefinite Tense will change to Past Perfect Tense as a rule. 'Slept' will change to 'had slept'.

Question Number: 18
Correct Option: c

Explanation: the correct answer is 'c' because in the Direct Speech, Future Tense is being used, which will be converted into Indirect Speech by changing 'shall' and 'will' into 'would'.

Question Number: 19
Correct Option: a

Explanation: The correct answer is 'a' because in the Direct Speech Present Perfect Tense is being used. By this rule, the tense will change to Past Perfect Tense in the Indirect Speech. 'Have' will change to 'had'.

Question Number: 20
Correct Option: b

Explanation: the correct answer is 'b' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'.

Question Number: 21
Correct Option: c

Explanation:
Question Number: 22
Correct Option: c

Explanation: the correct answer is 'c' because in the Direct Speech, Present Perfect Continuous Tense is being used, which will be converted to Past Perfect Continuous Tense in the Indirect Speech. 'Have been' and 'has been' will change to 'has been'.

Question Number: 23
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, Future Tense is being used, which will be converted into Indirect Speech by changing 'shall' and 'will' into 'would'.

Question Number: 24
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, the reporting verb is in Past Tense, which is why the reported verb will also be changed accordingly.

Question Number: 25
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, Present Perfect Continuous Tense is being used, which will be converted to Past Perfect Continuous Tense in the Indirect Speech. 'Have been' and 'has been' will change to 'has been'.

Question Number: 26
Correct Option: c

Explanation: the correct answer is 'c' because Past Continuous Tense will change into Present Continuous Tense.

Question Number: 27
Correct Option: a

Explanation: the correct answer is 'a' because 'will' will change to 'would'.

Question Number: 28
Correct Option: a

Explanation: the correct answer is 'a' because Past Perfect Continuous Tense will change into Present Perfect Continuous Tense. 'Had been' will change into 'have been'.

Question Number: 29
Correct Option: b

Explanation: the correct answer is 'b' because Past Continuous Tense will change into Present Continuous Tense.

Question Number: 30
Correct Option: b

Explanation: the correct answer is 'b' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'. Moreover, 'he' changes to 'I' in direct report as he's talking about himself.

Question Number: 31
Correct Option: a

Explanation: the correct answer is 'a' because the direct speech is completely in present tense, which will not change in the indirect speech either.

Question Number: 32
Correct Option: c

Explanation: The correct answer is 'c' because Past Indefinite Tense will change to Past Perfect Tense as a rule. 'Watched' will change to 'had watched'.

Question Number: 33
Correct Option: d

Explanation: the correct answer is 'd' because in the Direct Speech, the reporting verb is in Past Tense, which is why the reported verb will also be changed accordingly.

Question Number: 34
Correct Option: a

Explanation: the correct answer is 'a' because Past Continuous Tense will change into Present Continuous Tense.

Question Number: 35
Correct Option: b

Explanation: the correct answer is 'b' because the present form of 'was' is 'am'. Simple Present Tense changes to Simple Past Tense.

Question Number: 36
Correct Option: c

Explanation: the correct answer is 'c' because in the Direct Speech, Present Indefinite Tense is being used. Hence, in the

Indirect Speech, it will change into Past Indefinite Tense by the rule. 'Is' will be changed into 'was.'

Question Number: 37
Correct Option: a

Explanation: The correct answer is 'a' because Past Indefinite Tense will change to Past Perfect Tense as a rule. 'Stood' will change to 'had stood'.

Question Number: 38
Correct Option: b

Explanation:
Question Number: 39
Correct Option: a

Explanation: the correct answer is 'a' because in the Direct Speech, Present Perfect Continuous Tense is being used, which will be converted to Past Perfect Continuous Tense in the Indirect Speech. 'Have been' and 'has been' will change to 'has been'.

Question Number: 40
Correct Option: b

Explanation: the correct answer is 'b' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'. Moreover, 'he' changes to 'I' In direct report as he's talking about himself.

Question Number: 41
Correct Option: a

Explanation: the correct answer is 'a' because the present form of 'was' is 'am'. Simple Present Tense changes to Simple Past Tense. Option 'c' stands incorrect because of 'prepare'. Prepared is correct.

Question Number: 42
Correct Option: b

Explanation: The correct answer is 'b'. Option 'a' is incorrect because of 'the', option 'c' is incorrect because in reported speech, 'he' changes to 'I' and option 'd' has wrong form of verb.

Question Number: 43
Correct Option: c

Explanation: the correct answer is 'c' because 'will come' will change to 'would come'.

Question Number: 44
Correct Option: b

Explanation: the correct answer is 'b' because Past Indefinite Tense will change to Past Perfect Tense. 'Have' will change to 'had'.

Question Number: 45
Correct Option: c

Explanation: the correct answer is 'c' because in the Direct Speech, Future Tense is being used, which will be converted into Indirect Speech by changing 'shall' and 'will' into 'would'.
Question Number: 46
Correct Option: d

Explanation: the correct answer is 'd' because in the Direct Speech, William is talking in present tense about an action he is currently performing. In the Indirect Speech, the message is being conveyed in the same tense without any change in the meaning.

Question Number: 47
Correct Option: a

Explanation: The correct answer is 'a' because in the Direct Speech, the reporting verb is in Past Tense, which is why the reported verb will also be changed accordingly.

Question Number: 48
Correct Option: c

Explanation: the correct answer is 'c' because Past Perfect tense will change into Present Perfect Tense. 'had' will change to 'have'. Moreover, 'they' changes to 'we' in direct report.

Question Number: 49
Correct Option: c

Explanation: the correct answer is 'c' because Present Continuous Tense changes to Past Continuous Tense. 'Was' will change to 'am'.

Question Number: 50
Correct Option: b

Explanation: the correct answer is 'b' because Present Continuous Tense changes to Past Continuous Tense. 'Was' will change to 'am'.

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PRACTICE EXERCISE

1. Choose the correct sentence from the options given.
   - a. I have not written this article.
   - b. I has not written this article.
   - c. I have not wrote this article.
   - d. I has not wrote this article.

2. Choose the correct sentence from the options given.
   - a. Are you goes out for dinner?
   - b. Are you going out for dinner?
   - c. Are you go out for dinner?
   - d. Is you going out for dinner?

3. Choose the correct sentence from the options given.
   - a. The baby is sleeps in his mother's lap.
   - b. The baby are sleep in his mother's lap.
   - c. The baby is sleeping in his mother's lap.
   - d. The baby is slept in his mother's lap.

4. Choose the correct sentence from the options given.
   - a. She will not has been washed dishes for the dinner.
   - b. She will not have been washing dishes for the dinner.
   - c. She will not have been wash dishes for the dinner.
   - d. She will not have been washed dishes for the dinner.

5. Choose the correct sentence from the options given.
   - a. She will not sing a song here.
   - b. She will not sang a song here.
   - c. She will not sung a song here.
   - d. She shall not sung a song here.

6. Choose the correct sentence from the options given.
   - a. Will you be taking this exam?
   - b. Will you be take this exam?
   - c. Will you be took this exam?
   - d. Will you be taken this exam?

7. Choose the correct sentence from the options given.
   - a. He will be came here for the preparations.
   - b. He will be coming here for the preparations.
   - c. He will be come here for the preparations.
   - d. He will coming here for the preparations.

8. Choose the correct sentence from the options given.
   - a. They will have been sleep for two hours.
   - b. They will have been sleeping for two hours.
   - c. They will have been slept for two hours.
   - d. They will has been sleep for two hours.

9. Choose the correct sentence from the options given.
   - a. I has been writing this book for one year.
   - b. I have been write this book for one year. c)
   - c. I have been writing this book for one year.
   - d. I have been wrote this book for one year.

10. Choose the correct sentence from the options given.
    - a. He worked very hard to earn this position.
    - b. He had work very hard to earn this position.
    - c. He has work very hard to earn this position.
    - d. He had worked very hard to earn this position.

11. Choose the correct sentence from the options given.

- a. I shall bought her a nice car.
- b. I shall buy her a nice car.
- c. I shall brought her a nice car.
- d. I shall took her her nice car.

12. Choose the correct sentence from the options given.
    - a. I have not been sleeping for many days because of the hectic routine.
    - b. I has no been sleeping for many days because of the hectic routine.
    - c. I am not been sleeping for many days because of the hectic routine.
    - d. I have not sleeping for man days because of the hectic routine.

13. Choose the correct sentence from the options given.
    - a. He is going to play football after the school.
    - b. He are going to play football after the school.
    - c. He is not go to play football after the school.
    - d. He is not goes to play football after the school.

14. Choose the correct sentence from the options given.
    - a. Ali had gone before Sameer reach.
    - b. Ali had went before Sameer reach.
    - c. Ali had gone before Sameer reached.
    - d. Ali had went before Sameer reached.

15. Choose the correct sentence from the options given.
    - a. They do not work.
    - b. They do not worked.
    - c. They does not worked.
    - d. They does not have worked.

16. Choose the correct sentence from the options given.
    - a. He will be feeling better tomorrow.
    - b. He will be feel better tomorrow.
    - c. He will be felt better tomorrow
    - d. He shall be feel better tomorrow.

17. Choose the correct sentence from the options given.
    - a. Has you ever been to this restaurant?
    - b. Has you ever to this restaurant?
    - c. Have you ever been to this restaurant?
    - d. Has you been to a restaurant?

18. Choose the correct sentence from the options given.
    - a. He sings.
    - b. He does sings.
    - c. He did sings.
    - d. He do sings.

19. Choose the correct sentence from the options given.
    - a. Had the kids been doing their homework?
    - b. Had the kids been done their homework?
    - c. Have the kids doing their homework?
    - d. Has the kids doing their homework?

20. Choose the correct sentence from the options given.
    - a. This do not mean that I am wrong.
    - b. This does not mean that I am wrong.
    - c. This mean that I am wrong.
    - d. This means that I do am wrong.

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21. Choose the correct sentence from the options given.
    a. Kids has not eating healthy for a month.
    b. Kids had not been eating healthy for a month.
    c. Kids had not eating healthy for a month.
    d. Kids have not been ate healthy for a month.

22. Choose the correct sentence from the options given.
    a. Will you brought some chocolates for me?
    b. Will you bought some chocolates for me?
    c. Will you bring some chocolates for me?
    d. Shall you brought some chocolates for me?

23. Choose the correct sentence from the options given.
    a. She did not go to shopping.
    b. She did go for shopping.
    c. She did went to shopping.
    d. She did not went to shopping.

24. Choose the correct sentence from the options given.
    a. You has had a beautiful past.
    b. You has a beautiful past.
    c. You have had a beautiful past.
    d. You have live a beautiful past.

25. Choose the correct sentence from the options given.
    a. I had been applying for a job since November.
    b. I had been applied for this job since November.
    c. I had been apply for this job since November.
    d. I had applying for this job since November.

26. Choose the correct sentence from the options given.
    a. Will he has wrote an article?
    b. Will he have wrote an article?
    c. Will he have written an article?
    d. Will he have write an article?

27. Choose the correct sentence from the options given.
    a. Had you thought about your future?
    b. Had you think about your future?
    c. Has you thought about your future?
    d. Have you think about your future?

28. Choose the correct sentence from the options given.
    a. She was hosting a lot of parties.
    b. She were hosting a lot of parties.
    c. She was host a lot of parties.
    d. She was hosted a lot of parties.

29. Choose the correct sentence from the options given.
    a. Have he finished his homework?
    b. Has he finished his homework?
    c. Has he finish his homework?
    d. Has he finish his homework?

30. Choose the correct sentence from the options given.
    a. She will not be enjoying with you.
    b. She will not be enjoy with you.
    c. She will not enjoying with you .
    d. She will not be enjoyed with you.

31. Choose the correct sentence from the options given.
    a. He has been ill for a week.
    b. He have been ill for a week.
    c. He have ill for a weak.
    d. He has ill for a weak.

32. Choose the correct sentence from the options given.
    a. She were preparing for the presentation.
    b. She was preparing for the presentation.
    c. she were prepared for the presentation.
    d. She was been prepare for the presentation.

33. Choose the correct sentence from the options given.
    a. Will he started a new business?
    b. Will he start a new business?
    c. shall he started a *new business*?
    d. Shall he be start a new business?

34. Choose the correct sentence from the options given.
    a. He do not go to school.
    b. He does goes to school.
    c. He does not goes to school.
    d. He does not go to school.

35. Choose the correct sentence from the options given.
    a. She have lived in this house all her life.
    b. She has lived in this house all her life.
    c. She have live in this house all her life.
    d. She has live in this house all her life.

36. Choose the correct sentence from the options given.
    a. The lizard was not running toward you.
    b. The lizard were not running toward you.
    c. The lizard was not ran toward you.
    d. The lizard was not ran towards you.

37. Choose the correct sentence from the options given.
    a. He did not come to this room.
    b. He did not came to this room.
    c. He did not coming to this room.
    d. He has not come to this room.

38. Choose the correct sentence from the options given.
    a. I had working on this project since July.
    b. I has working on this project since July.
    c. I had been working on this project since July.
    d. I had been worked on this project since July.

39. Choose the correct sentence from the options given.
    a. You will have completed your task.
    b. You will has complete your task.
    c. You will have complete your task.
    d. You will have completing your task.

40. Choose the correct sentence from the options given.
    a. You have qualify the exam.
    b. You qualified the exam.
    c. You did qualified the exam.
    d. You did qualify the exam.

41. Choose the correct sentence from the options given.
    a. They do not hang out.
    b. They does not hang out.
    c. They does not hangs out.
    d. They do not hangs out.

42. Choose the correct sentence from the options given.
    a. Did she called?
    b. Did she call?
    c. Did she has called?
    d. Did she has call?

43. Choose the correct sentence from the options given.
    a. Will he have been dating her for five years?
    b. Will he has been date her for five years?
    c. Will he dating her for five years?
    d. Will he be date her for five years?

44. Choose the correct sentence from the options given.
    a. We shall have gone to the office.
    b. We shall has went to the office.
    c. We shall have go the office.
    d. We shall has go to the office.

45. Choose the correct sentence from the options given.
    a. Will she have been teaching kids for a year?
    b. Will she has been teaching kids for a year?
    c. Will she have been teach kids for a year?
    d. Will she has been teach kids for a year?

46. Choose the correct sentence from the options given.
    a. He will have took the test.
    b. He will has taken this exam.
    c. He will have taken this exam
    d. He will had taken this exam.

47. Choose the correct sentence from the options given.
    a. I am talking too much.
    b. I am talk too much.
    c. I are talking too much.
    d. I am will be talking too much.

48. Choose the correct sentence from the options given.
    a. They were working together.
    b. They was working together.
    c. They were work together.
    d. They was work together.

49. Choose the correct sentence from the options given.
    a. Ali were sleeping when Sara entered the room.
    b. Ali was sleeping when Sara entered the room.
    c. Ali was slept when Sara entered the room.
    d. Ali were slept when Sara entered the room.

50. Choose the correct sentence from the options given.
    a. I had not tell him the truth
    b. I has not tell him the truth.
    c. I had not told him the truth.
    d. I have not tell him the truth.

ANSWERS AND EXPLANATIONS

Question Number: 1
Correct Option: a

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

Question Number: 2
Correct Option: b

Explanation: this is present continuous tense. It tells about something that will or will not happen in the near future or is happening right now. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

Question Number: 3
Correct Option: c

Explanation: this is present continuous tense. It tells about something happening right now. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

Question Number: 4
Correct Option: b

Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

Question Number: 5
Correct Option: a

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, they) but this rule doesn't really apply now.

Question Number: 6
Correct Option: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

Question Number: 7
Correct Option: b

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

Question Number: 8
Correct Option: b

Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

Question Number: 9
Correct Option: c

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. . Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

Question Number: 10
Correct Option: d

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

Question Number: 11
Correct Option: b

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, they) but this rule doesn't really apply now.

Question Number: 12
Correct Option: a

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. . Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

Question Number: 13
Correct Option: a

Explanation: this is present continuous tense. It tells about something that will or will not happen in the near future. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

Question Number: 14
Correct Option: c

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

Question Number: 15
Correct Option: a

Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

Question Number: 16
Correct Option: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

Question Number: 17
Correct Option: c

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

Question Number: 18
Correct Option: a

Explanation: This is present indefinite tense. A present indefinite tense use do/ does in only negative and interrogative sentences. In affirmative sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

Question Number: 19
Correct Option: b

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

Question Number: 20
Correct Option: b

Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

Question Number: 21
Correct Option: b

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

Question Number: 22
Correct Option: c

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. Shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, you, they) but this rule doesn't really apply now.

Question Number: 23
Correct Option: a

Explanation: This is past indefinite tense. It tells about an event that occurred in the past.It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

Question Number: 24
Correct Option: c

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

Question Number: 25
Correct Option: a

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

Question Number: 26
Correct Option: c

Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

Question Number: 27
Correct Option: a

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

Question Number: 28
Correct Option: a

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

Question Number: 29
Correct Option: b

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

Question Number: 30
Correct Option: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

Question Number: 31
Correct Option: a

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

Question Number: 32
Correct Option: b

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

Question Number: 33
Correct Option: b

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. Shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, you, they) but this rule doesn't really apply now.

Question Number: 34
Correct Option: d

Explanation: This is present indefinite tense. A present indefinite tense use does/ do in only negative and interrogative sentences. In affirmative sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

Question Number: 35
Correct Option: b

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb.

Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

Question Number: 36
Correct Option: a

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

Question Number: 37
Correct Option: a

Explanation: This is past indefinite tense. It tells about an event that occurred in the past. It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

Question Number: 38
Correct Option: c

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

Question Number: 39
Correct Option: a

Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

Question Number: 40
Correct Option: b

Explanation: This is past indefinite tense. It tells about an event that occurred in the past. It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

Question Number: 41
Correct Option: a

Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

Question Number: 42
Correct Option: b

Explanation: This is past indefinite tense. It tells about an event that occurred in the past. It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

Question Number: 43
Correct Option: a

Explanation: this is future perfect continuous tense. It uses present participle (1ˢᵗ form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

Question Number: 44
Correct Option: a

Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

Question Number: 45
Correct Option: a

Explanation: this is future perfect continuous tense. It uses present participle (1ˢᵗ form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

Question Number: 46
Correct Option: c

Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

Question Number: 47
Correct Option: a

Explanation: this is present continuous tense. It tells about something that will or will not happen in the near future or is happening right now. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

Question Number: 48
Correct Option: a

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2ⁿᵈ person singular (you, your, yours) and 1ˢᵗ and 3ʳᵈ person plural (we, they).

Question Number: 49
Correct Option: b

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2ⁿᵈ person singular (you, your, yours) and 1ˢᵗ and 3ʳᵈ person plural (we, they).

Question Number: 50
Correct Option: c

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

GRAMMATICALLY CORRECT SENTENCES

Grammar is a very important component of English which needs to be paid attention to. In the following question statements, one of the given options is grammatically correct. Choose the grammatically correct sentence from the options given.

1.
   a) He sings.
   b) He does sings.
   c) He did sings.
   d) He do sings.
   Correct Answer: a
   Explanation: This is present indefinite tense. A present indefinite tense use do/ does in only negative and interrogative sentences. In affirmative sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

2.
   a) He do not go to school.
   b) He does goes to school.
   c) He does not goes to school.
   d) He does not go to school.
   Correct Answer: d
   Explanation: This is present indefinite tense. A present indefinite tense use does/ do in only negative and interrogative sentences. In affirmative sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

3.
   a) They do not hang out.
   b) They does not hang out.
   c) They does not hangs out.
   d) They do not hangs out.
   Correct sentence: a
   Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

4.
   a) This do not mean that I am wrong.
   b) This does not mean that I am wrong.
   c) This mean that I am wrong.
   d) This means that I do am wrong.
   Correct Answer: b
   Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s, es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

5.
   a) The baby is sleeps in his mother's lap.
   b) The baby are sleep in his mother's lap.
   c) The baby is sleeping in his mother's lap.
   d) The baby is slept in his mother's lap.
   Correct Answer: c
   Explanation: this is the present continuous tense. It tells about something happening right now. It uses is, are, am as helping verb and the present participle (first form of verb+ ing) as the main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

6.
   a) He is going to play football after school.
   b) He are going to play football after the school.
   c) He is not go to play football after the school.
   d) He is not goes to play football after the school.
   Correct Answer: a
   Explanation: this is the present continuous tense. It tells about something that will or will not happen in the near future. It uses is, are, am as helping verb and the present participle (first form of verb+ ing) as the main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

7.
   a) Are you goes out for dinner?
   b) Are you going out for dinner?
   c) Are you go out for dinner?
   d) Is you going out for dinner?
   Correct Answer: b
   Explanation: this is present continuous tense. It tells about something that will or will not happen in the near future or is happening right now. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

8.
   a) I am talking too much.
   b) I am talk too much.
   c) I are talking too much.
   d) I am will be talking too much.
   Correct Answer: a
   Explanation: this is present continuous tense. It tells about something that will or will not happen in the near future or is happening right now. It uses is, are, am as helping verb and present participle (first form of verb+ ing) as main verb. Is is used with third person singular (He, she, it). Are is used with third person plural (they). Am is used with first person pronoun (I).

9.
   a) She have lived in this house all her life.
   b) She has lived in this house all her life.
   c) She have live in this house all her life.
   d) She has live in this house all her life.
   Correct Answer: b

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

10.
   a) You has had a beautiful past.
   b) You has a beautiful past.
   c) You have had a beautiful past.
   d) You have live a beautiful past.

Correct Answer: c

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

11.
   a) I have not written this article.
   b) I has not written this article.
   c) I have not wrote this article.
   d) I has not wrote this article.

Correct Answer: a

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

12.
   a) Have he finished his homework?
   b) Has he finished his homework?
   c) Has he finish his homework?
   d) Has he finish his homework?

Correct Answer: b

Explanation: This is present perfect tense. Present perfect tense is used to express an action that occurred in the past without telling the exact time of its occurrence. It uses has/have as helping verb and third form of verb as main verb. Has is used with he, she, it, who and singular nouns. Have is used with I, we, they, you and plural nouns.

13.
   a) I has been writing this book for one year.
   b) I have been write this book for one year.
   c) I have been writing this book for one year.
   d) I have been wrote this book for one year.

Correct Answer: c

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. . Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

14.
   a) I have not been sleeping for many days because of the hectic routine.
   b) I has no been sleeping for many days because of the hectic routine.
   c) I am not been sleeping for many days because of the hectic routine.
   d) I have not sleeping for man days because of the hectic routine.

Correct Answer: a

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. . Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

15.
   a) Has you ever been to this restaurant?
   b) Has you ever to this restaurant?
   c) Have you ever been to this restaurant?
   d) Has you been to a restaurant?

Correct Answer: c

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

16.
   a) He has been ill for a week.
   b) He have been ill for a week.
   c) He have ill for a weak.
   d) He has ill for a weak.

Correct Answer: a

Explanation: This is present perfect continuous tense. It uses has been/ have been as helping verb and present participle (1st form of verb + ing). It expresses an action that started in the past and is continued till present or ended recently. Has been is used with he, she, it, who and singular nouns. Have been is used with I, we, they, you and plural nouns.

17.
   a) You have qualify the exam.
   b) You qualified the exam.
   c) You did qualified the exam.
   d) You did qualify the exam.

Correct Answer: b

Explanation: This is past indefinite tense. It tells about an event that occurred in the past.It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

18.
   a) He did not come to this room.
   b) He did not came to this room.
   c) He did not coming to this room.
   d) He has not come to this room.

Correct Answer: a

Explanation: This is past indefinite tense. It tells about an event that occurred in the past.It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

19.
   a) Did she called?
   b) Did she call?
   c) Did she has called?
   d) Did she has call?

Correct Answer: b

Explanation: This is past indefinite tense. It tells about an event that occurred in the past. It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

20.
   a) She did not go to shopping.
   b) She did go for shopping.
   c) She did went to shopping.
   d) She did not went to shopping.

Correct Answer: a

Explanation: This is past indefinite tense. It tells about an event that occurred in the past. It uses 2nd form of verb in affirmative sentences and 1st form of verb in negative and interrogative sentences. It uses did as helping verb.

21.
   a) She were preparing for the presentation.
   b) She was preparing for the presentation.
   c) she were prepared for the presentation.
   d) She was been prepare for the presentation.

Correct Answer: b

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

22.
   a) They were working together.
   b) They was working together.
   c) They were work together.
   d) They was work together.

Correct Answer: a

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

23.
   a) Ali were sleeping when Sara entered the room.
   b) Ali was sleeping when Sara entered the room.
   c) Ali was slept when Sara entered the room.
   d) Ali were slept when Sara entered the room.

Correct Answer: b

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

24.
   a) The lizard was not running toward you.
   b) The lizard were not running toward you.
   c) The lizard was not ran toward you.
   d) The lizard was not ran towards you.

Correct Answer: a

Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

25.
   ❖ He worked very hard to earn this position.
   ❖ He had work very hard to earn this position.
   ❖ He has work very hard to earn this position.
   ❖ He had worked very hard to earn this position.

Correct Answer: d

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

26.
   a) Ali had gone before Sameer reach.
   b) Ali had went before Sameer reach.
   c) Ali had gone before Sameer reached.
   d) Ali had went before Sameer reached.

Correct Answer: c

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

27.
   a) Had you thought about your future?
   b) Had you think about your future?
   c) Has you thought about your future?
   d) Have you think about your future?

Correct Answer: a

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

28.
   a) I had not tell him the truth.
   b) I has not tell him the truth.
   c) I had not told him the truth.
   d) I have not tell him the truth.

Correct Answer: c

Explanation: This is past perfect tense. It uses to express an event that occurred and completed in the past. It uses had as helping verb and past participle (third form of verb) as main verb.

29.
   a) I had been applying for a job since November.
   b) I had been applied for this job since November.
   c) I had been apply for this job since November.
   d) I had applying for this job since November.

Correct Answer: a

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses

had been as helping verb and present participle as main verb.

30.

a) Kids has not eating healthy for a month.
b) Kids had not been eating healthy for a month.
c) Kids had not eating healthy for a month.
d) Kids have not been ate healthy for a month.

Correct Answer: b

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

31.

a) Had the kids been doing their homework?
b) Had the kids been done their homework?
c) Have the kids doing their homework?
d) Has the kids doing their homework?

Correct Answer: b

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

32.

a) I had working on this project since July.
b) I has working on this project since July.
c) I had been working on this project since July.
d) I had been worked on this project since July.

Correct Answer: c

Explanation: This is past perfect continuous tense. It describes an event that started in the past and continued for some time than ended in the past. It uses had been as helping verb and present participle as main verb.

33.

a) I shall bought her a nice car.
b) I shall buy her a nice car.
c) I shall brought her a nice car.
d) I shall took her her nice car.

Correct Answer: b

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as the main verb. shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, they) but this rule doesn't really apply now.

34.

a) She will not sing a song here.
b) She will not sang a song here.
c) She will not sung a song here.
d) She shall not sung a song here.

Correct Answer: a

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as the main verb. shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, they) but this rule doesn't really apply now.

35.

a) Will he started a new business?
b) Will he start a new business?
c) shall he started a new business?
d) Shall he be start a new business?

Correct Answer: b

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. Shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, you, they) but this rule doesn't really apply now.

36.

a) Will you brought some chocolates for me?
b) Will you bought some chocolates for me?
c) Will you bring some chocolates for me?
d) Shall you brought some chocolates for me?

Correct Answer: c

Explanation: This is future indefinite tense. It expresses an event that will occur in the future. It uses will/shall as helping verb and 1st form of verb as main verb. Shall is used with first person pronouns (I, We) and will is used with 2nd and third person pronouns (he, she, it, you, they) but this rule doesn't really apply now.

37.

a) He will be feeling better tomorrow.
b) He will be feel better tomorrow.
c) He will be felt better tomorrow.
d) He shall be feel better tomorrow.

Correct Answer: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as the main verb.

38.

a) He will be came here for the preparations.
b) He will be coming here for the preparations.
c) He will be come here for the preparations.
d) He will coming here for the preparations.

Correct Answer: b

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in the future. It uses will be/shall be as helping verb and the present participle as the main verb.

39.

a) She will not be enjoying with you.
b) She will not be enjoy with you.
c) She will not enjoying with you.
d) She will not be enjoyed with you.

Correct Answer: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

40.

a) Will you be taking this exam?
b) Will you be take this exam?
c) Will you be took this exam?
d) Will you be taken this exam?

Correct Answer: a

Explanation: This is future continuous tense. It expresses an ongoing event that will occur at some point in future. It uses will be/shall be as helping verb and present participle as main verb.

41.

a)   He will have took the test.
b)   He will has taken this exam.
c)   He will have taken this exam.
d)   He will had taken this exam.
Correct Answer: c
Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

42.
a)   We shall have gone to the office.
b)   We shall has went to the office.
c)   We shall have go the office.
d)   We shall has go to the office.
Correct Answer: a
Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

43.
a)   Will he has wrote an article?
b)   Will he have wrote an article?
c)   Will he have written an article?
d)   Will he have write an article?
Correct Answer: c
Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

44.
a)   You will have completed your task.
b)   You will has complete your task.
c)   You will have complete your task.
d)   You will have completing your task.
Correct Answer: a
Explanation: This is future perfect tense. It expresses an event that will have occurred or completed in the future. It uses will have as helping verb and past participle as main verb.

45.
a)   They will have been sleep for two hours.
b)   They will have been sleeping for two hours.
c)   They will have been slept for two hours.
d)   They will has been sleep for two hours.
Correct Answers: b
Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

46.
a)   Will he have been dating her for five years?
b)   Will he has been date her for five years?
c)   Will he dating her for five years?
d)   Will he be date her for five years?
Correct Answer: a

Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

47.
a)   She will not has been washed dishes for the dinner.
b)   She will not have been washing dishes for the dinner.
c)   She will not have been wash dishes for the dinner.
d)   She will not have been washed dishes for the dinner.
Correct Answer: b
Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

48.
a)   Will she have been teaching kids for a year?
b)   Will she has been teaching kids for a year?
c)   Will she have been teach kids for a year?
d)   Will she has been teach kids for a year?
Correct Answer: a
Explanation: this is future perfect continuous tense. It uses present participle (1st form of verb + ing) as main verb and will have been as helping verb. It describes an ongoing action that will complete in future.

49.
a)   She was hosting a lot of parties.
b)   She were hosting a lot of parties.
c)   She was host a lot of parties.
d)   She was hosted a lot of parties.
Correct Answer: a
Explanation: This is past continuous tense. It uses was, were as helping verb and present participle as main verb. It expresses an ongoing event of the past. Was is used with first person singular (I) and third person singular (he, she, it). Were is used with 2nd person singular (you, your, yours) and 1st and 3rd person plural (we, they).

50.
a)   They do not work.
b)   They do not worked.
c)   They does not worked.
d)   They does not have worked.
Correct Answer: a
Explanation: This is present indefinite tense. Present indefinite tense uses do/ does in only negative and interrogative sentences. In exclamatory sentences s,es is added to the main verb and no helping verb is used. Does is used with third person singular (he, she, it). Do is used with personal pronouns (I, we, you) and third person plural.

READING COMPREHENSION

Almost everyone who struggles with Reading Comprehension on tests like USAT suffers from one or more of the problems. All of these problems are results of the same bad habit: PASSIVE READING. The material here is designed to help you break this old habit (at least long enough to take your exam) and to develop a highly active (even interactive) approach towards the passages. But the only way to break old reading habits and to develop new and better ones is through practice. Therefore, In addition to reading techniques, you should also use the practice sets in this book to experiment with the techniques discussed here.

Every Reading Comprehension question is designed to measure one of two basic abilities:

- ❖ Your ability to remember what you read.
- ❖ Your ability to understand or comprehend what you read.

The second skill is a higher one in that it requires independent thinking on your part. More important, you'll find that the majority of the questions are comprehension questions, not memory questions; and it's this fact that should drive your approach in reading the passages. In order to understand (Comprehend) a passage, you must be able to:

- ❖ Identify the thesis (or main idea) and the author's primary purpose.
- ❖ Follow the author's line of reasoning from paragraph to paragraph.

COMMON READING PROBLEMS AND THEIR SOLUTIONS

Problem: You are slow reader, so cannot finish in time.

Solution: Focus on main Ideas and overall structure instead of details.

Problem: You cannot concentrate because you feel that ideas are scattered and terminologies used in the passage are unfamiliar to you. You waste lot of the time in searching the passage for information needed to respond to question.

Solution: Ask yourself "Why the writer has written this passage?". Dialogue with the writer each idea given in the passage.

Problem: You feel difficulties in narrowing your answer choices down to one clear best answer.

Solution: Keep in mind the overall theme of the passage and think like test maker.

Problem: Does the subject knowledge or knowledge about the topic contained in the passage important?

Solution: In reading comprehension, you are presented with a reading passage (in an area of business, social science, biological science, or physical science), and then asked 3 or 4 questions about that text. You are not expected to be familiar with any topic beforehand. All the information is contained in the text in front of you. In fact, if you happen to have some previous knowledge about a given topic, it is important that you not let that knowledge affect your answers. You must concentrate on what is given in the passage.

Problem: Should I memorize every detail given in the passage?

Solution: Don't feel that you have to memorize or understand every little thing as you read. You can always refer to the passage to clarify the meaning of a specific detail.

BROADER TYPES OF QUESTIONS

If there is any key to success for Reading Comprehension, it's developing an active approach toward the understanding of the question sets. There are two types of questions normally asked on the test

- ❖ **Detail and Contextual questions:** The questions based on a part of the passage.
- ❖ **Inference questions:** The questions based on logical inference from the content of the passage.
- ❖ **Linking Devices questions:** The questions based on extraction of the meaning by linking various parts of the passage.
- ❖ **Title questions:** Title questions ask the best title of the passage based on the content.
- ❖ **Topic Sentences questions:** The questions are based on the topic of a particular part of the passage.
- ❖ **Main Idea questions:** The inferential questions based on main idea of the passage.

Detail question type is easy to deal. It involves your scanning of the passage text. Pick a question from the set and find the information regarding the question through scanning of the passage.

However, Main idea question type is somewhat based on your reading and comprehending skills. You can find the answer of the main idea question if you have completely understood the overall theme of the passage.

The Styles of Reading

Let's refer to your frame of mind as you tackle a question set as your reading "mode." Consider the four basic modes and corresponding approaches listed in text below. They differ in the reader's level of activity and basic strategy. You'll learn in the pages that follow that only the Interactive and the Question Driven modes are likely to help you improve your performance in Reading Comprehension.

The Straight style

This style based on a straight reading of entire passage. It involves three steps:

- ❖ Read the passage carefully from beginning to end. Underline what clicks you as being an important point.
- ❖ Respond to the questions in the order given in the passage. Go back to the passage as required if you have trouble answering a question or remembering the relevant portion of the passage.
- ❖ Mark next to any questions you're uncertain about, hoping you'll have time to reconsider the question at the end.

Practically this style is unsuccessful, because of:

- ❖ **Poor time management:** It is often impossible to give equal time to each passage and each question.
- ❖ **Incomplete Comprehension:** reading the passage from beginning to end without interruption and with very little thought as to what particular information is most important in order to respond to the specific questions.

Very often, the test takers adopting this style make mistakes in main idea question.

The Interactive Style

In this style, the test taker works back and forth between passage and questions. My students find that this is an effective style and this is the only style that actually helps them improve their overall performance to any significant extent.

This style involves three steps:

- ❖ Begin reading the passage immediately. Divide the whole passage into logical parts describing single idea.
- ❖ After reading the first part, scan the question from the question set. The first part will most certainly provide enough information for you to respond the first question of the set.
- ❖ Return to the passage and read the next part. Scan the question and answer the next question. Work on in a similar fashion and complete all paragraphs.

You'll have to practice this interactive style in order to be comfortable with it. Apply this style to the practice passages of this book until this style becomes second nature to you.

What Reading Comprehension Tests

Reading comprehension tests critical reading skills. Among other things, it tests whether you can:

- ❖ Summarize the main idea of a passage.
- ❖ Differentiate between ideas explicitly stated in a text and those implied by the author.
- ❖ Make inferences based on information in a text.
- ❖ Analyze the logical structure of a passage.
- ❖ Deduce the author's tone and attitude towards a topic from the text.

Win on Reading Comprehension

Here are the basic things that you need to succeed on Reading Comprehension.

Broadly stated, reading question involves reading to identify general elements topic and scope, the author's purpose and passage structure, and the author's voice.

Topic and Scope of the Passage

As you work through the first few sentences of a passage, you need to determine the topic if it's a science passage, what branch of science is it about? If it's geology, what part of geology?

Now, as to scope, think of scope as a narrowing of the topic. If the topic is industrial safety regulations, what narrower definition can we present that still describes all of the passage? Is there a comparison to another type of safety regulation? Is there a comparison between safety regulations in different historical eras? Is there an analysis of the regulations' histories?

Author's Objective and Structure

Like most sophisticated writing, the prose you will see on the test doesn't reveal its secrets so explicitly. Almost every Reading Comprehension question moves on your ability to step in the text and analyze why the author is writing the passage. Authors always have a purpose, of course, and always have structural plan for carrying out that purpose, though they don't often announce them. That's your job, as the reader. The test demands that you figure out the author's objective and the passage structure, because that's the best way for the test makers to test how you think about the text you read.

The author will never say, "Here's why I write." However, unless you figure out why he is writing, you won't be able to analyze why each piece-each paragraph and each detail-is there and how it's being used.

Author's Tone

An important part of reading is distinguishing between factual implications and opinions. It's the opinion that the Reading Comprehension passages are built on, and you should pay attention to them.

Attacking a passage is what critical reading is all about, Stepping back from the sheer factual content, figuring out the author's views on a topic and how she arrived at them, and looking for the evidence that must be provided.

The questions are going to test you command of the author's views, and you can only get in trouble by imposing your own opinions.

Core of Paragraph

The paragraph is the main structural unit of any passage. After you've read a paragraph of the passage, you need only explore the core or general purpose of the passage. Similarly find core of each succeeding paragraph and then relate each paragraph to the passage as a whole. Ask yourself:

- ❖ Why did the author include this paragraph?
- ❖ What change did the author have in mind when writing this paragraph?
- ❖ What effect does this paragraph impart on the main idea?

In this way, you create a "mental road map" of the passage. When questions arise that require you to look back at the text, having a road map will help you locate specific references more easily. That will help you find relevant information quickly.

Look for the Main Idea

Finding the main idea is a crucial task. If you get in the habit of reading the way I am describing, for purpose and structure, you can't help but notice the author's main idea.

Main Idea refers to a single point of view that the author may be trying to provide in the course of the passage. It's always a personal interpretation- a strong point of view that demands evidence, and in the end, it's the main thought that the author wants you to comprehend.

Not every reading passage features a strong main idea. Sometimes, the author just sets out to discuss a topic. If there is a strong main idea, however, the test makers usually highlight it by asking a pointed question, such as:

Which of the following is the main idea of the passage?

So don't sweat it; "main idea" isn't an especially problematic concept, in so far as Reading Comprehension is concerned.

Don't memorize the details

On the test, you'll need to read only for short-term – as opposed to long-term – retention. When you finish the questions on a certain passage is over, gone, done with.

What's more, there's certainly no need to memorize details. You always have the option of relocating details if a particular question requires you to do so. If you have a good sense of a passage's structure and paragraph topics and your mental roadmap is clear, then you should have no problem navigating through the next when the need arises.

QUESTION TYPES

You might want to crack the Reading Comprehension section according to the kinds of passages that normally appear on the test. Most frequent topics include:

- ❖ Narrative
- ❖ Entertaining
- ❖ Scientific
- ❖ Business
- ❖ Descriptive
- ❖ Expository
- ❖ Didactic
- ❖ Rhetorical

While passages differ in their content, we read them in essentially the same way, employing the same critical reading techniques for each.

The main question types on Reading Comprehension are:

- ❖ Global
- ❖ Inference
- ❖ Logic
- ❖ Explicit Detail
- ❖ Linking Devices
- ❖ Title and Topic

Global Questions

A global question asks about the author's overall point of view or idea. This type of question targets the entire passage. As a rule, any answer choice that focuses on one part of the passage or only some idea, will be wrong. The wrong choices will be too broad, narrow in scope, or inconsistent with the author's tone. Frequently, one of the wrong choices will play on some side issue discussed at the tall end of the passage.

Global questions fall into two main categories:

- ❖ Main Idea
- ❖ Primary Purpose

The concepts of Global question, main idea, and purpose are linked, of course, because an author's purpose is usually to convey main idea.

Main Idea Questions

This question type requires you to differentiate between the home and room -that is, to distinguish broader and larger ideas from supporting evidences and details.

Every passage has a "main idea" (thesis). Sometimes, the main idea is expressed somewhere in the passage, usually in one sentence. If it is there, you will probably find it either somewhere in the first paragraph or at the very end of the passage. Do not expect, however, that the author will be as explicit as to state:

"My thesis is......." or "The purpose of this article is......" or to provide otherwise some obvious indicator.

If no specific sentence fairly expresses the author's thesis or main point that does not mean that, there is no main idea. What it means is that the thesis can be determined and expressed only by considering the passage as a whole.

Typical Questions
- ❖ Which of the following best expresses the main idea of the passage?
- ❖ Which of the following would be the most appropriate title for the passage?
- ❖ Which of the following best expresses the author's main point?

Strategy

Try to answer the "main idea" question before you read through the passage from beginning to end, following these steps:
- ❖ Scan the first paragraph and the final few sentences of the passage for possible thesis statements. If, you see a sentence that looks as if it might be a viable thesis statement, check the answer choices quickly for a similar statement.
- ❖ If you do not see any viable thesis statement in either of these two places, read the first and last sentence of each paragraph to have a general sense of the passage as a whole. Then, read the answer choices and choose a tentative response or earmark the more viable responses.

After a complete reading of the passage, follow these steps:
- ❖ Formulate your own thesis statement before considering the answer choices. Then, scan through the answer choices for a similar statement. By knowing what sort of response to look for, you will be far less tempted by the other (wrong) responses.
- ❖ If your earlier tentative response is different from your updated response, consider the answer choices in light of wrong-answer pit falls discussed below.

Wrong Answer Pit Falls

The answer response that is too narrow in scope. The response covers on one part of the passage, ignoring other important parts. Be particularly suspicious of a response that refers to a single specific person, event, idea, or work. For example:
- ❖ If the passage is concerned with comparing two phenomena, a response that ignores this concern and focuses on only one of the two phenomena is too narrow to be a viable best response.
- ❖ If the author uses specific examples to support an argument, a response that ignores the author's larger point and focuses on one of the examples is too narrow to be a viable best response.

The response that is too broad in scope:

The response encompasses the author's main concern or idea but extends that concern or idea beyond the author's intended scope. Look for these common scenarios:

Geographic region:

The passage concerns events in one country or region of the world, but the response extends beyond the region.

Time frame:

The passage concerns events occurring during a particular historical period, but the response extends outside that period.

Population:

The passage concerns a narrowly and clearly defined population (usually a group of people e.g., chemists, new era feminists, Pakistanis, but the response extends beyond that population.

Primary Purpose Questions

Primary purpose question type directly asks, why? The writer has written the passage. What is the objective or the focus of the writer or the passage?

Typical Questions
- ❖ The primary purpose of the passage is to……..
- ❖ The author of the passage is primarily concerned with…….
- ❖ The passage can be best described as a……..

Strategy

Ask yourself: "Toward what point is the author's effort primarily directed?" In other words, what is the main idea of the passage? There should be a consistency between the main idea of the passage and the author's primary purpose. Thus, if both question types appear in the question set, be sure your answers to these two questions are consistent with each other.

Focus on the operative verb (probably the first word) in each answer choice. That word will be an action verb or an action verb with an "ing" or "tion" on the end (these verbs in noun form are called "gerunds" in English grammar). Based on the action verb, you can probably eliminate not all but one or two answer choices.

As you read the passage, pay particular attention to all words and phrases those indicate or suggest the author's attitude (tone, opinion, perspective). In fact, circle all such words and phrases. The operative verb in the best response must reflect or at least show consistency with the words and phrases that you have circled.

After a complete reading of the passage, follow these steps:

Formulate your own statement of the author's purpose. Then, scan through the answer choices for a similar statement. If you know what sort of response to look for, a quick scan through the answer choices will usually reveal the best response; also, you will be far less tempted by the other (wrong) responses. However, you will never see a sentence that explicitly states: "My primary concern here is……" or some other obvious statement of purpose, so don't waste your time looking for help from the author to formulate your ideal response.

If your earlier tentative response is different from your updated response, consider the answer choices in light of wrong-answer pit falls below:

Wrong Answer Pit Falls

The response that misses the author's attitude toward the subject: Any response that ignores the author's opinion and instead implies objectivity on the author's viewpoint part is not a viable response.

The response that is too narrow in scope:

If a particular topic is discussed in only one of five paragraphs, you can safely conclude that the author's "primary" concern is not with that specific topic.

The response that is off focus:

This type of response emphasizes a secondary function or purpose of the passage. For example, if the author describes two existing theories and goes on to propose and to describe a new and better theory, the author's primary purpose is not to examine, describe or criticize current theories; the best response would go further and include the author's concern with proposing a new theory.

STRUCTURE QUESTIONS

In this type of question, the test maker usually asks about the overall structure of a passage:

Organization of the Passage

Hypothesis stated and then **analyzed:** In the first part of the passage, the author hypothesizes some idea and then in other parts of the passage she analyzes it.

Proposal and **alternatives evaluation:** The author proposes some solution about some issue or fact, then describes other alternatives.

Viewpoint set forth and **defended:** In the first part of the passage, the author describes her point of view about some fact or issue and in subsequent parts; she reveals some examples or pleas to defend her viewpoint.

Typical Questions

❖ Which of the following best describes the organization of the passage?

Strategy

The answer choices for these questions are usually worded every generally, forcing you to recognize the broad layout of the passage (as opposed to the specific content).

When scanning the choices, ask yourself:

❖ Was there a hypothesis here?

❖ Was there an evaluation of a proposal or a defense of a viewpoint?

INFERENCE QUESTIONS

An inference is something that is almost certainly true, based on the passage, but that is contained "between different lines." The answer of such type of questions is something that the author strongly implies or hints at but does not state explicitly. Inference question generally, asks about broader points as well as smaller points discussed in the passage.

You must employ your ability to bridge the gaps between the way information is presented in the passage and the way it's presented in the correct answer choice.

Typical Questions

The most common type of inference question asks simply what can be inferred from the passage:

❖ It can be inferred from the passage that…..

❖ The passage/author suggests that……

❖ The passage /author implies that…..

❖ The passage supports which one of the following statements regarding….

AGREEMENT QUESTIONS

Agreement questions ask you to find a statement that the author (or a character in the text) would agree with. The question stem usually provides a hint about where in the passage the answer can be found.

Typical Questions

❖ With which one of the following statements………. would the author most likely agree?

Strategy

You need to have a good understanding on the author's point of view in order to infer what the author would think about a situation. Choose an answer that stays within the scope and tone of the passage.

Logic Questions

Logic questions ask

❖ Why the author does something?

❖ Why he cites a source?

❖ Why he includes a certain detail?

❖ Why he puts one paragraph before another? And so forth.

As a result, any answer choice that discusses the actual content or a detail will be wrong.

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Typical Questions
- ❖ The author refers to /mentions .... Primarily/most probably in order to......
- ❖ Which of the following best describes the relationship of the [first, second, etcetera] parts of the passage to the rest of the passage?

Explicit Detail Questions
You must be careful with line (number) references in Logic questions – they'll bring you to the right part of the passage, but usually the actual answer will be found in the lines immediately before or after the referenced line.

Explicit Detail questions are questions whose answer can be pinpointed in the text. It's fairly simple to identify this type of question from its question stem.

Typical Questions
- ❖ According to the passage/author.....
- ❖ The author states that........
- ❖ The author mentions which one of the following as.....
- ❖ The author mentions all of the following as examples of ...... EXCEPT ....
- ❖ The author makes which of the following statements about........
- ❖ The passage provides information for answering which of the following questions.

Often, these questions provide direct clues about where you can find an answer, such as line references or some text that links up with the passage structure.

If your mental roadmap and understanding of the purpose of each paragraph are both clear in your mind-it shouldn't take long to locate the relevant detail and then to choose an answer.

Most students find these questions to be the easiest type of Reading Comprehension questions because they're the most concrete. Moreover; especially, Pakistani students are familiar, as they have tackled such type in their study exams.

Strategy
There are really two types of explicit detail questions, and the location of the clues depends upon the type.

The correct answer is located within one sentence (either preceding or following) the relevant line(s) in the passage; each wrong answer is either mentioned somewhere else in the passage or is not mentioned at all.

Wherever some sort of list occurs in the passage whether it is a list of characteristics, a list of examples, or some other list-you can be sure that there will be an explicit detail question that focuses on that list.

The question will probably refer to a particular line (or lines) or to a particular paragraph in the passage. Try to answer the "explicit detail" question before you read the passage from beginning to end.

Most explicit detail questions focus on information contained in only one paragraph.

Always go to the relevant portion of the passage at the time you are considering the question and read around (from the preceding sentence to the following sentence) the particular text referred to in the question stem.

The best answer is usually not expressed exactly as it is in the passage but rather paraphrases the language used in the passage.

Wrong Answer Pit Falls
The response that refers to unrelated details:

The correct answer is usually mentioned somewhere in the passage. If you recall reading it, you may be reticent to select it as the correct response.

Some (and perhaps all) of the wrong answers are mentioned somewhere in the passage, and you might be reticent here as well to eliminate those responses.

Not mentioned in the passage. One or more of the wrong answers might provide information completely unsupported by or not mentioned anywhere in the passage. These wrong answers can be quite tempting-your natural reaction is that the information appeared somewhere in the passage, but you missed, it. Well, probably not! Don't fall in the pit fall.

Linking Devices
You must be careful about the linking of various parts of the passage. Some key words play vital role in transitions from one idea to another idea in the passage. For example, the word **but** in a sentence suggests that the writer will present a contradictory or opposite idea in the following part of the sentence.

Example:

Pakistan has abundant natural resources, so it is an obvious prediction that there must be a realized development in all sectors **but** the mismanagement of usage has hampered the speed of growth.

The keyword **but** divides the sentence in two opposite idea parts.

WARM UP EXERCISE

Directions: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.
The answers and explanations of the questions have been given at the bottom of each question.

PASSAGE

The most important requirement for the data used in the strategic review process is that they be objective. In addition, the criteria should be familiar, well-understood, and accepted measures of financial performance. There are two reasons. First, the ultimate responsibility of the board is to understand the impact of a given strategy on the value of the owners' investment. This obligation implies evaluating performance in financial terms. Second, although it is inevitable that much of the evidence on the success of an evolving strategy is subjective, managers' familiarity with the details of product-market and company specific issues, and their access to an incredible amount and variety of data gives them an advantage over outside board members. Objective data consistently presented and reinforces by the cumulative evidence of past performance can strengthen the power and credibility of the board's opinion. Standard financial indicators facilitate discussion in terms that all parties can understand.

Some will argue that using such indicators is just one more example of a myopic preoccupation with the corporate bottom line, leading to short-term decisions that erode long-term competitive strength and profitability in domestic and international product markets. I must disagree. Although I think that financial criteria should the central focus of board oversight, I do not think such a focus prevents the board from considering other kinds of progress. It should certainly weigh all objective – or even subjective – evidence of strategic progress demonstrating long-term competitive strength and profitability in domestic and international markets. But it is equally important for the board to intervene when it sees persistent, long-term erosion of the investment base, on which all corporate activity depends.

The criteria best suited to the strategic oversight process share two important characteristics. They focus on the sustainable rate of return on shareholder investment produced by the corporate income stream. They also permit objective comparisons among the company's separable income streams and with alternative investments in other companies inside or outside the industry. These data should help the board determine whether the company's chosen strategy, or a particular decision, will contribute to a long-term return of shareholder investment equal or superior to other investment alternatives of comparable risk. They should also allow a comparison of the promise of future returns with the reality of past performance.

In the final analysis, these criteria should reflect a fundamental economic reality: The long-term loyalty of the equity holders depends solely on sustaining a competitive return on investment. Without that, no product-market strategy is safe. Although professional managers might find this dictum hard to accept, it is nevertheless the reality of the public capital markets in which they operate. Just doing better than other immediate investment alternatives better than last year, or even better than all major competitors in the same industry may not, in the end, be good enough to justify continued investor support.

With this in mind, boards will find that several criteria satisfy the basic criteria of a strategic review process. One is the reported return on book investment (ROI), particularly when it is disaggregated into its primary components. It has the advantage of being based on data familiar to shareholders and management. It shows profit per unit of sales (profit margin), sales per unit of capital employed (asset turnover), and capital employed per unit of equity invested (leverage). When multiplied together, these ratios transform profit margin into return on equity.

The particular set of measurements has two weaknesses, however. First, it may be subject to random changes in accounting practice, so that users may have to make appropriate retroactive adjustments to the raw data. In addition, it does not provide an external standard of comparison. The underlying components of the corporate income steam need to be broken out and comparable data on companies inside and outside the industry gathered. The date of review should also encompass information on investor response including price-to-earnings and market-to-book-value ratios. These data reveal evidence of investor's reaction to published information on company performance and are a measure of confidence. They are an essential supplement to any measurement based primarily on company-specific data.

1. Which of the following would negate the author's assumption of the manager's advantage over outside board members in the strategic review process?
   A. Familiarity with the multiplicity of details relating to the various product-market combination in which the company is involved.
   B. Incomplete understanding of the various issues specific to the company which would need to be factored into the decision making process.
   C. The existence of a well-developed management information system providing reliable information on the state of the company, competition and the industry.
   D. The presence of internal mechanisms to identify the relative strengths and weaknesses prevailing in the company, with corresponding studies done across competitors and the industry.

Explanation:
If the manager has incomplete understanding, his advantage in the decision making would be wiped out. **Correct Answer is B.**

2. Which of the following would the author NOT consider a satisfactory criterion to be used in a strategic review?
   A. Analyzing the various components of the reported return on book investments
   B. The pay scales within the company as compared to those prevailing in the industry.

C. Analysis of the various components of the company's separable income streams, and their comparison with alternative investment opportunities

D. Information on the response of investors to the company's performance as seen in ratio such as the market-to-book-value ratio

Explanation:
Pay scales are not part of the strategic review or markets. **Correct Answer is B.**

3. The passage could be a part of
   A. Book on management
   B. Newspaper article
   C. Financial journal
   D. Textbook on strategy

Explanation:
The passage is about strategic review process and the language is explanatory. **Correct Answer is D.**

4. Which of the following statements CANNOT be inferred from the passage?
   A. The strategic review process would be unsuccessful if any non-objective criteria are applied in the process.
   B. It is necessary that the criteria used for the strategic audit should be focused on monitoring that the company is achieving and sustaining a competitive return on investment at all times.
   C. The analysis of financial ratios based on the information published by the company is not a sufficiently foolproof evaluation criterion in itself.
   D. All the above.

Explanation:
Easy to understand by the choice. **Correct Answer is D.**

5. According to the author
   A. evaluating business strategies from the point of view of their impact on the company's bottom line is myopic and leads to short-term decision making.
   B. there is no significant correlation between the company's performance and the public perception of it as manifested in various ratios such as the price-to-earning ratio.
   C. although a particular strategy may provide significant competitive gains, it should not be allowed to cause long-term erosion of the company's investment base.
   D. the promise of future returns should always be given greater always be given greater weight in the strategic review process than analysis of past performance.

Explanation:
Easy to understand by the choice. **Correct Answer is D.**

PASSAGE (with detailed explanations)
In the United States the per capita costs of schooling have risen almost as fast as the cost of medical treatment. But increased treatment by both doctors and teachers has shown steadily declining results. Medical expenses concentrated on those above forty-five have doubled several times over a period of forty years with a resulting 3 percent increase in the life expectancy of men. The increase in educational expenditures has produced even stranger results; otherwise President Nixon could not have been moved this spring to promise that every child shall soon have the "Right to Read" before leaving school. In the United States it would take eighty billion dollars per year to provide what educators regard as equal treatment for all in grammar and high school. This is well over twice the $36 billion now being spent. Independent cost projections prepared at HEW and at the University of Florida indicate that by 1974 the comparable figures will be $107 billion as against the $45 billion now projected, and these figures wholly omit the enormous costs of what is called "higher education," for which demand is growing even faster. The United States, which spent nearly eighty billion dollars in 1969 for "defense," including its deployment in Vietnam, is obviously too poor to provide equal schooling. The President's committee for the study of school finance should ask not how to support or how to trim such increasing costs, but how they can be avoided. Equal obligatory schooling must be recognized as at least economically unfeasible. In Latin America the amount of public money spent on each graduate student is between 350 and 1,500 times the amount spent on the median citizen (that is, the citizen who holds the middle ground between the poorest and the richest). In the United States the discrepancy is smaller, but the discrimination is keener. The richest parents, some 10 percent, can afford private education for their children and help them to benefit from foundation grants. But in addition they obtain ten times the per capita amount of public funds if this is compared with the per capita expenditure made on the children of the 10 percent who are poorest. The principal reasons for this are that rich children stay longer in school, that a year in a university is disproportionately more expensive than a year in high school, and that most private universities depend—at least indirectly—on tax-derived finances. Obligatory schooling inevitably polarizes a society; it also grades the nations of the world according to an international caste system. Countries are rated like castes whose educational dignity is determined by the average years of schooling of its citizens, a rating which is closely related to per capita gross national product, and much more painful.

6. Which one of the following best expresses the main idea of the passage?
   A. The educational shortcomings of the United States, in contrast to those of Latin America, are merely the result of poor allocation of available resources.
   B. Both education and medical care are severely underfunded.
   C. Defense spending is sapping funds which would be better spent in education.
   D. Obligatory schooling must be scrapped if the goal of educational equality is to be realized.
   E. Obligatory education does not and cannot provide equal education.

Explanation
The answer to a main idea question will summarize the passage, without going beyond it.

A. fails to meet these criteria because it makes a false claim.

B. also makes a false claim. The author implies that increased funding for education is irrelevant, if not counterproductive. In fact, the sentence "The President's committee for the study of school finance should ask not how to support or how to trim such increasing costs, but how they can be avoided" implies that he thinks an increase in funding would be counterproductive.

C. is implied by the sentence "The United States . . . is obviously too poor to provide equal schooling," but the author does not fully develop this idea. Besides, he implies that the problem is not financial.

D. is the second-best answer-choice. The answer to a main idea question should sum up the passage, not make a conjecture about it. Clearly the author has serious reservations about obligatory schooling, but at no point does he state or imply that it should be scrapped. He may believe that it can be modified, or he may be resigned to the fact that, for other reasons, it is necessary. We don't know. Finally,

E. aptly summarizes the passage, without going beyond it. The key to seeing this is the opening to paragraph three, "Equal obligatory schooling must be recognized as at least economically unfeasible." In other words, regardless of any other failings, it cannot succeed economically and therefore cannot provide equal education.

7. The author most likely would agree with which one of the following solutions to the problems presented by obligatory education?
   A. Education should not be obligatory at all.
   B. Education should not be obligatory for those who cannot afford it.
   C. More money should be diverted to education for the poorest.
   D. Countries should cooperate to establish common minimal educational standards.
   E. Future spending should be capped.

Explanation

This is an application question. These questions tend to be rather difficult, though this one is not. To answer an application question, put yourself in the author's place. If you were arguing his case, which of the solutions would you advocate?

As to (A), although we rejected the recommendation that obligatory education be eliminated as Question 1's answer, it is the answer to Question 2. The author does not merely imply that obligatory education has some shortcomings; he suggests that it is fundamentally flawed. Again this is made clear by the opening to paragraph three, "Equal obligatory schooling must be recognized as at least economically unfeasible." Still, there is a possible misunderstanding here: perhaps the author believes that obligatory education is a noble but unrealistic idea. This possibility, however, is dispelled by the closing

paragraph in which he states that obligatory education polarizes society and sets up a caste system. Obviously, such a system, if this is true, should be discarded. The answer is (A). The other choices can be easily dismissed.

(B) is incorrect because nothing in the passage suggests that the author would advocate a solution that would polarize society even more. Indeed, at the end of paragraph three, he suggests that the rich already get more than their fair share.

(C) is incorrect because it contradicts the author. Paragraph two is dedicated to showing that the United States is too poor to provide equal schooling. You can't divert money you don't have.

(D) is incorrect. It reads too much into the last paragraph.

Finally, (E) is the second-best answer choice. Although the author probably believes that future spending should be restrained or capped, this understates the thrust of his argument. However, he might offer this as a compromise to his opponents.

8. According to the passage, education is like health care in all of the following ways EXCEPT:
   A. It has reached a point of diminishing returns, increased spending no longer results in significant improvement.
   B. It has an inappropriate "more is better" philosophy.
   C. It is unfairly distributed between rich and poor.
   D. The amount of money being spent on older students is increasing.
   E. Its cost has increased nearly as fast.

Explanation

This is a description question, so we must find the place from which it is drawn. It is the first paragraph. The sentence "But increased treatment by both doctors and teachers has shown steadily declining results" shows that both have reached a point of diminishing returns. This eliminates (A) and (B). Next, the passage states "Medical expenses concentrated on those above forty-five have doubled several times" and that the demand and costs of higher education are growing faster than the demand and costs of elementary and high school education. This eliminates (D). Next, the opening to the passage states that the costs of education "have risen almost as fast as the cost of medical. The Six Questions 371 treatment." This eliminates (E). Hence, by process of elimination, the answer is (C). We should, however, verify this. In paragraph three, the author does state that there is a "keen" discrepancy in the funding of education between rich and poor, but a survey of the passage shows that at no point does he mention that this is also the case with health care.

9. Which one of the following most accurately characterizes the author's attitude with respect to obligatory schooling?
   A. qualified admiration
   B. critical
   C. neutral
   D. ambivalent
   E. resentful

Explanation

Like most tone questions this one is rather easy. Although choice (A) is a measured response, the author clearly does not admire the obligatory school system. This eliminates (A); it also eliminates (C) and (D). Of the two remaining choices, (B) is the measured response, and it is the answer. Although the author strongly opposes obligatory schooling, "resentful" is too strong and too personal. A scholar would never directly express resentment or envy, even if that is his true feeling.

10. By stating "In Latin America the amount of public money spent on each graduate student is between 350 and 1,500 times the amount spent on the median citizen" and "In the United States the discrepancy is smaller" the author implies that

    A.   equal education is possible in the United States but not in Latin America.

    B.   equal education for all at the graduate level is an unrealistic ideal.

    C.   educational spending is more efficient in the United States.

    D.   higher education is more expensive than lower education both in Latin America and in the United States, but more so in Latin America.

    E.   underfunding of lower education is a world-wide problem.

Explanation

This is another extension question. By stating that the amount of funding spent on graduate students is more than 350 times the amount spent on the average citizen, the author implies that it would be impossible to equalize the funding. Hence the answer is (B). None of the other choices have any real merit. (A) is incorrect because the import of the passage is that the rich get better schooling and more public funds in the United States and therefore discrimination is "keener" here (lines 42–43). (C) and (D) are incorrect because they are neither mentioned nor implied by the passage. (E) is the second-best choice. Although this is implied by the numbers given, it has little to do with the primary purpose of the passage—to show that obligatory education is perhaps not such a good idea.

SOLVED EXERCISE

Directions: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.

The answers and explanations of the questions have been given at the bottom of each question.

Passage:

Unfortunately, nuclear power isn't a good answer to our need to get loose from our Middle East oil dependency. For all its chrome-plated promise, nuclear power has fallen flat on its face and the worst is yet to come. Nuclear power plants are now facing a challenge that their designers never anticipated, though they should have-what to do with the power plants after their useful lives are over.

Nuclear power plants last 30 years or less. After 30 years, a reactor's pressure vessel becomes brittle and subject to breakage, simply as a result of constant bombardment by nuclear particles. In addition, after 30 years or so, the radioactivity in pipes and valves has accumulated to a point where maintenance workers are receiving unacceptable doses of radioactivity, so more maintenance crews must come in (to reduce the time any one worker spends getting zapped), which makes maintenance expensive.

Old nuclear plants cannot simply be abandoned, or demolished with a wrecking ball. They are full of radioactivity, all of which must be kept away from living things. Much of the radioactivity decays away within 50 years, but three million years must pass before a nuclear plant becomes no more radioactive than the original uranium that initially fueled it

Questions:

1. What is the main idea of the passage expressed by the author?
    A. Nuclear energy is not a good replacement of energy derived from petroleum.
    B. Nuclear energy is a hazardous for mankind.
    C. Nuclear energy is costlier than any other energy source.
    D. The life of a nuclear plant is too short.
    E. To work in a nuclear plant is life-threatening job.

Explanation:

Question Type: Main Idea

A is the best response.

In the starting paragraph, the author explicitly admits that their effort to get loose the Middle East oil dependency is failed because the nuclear energy is not a good replacement of oil. In the rest of the passage, he expresses how nuclear energy is not a good replacement of oil.

2. The author's indication about the actual threat that a nuclear power plant offers, can be best described by which of the following statement?
    A. The life of nuclear plant is about 30 years.
    B. The radiation leakage cannot be prevented during the normal operation of a nuclear plant.

C. Radiation pollution by demolished nuclear plants lasts for centuries.
D. The workers in nuclear plant are not safe from the radiation.
E. Radioactivity generates heat that is a long term hazardous of the nuclear energy.

Explanation:

Question Type: Inference

C is the best response.

In the last paragraph of the passage, the author explicitly describes that much of the radioactivity decays away within 50 years, but three million years must pass before a nuclear plant becomes no more radioactive than the original uranium that initially fueled it. Therefore, waste nuclear substances are the actual long-term source of pollution.

3. Which of the following can be best inferred from the passage?
    A. Nuclear Engineering is an unattractive career.
    B. Nuclear energy is cheap source of energy and poor countries must acquire nuclear energy plants.
    C. Abandoned power plants should safely be bored to ground under deep sea, so that it does not cause radiation pollution.
    D. Nuclear plants should be banned throughout the world.
    E. The author is in favor that advanced countries should capture Middle East oil sources.

Explanation:

Question Type: Inference

A is the best response.

In the first paragraph, the author describes that nuclear engineers do not receive appreciation even if they formulate the method for waste treatment.

In the second paragraph, he describes the hazardous for nuclear plant crew. Therefore, one can infer that career in Nuclear engineering is unattractive.

All other choices are out of scope of the passage.

Passage:

At first glance, it may seem trite to maintain that a classroom could be regarded as a network of interrelationships in which group members participate more intensely than they do in the interaction occurring at the same time beyond their classroom doors. On second thought, however, one might recognize that it is indeed a new and initially rather disconcerting way to look at a group of learners and teachers. We are in the habit of thinking of them as a number of individuals, merely gathered together momentarily within a particular room. A class is a group, we might want to insist, or a class represents a room in a school plant. Both these definitions are obvious. Of what possible use is it to confuse the obvious by defining a class as a "system"?

But is the concept of "system" really that difficult? We encounter it often in our daily experience. We say that a football team has developed a system of working together in particular ways to foil its opponents. We worry about our digestive system when we suffer from stomach pains. We are

familiar with the solar system. We argue about the public transportation system of our city, or the telephone system connecting remote corners of the country.

What is common to all these usages is the idea of a pattern of interdependent relationships. A telephone system is characterized not so much by those little boxes scattered across the nation as by the interconnecting communication linkages or pathways that the technology makes possible. A solar system is not merely an aggregate of heavenly bodies; it represents bodies interacting in regular ways, on the basis of certain principles of relationship.

Questions:

4. All of the following can be inferred from the passage EXCEPT
   A. A classroom and a football match have a common factor that both are based on connected people.
   B. A telephone is a source of connecting scattered entities of various communities.
   C. When we feel stomach pain, we go in separation with other people.
   D. Modern communication means provide medium to connect people.
   E. A particular class of people is actually a system of interacting people.

Explanation:
Question Type: Inference
C is the best response.
The author has talked about stomach pain in connection with a system. Actually, our digestive system is integrated. We do not mean it to go in separation with other people.

5. According to the passage, which of the following is the best statement representing a system.
   A. A collection of people struggling for a common objective.
   B. System is a collection of boxes like telephone that provide means of communication between scattered people.
   C. An aggregate of entities in which individuals do follow their own rules independent of others.
   D. A system is mechanical combination of items to perform a particular task
   E. An aggregate of entities connecting the components in a particular way.

Explanation:
Question Type: Scope
E is the best response.
All other choices are focus either a broad or a narrow scope. Only E choice focuses what the passage describes.

Passage:
The history of literature really began was the earliest of the arts. Man danced for joy round his primitive camp fire after the defeat and slaughter of his enemy. He yelled and shouted as he danced and gradually the yells and shouts became coherent and caught the measure of the coherent and caught the measure of the dance and thus the first war song was sung. As the idea of God developed prayers were framed. The songs and prayers became traditional and were repeated from one generation to another, each generation adding something of its own.

As man slowly grew more civilized, he was compelled to invent some method of writing by three urgent necessities. There were certain things that it was dangerous to forget and which, therefore, had to be recorded. It was often necessary to communicate with persons who were some distance away and it was necessary to protect one's property by making tools, cattle and so on, in some distinctive manner. So man taught himself to write and having learned to write purely for utilitarian reasons he used this new method for preserving his war songs and his prayers. Of course, among these ancient peoples, there were only a very few individuals who learned to write, and only a few could read what was written.

Questions:

6. Before man invented writing
   A. Literature was passed on by word of mouth
   B. Prayers were considered literature.
   C. Literature was just singing and dancing.
   D. There was no literature

Explanation:
Question Type: Detail
C is the best response.
The first line of the passage describes the beginning of the literature as sing and dance for joy around the campfires after the defeat and after slaughter of enemy. Gradually these literature forms converted to advance literature. Hence, it is obvious; literature was just singing and dancing before the invention of writing.

7. As for the war songs and prayers each generation
   A. Added something of its own to the stock
   B. Blindly repeated the songs and prayers
   C. Composed its own songs and prayers
   D. Repeated what has handed down to it

8. The first war-song
   A. Was inspired by God
   B. Developed spontaneously
   C. Was a song traditionally handed down
   D. Was composed by leading dancers

9. The war song evolved out of
   A. Creative inspiration
   B. There was no literature
   C. Artistic urge
   D. Yelling and shouting

10. Man invented writing because he wanted
    A. To be artistic
    B. To write war song
    C. To write literature
    D. To record and communicate

11. The word 'measure' in the context of the passage means
    A. Weight
    B. Rhythm
    C. Size
    D. Quantity

Passage:
Besides many other factors, the nation's health system requires a continual supply of new blood from donors to replenish its stockpiles. Storing blood for long-term use is a delicate, expensive, and time-consuming process; moreover, many doctors believe that the stored blood is unreliable. When

stored in a solution of plasma and nutritive dextrose (a sugar), fresh red blood cells can survive and remain viable for transfusion for only six weeks, therefore it cannot be used for long period.

Questions:

12. According to passage, which of the following can be the closest to the author appeal?
    - A. Government should provide extra facilities for the storage of blood.
    - B. Research is inevitable to find out new methods for the storage of the blood.
    - C. Blood donation should be promoted to the public for continual replenishment of the stockpiles.
    - D. There must be a network of donors so that in case of crisis they are to be called for donation.
    - E. Extensive research on blood alternatives can solve the problem

Explanation:

Question Type: Inference

C is the best response.

If blood remains viable for transfusion for a limited time, then the public must replenish blood stockpiles continually.

Passage:

The secret of writing good English is not just memorizing the rules of grammar; actually, it lies in developing the habit of unambiguous thinking and precise expression. Matthew Arnold commented, "Have something to say and say it as clearly as possible." Many of the students in Pakistan have no particular style because they have nothing to say. If any unclear idea they have, they express it vaguely. Perspicuity or lucidity is the prime requisite of an impressive writing style. In order to attain lucidity, we should avoid dangling of ideas, vagueness of expression, redundancy of arguments, and use of bombast words.

Questions:

13. What is the main idea of the passage?
    - A. Pakistani students are unable to write good English.
    - B. By avoiding ambiguous thinking, one can develop expressive style in English writing.
    - C. Bombastic words are vital for expressive English writing.
    - D. Redundancy of arguments should be avoided in written English.
    - E. Before writing something, one should think a lot what he is to write.

Explanation:

Question Type: Main Idea

B is the best response.

Choices A, C, and D have narrow scope and cannot cover the whole idea. Choice E is also out of scope leading to another issue. Only the choice B expresses the main idea.

14. Which of the following best expresses the redundancy of argument?
    - A. Unplanned and repetitive expression of an idea.
    - B. Ambiguous idea expressed in some writing.
    - C. Unplanned structure of writing.
    - D. Precise writing style.
    - E. Absence of what one want to express in his writing

Explanation:

Question Type: Detail

A is the best response.

Redundancy means repetition of linguistic information inherent in the structure of a language.

15. Which of the following statements is true about the main problem of a common student?
    - A. A common student cannot express his ideas.
    - B. A common student has bulk of ideas to write so he becomes ambiguous in writing.
    - C. A common student has no clear idea about what to write.
    - D. A common student faces lack of vocabulary while he writes English.
    - E. The Pakistani students have different problems in writing English than students of other countries.

Explanation:

Question Type: Detail

C is the best response.

The main problem of a common student expresses in the passage is that he cannot write well because he has no clear idea about what to write.

16. According to the passage who can write well.
    - A. One can write well by avoiding dangling of ideas, vagueness of expression, redundancy of arguments, and use of bombast words.
    - B. One can write well if he writes precisely and uses short sentences.
    - C. One can write well by attending classes for writing English.
    - D. One can write well if he follows style of professional writers.
    - E. One can write well if he learns rules of grammar.

Explanation:

Question Type: Detail

A is the best response.

Passage:

The public distribution system, which provides food at low prices, is a subject of vital concern. There is a growing realization that though Ethiopia has enough food to feed its masses two square meals a day, the monster of starvation and food insecurity continues to haunt the poor in the country.

Increasing the purchasing power of the poor through providing productive employment leading to rising income, and thus good standard of living is the ultimate objective of public policy. However, till then, there is a need to provide assured supply of food through a restructured, more efficient and decentralized public distribution system (PDS).

Although the PDS is extensive – it is one of the largest such systems in the world – it has yet to reach the rural poor and the far off places. It remains an urban phenomenon, with the majority of the rural poor still out of its reach due to lack of economic and physical access. The poorest in the cities and the migrants are left out, for they generally do not possess ration cards. The allocation of PDS supplies in big cities is larger than in rural areas. In view of such deficiencies in the system, the PDS urgently needs to be streamlined. In addition, considering the large food grains production combined with food subsidy on one hand and the continuing slow starvation and dismal

poverty of the rural population on the other, there is a strong case for making PDS target group oriented.

The growing salaried class is provided job security, regular income, and percent insulation against inflation. These gains of development have not percolated down to the vast majority of our working population. If one compares only dearness allowance to the employees in public and private sector and looks at its growth in the past few years, the rising food subsidy is insignificant to the point of inequity. The food subsidy is a kind of D.A. to the poor, the self-employed and those in the unorganized sector of the economy. However, what is most unfortunate is that out of the large budget of the so-called food subsidy, the major part of it is administrative cost and wastages. A small portion of the above budget goes to the real consumer and an even lesser portion to the poor who are in real need.

It is true that subsidies should not become a permanent feature, except for the destitute, disabled widows and the old. It is also true that subsidies often create a psychology of dependence and hence is habit-forming, killing the general initiative of the people. By making PDS target group oriented, not only the poorest and neediest would be reached without additional cost, but it will actually cut overall costs incurred on large cities and for better off localities. When the food and food subsidy are limited the rural and urban poor should have the priority in the PDS supplies. The PDS should be closely linked with programs of employment generation and nutrition improvement.

Questions:

17. Which of the following is the main reason for insufficient supply of enough food to the poorest?
   A. Mismanagement of food stocks.
   B. Absence of proper public distribution system.
   C. Production of food is less than the demand.
   D. Government's apathy towards the poor.

Explanation:
B is the best response.
The third part of the passage, describes the inefficiencies of the distribution system. The most important of all is its reach to the poor of rural areas. This is main reason of the insufficient supply of enough food to the poorest.

18. What, according to the passage, is the main purpose of public policy in the long run?
   A. Reducing the cost of living index by increasing supplies.
   B. Providing enough food to all the citizens.
   C. Good standard of living through productive employment.
   D. Equalizing per capita income across different strata of society.

Explanation:
C is the best response.
Second part of the passage gives the answer to this question. The ultimate objective of the Public Policy is to raise the living standard of the poor through providing the productive employment. Hence, the right answer choice is C.

19. Which of the following is true of public distribution system?
   A. It has improved its effectiveness over the years.

   B. It has remained effective only in the cities.
   C. It is the unique in the world because of its effectiveness.
   D. It has reached the remotest corner of the country.

Explanation:
B is the best response.

20. The word "square" as used in the passage means
   A. Rich.
   B. Sumptuous.
   C. Sufficient.
   D. Quality.

Explanation:
C is the best response.
The sentence in the middle of the second line of the passage gives the idea about the meaning of the word "square". The word "enough food to feed its masses leads towards the sense of sufficiency. Hence the right answer choice is C.

21. Which of the following words is the same in meaning as 'power' as used in the passage?
   A. Vigor.
   B. Energy.
   C. Influence.
   D. Capacity.

Explanation:
D is the best response.
The word power is found in the first line of the second part, "purchasing power of the poor" stands for the "purchasing capacity of the poor". Hence, the right answer choice is D.

22. What, according to the passage, is the main concern about the PDS?
   A. It has not been able to develop confidence in the people at large.
   B. It has not been able to utilize the entire food grains stock available.
   C. It has effectively developed channels for the supply of food grains to all sectors.
   D. It has not been able to provide sufficient food to the poorer section of the society.

Explanation:
D is the best response.
The first line of the third section of the passage gives the answer. The sentence "it has yet to reach the rural poor. The right answer choice is D.

23. What should be an appropriate step to make the PDS effective?
   A. To make it target group oriented.
   B. To increase the amount of food grains per ration card.
   C. To decrease the allotment of food grains to urban sector.
   D. To reduce administrative cost.

Explanation:
A is the best response.
The last line of the third section of the passage gives the answer. The sentence "there is a strong case for making PDS target group oriented" shows the right answer choice (A).

24. Which of the following, according to the passage, is compared with dearness allowance?
   A. Food for work program

B. Unemployment allowance
C. Food subsidy
D. Procurement price of food grains

Explanation:

C is the best response.

The sentence in the middle of the passage "The food subsidy is a kind of D.A. to the poor" shows the right answer (C).

25. Food subsidy leads to which of the following?
   A. Sense of insecurity
   B. Increased dependence
   C. Shortage of food grains
   D. Decrease in food grains production

Explanation:

B is the best response.

In the second line of the last part of the passage, the sentence "subsidies often create a psychology of dependence" gives the right answer (B).

26. What, according to the passage, would be the outcome of making the PDS target group oriented?
   A. It will abolish the imbalance of urban and rural sector.
   B. It will remove poverty.
   C. It will give food to the poorest without additional cost.
   D. It will motivate the target group population to work more.

Explanation:

C is the best response.

In the fourth line from the bottom the sentence "by making PDS target group oriented, not only the poorest and neediest would be reached without additional cost" gives the answer (C)

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SWEET CANDIES

Directions: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.

Answer of each question has been given at the bottom of exercise.

Passage

Democratic societies from the earliest times have expected their governments to protect the weak against the strong. No 'era of good feeling' can justify discharging the police force or giving up the idea of public control over concentrated private wealth. On the other hand, it is obvious that a spirit of self-denial and moderation on the part of those who hold economic power will greatly soften the demand for absolute equality. Men are more interested in freedom and security than in an equal distribution of wealth. The extent to which Government must interfere with business, therefore, is not exactly measured by the extent to which economic power is concentrated into a few hands. The required degree of government interference depends mainly on whether economic powers are oppressively used, and on the necessity of keeping economic factors in a tolerable state of balance.

But with the necessity of meeting all these dangers and threats to liberty, the powers of government are unavoidably increased, whichever political party may be in office. The growth of government is a necessary result of the growth of technology and of the problems that go with the use of machines and science. Since the Government in our nation, must take on more powers to meet its problems, there is no way to preserve freedom except by making democracy more powerful.

Questions:

1. The advent of science and technology has increased the
   A. Freedom of people.
   B. Tyranny of the political parties.
   C. Powers of the government.
   D. Chances of economic inequality.

2. A spirit of moderation on the economically sound people would make the less privileged
   A. Unhappy with the rich people.
   B. More interested in freedom and security.
   C. Unhappy with their lot.
   D. Clamor less for absolute equality.

3. The growth of government is necessitated to
   A. Make the rich and the poor happy.
   B. Curb the accumulation of wealth in a few hands.
   C. Monitor science and technology.
   D. Deploy the police force wisely.

4. 'Era of good feeling' in the paragraph refers to
   A. Time of prosperity.
   B. Time of adversity.
   C. Time without government.
   D. Time of police atrocities.

5. "Tolerable state of balance' in the last sentence may mean
   A. An adequate level of police force.

   B. A reasonable level of economic equality.
   C. A reasonable amount of government interference.
   D. A reasonable check on economic power.

Passage:

Educational planning should aim at meeting the educational needs of the entire population of all age groups. While the traditional structure of education as a three layer hierarchy from the primary stage to the university represents the core, we should not overlook the periphery which is equally important. Under modern conditions, workers need to rewind, or renew their enthusiasm, or strike out in a new direction, or improve their skills as much as any university professor. The retired and the aged have their needs as well. Educational planning, in their words, should take care of the needs of everyone.

Our structures of education have been built up on the assumption that there is a terminal point to education. This basic defect has become all the more harmful today. A UNESCO report entitled 'Learning to Be' prepared by Edgar Faure and others in 1973 asserts that the education of children must prepare the future adult for various forms of self-learning. A viable education system of the future should consist of modules with different kinds of functions serving a diversity of constituents. And performance, not the period of study, should be the basis for credentials. The writing is already on the wall.

In view of the fact that the significance of a commitment of lifelong learning and lifetime education is being discussed only in recent years even in educationally advanced countries, the possibility of the idea becoming an integral part of educational thinking seems to be a far cry. For, to move in that direction means such more than some simple rearrangement of the present organization of education. But a good beginning can be made by developing Open University programs for older learners of different categories and introducing extension services in the conventional colleges and schools. Also these institutions should learn to cooperate with the numerous community organizations such as libraries, museums, municipal recreational programs, health services etc.

Questions:

6. What is the main thrust of the author?
   A. Traditional systems should be strengthened.
   B. Formal education is more important than non-formal.
   C. One should never cease to learn.
   D. It is impossible to meet the needs of everyone.

7. Which of the following best describes the purpose of the author?
   A. To criticize the present educational system.
   B. To strengthen the present educational practices.
   C. To support non-conventional educational organizations.
   D. To present a pragmatic point of view.

8. According to the passage, the present education structures assume which of the following?
   A. All people can be educated as per their needs.

B. Present educational planning is very much practical.

C. Education is a onetime process.

D. Simple rearrangement of the present educational system is a must.

9. What should be the major characteristic of the future educational system?

A. Different modules with same function.

B. Same module for different groups.

C. No modules but standard compulsory program for all.

D. None of these.

10. According to the author, educational plan should attempt to

A. Train the people at the core.

B. Encourage conventional schools and colleges.

C. Decide a terminal point to education.

D. Fulfill the educational needs of everyone.

11. According to the author, what measures should open university adopt to meet modern conditions?

A. Develop various programs for adult learners.

B. Open more colleges on traditional lines.

C. Cater to the needs of those who represent 'core'

D. Primary education should be under the control of open universities.

12. According to the author, what should be the basis for awarding credentials?

A. Duration of the course.

B. Competence of the course teachers.

C. Diversity of the topics covered.

D. Real grasp of matter or skill.

13. Which of the following is not true in context of the given passage?

A. Lifelong learning is a recent concept.

B. Workers' knowledge and skills also need to be updated constantly.

C. 'Learning to Be' defends that there is a terminal point to education.

D. Schools and colleges should open extension services.

14. According to the author, the concept of 'lifetime education' is

A. As old as traditional education.

B. Still in formative stages.

C. In vogue in advanced countries.

D. Not practical.

15. Integrating the concepts of lifelong learning with the educational structure would imply

A. Closing down conventional schools and colleges.

B. Longer durations for all formal courses.

C. Simple rearrangement of present educational organizations.

D. More weight for actual performance than real understanding.

16. In the context of the passage, what is the meaning of the sentence 'The writing is already on the wall'?

A. Everything is uncertain now-a-days.

B. Changes have already taken place.

C. The signs of change are already visible.

D. You cannot change the future.

17. Which of the following is most nearly the same in meaning as the word 'meeting' as used in the passage?

A. Approaching.

B. Contacting.

C. Introducing.

D. Satisfying.

18. Which of the following is most opposite in meaning to the word 'integral' as used in the passage?

A. Essential

B. Independent

C. Major

D. Minor

19. Which of the following is most opposite in meaning to the phrase 'a far cry' as used in the passage?

A. A reality

B. A theoretical suggestion

C. Very funny

D. Next to impossible

Passage:

Recent advances in science and technology have made it possible for geneticists to find out abnormalities in the unborn fetus and take remedial action to rectify some defects which would otherwise prove to be fatal to the child. Though genetic engineering is still at its infancy, scientists can now predict with greater accuracy a genetic disorder. It is not yet an exact science since they are not in a position to predict when exactly a genetic disorder will set in. While they have not yet been able to change the genetic order of the gene in germs, they are optimistic and are holding out that in the near future they might be successful in achieving this feat. They have, however, acquired the ability in manipulating tissue cells. However, genetic misinformation can sometimes be damaging for it may adversely affect people psychologically. Genetic information may lead to a tendency to brand some people as inferiors. Genetic information can therefore be abused and its application in deciding the sex of the fetus and its subsequent abortion is now hotly debated on ethical lines. But on this issue geneticists cannot be squarely blamed though this charge has often been leveled at them. It is mainly a societal problem. At present genetic engineering is a costly process of detecting disorders but scientists hope to reduce the costs when technology becomes more advanced. This is why much progress in this area has been possible in scientifically advanced and rich countries like the U.S.A., U.K. and Japan. It remains to be seen if in the future this science will lead to the development of a race of supermen or will be able to obliterate disease from this world.

Questions:

20. Which of the following is the same in meaning as the phrase 'holding out' as used in the passage?

A. Catching

B. Expounding

C. Sustaining

D. Restraining

21. According to the passage, the question of abortion is

A. Ignored

B. Hotly debated

C. Unanswered

D. Left to the scientists to decide

22. Which of the following is true regarding the reasons for progress in genetic engineering?
   A. It has become popular to abort female fetuses.
   B. Human beings are extremely interested in heredity.
   C. Economically sound and scientifically advanced countries can provide the infrastructure for such research.
   D. Poor countries desperately need genetic information.

23. Which of the following is the same in meaning as the word 'obliterate' as used in the passage?
   A. Wipe off
   B. Eradicate
   C. Give birth to
   D. Wipe out
   E. Very literate

24. Which of the following is the opposite in meaning to the word 'charged' as used in the passage?
   A. Calm
   B. Disturbed
   C. Discharged
   D. Settled

25. Which of the following is not true of the genetic engineering movement?
   A. Possibility of abuse.
   B. It is confronted by ethical problems.
   C. Increased tendency to manipulate gene cells.
   D. Acquired ability to detect genetic disorders in unborn babies.

26. Which of the following is the same in meaning as the word 'feat' as used in the passage?
   A. Process
   B. Focus
   C. Fact
   D. Goal

27. Why, according to the author, is genetic misinformation severely damaging?
   A. The cost involved is very high.
   B. Some people are unjustly branded as inferior.
   C. Both A and B
   D. Neither A nor B

28. In the passage, 'abused' means
   A. Insulted

   B. Talked about
   C. Killed
   D. Misused

29. At present genetic engineering can rectify all genetic disorders. Is it?
   A. Yes
   B. No
   C. It can do so only in some cases
   D. It also play role in the ratification of the social evils.

30. Which of the following, according to the author, are the short-comings of genetics in becoming an exact science?
   A. Technicians will not be able to determine the time when genetic disorder will set in.
   B. Technicians have not been able to manipulate germ cells.
   C. Both A and B
   D. Either A or B

31. Which of the following is the same in meaning as the word 'squarely' as used in the passage?
   A. Rigidly
   B. Firmly
   C. Directly
   D. At right angle

32. Which of the following is not true, according to the passage?
   A. Society is not affected by the research in genetic engineering.
   B. Genetic engineers are not able to say some things with certainty.
   C. If genetic information is not properly handled, it will create problems.
   D. Manipulation of genes is presently done only in tissue cell.

33. According to the author, the present state of knowledge about heredity has made geneticists
   A. Introspective
   B. Accusative
   C. Arrogant
   D. Optimistic

34. What is the tone of the author in the last sentence of the passage?
   A. Resignation
   B. Cautious
   C. Relief
   D. Concern

Answers of the Questions

Answers											
1.	C	2.	D	3.	A	4.	A	5.	C
6.	C	7.	D	8.	C	9.	D	10.	D
11.	A	12.	D	13.	C	14.	D	15.	C
16.	C	17.	D	18.	B	19.	A	20.	B
21.	B	22.	C	23.	B	24.	D	25.	C
26.	D	27.	B	28.	D	29.	C	30.	C
31.	C	32.	A	33.	D	34.	B	35.	

BRAIN BUSTERS

Directions: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.
Answer and explanation of each question has been given in the Explanation Section at the end of the exercise.

Passage:

A great deal of discussion continues as to the real extent of global environmental degradation and its implications. What few people challenge however is that the renewable natural resources of developing countries are today subject to stresses of unprecedented magnitude. These pressures are brought about, in part, by increased population and the quest for an ever-expanding food supply. Because the health, nutrition, and general well-being of the poor majority are directly dependent on the integrity and productivity of their natural resources, the capability of governments to manage them effectively over the long term becomes of paramount importance.

Developing countries are becoming more aware of the ways in which present and future economic development must build upon a sound and sustainable natural resource base. Some are looking at our long tradition in environmental protection and are receptive to US assistance, which recognizes the uniqueness of the social and ecological systems in these tropical countries. Developing countries recognize the need to improve their capability to analyze issues and their own natural resource management. In February 1981, for example AID funded a national Academy of Sciences panel to advise Nepal on their severe natural resource degradation problems. Some countries such as Senegal, India, Indonesia and Thailand, are now including conservation concerns in their economic development planning process.

Because so many governments of developing nations have recognized the importance of these issues, the need today is not merely one of raising additional consciousness, but for carefully designed and sharply focused activities aimed at management regimes that are essential to the achievement of sustained development.

Questions:

1. Some of the developing countries of Asia and Africa have
    - A. Formulated very ambitious plans of protecting habitat in the region.
    - B. Laid a great stress on the conservation of natural resources in their educational endeavor.
    - C. Carefully dovetailed environmental conservation with the overall strategy of planned economic development.
    - D. Sought the help of US experts in solving the problem of environmental degradation.

2. Technical know-how developed in the USA
    - A. Cannot be easily assimilated by the technocrats of the developing countries.
    - B. Can be properly utilized on the basis of developing countries being able to launch an in-depth study of their specific problems.
    - C. Can be easily borrowed by the developing countries to solve the problem of environmental degradation.
    - D. Can be very effective in solving the problem of resource management in tropical countries.

3. There has been a pronounced deterioration of habitat all over the globe because of
    - A. Rigorous operation of the Malthusian principle
    - B. Unprecedented urbanization and dislocation of self contained rural communities.
    - C. Optimum degree of industrialization in the developing countries.
    - D. Large scale deforestation and desertification.

4. The poor people of the developing world can lead a happy and contented life if
    - A. There is a North-South dialogue and aid flows freely to the developing world.
    - B. Industries based on agriculture are widely developed.
    - C. Economic development takes place within the ambit of conservation of natural resources.
    - D. There is an assured supply of food and medical care.

5. How much environmental pollution has taken place in the developing and the developed world?
    - A. There has been a marginal pollution of environment in the developed world and extensive damage in the developing world.
    - B. There has been a considerable pollution of environment all over the globe.
    - C. There has been an extensive environmental degradation both in the developed and the developing world.
    - D. The environmental pollution that has taken place all over the globe continues to be a matter of speculation and enquiry.

Answers									
1.		C	2.		B	3.		A	4.		C	5.		D

Answers and Explanations

Explanations		
1.	C	Start of the second part of the passage states "Developing countries are becoming more aware of the ways in which present and future economic development must build upon a sound and sustainable natural resource base", hence the answer is (C)
2.	B	The sentence "Developing countries recognize the need to improve their capability to analyze issues and their own natural resource management" in the middle of the passage gives the right answer choice (B).

3.	A	Malthusian principle relates the human population and the earth's natural resources. The main problem of the developing countries described in the passage is the inefficient large-scale use of natural resources; hence, they are applying Malthusian Principle.
4.	C	The last part "Because so many governments of developing nations have recognized the importance of these issues, the need today is not merely one of raising additional consciousness, but for carefully designed and sharply focused activities aimed at management regimes that are essential to the achievement of sustained development." Of the passage leads to the right answer (C).
5.	D	First line of the passage indicates the issue under discussion is global problem.

Passage:

The past decade has upset many preconceptions above development and this, more than anything else, makes it difficult to be overly definite about what the next decade has in store. However, there are a few things that one can assert with some confidence. First, education, health, and productive employment are crucial both for growth and for equity. We have tended to assume that all of these are the consequences of rapid economic growth and that only growth can generate the resources required for these purposes. However, increasingly, it appears that these are better seen as the causes rather than as consequences of development. Virtually every case of successful development involves a prior improvement in literacy, technical skills, health status, and access to productive work.

Second, technological competence is the most important resource endowment and it explains a far larger proportion of growth in output and trade than more conventional factors like natural resources or capital accumulation. The competence required is not just in research. In fact technological dynamism in the factory and the farm is more important than the presence of large research establishment.

Third, the environmental imperative can no longer be ignored. Today, as an international issue, it is second only to disarmament. Nationally, the developmental consequences of environmental neglect are increasingly obvious.

In the Pakistani context, there are at least two further factors, which reinforce the above propositions. The first is population growth. Given the pace of expansion of the population and the work force, human resource development acquires an added urgency. Population growth is also one, but not necessarily the most important factor, which underlines environmental stress in rural and urban areas. The second factor is that as a large country we cannot carve out an independent positioning the global system without building up a substantial capacity for self-reliant growth. The acquisition of technical competence is crucial for this purpose.

Until now, we have tended to treat human resource development, technology issues and environment as subsidiary to the main task of planning. The thrust has been on: quantitative expansion of infrastructure and production with a focus on production targets like tones of steel, kWh of electricity etc., capacity targets like road length, rail kilometer age; and coverage targets like number of schools and students, number of villages electrified etcetera, catching up with known technologies —Fuller use of natural resources -Maximum mobilization of financial resources.

1. What seems to be the purpose of the author in writing this passage?
   A. To appreciate the steps taken by our Government in the past and doubts about future.
   B. To show how the policy makers have failed.
   C. A review of world affairs with special emphasis on developed countries.
   D. Review of the past with a view to evolve positive directions for future.

2. According to the passage, we have so far placed more emphasis on which of the following?
   A. Optimum use of available natural resources.
   B. Increased number of basic facilities and meeting number targets.
   C. Maximum utilization of available finances
   D. Following known technologies.

3. According to the author, which of the following factors support and strengthen his point of view?
   A - Necessity of carrying out growth on the basis of our own strength.
   B - Increased emphasis on production and coverage targets?
   A. Only A
   B. Only B
   C. Either A or B
   D. Both A and B

4. According to the author, which of the following is a less important factor resulting in environmental stress in rural and urban areas?
   A. Increase in capital accumulation.
   B. Rapid economic growth.
   C. Rate of growth of population.
   D. Availability of productive employment.

5. According to the author, at the national level, with passage of time the effects of which of the following are being felt?
   A. Expansion of work force of high quality.
   B. Lack of attention and action for protecting environmental wealth.
   C. Reduction in growth rate of population.
   D. Progressive degradation of technological competence in urban areas.

6. Which of the following statements is not true in the context of the passage?
   A. Optimum self reliance is the need of the day.

B. We will have bright future by only catching up known technologies.

C. We have to now emphasize aspects of human resource development.

D. Technological competence has to be given due priority over more conventional factors.

7. According to the author, which of the following cannot be viewed as cause of development?

A. Betterment in population growth.
B. Increase in underemployment.
C. Speedy economic growth.

D. Enhancement in technical skills.

8. What seems to be the approach of the author regarding present status of research?

A - He desires that more research establishments should come up.

B - Application of new technologies in factories and field is more vital than setting up of research laboratories.

A. Only A
B. Only B
C. Neither A nor B
D. Both A and B

Answers

1.		B	2.		B	3.		A	4.		D	5.		B
6.		B	7.		B	8.		B	9.			10.		

Answers and Explanations

Explanations

1.	B	The author has discussed factors for development of the country and has suggested many dimensions, which are important. This indicates that the previous policies were not successful.
2.	B	Last part of the passage gives the answer of the question.
3.	A	In last part of the passage the author point out that "so far we have given emphasis on numbers". His tone indicates that he wants more growth on our strength.
4.	D	In first part the author says "Education, health, and productive employment are crucial both for growth and for equity. We have tended to assume that all of these are the consequences of rapid economic growth and that only growth can generate the resources required for these purposes. However, increasingly, it appears that these are better seen as the causes rather than as consequences of development. Virtually every case of successful development involves a prior improvement in literacy, technical skills, health status, and access to productive work". In the middle of the passage the author points out "Given the pace of expansion of the population and the work force, human resource development acquires an added urgency. Population growth is also one, but not necessarily the most important factor, which underlines environmental stress in rural and urban areas." This clearly gives the idea that author believes that availability of productive employment is less important.
5.	B	In the third factor the author says "Third, the environmental imperative can no longer be ignored. Today, as an international issue, it is second only to disarmament. Nationally, the developmental consequences of environmental neglect are increasingly obvious." The right answer choice is B.
6.	B	In the middle of the passage, the author gives emphasis on research "The competence required is not just in research. In fact technological dynamism in the factory and the farm is more important than the presence of large research establishment." Hence, he believes that there are many other factors of growth as well.
7.	B	From the third line of the passage, the author says "Education, health, and productive employment are crucial both for growth and for equity. We have tended to assume that all of these are the consequences of rapid economic growth and that only growth can generate the resources required for these purposes. However, increasingly, it appears that these are better seen as the causes rather than as consequences of development. Virtually every case of successful development involves a prior improvement in literacy, technical skills, health status, and access to productive work." which gives the right answer.
8.	B	In the middle of the passage, the author gives clear idea about new technologies. "In fact technological dynamism in the factory and the farm is more important than the presence of large research establishment. The right answer is B.

Passage:

Power and possession have been central pursuits of modern civilization for a long time. They blocked out or distorted other features of the western renaissance (revival) which promised so much for humanity. What people have been and are still being taught to prize is money, success, and control over the lives of others, acquisition of more and more objects.

Modern social, political, and economic systems, whether capitalist, fascist or communist, reject in their working the basic principle that the free and creative enfoldment of every man, woman and child is the true measure of the worth of any society. Such enfoldment requires understanding and imagination, integrity and compassion, cooperation among people and harmony between the human species and the rest of nature. Acquisitiveness and the pursuit of power have made the modern man an aggressor against everything that is non-human, an exploiter, and oppressor of those who are poor, meek, and unorganized, a pathological type which hates and distrusts the world and suffers from both acute loneliness and false pride.

The need for a new renaissance is deeply felt by those sensitive and conscientious men and women who not only perceive the dimensions of the crisis of our age but who also realize that

only through conscious and cooperative human effort may this crisis be met and probably even overcome.

Questions:

1. The author appears to be advocating which of the following approaches to be adopted by the society?
   - A. Capitalistic
   - B. Communist
   - C. Humanistic
   - D. Authoritarian

2. Which of the following best describes the behavior of modern man?
   - A. Imaginative and sympathetic.
   - B. Cruel and greed.
   - C. Conscientious and cooperative.
   - D. Perceptive and creative.

3. According to the passage, why has modern man turned out as an enemy of everything that is non-human?
   - A. He hates and distrusts other human beings.
   - B. Non-human have refused cooperation to human beings.
   - C. He has been dominated by drives of acquisitiveness and power.
   - D. He consciously practices spirit of cooperation.

4. Which of the following statements is **not true** in context of the given passage?
   - A. Power and possession go hand in hand.
   - B. There is a need for a new renaissance.
   - C. Poor and weak people are oppressed by the modern man.
   - D. The modern man is not individualist.

5. The real attainment of any society can be judged by which of the following?
   - A. The encouragement for acquisitive tendencies.
   - B. Total victimization of conscientious persons.
   - C. The degree of freedom for pursuing more and more power.
   - D. None of these.

6. Which of the following is one of the requirements bringing out the best in man?
   - A. Money
   - B. Success
   - C. Power
   - D. Understanding

7. The western renaissance could not make total impact on today's humanity because
   - A. It was conceptually weak.
   - B. It was against basic principle.
   - C. Conscientious men opposed it.
   - D. None of these.

8. The author hopes that the present crisis can be solved by
   - A. Devoted individual efforts.
   - B. Different political systems.
   - C. Purpose and collective human efforts.
   - D. Spiritually developed individuals.

9. The modern value systems encourage the importance of which one of the following?
   - A. Craving for power and possession.
   - B. Basic respect for all individuals.
   - C. Spiritual development of all individuals.
   - D. Spirit of inquiry and knowledge.

10. Which of the following is most opposite in meaning to the word 'central' as used in the passage?
    - A. Lateral
    - B. Inadequate
    - C. Peripheral
    - D. Major

11. Which of the following is most nearly the same in meaning as the word 'rest' as used in the passage?
    - A. Partial
    - B. Remaining
    - C. Relax
    - D. All

12. Which of the following is most opposite in meaning to the word 'deeply' as used in the passage?
    - A. Widely
    - B. Superficially
    - C. Wrongly
    - D. Openly

Answers

1.	B	2.	B	3.	C	4.	D	5.	D
6.	D	7.	D	8.	D	9.	A	10.	C
11.	B	12.	C	13.		14.		15.	

Answers and Explanations

Explanations		
1.	B.	The author is in favor of equity of human beings. In the given choices only the choice B reflects the author's ideas.
2.	B.	The author indicates the existing behavioral factors of the society in the start of the passage as "What people have been and are still being taught to prize is money, success, and control over the lives of others, acquisition of more and more objects." Which indicates that the right choice is B.
3.	C.	The sentence in the middle of the passage "Acquisitiveness and the pursuit of power have made the modern man an aggressor against everything that is non-human," clearly shows that the right answer choice is C.
4.	D.	In the fifth line from the bottom of the passage, man has become "a pathological type which hates and distrusts the world and suffers from both acute loneliness and false pride.". The right answer choice is D.
5.	D.	The disfavors all the points in choices A, B, and C. Hence, the right choice is D.
6.	D.	The last line of the passage "only through conscious and cooperative human effort may this crisis be met and probably even overcome" gives the answer. The right answer choice is D.
7.	D.	Choices A, B, and C are against the ideas of the author.
8.	C.	In the last part of the passage, the author says "The need for a new renaissance is deeply felt by those sensitive and conscientious men and women who not only perceive the dimensions of the crisis of our age but who also realize that only through conscious and cooperative human effort may this crisis be met and probably even overcome." which gives the answer of the question. The right answer choice is C.
9.	A.	The lines in the start of the passage "Modern social, political, and economic systems, whether capitalist, fascist or communist, reject in their working the basic principle that the free and creative enfoldment of every man, woman and child is the true measure of the worth of any society." clearly indicate that modern value system encourages the importance of power and possession. The right choice is A.
10.	C.	In the context of the passage "Power and possession" have been central pursuits of modern civilization for a long time. " the word "central" means "important" or "major"; therefore its opposite word should be "peripheral".
11.	B.	The word "rest" has been used above the last part of the passage as "the human species and the rest of nature". Here the contextual meaning of the word is "remaining". The right answer choice is B.
12.	C.	In the context of the passage the word "deeply" has been used in the line "The need for a new renaissance is deeply felt by those sensitive and conscientious men and women" gives the meaning that "men and women felt correctly"; hence the opposite to that is "wrongly". The answer choice is C.

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QUANTITATIVE REASONING

QUANTITATIVE REASONING

Quantitative Reasoning questions are multiple-choice math questions that give you five possible answer choices. You are required to select the best answer.

The Quantitative section of the SAT is designed to test your ability to work with numbers. There are a variety of questions in this section dealing with the basic principles of arithmetic, algebra, and geometry.

Fortunately, here on the SAT the math section is not what you think it should be. Really, it is nothing more than what you have studied in 6th or 7th class. Being good reader and as prospect test taker of the SAT, you would never find the name Mathematics for this section rather the standard name used is Quantitative in any standard Test prep book like the book in your hands.

Fortunately, most of the mathematics on the test is high school level mathematics, and should not be much difficult. Unfortunately, the time, and getting ready to take the SAT, you have probably forgotten most of your high school math. I, in this book, have provided with basic mathematics necessary for the test. These questions may take the form of word problems or require straight calculation. In addition, questions involving the interpretation of tables and graphs may be included. If your math skills are somewhat weak, don't get panic with this section. The questions on the test are multiple-choice questions. If you develop strong MCQ handling techniques, you can improve your score.

The typical Problem Solving section that has appeared on recent tests consists of 30 questions that must be answered within a time limit of 35 minutes.

Help Score High

Don't waste time on unnecessary calculations. If you can answer the question by estimating or doing a rough calculation, the time you save can be used to work on other lengthy or difficult questions.

If a problem involves geometry, and a diagram is not provided, draw a diagram based on facts given in question.

You will not be allowed to use a calculator on the test. Practice doing arithmetic without a calculator during preparatory period of the test.

If possible, reverse check your answer. For example, if you solve an equation, check that the number you obtained actually solves the equation.

Use scratch paper to make necessary transit calculations.

The questions in this section range from very easy to quite challenging and are not always arranged in order of difficulty. Make sure you budget your time so that you can try each Question.

Ability Tested:

Problem solving questions in SAT test your ability to solve mathematical problems involving complex situations based on arithmetic, algebra, and geometry, as well as word problems. By using problem-solving insight, logic, and the application of basic skills you can perform well on the test.

Basic Skills Necessary:

The basic skills necessary to do well on this section include high school arithmetic, algebra, and basic solid geometry—no formal learning of trigonometry or calculus is necessary. These skills, along with logical insight into problem-solving situations, are covered on the test.

QUANTITATIVE SECTION REVIEW

The quantitative section measures your basic mathematical skills, your understanding of elementary mathematical concepts, and your ability to reason quantitatively and solve problems in a quantitative setting. There is a balance of questions requiring mathematical knowledge usually studied in 6th or 7th class.

Although this chapter provides a review of some of the important mathematical concepts of arithmetic, algebra and geometry, it is not intended to be a textbook. You should use this chapter to familiarize yourself with the kinds of topics that are tested on the test. You may consult arithmetic, algebra or geometry book for a more detailed discussion of some of the topics though it is not required.

I have divided this section review in three parts. Each part separately gives description of each included topics with example questions and explanations.

Prior to the three sections, a section titled "Effective Techniques for Solving Quantitative Problems" is presented. This section lists down two major techniques that help students solve the problems presented in the quantitative section of the test. The techniques are Substitution and Elimination. Instead of always having to solve the entire question every single time, students can use these techniques to figure out the answer quickly, making their work efficient, and helping them save the most precious resource during exams i.e. time.

The topics that are covered in Section A include arithmetic. Arithmetic questions may involve basic arithmetic operations, powers, operations on radical expressions, estimation, percent, absolute value, properties of integers (e.g., divisibility, factoring, prime numbers, odd and even integers), and the number line.

Topics in Section A of this Review

- Numbers and their Properties
- Fractions and Decimals
- Basic Arithmetic Operations
- Exponents
- Ratio and Proportions (including Inheritance)
- Percent and its Applications (including Business Mathematics, Financial Mathematics, Consumer Mathematics)
- Permutations and Combinations
- Counting
- Arithmetic & Geometric Sequences
- Basic Statistics (Average, Mod, Median, and Probability)
- Grid-Ins

The contents of Section B, Algebra does not extend beyond what is usually covered in 8th class algebra course. The topics included are:

Topics in Section B of this Review

- Algebraic expressions with one variable
- Defined Functions
- Functions
- Equations
- Inequalities
- Sets
- Word Problems

Section C, geometry is limited primarily to measurement and intuitive geometry or special visualization. Extensive knowledge of theorems and the ability to construct proofs, skills that are usually developed in a formal geometry course, are not tested. The topics included in this section are:

Topics in section C of this review

- Basic Concepts in Geometry
- Basic Geometrical Shapes & Formulae
- Coordinate Geometry
- Trigonometry
- Quantitative Comparisons

EFFECTIVE TECHNIQUES FOR SOLVING QUANTITATIVE PROBLEMS

SUBSTITUTION

One of the most useful techniques for solving mathematics questions is substitution. In it, we look at the problem statement, and judging by the properties mentioned in the statement, we enter numbers into the answer choices. Consider the following examples to understand this.

Example 1: Which one of the following is an even integer if 'n' is an odd integer?

    (A) n^3 (B) $n/4$

    (C) $2n + 3$ (D) $n(n + 3)$

According to the question, we are told that 'n' is an odd integer. So choose an odd integer and plug it into the answer choices. Let's start with 1.

n^3 becomes $1^3 = 1$. This is not an even integer. So we can eliminate (A).

Next, $n/4 = 1/4$ is not an even integer—eliminate (B) as well.

Now, $2n + 3 = 2 \cdot 1 + 3 = 5$ is not an even integer either so we can also eliminate option (C).

Finally, $n(n + 3) = 1(1 + 3) = 4$. This is an even integer. Therefore, the correct answer is (D).

Remember that when using the substitution method, you should check every answer option. This is because the number you choose may work for more than one option. When this happens, choose another number and plug it in, and so on, until you eliminate all options and only the answer remains. This may sound like a lot of computing, but the calculations can usually be done in a few seconds.

Example 2: Which of the following can NOT be an even integer if 'n' is an integer?

    (A) $2n + 2$ (B) $n - 5$

    (C) $2n + 3$ (D) $5n + 2$

Let's put n as 1. Then $2n + 2 = 2(1) + 2 = 4$. This is even. So we can eliminate option (A).

Next, $n - 5 = 1 - 5 = -4$. We can eliminate (B).

Next, $2n + 3 = 2(1) + 3 = 5$. Now, although this is not even, it doesn't mean that this is definitely our answer. It could be. Because, $5n + 2 = 5(1) + 2 = 7$ is not even as well. So we plug in another number, say, 2. Then $5n + 2 = 5(2) + 2 = 12$ is even, which eliminates option (D).

Thus, option (C), $2n + 3$, is the correct answer.

Example 3: Which of the following must be less than 1 if x/y is a fraction greater than 1?

    (A) $3y/x$ (B) $x/3y$

    (C) $\sqrt{\dfrac{x}{y}}$ (D) y/x

We have to choose x and y in a way that makes $x/y > 1$. Let's plug in $x = 3$ and $y = 2$. This makes, $\dfrac{3y}{x} = \dfrac{3 \cdot 2}{3} = 2$ which is greater than 1, so eliminate option (A). Next, $\dfrac{x}{3y} = \dfrac{3}{3 \cdot 2} = \dfrac{1}{2}$ is less than 1, so this is a possible answer. Next, $\sqrt{\dfrac{x}{y}} = \sqrt{\dfrac{3}{2}} > 1$, so we can eliminate option (C). Next, $\dfrac{y}{x} = \dfrac{2}{3} < 1$. This is another possible answer. Now we have to decide between options (B) and (D). Let $x = 6$ and $y = 2$. We get, $\dfrac{x}{3y} = \dfrac{6}{3 \cdot 2} = 1$. This eliminates option (B). Hence, the correct answer is option (D).

SOLVED EXERCISE:

1. Which of the following must be an even integer if 'n' is an odd integer?
   (A) $n/2$ (B) $4n+3$
   (C) $2n$ (D) n^4

2. Which of the following is NOT necessarily a perfect square if X and Y are perfect squares?
   (A) x^2 (B) xy
   (C) $4x$ (D) $x+y$

3. Which of the following expressions could be an even integer if x is an odd integer and y is an even integer?
   (A) $3x+y/2$ (B) $(x+y)/2$
   (C) $x+y$ (D) $x/4-y/2$

4. Then which of the following must be less than k if $0 < k < 1$?
   (A) $3k/2$ (B) $1/k$
   (C) $|k|$ (D) k^2

5. Suppose you begin reading a book on page h and end on page k. If you read each page completely and the pages are numbered and read consecutively, then how many pages have you read?
   (A) $h+k$ (B) $h-k$
   (C) $k-h+2$ (D) $k-h+1$

6. Provided that m is an even integer, which of the following is the sum of the next two even integers greater than $4m + 1$?
   (A) $8m+2$ (B) $8m+4$
   (C) $8m+6$ (D) $8m+8$

7. Which of the following must be true provided that x is an integer and x^2 is even?
   I.   x is odd.
   II. x is even.
   III. x^3 is odd.
   (A) I only   (B) II only
   (C) III only   (D) I and II only

8. Which of the following CANNOT be an integer supposing that x is divisible by 8 but not by 3?
   (A) $x/2$ (B) $x/4$
   (C) $x/6$ (D) $x/8$

9. How many integers are larger than pq and smaller than $p(q + 2)$ provided that p and q are positive integers?
   (A) 3   (B) $p+2$
   (C) $p-2$ (D) $2p-1$

10. Which one of the following cannot equal $x - y$ provided that x and y are prime numbers?
    (A) 1   (B) 2
    (C) 13   (D) 14

11. Provided that x is an integer, then which of the following is the product of the next two integers greater than $2(x + 1)$?
    (A) $4x^2 + 14x + 12$ (B) $4x^2 + 12$
    (C) $x^2 + 14x + 12$ (D) $x^2 + x + 12$

12. Which one of the following expressions is never an integer provided that integer x is divisible by 3 but not by 2?
    (A) $(x+1)/2$ (B) $x/7$
    (C) $x^2/3$ (D) $x/24$

13. Which of the following expressions must also be even provided that x and y both are positive even integers?
    I. y^{x-1}
    II. $y-1$
    III. $x/2$
    (A) I only   (B) II only
    (C) III only   (D) I and III only

14. Find the solution to the equation $x^4 - 2x^2 = -1$ from among the following.
    (A) 0   (B) 1
    (C) 2   (D) 3

15. Which of the following will equal -2 when multiplied by $\dfrac{3-4x}{5}$ provided that $x \neq 3/4$?
    (A) $\dfrac{5-4x}{4}$ (B) $\dfrac{10}{3-4x}$
    (C) $\dfrac{10}{4x-3}$ (D) $\dfrac{3-4x}{5}$

ANSWERS AND EXPLANATIONS

1. Correct Answer: D
Explanation:
If we put $n = 1$, then we get $n/2 = \frac{1}{2}$. Since this is not even we can eliminate option (A). Next, $4n + 3 = 4 \cdot 1 + 3 = 7$, so we can eliminate (B). Next, $2n = 2 \cdot 1 = 2$. This is even so this is a possible answer. Next, (D) equals 1. Hence, the correct answer is (C).

2. Correct Answer: D
Explanation:
First put $x = 4$ and $y = 9$. We get $x^2 = 4^2 = 16$, which is a perfect square (bear in mind that we cannot eliminate x^2 because it may not be a perfect square for another choice of x). Now, $xy = 4 \cdot 9 = 36$, which is a perfect square. Next, $4x = 4 \cdot 4 = 16$, which is another perfect square. Next, $x + y = 4 + 9 = 13$. This is not a perfect square. The correct answer is therefore option (D).

3. Correct Answer: A
Explanation:
Plugging in $x = 1$ and $y = 2$. Then we get $3x + y/2 = 3 \cdot 1 + 2/2 = 4$, which is even. Hence, the correct answer is (A). The reason we don't have to check other options is because the question simply asked for the expression that *could be* even. This means that the first option that turns out even is the answer.

4. Correct Answer: D
Explanation:
By putting in $k = \frac{1}{4}$, we get $\frac{3}{2}k = \frac{3}{2} \cdot \frac{1}{4} = \frac{3}{8} > \frac{1}{4}$; so we can eliminate option (A). Next, $\frac{1}{k} = \frac{1}{1/4} = 4 > \frac{1}{4}$ so we also eliminate option (B). Next, $|k| = \left|\frac{1}{4}\right| = \frac{1}{4}$ so eliminate (C) as well. So by the process of elimination, the correct answer is option (D).

5. Correct Answer: D
Explanation:
Let is suppose that we begin reading on page 1 and stop on page 2. This means we have read 2 pages. Now substitute $h = 1$ and $k = 2$ into the options to see which equal 2. We find out that only $k - h + 1 = 2 - 1 + 1 = 2$. Hence, the correct answer is (D).

6. Correct Answer: C
Explanation:
Put $m = 2$, which is an even integer. Next, $4m + 1 = 9$ is odd. So the next even integer greater than 9 is 10. And the next even integer after 10 is 12. Now, $10 + 12 = 22$. Seek out an option which equals 22 when $m = 2$. Start off with option (A). Since $m = 2$, $8m + 2 = 18$, so can eliminate option (A). Next, $8m + 4 = 20$, so we can

eliminate (B). Next, $8m + 6 = 22$. Which is therefore the correct answer i.e. option (C).

7. Correct Answer: B
Explanation:
Let us suppose $x^2 = 4$, then we get $x = 2$ or $x = -2$, and so x is even in both cases. So, statement I does not have to be true, and we can eliminates options (A) and (D). Furthermore, $x^3 = 8$ or $x^3 = -8$. In both cases, x^3 is even. So, statement III does not have to be true and this eliminates option (C). Hence, through elimination, we know that the answer is option (B).

8. Correct Answer: C
Explanation:
Let us put $x = 8$. So x is divisible by 8 but not by 3. Now, $x/2 = 4$, $x/4 = 2$, $x/8 = 1$ and $x = 8$. Since these are all integers so we can eliminate options (A), (B) and (D). So through elimination, the correct answer is option (C).

9. Correct Answer: D
Explanation:
Suppose $p = 1$ and $q = 2$. Then $pq = 2$ and $p(q + 2) = 4$. In this we have one integer, 3, greater than pq and less than $p(q + 2)$. Let's plug $p = 1$ and $q = 2$ into the options until we get to the option that has the value 1. In option (D): $2p - 1 = (2)(1) - 1 = 1$, and so it is the correct answer.

10. Correct Answer: C
Explanation:
Putting $x = 3$ and $y = 2$, we get $x - y = 3 - 2 = 1$. So we can eliminate option (A). If we put $x = 5$ and $y = 3$, then $x - y = 5 - 3 = 2$. This eliminates option (B) as well. If $x = 17$ and $y = 3$, then $x - y = 17 - 3 = 14$. Thus removing option (D). So, through elimination, the answer is option (C).

11. Correct Answer: A
Explanation:
Putting $x = 1$, an integer. Then $2(x + 1) = 2(1 + 1) = 4$. The next two integers greater than 4 are 5 and 6, and their product is 30. So now let us check which of the options equal 30 when $x = 1$. Starting with option (A):
$4x^2 + 14x + 12 = 4(1)^2 + 14 \cdot 1 + 12 = 30$
Since none of the other options equal 30 provided that $x = 1$, so the correct answer is option (A).

12. Correct Answer: D
Explanation:
We know that the number 3 is divisible by itself but not by 2. With this value of x, option (A) can be eliminated as
$\frac{3 + 1}{2} = \frac{4}{2} = 2$.

Option (C) becomes $\dfrac{3^2}{3} = \dfrac{9}{3} = 3$ so we can eliminate this as well.

Provided that $x = 21$, then option (B) becomes $21/7 = 3$ and can also be eliminated.

So through elimination we know that the correct answer is option (D).

13. Correct Answer: A
Explanation:
If $x = y = 2$, then $y^{x-1} = 2^{2-1} = 2^1 = 2$ (even). But $y - 1 = 2 - 1 = 1$ is odd, and $x/2 = 2/2 = 1$ is also odd. This eliminates options (B), (C), and (D). The correct answer is therefore the remaining option, i.e. option (A).

14. Correct Answer: B
Explanation:
By plugging in the answer choices, (starting with 0) we get,

$x^4 - 2x^2 = 0^4 - 2 \cdot 0^2 = 0 - 0 = 0$
So we can eliminate option (A). Next, plug in 1:
$x^4 - 2x^2 = 1^4 - 2 \cdot 1^2 = 1 - 2 = -1$
Hence, the answer is option (B).

15. Correct Answer: C
Explanation:

Provided that $x = 0$, $\dfrac{3 - 4x}{5}$ becomes 3/5 and the options become

(A) 5/4   (B) 10/3
(C) −10/3   (D) 3/5

By multiplying option (C) with 3/5 we get

$\left(\dfrac{3}{5}\right)\left(-\dfrac{10}{3}\right) = -2$. Hence, the correct option (C).

SUBSTITUTION - PLUGGING IN

Another effective approach is called Plugging in. In it, instead of substituting numbers into the problem, we can simply add the answer choices given. Sometimes instead of making up numbers to substitute into the problem, we can use the actual answer-choices.

Example 1:
The digits of a three-digit number add up to 18. If the ten's digit is twice the hundred's digit and the hundred's digit is 1/3 the unit's digit, what is the number?

(A) 246 (B) 369
(C) 855 (D) 893

The first thing we need to do is to check which of the given options has a sum of digits equal to 18. For option (A), 2 + 4 + 6 ≠ 18, so we can eliminate it. For (B), 3 + 6 + 9 = 18. This is a possible answer. For (C), 8 + 5 + 5 = 18, another possible answer. For choice (D), 8 + 9 + 3 ≠ 18, and so it can be eliminated. Option (C) can also be eliminated as the ten's digit is _not_ twice the hundred's digit, 5 ≠ 2 · 8. So, by elimination, the correct answer is option (B). Note that we did not need the fact that the hundred's digit is 1/3 the unit's digit.

SOLVED EXERCISE

1. The ten's digit of a two-digit number is twice the unit's digit. Reversing the digits yields a new number that is 27 less than the original number. Which one of the following is the original number?

(A) 12 (B) 21
(C) 43 (D) 63

2. If $\dfrac{N+N}{N^2}=1$, then $N=$

(A) 1/6 (B) 1/3
(C) 1 (D) 2

3. Suppose that half the passengers on a bus exit at each stop and no further passengers board the bus. How many people were on the bus if on the third stop the next to last person exits the bus?

(A) 20 (B) 16

(C) 8 (D) 6

4. The sum of the digits of a two-digit number is 12, and the ten's digit is one-third the unit's digit. What is the number?

(A) 93 (B) 54
(C) 48 (D) 39

5. If $\dfrac{x^6-5x^3-16}{8}=1$, then x could be

(A) 1 (B) 2
(C) 3 (D) 5

6. Find the solution to the equation $x^4-2x^2=-1$ from the following.

(A) 0 (B) 1
(C) 2 (D) 3

ANSWERS AND EXPLANATIONS

1. **Correct Answers: D**
   Explanation:
   We can eliminate options (A) and (C) by virtue of the fact that the ten's digit must be twice the unit's. By reversing the digits in option (B) we get 12. But 21 − 12 ≠ 27 and thus eliminating option (B). Hence, the answer is option (D). (63 − 36 = 27.)

2. **Correct Answer: D**
   Explanation:
   All we have to do here is plug in options until we find the option that yields a result of 1. Let's start with 1.

   $\dfrac{1+1}{1^2}=2 \neq 1$. So we can eliminate option (C). By choosing

   $N = 2$, we get $\dfrac{2+2}{2^2}=\dfrac{4}{4}=1$. Hence, the answer is option (D).

3. **Correct Answer: C**
   Explanation: Let us suppose that as per option (C), there were 8 people on the bus. Then there would be 4 people left on the bus after the first stop. And 2 people after the second. After the third stop, there would be only one person left on the bus. This means that the next to last person would have existed the bus on the third stop. Hence, the correct answer is (C).
   Another method to solve this is as follows; after the third stop, one person got off while one was still on. This means that when the bus came to that stop, there were 2 people

on the bus. As this is half of the previous stop, the second stop must have had 4 people, and the one before that, the first stop, must have had 8 people. Hence, the correct answer is option (C).

4. **Correct Answer: D**
   Explanation:
   The answer is option (D) as 3 + 9 = 12 and $3=\dfrac{1}{3}\cdot 9$

5. **Correct Answer: B**
   Explanation:
   Let's begin plugging in with 1:

   $\dfrac{1^6-5(1)^3-16}{8}=\dfrac{1-5-16}{8}=\dfrac{-20}{8}$

   This eliminates option (A).
   Next, plug in 2:

   $\dfrac{2^6-5(2)^3-16}{8}=\dfrac{64-5(8)-16}{8}=\dfrac{64-40-16}{8}=\dfrac{8}{8}=1$

   His gives us the correct answer i.e. option (B).

6. **Correct Answer: B**
   Explanation:
   Begin with 0:
   $x^4-2x^2=0^4-2\cdot 0^2=0-0=0$
   This eliminates option (A). Next, plug in 1:
   $x^4-2x^2=1^4-2\cdot 1^2=1-2=-1$
   This gives us the correct answer i.e. option (B).

ELIMINATION

While attempting hard problems, if you are asked to find the least (or greatest) number, then eliminate the least (or greatest) answer-choice.

The rule stays the same for easy and medium problems. People most often choose the least or the greatest number as their answer while guessing on these kinds of problems but if was this easy to make guess of the answer correctly, it would not be categorized as a hard problem.

Note: The second smallest (or second largest) number is the answer, over 45% of the time. 40% of time, this is the case for easy and medium problems.

Example 1: Find the maximum number of points that are common to the intersection of a square and a triangle if no two sides are coinciding.

(A) 4   (B) 5
(C) 6   (D) 9

Applying the rule stated above, we eliminate answer-choice (D).
On hard problems, eliminate the answer-choice "not enough information."

When a problem cannot be solved, the answer chosen for it is "not enough information" mostly. But the problem would not really be a "hard" problem if such is the case.
On hard problems, eliminate answer-choices that *merely* repeat numbers from the problem.

Example 2: Find the value of $x + y$ if the sum of x and 20 is 8 more than the difference of 10 and y.

(A) −2   (B) 8
(C) 9   (D) not enough information

The above rule requires us to eliminate choice (B) since it merely repeats the number 8 from the problem. Using the strategy 2, we will eliminate choice (D) as well. **Caution:** keep in mind that if choice (B) contained more than the number 8, say, $8 + \sqrt{2}$, then by the above rule, it must not be eliminated.
On hard problems, eliminate answer-choices that can be derived from elementary operations.

Example 3: Find the area of parallelogram ABCD?

(A) 12

(B) $20 + \sqrt{2}$

(C) 24

(D) not enough information
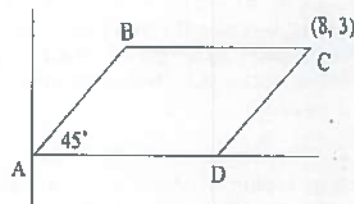
By applying the rule stated above, we eliminate choice (C) since $24 = 8 \cdot 3$. Then by using Strategy 2, eliminate choice (D). Note, 12 was offered as an answer-choice because some people will interpret the drawing as a rectangle tilted halfway on its side and therefore expect it to have one-half its original area.

After eliminating possibly as many answer-choices as you can, choose your answer from the choices that are more complex and unusual -

Example 4: Consider the following answer-choices:

(A) $4 + \sqrt{3}$ (B) $4 + 2\sqrt{3}$
(C) 8   (D) 10

Then you would select either (A) or (B) as your answer.

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SOLVED EXERCISE

1. Find the maximum number of 3 x 3 squares that can be formed from the squares in the 6 x 6 checkerboard?
   (A) 4   (B) 6
   (C) 16   (D) 24
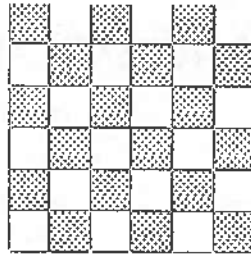
2. Suppose P is denoted for the product of the first 5 positive integers. Find the greatest possible value of m if $\dfrac{P}{10^m}$ is an integer?
   (A) 1   (B) 2
   (C) 3   (D) 5

3. What is the original selling price of a calculator if it sells for $10 after it is marked 20 percent down?
   (A) $20   (B) $12.5
   (C) $12   (D) $9

4. Cities A and B are 120 miles away in distance. Find the average speed of the car during its trip when it travels from A to B at 60 miles per hour and returns from B to A at 40 miles per hour taking the same route
   (A) 48   (B) 50
   (C) 52   (D) 58

5. What percent is wy less than xz if w is 10 percent less than x, and z is 30 percent more than y?
   (A) 10%   (B) 20%
   (C) 37%   (D) 40%

6. During the game of chess, any of the moves displayed in the diagram can be made by the Knight. Find the greatest number of spaces from which not all 8 moves are possible considering the Knight is the only piece on the board.
   (A) 8
   (B) 24
   (C) 48
   (D) 56
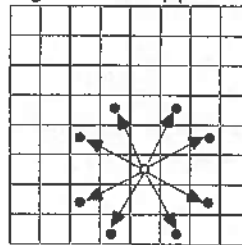
7. Find the different number of ways 3 cubes can be painted a color if the only 3 colors available are red, blue, and green. (Order of the colors is not considered)
   (A) 2   (B) 3
   (C) 9   (D) 10

8. The greatest prime factor of $(2^4)^2 - 1$ is
   (A) 3   (B) 5
   (C) 17   (D) 19

9. There are five circles, each being 4 inches in diameter. When they are cut from a 12 inch long rectangular strip of paper, what would be the width of the same strip of paper if the least amount of paper is to be wasted.
   (A) 5   (B) $4+2\sqrt{3}$
   (C) 8   (D) not enough information

10. C and K are constants, then find the value of K if $x^2 + Kx + 5$ factors into $(x + 1)(x + C)$
    (A) 0   (B) 5
    (C) 6   (D) not enough information

ANSWERS AND EXPLANATIONS

1. Correct Answers: C
Explanation:
It is clear that there are more than four 3 × 3 squares in the checkerboard—eliminate (A). Then, eliminate (B) as it merely repeats a number from the given problem. Next, eliminate (D) since it is the greatest in value. Now the remaining choice is (C). If counted carefully, there are sixteen 3 × 3 squares in the checkerboard so the answer is (C).

2. Correct Answer: A
Explanation:
We are looking for the greatest value of m, so we eliminate (D)—the greatest. Eliminate 5 as well since it is repeated from the problem. Now, while looking for the largest number, start with the greatest number remaining and work towards the smallest number. Your answer will be the first number that works.. To this end, let $m = 3$. Then

$\frac{P}{10^m} = \frac{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5}{10^3} = \frac{120}{1000} = \frac{3}{25}$. This is not an Integer, so

eliminate (C). Next, let $m = 2$. Then

$\frac{P}{10^m} = \frac{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5}{10^2} = \frac{120}{100} = \frac{6}{5}$. This still is not an integer, so

eliminate (B). The process of elimination gives us (A) as the answer.

Method II:

$\frac{P}{10^m} = \frac{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5}{10^m} = \frac{(2 \cdot 5) \cdot (1 \cdot 3 \cdot 4)}{10^m} = \frac{(10) \cdot (3 \cdot 4)}{10^m} = \frac{10^1}{10^m}(3 \cdot 4) \cdot$

Now, this expression is only considered as an integer when $m \leq 1$, so the greatest possible value is $m = 1$. The answer is (A).

3. Correct Answer: A
Explanation:
The discount was only 20 percent and twenty dollars is too large.—eliminate (A). Choice (D) is impossible since the selling price is greater than it—eliminate. 12 is the eye-catcher: 20% of 10 is 2 and 10 + 2 = 12. This is rather easy for a hard problem—eliminate. Thus, the process of elimination gives us the answer as (B).

4. Correct Answer: A
Explanation:
50 is the mere average of 40 and 60 so we can eliminate it since that would be too elementary. As the car travels for a longer time at 40 mph this tells us that the average must be closer to 40 than to 60. But the only number given that is closer to 40 than to 60 is 48. The answer is (A).

You are required to calculate the answer as well.

$Average\ Speed = \frac{Total\ Distance}{Total\ Time}$. Now, 120 miles in 3 hours will be

covered by a car travelling at 40mph. A car traveling at 60 mph will cover the same 120 miles but in 2 hours. This provides the total

traveling time being 5 hours. Hence, for the round trip, the

average speed is $\frac{120 + 120}{5} = 48$.

5. Correct Answer: C
Explanation:
(A) repeats the number 10 from the problem so we eliminate it. Choices (B) and (D) can also be eliminated as they are derivable from elementary operations:
$20 = 30 - 10$
$40 = 30 + 10$
This leaves choice (C) as the answer.
To solve this problem directly. The clause
w is 10 percent less than x
translates into
$w = x - .10x$
Simplifying yields
1. $w = .9x$
Next, the clause
Z is 30 percent more than y
translates into
$z = y - .30z$
Simplifying yields
2. $y = .7z$
After multiplying 1) and 2), we get
$wy = (.9x)(.7z) = .63xz = xz - .37xz$
Hence, wy is 37 percent less than xz. The answer is (C).

6. Correct Answer: C
Explanation:
We need to find the <u>greatest</u> number of spaces from which not all 8 moves are possible; we can eliminate the greatest number, 56. The total number of outer squares is 28 —not 32 and not all of the 8 moves are possible from these other squares. Keep in mind, not all of the 8 moves are possible from the next to outer squares as well and they are 20 in number—not 24. And from the remaining squares, all 8 moves are possible. Hence, the answer is 28 + 20 = 48. The answer is (C). Note: 56, (32 + 24), is given as an answer-choice to catch those who don't add carefully.

7. Correct Answer: D
Explanation:
The number of possible color combinations is more than 3. This lets us eliminate (A) and (B). (C) Can also be eliminated because it is a multiple of 3, and that would be too easy for an answer. Hence, the process of elimination gives us (D) as the answer. Solving this problem directly:

The following list displays all 27 (= 3 · 3 · 3) color combinations possible (without any rule or restriction):

RRR	BBB	GGG
RRB	BBR	GGR
RRG	BBG	GGB
RBR	BRB	GRG
RBB	BRR	GRR
RBG	BRG	GRB
RGR	BGB	GBG
RGB	BGR	GBR
RGG	BGG	GBB

As we are not considering the order, then there are 10 distinct color combinations in this list which should be counted.

8. Correct Answer: C

Explanation:

$(2^4)^2 - 1 = (16)^2 - 1 = 256 - 1 = 255$. We will eliminate 19 – the greatest number, since the question requires the <u>greatest</u> prime factor. To work our way up the list we will begin with the next largest number ; the first number that divides into 255 evenly will be the answer. Dividing 17 into 255 gives

$$17\overline{)255} = 15$$

Hence, 17 is the largest prime factor of $(2^4)^2 - 1$. The answer is (C).

9. Correct Answer: B

Explanation:

(D), "not enough information." can be eliminated as this is a hard problem. We can eliminate (C) as well as it is very easy to derive. (8 = 4 + 4). (A), 5, can also be eliminated because answer-choice (B) is more complex. Hence, the process of elimination gives us the answer that is (B)

Now we are solving this problem directly. The position of the circles is shown in the drawing so that the paper width stay minimum.
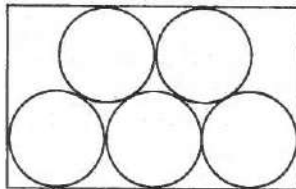
Next, connect the centers of three of these circles to form a triangle:
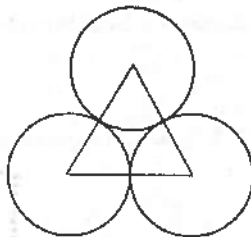
The triangle is connecting to the centers of circles having a diameter of 4, the triangle is equilateral as all sides are of length 4.
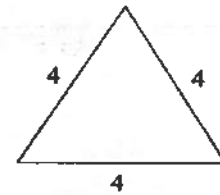
Drawing an altitude gives
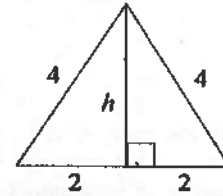
After we apply the Pythagorean Theorem to either right triangle, it gives us

$$h^2 + 2^2 = 4^2$$

Squaring yields

$$h^2 + 4 = 16$$

When we subtract 4 from both sides of this equation, it gives us

$$h^2 = 12$$

Now, we will take the square root of both sides, we get

$$h = \sqrt{12} = \sqrt{4 \cdot 3}$$

As we remove the perfect square 4 from the radical, it gives us

$$h = 2\sqrt{3}$$

After summarizing, we get
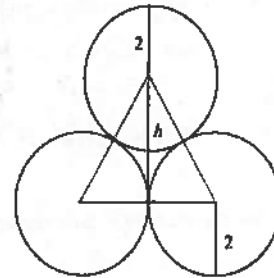
When we add to the height, $h = 2\sqrt{3}$, the distance that is above the triangle and the distance below it to the edges of the paper strip gives us

$$width = (2 + 2) + 2\sqrt{3} = 4 + 2\sqrt{3}$$

The answer is (B).

10. Correct Answer: C

Explanation:

We eliminate (B) as the number 5 is merely being repeated from the given problem. Now we eliminate (D), "not enough information" as this is a hard problem.

Now, 1 and 5 are the only factors of 5 as it is a prime number. So the constant C in the expression $(x + 1)(x + C)$ must be 5:

$$(x + 1)(x + 5)$$

The overall product of this expression gives

$$(x + 1)(x + 5) = x^2 + 5x + x + 5$$

Combining the like terms gives us

$$(x + 1)(x + 5) = x^2 + 6x + 5$$

Hence, $K = 6$, and the answer is (C).

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SECTION A

Numbers, basic arithmetical concepts, and their applications are the main topics covered in this section. You'll find not only questions based on these concepts but also their applications in solving problems of average, ratios, proportions, and percentage on the SAT. Most of the students from non-math academic background often scared of the name Mathematics on the SAT. The good news for them is that the mathematical concepts used on the SAT are quite basic and almost a comprehensive, to the point review, is enough to crack this section.

Numbers and their Properties

You are already familiar with numbers. Out of a variety of numbers in elementary and advanced mathematics, only a few are tested on the SAT.

Integers

All positive and negative whole numbers including zero are integers.

Examples:

-349 , -4, -1 , 0 , 1, 4 , 77 , 183

Therefore, some integers are positive, some are negative, and the integer 0 is neither positive nor negative.

The difference between two consecutive integers is 1. If x is an integer then the next consecutive integer is x + 1.

Sample Question:

The sum of three consecutive integers is 18. What is the smallest of the numbers?

Solution:

x is the smallest integer, then next two consecutive integers are x + 1 and x + 2. The sum of these three numbers is

x + (x + 1) + (x + 2) = 18

3x + 3 = 18

3x = 15

x = 5

Properties of Integers

- Sum or difference of integers is also an integer.
- Product (multiplication) of integers is also an integer.
- Division of one integer by another integer not necessarily yields an integer. If you divide 6 by 3, the result is 2. Which is an integer, but if 5 is divided by 6, the answer is 5/6, which is not an integer.

Odd Integers

Any number that cannot be divided by 2 is called an odd integer; therefore {. . . , - 5, -3, -1, 1, 3; 5, . . .} represents the set of all odd integers.

Examples:

3, 5, 7, 11, 33, 45 etc

Properties of Odd Integers

- The difference between two consecutive odd numbers is 2.
- If x is an odd number then next odd number is x + 2. Next to x + 2 is x + 4.
- The sum of two odd integers is an even integer.
- Product of two odd integers is an odd integer.
- Division of an odd integer by another odd integer may not be an integer (5 + 3 is not an integer).

Even Integers

Any number that can be divided by 2 or integers that are multiples of 2 are called even integers, namely

{. . , - 6, - 4, -2, 0, 2, 4, 6, . . .}.

Example:

2, 4, 6, 80, 96, 110 etc

Properties of Even Integers

- The difference between two even numbers is 2.
- If x is an even number then next even number is x + 2. Next to x + 2 is x + 4.
- The sum of even integers is an even integer.
- Product of two even integers is an even integer.
- Division of an even integer by another even integer may not be an even integer (6 ÷ 2 is not an even integer).

Sample Question:

The sum of three even integers is 36. Find the smallest of the three.

Solution:

x is the smallest integer, then next consecutive even integers are x + 2 and x + 4. According to given condition, their sum is:

x + (x + 2) + (x + 4) = 36

3x + 6 = 36

3x = 30

x = 10

Prime Numbers

The number that can be divided by itself and by 1 only; there is no other factor of the number.

Examples:

2, 3, 5, 7, 11, 13, 17, 19 etc.

- 2 is the only even Prime number.
- 1 is not a prime number.

Properties of Prime Numbers

- Product of two prime numbers can never be a prime number. 3 × 7 = 21 which is not a prime number as it is divisible by 3 and 7.
- Sum (Addition) of two prime numbers may or may not be a prime number. 2 + 3 = 5, and 2, 3, and 5 all are prime numbers. 2 + 7 = 9, and 2 and 7 are prime numbers but their sum 9 is not a prime number.
- Difference of two prime numbers may or may not be a prime number. Difference of 5 and 3 is 2, which is a prime number. The difference of 9 and 5 is 4, which is not a prime number.

Real Numbers

All numbers including integers and fractions (decimals) are real. In pure mathematics, real numbers have more detailed definition, but for SAT preparation, you can rely the definition given here:

Note:

All numbers given on the test are **Real** unless otherwise stated.

Properties of Real Numbers

- Infinite many numbers lies between any two real numbers. (0.011, 0.012, 0.013, ……… all lie between 0.01 and 0.02).
- Any real number divided by zero, results in an undetermined result.
- All numbers greater than zero are positive numbers.
- All numbers less than zero are negative numbers.
- Zero is neither positive nor negative.

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Absolute Value of a Number

The absolute value of a number is the number with only positive value. The symbol for absolute value is two enclosing vertical segments. The absolute value of -9 and +9 are written as $|-9|$ and $|+9|$ and both are equal to 9.

How to Recognize Multiples of 2, 3, 4, 5, 6, 9, 10, and 12.

- Number is multiple of 2 If: Last digit is even.
- Number is multiple of 3 If : Sum of digits is a multiple of 3.
- Number is multiple of 4 If: Last two digits are a multiple of 4.
- Number is multiple of 5 If: Last digit is 5 or 0.
- Number is multiple of 6 If: Sum of digits is a multiple of 3 and last digit is even.
- Number is multiple of 9 If: Sum of digits is a multiple of 9.
- Number is multiple of 10 if: Last digit is 0.
- Number is multiple of 12 if: Sum of digits is a multiple of 3 and last two digits are a multiple of four.

Fractions and Decimals

A number lying between zero and 1 or between zero and -1 is a fraction or decimal. In other words, we deal numbers that have absolute value less than one as fraction or decimal.

Fractions

A fraction is just another way of expressing division. The expression $\frac{12}{17}$ is exactly the same thing as 12 divided by 17. $\frac{a}{b}$ Is nothing more than a divided by b.

In the fraction $\frac{x}{y}$, x is known as Numerator, and y is known as the denominator.

The other important way to think of a fraction is as:

$$\frac{Part}{Whole}$$

The fraction $\frac{7}{10}$ can be thought as 7 parts out of a total of ten parts of an item (Number value).

Positive Fractions

A number lying between zero and 1 is a positive fraction.

Negative Fractions

A number lying between zero and -1 is a negative fraction.

Sample Question:

What part of an hour elapses between 3:25 PM to 3:37 PM.

Solution:

Part:

Time elapses between 3:25 to 3:37 is 12 minutes

Whole:

One hour = 60 minutes

$$\frac{Part}{Whole}:$$

$$= \frac{12}{60} = \frac{1}{5}$$

Answer:

$$= \frac{1}{5}$$

Proper Fractions

If the Numerator is less than Denominator in a fraction, the fraction is called as proper fraction.

Improper Fractions

If the Numerator is greater than Denominator in a fraction, the fraction is called as improper fraction.

Mixed Fractions:

Mixed fraction is a combination of a whole number and a fraction. Like in $7\frac{2}{5}$, 7 is whole number and $\frac{2}{5}$ is the fraction.

Common Factor

Common factor of two or more numbers is a number that divides these numbers.

Example:

Common factor of 6 and 8 is 2, as 2 divides both 6 and 8.

How to Find

Break down both numbers to their prime factors to see what they have in common. Then multiply the shared prime factors to find all common factors.

Example:

What factors greater than 1 do 135 and 225 have in common?

First find the prime factors of 135 and 225.

$135 = 3 \times 3 \times 3 \times 5$, and $225 = 3 \times 3 \times 5 \times 5$. The number share $3 \times 3 \times 5$ in common. Thus, aside from 3 and 5, the remaining common factors can be found by multiplying 3, 3, and 5 in every possible combination: $3 \times 3 = 9$, $3 \times 5 = 15$, and $3 \times 3 \times 5 = 45$.

Common Multiple

Common multiple of two or more numbers is a number that is divided by these numbers.

Example:

Common multiple of 4 and 5 is 20, as both 4 and 5 divide 20 completely.

How to Find

The product of the numbers is the easiest common multiple to find. If the two numbers have any factors in common, you can divide them out of the product to get a lower common multiple.

Example:

What is the least common multiple of 28 and 42?

The product $28 \times 42 = 1,176$ is a common multiple, but not the least. $28 = 2 \times 2 \times 7$, and $42 = 2 \times 3 \times 7$. They share a 2 and a 7, so divide the product by 2 and then by 7. $1,176 \div 2 = 588$. $588 \div 7 = 84$. The least common multiple is 84.

ADDING AND SUBTRACTING FRACTIONS

Same Denominator

To add two or more fractions that have the same denominator, simply add up the numerators and put the sum over the common denominator.

Example:

$$\frac{1}{7} + \frac{5}{7} = \frac{(1+5)}{7} = \frac{6}{7}$$

Subtraction works exactly in the same way

$$\frac{6}{7} - \frac{2}{7} = \frac{(6-2)}{7} = \frac{4}{7}$$

Different Denominators

Before you add or subtract two or more fractions with different denominators, you must give all of them the same denominator. To do this, multiply each fraction by a number that will give it a denominator in common with the others.

Example:

If you wanted to change $\frac{1}{2}$ into sixths, you could do the following:

$$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$$

We haven't actually changed the value of the fraction, because we multiplied it by 1. The new fraction reduces to $\frac{1}{2}$. If we wanted to add

$$\frac{1}{2} + \frac{2}{3} = \frac{1}{2} \times \frac{3}{3} + \frac{2}{3} \times \frac{2}{2} = \frac{3}{6} + \frac{4}{6} = \frac{7}{6}$$

Multiplying Fractions

To multiply fractions, just multiply the numerators and put the product over the product of the denominators.

Example:

$$\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$$

> **Tip**
>
> If the difference between numerator and denominator of one fraction is the same as the difference between the numerator and denominator of the other fraction, then the fraction with greater numerator is greater. In case of $\frac{3}{4}, \frac{7}{8}$, the difference between 3 and 4 is same as difference between 7 and 8. Since 7 is greater than 3, so $\frac{7}{8}$ is greater fraction.

Reducing Fractions

When you add or multiply fractions, you often end up with a big fraction that is hard to work with. You can usually reduce such a fraction.

To reduce a fraction, find a factor of the numerator that is also a factor of the denominator, it saves time to find the biggest factor they have in common, but this isn't critical. You may just have to repeat the process a few times. When you find a common factor, cancel it. For example, $\frac{2}{3} \div \frac{3}{4}$ Get used to reducing all fractions (if they can be reduced) before you do any work with them. It saves a lot of time and prevents errors in calculation.

Dividing Fractions

To divide one fraction by another, just invert the second (from left to right) fraction and multiply:

$\frac{2}{3} \div \frac{3}{4}$ is the same thing as $\frac{7}{2}$

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Fractions: Mixed To Improper

The Test sometimes gives you numbers that are mixtures of integers and fractions, for example, $3\frac{1}{2}$. It's easier to work with these numbers if you convert them into mixed fractions. $3\frac{1}{2}$ would be converted like this:

Multiply 2 with 3 and add 1, this gives you the numerator of the resulting mixed fraction. The resulting mixed fraction is $\frac{7}{2}$.

Comparing Fractions

In the course of a problem, you may have to compare two or more fractions and determine which is larger.

Example:

Compare $\frac{3}{4}, \frac{7}{8}, \frac{9}{11}$, which one is the greatest fraction

First take two fractions $\frac{3}{4}, \frac{7}{8}$ multiply numerator of the first with the denominator of the other (3×8 = 24), similarly multiply numerator of the second with the denominator of the first (7 × 4 = 28). Since 28 is greater than 24 so $\frac{7}{8}$ is greater than $\frac{3}{4}$. Now take $\frac{7}{8}, \frac{9}{11}$ to compare. Multiply numerator of the first with denominator of the second (7 × 11 = 77), similarly multiply numerator of the second to the denominator of the first (9 × 8 = 72). Since 77 is greater than 72, so $\frac{7}{8}$ is the greatest of the three given fractions.

To compare $\frac{8}{15}$ and $\frac{7}{9}$, multiply 8 with 9 and 15 with 7, Since the product of 15 and 7 (105) is greater than the product of 8 and 9 (72), so $\frac{7}{9}$ is greater than $\frac{8}{15}$.

$$\begin{array}{cc} 72 & 105 \\ \dfrac{8}{15} & \dfrac{7}{9} \end{array}$$

Decimals

Decimals are real numbers having decimal point. Decimals are another form of fractions. When decimals are added or subtracted, the decimal points must be placed one under the other.

Every integer has its point after it (45 is the same as 45. and Rs. 45 is the same as Rs. 45.00).

Example:

4.9 + .73 + 7. Line up the decimal points.

$$\begin{array}{r} 4.9 \\ .73 \\ 7. \\ \hline 12.63 \end{array}$$

To add them, add as usual and place the decimal point in the line of the decimal points of the numbers to be added.

Example:

Which is the largest, .073, .5, .586, .08, or .59? Place the numbers under one another, lining up the decimal points. Fill in zeroes so that all of the decimals have the same number of places.

$$\begin{array}{r} .073 \\ .500 \\ .586 \\ .080 \\ .590 \end{array}$$

.590 is the largest three-place decimal. Answer: **.59**.

Multiplication

When you multiply decimals, the points do not have to be under one another. The product (answer) must contain as many numbers after its point as the total of the decimal places in the two numbers being multiplied. For example, find the product of 0.28 and 0.3.

28 times 3 is 84, but where should the point be placed? .28 has two numbers after its point and .3 has one number after its point, making a total of three decimal places. Count three places to the left from the end of 84. Since 84 have two places, a zero must be placed in front of 8. **Answer: 0.084.**

Decimal Places in Numbers

Unit: Placement of a number one place on the left of the decimal point. In 257.389, 7 is at unit place.

Ten: Placement of number two places on the left of the decimal point. In 257.389, 5 is at Ten place.

Hundred: Placement of number three places on the left of the decimal point. In 257.389, 7 is at hundred place.

Tenth: Placement of a number one decimal place on the right of decimal point. In 257.389, 3 is at tenth place

Hundredth: Placement of a number two decimal places on the right of the decimal point. In 257.389, 8 is at hundredth place.

Thousandth: Placement of a number three decimal places on the right of the decimal point. In 257.389, 9 is at thousandth place.

Rounding Off Real Numbers

Nothing more than converting a number to a number of desired lengths (number of digits) is rounding off.

To round off decimals

- Find the place value you want (the "rounding digit") and look at the digit just to the right of it.
- If that digit is less than 5, do not change the rounding digit but drop all digits to the right of it.
- If that digit is greater than or equal to five, add one to the rounding digit and drop all digits to the right of it.

To round off whole numbers

- Find the place value you want (the "rounding digit") and look to the digit just to the right of it.
- If that digit is less than 5, do not change the "rounding digit" but change all digits to the right of the "rounding digit" to zero.
- If that digit is greater than or equal to 5, add one to the rounding digit and change all digits to the right of the rounding digit to zero.
- If the digit to the right of the place is equal to or greater than 5, round the number up by adding 1 to the place, and then eliminating all the digits to the right of the place.

Example: Round 1063.5789 to the nearest tenth.

Answer: 1063.5789 = 1063.6

$$\downarrow \text{Tenth}$$
$$1063.5789$$
$$\uparrow \text{Greater than 5}$$

$$6$$
$$1063.5\cancel{789}$$
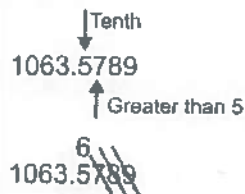
If the digit to the right of the place is less than 5, round the number down by eliminating all the digits to the right of the place.

Example:

Round 10,57.3239 to the nearest hundredth.

Answer: 10,57.3239 = 10,57.32

Consecutive Number Counting

The number of integers from A to B inclusive is B − A + 1.

Example:

How many integers are there from 73 through 419, inclusive?

$419 - 73 + 1 = 347$

HINT: Don't forget to add 1.

Sum of Consecutive Numbers

Sum = (average) × (number of terms)

Example

What is the sum of the integers from 10 through 50, inclusive?

Average = $(10 + 50) \div 2 = 30$;

Number of terms = $50 - 10 + 1 = 41$

Sum = $30 × 41 = 1,230$

Basic Arithmetic Operations

The basic operation of numbers and somewhat fewer variables involving addition, subtraction, multiplication, and division is arithmetic is covered on the SAT.

You should know the following arithmetic terms:

Basic Understandings

- The result of addition is a sum or total.
- The result of subtraction in a difference.
- The result of multiplication is a product.
- The result of division is a quotient.
- In the expression 5^2, the 2 is called an exponent.

Exponents

Many numbers are the product of the same factor multiplied over and over again. For example, $32 = 2 × 2 × 2 × 2 × 2$. Another way to write this would be $32 = 2^5$, or "thirty-two equals two to the fifth power." The little number, or *exponent*, denotes the number of times that 2 is to be used as a factor. In the same way, $10^3 = 10 × 10 × 10$, or 1,000, or "ten to the third power," or "ten cubed." In this example, the 10 is called the base and the 3 is called the exponent. (You won't need to know these terms on the SAT, but you will need to know them to follow my explanations).

Multiplication

When you multiply two numbers with the same base, you simply add the exponents.

Example:

$2^3 × 2^5 = 2^{3+5} = 2^8$

Division

When you divide two numbers with the same base, you simply subtract the exponents. For example, $\dfrac{2^5}{2^3} = 2^{5-3} = 2^2$

The Distributive Law

If you're multiplying the sum of two numbers by a third number, you can multiply each number in your sum individually. This comes in handy when you have to multiply the sum of two variables.

If a problem gives you information in "factored form" $-a(b+c)-$ then you should distribute the first variable before you do anything else. If you are given information that has already been distributed $-ab + ac-$ then you should factor out the common term, putting the information back in factored form.

Example

$6(53) + 6(47) = 6(53+47) = 6(100) = 600$

Multiplication First

6(53) + 6(47) = 318 + 282 = 600

You get the same answer each way, so why get involved with ugly arithmetic? If you use the distributive law, you don't even need to use you calculator.

Raising a Power to a Power

When you raise a power to a power, you multiply the exponents. For example, $(2^3)^4 = 2^{3 \times 4} = 2^{12}$

Exponent to a Fraction

If you square or cube a number greater than 1, it becomes larger. For example , $2^3 = 8$

If you square or cube a positive fraction smaller than one, it becomes smaller.

For example, = $\left(\dfrac{1}{2}\right)^3 = \dfrac{1}{8}$

A negative number raised to an even power becomes positive. For example, $(-2)^2 = 4$.

A negative number raised to an odd power remains negative.

For example, $(-2)^3 = -8$

$A^3 \times A^5 = A^8$

$A^5 \div A^2 = A^3$

$A^5 \times B^2$ cannot be solved further, as the bases are different.

$A^3 + A^5$ cannot be solved further as these are different terms.

$A^3 + A^3 + 2A^3$ same terms are added.

$5A^3 - A^3 = 4A^3$

Finding Square Root

Finding Square root is the reverse process of finding square of a quantity.

$$\sqrt{4} = \sqrt{2 \times 2} = 2 \quad , \quad \sqrt{x^2} = \sqrt{x \times x} = x$$

You should not be worried about finding the square roots without calculator, as you are not required to go up to fractions, rather the calculation remains in square root partially.

$$\sqrt{12} = \sqrt{2 \times 2 \times 3} = 2\sqrt{3} \quad , \quad \sqrt{80} = \sqrt{4 \times 4 \times 5} = 4\sqrt{5}$$

Treatment of Signs

Addition and Subtraction Rules

If you add two quantities that have the same signs, simply add them and retain the sign.

$$2 + 7 = 9 \text{ and } -2 + (-7) = -9$$

If you add two quantities of different signs, simply add them and the result will bear the sign of the quantity of greater absolute value.

$$2 - 7 = 2 + (-7) = -5$$
$$7 - 2 = 7 + (-2) = 5$$
$$3A + 4A = 7A$$
$$3A - 4A = -A$$
$$7a^2 + 2a^2 = 9a^2$$

$3a^2 - 2a$ can't be added since they are not like terms.

$3x + 5$ can't be added since they are not like terms.

$2A + 3B$ can't be added since they are not like terms.

If three or more quantities are to be added, add like positives, then like negatives, then combine like terms by subtracting absolute values.

$$-8 + 7 - 13 + 12 = +19 - 21 = -2$$

$$6c - 5d - 4 - 8c + 7d - 6 = -2c + 2d - 10$$

Multiplication Rules

if two quantities having the same sign are multiplied, the answer is positive (+). If two quantities having the different signs are multiplied, the answer is negative (-). Two parentheses with no sign between them indicates multiplication. Also, no sign between a quantity and a parenthesis indicates multiplication, as does a raised dot between two quantities.

$$(+6)(+5) = 30$$

$$(-9)(-3) = +27$$

$$-7(8) = -56$$

$$4 \cdot -4 = -16$$

You can only add or subtract like terms. However, all terms, whether alike or different, can be multiplied. When like letters are multiplied, add exponents.

$$3(-2Y) = -6Y$$

$$(7G)(-3K) = -21GK$$

$$A^3 \times A^4 = A^7$$

Division Rules

The rules are similar to those for multiplication. If you divide two quantities having the same sign, the answer will be positive. Dividing two quantities having different signs will give negative answer.

$$\frac{-6}{-2} = +3, \frac{-15}{+3} = +5, \frac{+16}{+2} = +8, \frac{+18}{-3} = -6$$

When dividing like letters, subtract their exponents. When any quantity is divided by itself (with the exception of zero divided by zero), the answer will be 1. A letter such as Y has an exponent of 1.

$$\frac{Y^4}{Y^3} = Y, \frac{Y}{Y} = 1, \frac{8Y^8}{2Y^2} = 4Y^6$$

When a quantity is divided into another quantity that contains two or more terms divide each of term by the first quantity.

$$\frac{6P - 10}{-2} = -3P + 5, \frac{12Y + 6}{6} = 2Y + 1$$

$$\frac{5x - 7}{-3} = -\frac{5}{3}x + \frac{7}{3}, \frac{5b^2 + 10b}{5b} = b + 2$$

Which operation do I do first?

In a problem that involves different operations, the operations must be performed in a particular order, and occasionally test makers like to see whether you know what that order is. Here's an easy way to remember the order of operations:

Please Excuse My Dear Aunt Salma

This stands for Parentheses, Exponents, Multiplication, Division, Addition, and Subtraction. Do operations enclosed in parentheses first: then take care of exponents: then you multiply, divide, add, and subtract.

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SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. Arrange in descending order: $\dfrac{3}{8}$, $\dfrac{4}{9}$, $\dfrac{2}{7}$

Explanation:

Make the comparisons of two fractions each.

$$27 \quad 32 \qquad 28 \quad 18 \qquad 21 \quad 16$$

$$\dfrac{3}{8} \diagdown \dfrac{4}{9} , \quad \dfrac{4}{9} \diagup \dfrac{2}{7} , \quad \dfrac{3}{8} \diagup \dfrac{2}{7}$$

$\dfrac{4}{9}$ is greater than $\dfrac{3}{8}$, and $\dfrac{4}{9}$ is greater than $\dfrac{2}{7}$, so $\dfrac{4}{9}$ is the largest fraction. $\dfrac{3}{8}$ is greater than $\dfrac{2}{7}$, so the answer is $\dfrac{4}{9}$, $\dfrac{3}{8}$, $\dfrac{2}{7}$

2. $40 + \dfrac{80}{.4}$ = what number?

Explanation:

First simplify the fraction:

$$\dfrac{80}{.4} = \dfrac{80}{.4} \times \dfrac{10}{10} = \dfrac{800}{4} = 200$$

Then add: 40 + 200 = 240.

3. If a bushel of apples weighs from 48 to 54 pounds and a bushel of melons weighs from 80 to 90 pounds, what is the smallest ratio between the weight of a bushel of apples and a bushel of melons?

Explanation:

"Smallest ratio" means smallest fraction, which will contain the smallest numerator but the largest denominator ($\dfrac{1}{10}$ is smaller than

$\dfrac{1}{3}$). The answer is $\dfrac{48}{90}$, or $\dfrac{8}{15}$.

4. Simplify this fraction

$$\dfrac{3\dfrac{1}{3}}{5\dfrac{1}{3} + 6\dfrac{1}{3}}$$

Explanation:

Add the fractions in the denominator and rewrite the expression

$$3\dfrac{1}{3} \div 11\dfrac{2}{3} \implies \dfrac{10}{3} \div \dfrac{35}{3} = \dfrac{10}{3} \times \dfrac{35}{3} = \dfrac{2}{7}$$

5. If r is greater than 0 and $b = \dfrac{1}{r}$, does b increase or decrease as r increases?

Explanation:

If the numerators are the same, the smaller fraction has the larger denominator. Therefore, if r increases and the numerator remains 1, the fractions get smaller and b decreases.

6. Reduce $\dfrac{12c^2}{15c}$

Explanation:

Reduce 12 and 15 by canceling both by 3. Treat $\dfrac{c^2}{c} = c^{2-1}$. The answer is $\dfrac{4}{5}c$.

7. Add $\dfrac{m}{2} + \dfrac{m}{3}$

Explanation:

Find L.C.D., which is 6. Convert each fraction to sixths and add:

$$\dfrac{m}{2} + \dfrac{m}{3} = \dfrac{m}{2} \times \dfrac{3}{3} + \dfrac{m}{3} \times \dfrac{2}{2}$$

$$= \dfrac{3m}{6} + \dfrac{2m}{6} = \dfrac{5m}{6}$$

8. Subtract $\dfrac{2}{5x^2}$ from $\dfrac{3}{4x}$

Explanation:

In a subtraction example, the quantity after the word "from" goes first:

$\dfrac{3}{4x} - \dfrac{2}{5x^2}$ L.C.D. is $20x^2$. $\dfrac{15x - 8x}{20x^2}$ $15x - 8x = 7x$. So the answer is $\dfrac{7}{20x}$

9. A woman owned $\dfrac{2}{3}$ of a store and sold $\dfrac{1}{5}$ of her share. What part of the store did she still own?

Explanation:

"$\dfrac{1}{5}$ of her share" means $\dfrac{1}{5}$ times her share. Since $\dfrac{1}{5}$ of $\dfrac{2}{3} = \dfrac{1}{5} \times \dfrac{2}{3} = \dfrac{2}{15}$ was sold. If you subtract $\dfrac{2}{15}$ from $\dfrac{2}{3}$, you'll know that what part of the store she still owned:

10. Change .68 to a fraction.

Explanation:

$.68 = \dfrac{68}{100} = \dfrac{17}{25}$

11. Change $\dfrac{3}{16}$ to a decimal correct to the nearest thousandth.

Explanation:

If your answer is to be rounded to the nearest thousandth, carry the division to one place past the thousandths (the ten-thousandths place):

$$\dfrac{3}{16} = 16\overline{)3.0000} \quad .1875$$

Since the extra place is a 5, we round up. The answer is .188.

12. $\left(\dfrac{1}{6}\right)\left(\dfrac{5}{6}\right) = (?)\left(\dfrac{4}{9}\right)$

Explanation:

$$\left(\dfrac{1}{6}\right)\left(\dfrac{5}{6}\right) = (?)\left(\dfrac{4}{9}\right) \implies \dfrac{5}{36} = x \text{ times } \dfrac{4}{9}$$

Since the missing quantity is multiplied by $\dfrac{4}{9}$, do the "opposite" on the other side and divide by $\dfrac{4}{9}$ $\implies$ $\dfrac{5}{36} \div \dfrac{4}{9} = \dfrac{5}{36} \times \dfrac{9}{4} = \dfrac{5}{16}$

13. If $5x = 28$, what does $3x$ equal?

Explanation:

$$5x = 28 \implies \dfrac{5x}{5} = \dfrac{28}{5} \implies x = \dfrac{28}{5}$$

To find $3x$, multiply both sides of the equation $x = \dfrac{28}{5}$ by 3.

$$(3)\, x = \dfrac{28}{5}(3) \implies 3x = \dfrac{84}{5} \implies x = \dfrac{84}{5} \text{ or } 16\dfrac{4}{5}$$

14. If $r = 3b$, what does $\dfrac{3}{4}r$ equal?

Explanation:

Just multiply both sides by $\dfrac{3}{4}$ $\implies$ $\dfrac{3}{4}r = \dfrac{9b}{4}$

RATIOS AND PROPORTIONS

The quantitative relationship among two or more quantities is a ratio. For example the 3:4 represents that one (whole) quantity is divided in seven (3 + 4) equal parts, three parts on left and four parts on right.

To use the ratio for solving problem, you must convert it to mathematical form, three out of seven, and four out of seven. $3:4 \rightarrow \frac{3}{7}$ and $\frac{4}{7}$

Example:

Mr. Kalim and Mr. Shahbaz Khan entered into a business partnership. They agreed the ratio of 3:5 for the distribution of profit. They commenced the business and earned profit of Rs. 24000. Find the share of Mr. Kalim.

Solution:

Convert Karim's share ratio to fraction $\rightarrow \frac{3}{8}$

Multiply Karim's fraction to the total profit $\rightarrow \frac{3}{8} \times 24000 = 9000$

Answer is Rs. 9000

Multiple Ratios

The ratio between A and B is 2 : 7 and the ratio between B to C is 2 : 3. Find the ratio A : B : C.

A	:	B	:	C
2	:	7		
		2		3

Apply Reverse N method

4	:	14	:	21
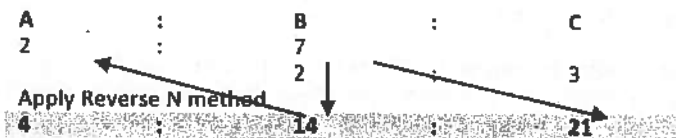
Compare Logically

A ratio is the comparison of two things.

What is the ratio of the value of a kilometer to that of a mile? This can be shown fractionally $\frac{5}{8}$ or by using a colon (5:8). You can put any two things in a fraction numerically. It's logical to use only comparable things. What is the ratio of 8 inches to 1 yard? You answer $\frac{8}{1}$, but does it make sense? Is 8 inches 8 times as large as 1 yard? Of course not! Common sense will make you change 1 yard to 36 inches. Now the ratio becomes $\frac{8}{36}$ or $\frac{2}{9}$. Compare only like things.

Example:

What is the ratio of 30 minutes to 2 hours?

$\frac{30}{120}$ (2 hours = 120 minutes)

$= \frac{1}{4}$

Proportions

To solve the proportion questions you must know the relation between the quantities.

Direct Relation

If one quantity increases, the other quantity also increases.

Example:

If a car can travel 80 miles in 3 hours, how long will it take to travel 100 miles?

When something varies directly with something else, if you increase one of the things involved, the other will also increase. In the example given, if you increase the miles from 80 to 100, common sense tells us that the number of hours will also increase. The more miles you drive, the longer it should take. Therefore, let's make a proportion using a ratio of the miles and a ratio of the hours. The first number of miles mentioned is 80, so use the ratio (miles over miles).

As the first number of hours mentioned is 3, so use the ratio (hours over hours). X represents the second amount of hours since that's the unknown. Put the two ratios together to form the proportion. Cross- multiply and solve: $\frac{80}{100} = \frac{3}{x}$

$80x = 300 \Rightarrow x = \frac{30}{8} = 3\frac{3}{8}$ hours

Example:

If number of men working on a project increases, the work done by the men also increases.

Inverse Relation

If one quantity increases, the other quantity decreases.

Example:

If 8 people take 6 hours to build a fence, how long would It take 10 people to build the same fence (assuming they work at the same rate as those in the first group)?

Common sense tells you that if you use more people, it will take less time to finish the job. To write the proportion needed to solve the example, first write the first ratio:

$$\frac{8 \text{ People}}{10 \text{ People}}$$

Since it is not a direct proportion, invert the second ratio ($\frac{6}{x}$ becomes $\frac{x}{6}$), the proportion is

$$\frac{8}{10} = \frac{x}{6} \Rightarrow 10x = 48 \Rightarrow x = 4\frac{4}{5} \text{ hours}$$

Example

If number of men working on a project increases, the number of working days decreases.

Conditions for Applying Relations

- While applying relation of two quantities consider all other quantities constant
- Don't consider given data (number values)

Example

In a courier company, 50 men require 10 hours to prepare 1200 boxes for shipment. Once, the company received an order of 3200 boxes to process. The company assigned 40 men team to process this order. How many hours the team will need to complete the task?

Solution

Place arrows based on the relation of quantity with unknown quantity (Hours). Men and Hours have inverse relation, so the arrowhead is down ward. Hours and Boxes have direct relation, so the arrowhead for Boxes is upward.

Men	Hours	Boxes
50↑	10↑	1200↑
40↓	x↑	3200↓

Now the equation becomes:

$$\frac{x}{10} = \frac{50}{40} \times \frac{3200}{1200}$$

Now solve for x.

Ratios and Proportions – Inheritance

When a Muslim dies there are four duties which need to be performed. These are:

1. Payment of funeral expenses.
2. Payment of his/her debts.
3. Execution of his/her will.
4. Distribution of remaining estate amongst the heirs according to Sharia.

It Is assumed that the preliminary issues have been resolved and we shall confine are ourselves principally to discussing the fourth and last duty. The task is to firstly, determine which of the relatives of the deceased are entitled to inherit and secondly, to determine the quantum share entitlement of each of the heirs concerned.

The Inheritance questions on the SAT are merely the application of Ratio and proportions. The wealth of a deceased person is *divided* in fixed Ratios among all heirs of the deceased. Complete Islamic inheritance system is beyond the scope of this book. Our main focus is to the ratios for division of wealth of a deceased among the children of the person.

If a person dies leaving	Division of Real and Personal Property
Wife and no relations	¾ to wife, ¼ to the Bait-ul-mal
Wife and son (sons)	1/8 to wife, rest to son (sons equally)
Wife, son and daughter	1/8 to wife, 7/12 to son, 7/24 to daughter
Wife, two sons and two daughters	1/8 to wife, 7/24 to each son and 7/48 to each daughter
Wife and one daughter	1/8 to wife, ½ to daughter and 3/8 to Bait-ul-mal
Wife and daughters	1/8 to wife, 2/3 to daughters and 5/24 to Bait-ul mal

Example:

Kamran died and left wealth of worth Rs. 96,000,000 to be divided among his heirs – one wife, two sons, and two daughters. What will be the share of one daughter?

Solution:

In this particular case, the share of each daughter = Rs. 96000000 $\times \frac{7}{48}$ = Rs. 14000000

SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. Find the ratio of 18 inches to 2 yards.

   A. $\frac{3}{4}$ B. $\frac{1}{4}$

   C. $\frac{1}{5}$ D. $\frac{2}{5}$

Explanation:

First convert yards to inches that is 2 yards = 2 ×3 × 12 = 72 inches. Now the ratio is 18 to 72 = 1 to 4 = $\frac{1}{4}$. The right answer is B.

2. If a train travels $\frac{5}{6}$ mile in $1\frac{1}{4}$ minutes, how many miles will it travel in 1 hour?

   A.   20 miles   B.   50 miles
   C.   40 miles   D.   30 miles

Explanation :

The train travels $\frac{5}{6} \div 1\frac{1}{4} = \frac{5}{6} \div \frac{5}{4} = \frac{5}{6} \times \frac{4}{5} = \frac{2}{3}$ miles in one minute. The distance traveled in 60 minutes (1 hour) = $\frac{2}{3} \times 60 = 40$ miles. The right answer is C.

Note :

12 inches = 1 foot and 3 feet = 1 yard

3. Find the value of x if $3 : b = x : c$.

   A. $\frac{3b}{c}$ B. $\frac{c}{3b}$

   C. $\frac{2c}{3b}$ D. $\frac{3c}{b}$

Explanation:

$3c = bx$ and $x = \dfrac{3c}{b}$

The right answer is D.

4. How many miles are there between two cities if the distance is represented by a 2.4-inch line on a map having a scale of 1 inch to 8 miles?

   A.   19.2   B.   12.8
   C.   8.5   D.   38

Explanation:

The question is to find x from $1 : 8 = 2.4 : x$. $1 \times x = 8 \times 2.4$ hence x = 19.2. The right answer is A.

5. How many cents will r books cost if t books cost m dollars?

   A. $\frac{100mr}{t}$ B. $\frac{mr}{100t}$

   C. $\frac{100t}{mr}$ D. $\frac{m}{100t}$

Explanation:

solve $\dfrac{x}{r} = \dfrac{100m}{t}$

Note:

1 dollar = 100 cents.

6. If apples cost 3 for 37 cents, find the cost of $1\frac{3}{4}$ dozen apples.

   A.   111 cents   B.   159 cents

131

C. 259 cents D. 211 cents

Explanation:

$1\frac{3}{4}$ dozens apples = $\frac{7}{4} \times 12 = 21$ apples. Now apply the ratios method $\frac{37}{3} = \frac{x}{21}$

$x = \frac{21 \times 37}{3}$ or $x = 7 \times 37 = 259$ cents. The right answer is C.

7. If 10 tractors are needed to plow a field in 4 hours, how many tractors are needed to plow the field in 5 hours?
   A. 32 B. 4
   C. 16 D. 8

Explanation:

$\frac{x}{10} = \frac{4}{5}$ the second ratio is reversed, as the relation is inverse. $X = \frac{10 \times 4}{5} = 8$. The right answer is D.

8. A car that gets 15 miles per gallon of gasoline can travel 250 miles on a full tank. If the same car got 20 miles per gallon, how many miles could it travel on a full tank?
   A. 300 B. 750
   C. $250\frac{3}{4}$ D. $333\frac{1}{3}$

Explanation:

$\frac{x}{250} = \frac{20}{15}$

The right answer is D.

9. A candy recipe calls for 5 parts milk, 4 parts cocoa, 4 parts syrup, 2 parts sugar, and 1 part butter. If you use 8 ounces of milk, how many ounces of candy mixture can you make?
   A. $25^{\frac{3}{5}}$ B. $5^{\frac{3}{5}}$
   C. 20 D. 128

Explanation:

Solve each ingredient with milk independently. For example, 5 parts of milk need 4 parts of cocoa. How many parts of cocoa is needed for 8 ounces of milk. The right answer is A.

10. If it takes 10 minutes to walk $\frac{3}{7}$ mile, how many minutes will it take to walk the rest of the mile?
   A. $2^{\frac{1}{3}}$ B. $13^{\frac{1}{3}}$
   C. $4^{\frac{2}{7}}$ D. 30

Explanation:

You are to answer the question "If it take 10 minutes to walk $\frac{3}{7}$ mile, how many minutes it will take to walk $\frac{4}{7}$ mile". The right answer is B.

PERCENTAGE

A percentage is a part of 100. If one of your test score was 85 out of total 100, its mean your score was 85%.

The word 'percent' means 'per hundred' or 'out of 100', and % is the percent sign. Percent is a way of representing a part of something in terms of hundredths (i.e., 1/100).

For example, 100% = 100 hundredths = 100 x

$\frac{1}{100} = 1$ and 75% = 75 hundredths = $75 \times (\frac{1}{100}) = \frac{3}{4}$.

Percent can be expressed as a fraction (with a denominator of 100) or a decimal.

For example, 29% = $\frac{29}{100}$ = 0.29

Percents are often used to compare fractions with equal denominators of 100. To convert a percent to a fraction, drop the percent sign and divide the number by 100.

For example, 80% = 80/100 = $\frac{4}{5}$ and 125%/100 = $\frac{5}{4} = 1\frac{1}{4}$.

As a more complicated example, consider the following:

To convert a fraction to a percent, multiply the number by 100 and insert the percent sign.

For example, $\frac{3}{5} = \frac{3}{5} \times \frac{1}{100}$ % = 60% and $\frac{1}{16} = \frac{100}{16}$ % = $\frac{25}{4}$ % = $6\frac{1}{4}$ % = 6.25%

To convert a percent to a decimal, drop the percent sign and divide the number by 100 (i.e., move the decimal point two places to the left, inserting zeros to the left if necessary).

For example, 13% = 0.13 and 2% = 0.02

To convert a decimal to a percent, multiply the decimal by 100 (i.e., move the decimal point two places to the right) and insert the percent sign.

Example

0.2576 = 25.76% and 0.002 = 0.2%

To find a certain percent of a number, multiply the number by the percent expressed as a fraction or decimal.

For example to find 45% of 900, two possible ways are as follows.

Changing percent to fraction gives 45% = $\frac{45}{100} = \frac{9}{20}$. So, $\frac{9}{20} \times 900 = 405$.

Alternatively, changing percent to decimal gives 45% = $\frac{45}{100}$ = 0.45. So, 0.45 x 900 = 405.

The following fraction and decimal equivalents of percents are worth noting:

1% = 1/100 = 0.01	60% = 3/5 = 0.6
2% = 1/50 = 0.02	80% = 4/5 = 0.8
4% = 1/25 = 0.04	25% = 1/4 = 0.25
5% = 1/20 = 0.05	50% = 1/2 = 0.5
10% = 1/10 = 0.1	75% = 3/4 = 0.75
20% = 1/5 = 0.2	120% = 6/5 = 1.2
40% = 2/5 = 0.4	125% = 5/4 = 1.25

Percent Change

Percent change (increase or decrease) from an original value to a new value frequently occurs.

To find the percent change, first find the amount of the change, then divide this amount by the original value, and finally express this quotient as a percent.

Example

If the price of an item changes from $32 to $40, the amount of the increase is $(40 − 32) = $8 and the percent increase is $\frac{8}{32} = \frac{1}{4}$ = 0.25 = 25%.

On the other hand, if the price of the item changes from $40 to $32, the amount of the decrease is $(40 − 32) = $8 and the percent decrease is $\frac{8}{40} = \frac{1}{5}$ = 0.2 = 20%.

Interestingly, the percent increase from 32 to 40 is different from the percent decrease from 40 to 32.

Tip

When doing calculations with percents, change percents to fractions or decimals.

Tip

It is advisable to convert a mixed number to an improper fraction during calculations.

APPLICATION OF PERCENTAGE

Many topics on the SAT are based directly on the concepts of percentage like

- Business Mathematics
- Financial Mathematics
- Consumer Mathematics
- Zakat
- Ushar

Business Mathematics

Business mathematics part of the test includes the questions from the topics containing underlying concepts of basic business.

Consumer Mathematics - Profit and loss problems

Profit and loss problems involves various terms like cost price, selling price, marked price etc. Basically, it is a difference between selling price and cost price. Cost price is the price paid to purchase an article or a product or we can say it is a cost incurred in manufacturing an article. Selling price is the price at which a product is sold.

Various profit and loss formulas used in profit and loss:

Generally, profit is calculated as: Profit or gain = Selling Price (S.P) - Cost Price (C.P)

Similarly, loss is calculated as: Loss = Cost Price - Selling Price

Profit percentage $= \frac{SP-CP}{CP} \times 100$ (The profit on the basis of Cost Price)

Note: If you are asked to find the profit on the basis of Selling Price, then the formula changes to

Profit percentage $= \frac{SP-CP}{SP} \times 100$ (The profit on the basis of Selling Price)

Example:

A bookseller expects a gain of 22.5% on his cost price. If on a certain day, his sale was of Rs. 39200, what was his profit?

Solution:

Profit = SP − CP

Given Profit = 22.5% of CP

So, 22.5% of CP = SP − CP

CP = SP − 22.5% of CP

CP + 22.5% of CP = SP

122.5% of CP = SP

$\frac{122.5}{100} \times CP = SP$

$CP = \frac{100}{122.5} \times SP$

$$C.P. = \left(\frac{100}{122.5} \times 39200 \right) = \left(\frac{1000}{1225} \times 39200 \right) = 32000$$

Profit = (39200 - 32000) = Rs. 7200.

Example:

Sam purchased 20 dozens of toys at the rate of Rs. 375 per dozen. He sold each one of them at the rate of Rs. 33. What was his percentage profit?

Solution:

CP of each toy = 375/12 = 31.25

Gain per toy = 33 − 31.25 = 1.75

Profit Percentage = (1.75/ 31.25) × 100 = 5.6%

Example:

Shabir sold his dining table set at a loss of 20%. If he had sold it for $ 800 more, he would have received a profit of 5%. Find the cost price.

Solution:

Let the cost price be $ 100

So when C.P = 100 , loss of 20% means

S.P = 100 − 20 = 80

Profit of 5% means S.P = 100 + 5 = 105

The difference of two S.P = 105 - 80 = 25

If the difference is 25, C.P = $100

If the difference is $ 800 , C.P = (100 / 25) x 800

C.P = $ 3200

Consumer Mathematics - Stock and Shares

Basic Terminology:

Stock Capital:

The total amount of money needed to run the company is called the stock capital.

Shares or Stock:

The whole capital is divided into small units, called shares or stock.

For each investment, the company issues a 'share-certificate', showing the value of each share and the number of shares held by a person.

The person who subscribes in shares or stock is called a shareholder or stock holder.

Dividend:

The annual profit distributed among shareholders is called dividend. Dividend is paid annually as per share or as a percentage.

Face Value:

The value of a share or stock printed on the share-certificate is called its Face Value or Nominal Value or Par Value.

Market Value:

The stock of different companies are sold and bought in the open market through brokers at stock-exchanges. A share or stock is said to be:

- **At premium or Above par,** if its market value is more than its face value.
- **At par,** if its market value is the same as its face value.
- **At discount or Below par,** if its market value is less than its face value.

Thus, if a Rs. 100 stock is quoted at premium of 16, then market value of the stock = Rs.(100 + 16) = Rs. 116.

Likewise, if a Rs. 100 stock is quoted at a discount of 7, then market value of the stock = Rs. (100 -7) = 93.

Example:

A 6% stock yields 8%. The market value of the stock is:

Solution:

For an income of Rs. 8, investment = Rs. 100.

For an income of Rs. 6, investment = Rs.$\left(\dfrac{100}{8} \times 6\right)$ = Rs. 75.

Market value of Rs. 100 stock = Rs. 75.

Financial Mathematics - Simple Interest

Basic terminology:

Principal:

The money borrowed or lent out for a certain period is called the principal or the sum.

Interest:

Extra money paid for using other's money is called interest.

Simple Interest (S.I.):

If the interest on a sum borrowed for certain period is reckoned uniformly, then it is called simple interest.

Let Principal = P, Rate = r% per annum (p.a.) and Time = T years. Then

Simple Interest = $\left(\dfrac{P \times r \times T}{100}\right)$

Example:

Gul Khan borrowed Rs. 50000 from the sardar of the region. The agreed rate of interest per year was 15%. Gul Khan returned the borrowed amount at the end of 5 years. How much amount he paid to the sardar as interest for this period?

Solution:

$I = Prt$

$= 50000 \times \dfrac{15}{100} \times 5$

$= Rs. 37500$

Example:

A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

Solution:

Principal $= Rs. \dfrac{100 \times 4016.25}{9 \times 5}$

$= Rs. \left(\dfrac{401625}{45}\right)$

$= Rs. 8925.$

Financial Mathematics - Compound Interest

Compound interest is interest paid on previously earned interest. Suppose, instead of paying 10% interest when the money is given back, you have your friend pay you 10% on the money he still has every year. If he doesn't pay you back for two years, then you will

get 10% on $100 the first year, which is $110 and you will get 10% on $110, which is $121 at the end of the second year. Instead of getting $20, you will get $21. Another example might help explain this concept.

Example:

Suppose a bank offers an interest rate of 6% per annum (yearly) on a savings account that is compounded quarterly (four times a year). A person deposits $4,000 in the bank. How much money will be in his account at the end of one year?

Solution:

Since the interest is compounded quarterly, we can use the formula for basic interest, I= Prt, four times. The principal amount P is $4,000, the interest rate r is 6% ($r = 0.06$), and $t = \dfrac{1}{4}$ of a year. (Recall that t is measured in years.)

So, the amount of interest earned on the savings account is:

$$I = Prt = (\$4,000)(0.06)\left(\frac{1}{4}\right) = \$60$$

Now, as we start the second quarter, the principal is no longer $4,000. Since we have accumulated interest, the new principal is $4,000 + $60 = $4,060. Using that new principal, the interest gained in the second quarter is:

$$I = (\$4,060)(0.06)\left(\frac{1}{4}\right) = \$60.90$$

The interest paid at the end of the third quarter on the principal of $6,060 + $60.90 = $6,120.90 is:

$$I = (\$4,120.90)(0.06)\left(\frac{1}{4}\right) = \$61.8135 = \$61.81$$

The final amount of interest paid, at the end of the fourth quarter, will be equal to:

$$I = (\$4,182.71)(0.06)\left(\frac{1}{4}\right) = \$62.74065 \approx \$62.74$$

Adding that interest amount to the principal going into that period ($4,182.71), we get the balance in the account after one year. It will be $4,182.71 + $62.74 = $4,245.45.

Compound Interest Formulae

Let Principal = P, Rate = r% per annum, Time = n years.

When interest is compound Annually:

$$\text{Amount} = P\left(1 + \frac{r}{100}\right)^n$$

When interest is compounded Half-yearly:

$$\text{Amount} = P\left[1 + \frac{(r/2)}{100}\right]^{2n}$$

When interest is compounded Quarterly:

$$\text{Amount} = P\left[1 + \frac{(r/4)}{100}\right]^{4n}$$

When interest is compounded Annually but time is in fraction, say $3\frac{2}{5}$ years.

$$\text{Amount} = P\left(1 + \frac{r}{100}\right)^3 \times \left(1 + \frac{\frac{2}{5}r}{100}\right)$$

When Rates are different for different years, say r_1%, r_2%, r_3% for 1st, 2nd and 3rd year respectively.

$$\text{Then, Amount} = P\left(1 + \frac{r_1}{100}\right)\left(1 + \frac{r_2}{100}\right)\left(1 + \frac{r_3}{100}\right).$$

Present worth of Rs. x due n years hence is given by:

$$\text{Present Worth} = \frac{x}{\left(1 + \frac{r}{100}\right)^n}.$$

Example:
What will be the compound interest on a sum of Rs. 25,000 after 3 years at the rate of 12% p.a.?

Solution:
$25000 \times (1.12)^3$ = Rs. 35123.20

Zakat

Zakat is one of the five pillars of Islam. It has been mentioned, along with daily Prayers (Salaat / Namaz), over seventy times in the Quran.

Just as Salaat is the most important act of worship which has to be performed bodily, so is Zakat the main act of worship which has to be performed monetarily. Those who fulfill this duty have been promised abundant reward in this world and hereafter. Whoever evades Zakat has been sternly warned in the Qur'an and Hadith of the consequences.

The payment of Zakat is compulsory on the excess wealth or effects which is equal to or exceeds the value of Nisaab, and which is possessed for a full Islamic year. If such wealth decreases during the course of the year and increases again to the value of Nisaab before the end of the year, the Zakat then must be calculated on the full amount that is possessed at the end of the year.

Zakat is obligatory upon a person if :
- He or she is an adult, sane, free and Muslim.
- He/she must possess wealth in excess of specified minimum (Nisaab) excluding his or her personal needs (clothing, household furniture, utensils, cars etc. are termed article of personal needs).
- It should be possessed for a complete lunar year.
- It should be of productive nature from which one can derive profit or benefit such as merchandise for business, gold, silver, livestock etc.

Types of wealth on which zakat is imposed:
- Gold and silver, in any form.
- Cash, bank notes, stocks, bonds etc.
- Merchandise for business, equal to the value of Nisaab.
- Livestock.
- On income derived from rental business.

Calculation of zakat:
- To calculate Zakat on jewelry etc. one must first determine the gold or silver content and then calculate the Zakat according to current market price.
- If the Gold possessed is less than 87.48 grams or if silver possessed is less than 612.36 grams, but the value of both combined is equal to or exceeds the Nisaab of either Gold or Silver, the Zakat will be due.
- In the event of an article not being of pure gold or pure silver, but containing a mixture of other metals and the gold or silver content is more than the other metal, it will be regarded as gold or silver and Zakat will be due. But in the case where other metal/s is of greater quantity than either gold or silver, Zakat will not be due on this article.
- For stocks (shares held in a company), Zakat is calculated based upon the current market value. As machinery, land, fixtures and fittings, furniture, buildings etc. are exempt from Zakat, one is allowed to subtract these from the total asset. This could be obtained from annual reports. For example, if one has shares worth $1000 and machinery, land etc., are worth 5% of the total asset, then deduct $50 for these assets; afterwards deduct the liabilities of the company proportionately to the percentage of shares held. Zakat must be calculated on the balance.

Types of wealth on which zakat is not imposed:
- On any metals other than gold or silver.
- Fixtures and fittings of a shop, car, trucks or any delivery vehicle etc., which is used in running business.
- Diamonds, pearls, other precious or semi-precious stones which are for personal use.
- There is no Zakat on personal residence, household furniture, pots and pan, personal clothing, whether they are in use or not.
- There is no Zakat on a person whose liabilities exceed or equal his assets.

Rate of Zakat

Zakat is due at the rate of 2.5%.

The question of Zakat involves the concepts of percentage.

Example:
A person has one house of worth 5,000,000 (not in personal use), 20 tolas of pure gold, and bank deposit of Rs. 400,000. How much the person has to pay as zakat if the current rate of gold is Rs. 45000 per tola?

Solution:

Calculate total asset value

Asset	Qty × Rate	Value
House	1 × 5000000	5000000
Gold	20 × 45000	900000
Cash	1 × 400000	400000
		Total Value = 6300000

$$Zakat = 6300000 \times \frac{2.5}{100} = 157500$$

Ushr

Ushr is the obligatory charge *(Zakat)* on farm produce which is one-tenth for one kind of land and one-twentieth for others.

Rate of Ushr

- If the farm or garden is watered naturally by rain or spring water, or river or stream water, tenth part of the produce is obligatory.
- If the farm or garden is irrigated by artificial means like the well, tube well, canals, etc. twentieth part is obligatory.

Regulations Concerning Ushr

- Ushr has to be taken out from the total produce and after that other charges of agriculture in the way of ploughing, watering, supervision, etc. will be met.
- The produce becomes subject to Ushr as soon as the crop becomes fit for use in any form, e.g. the grain, maize, mango etc. become sable even before they are ripe; Ushr therefore has to be calculated before the crop is put to private use in any way.
- If a person sells away a crop or garden before the fruit is ripe, Ushr will be the responsibility of the buyer, but if it is sold after the fruit has become ripe, Ushr will be paid by the seller.
- Payment of Ushr is the responsibility of the cultivator of the land whether he has taken it on lease of borrowed it for a short period.
- If two persons are jointly cultivating a piece of land, both will have to share the Ushr whether the expenses of seed, etc. have been borne by one or both.
- There is no condition of Nisab for Ushr to be obligatory. Ushr is obligatory irrespective of the quantity of produce, unless it is in negligible quantity, e.g., 2 kilos or so.
- There is no condition of the passage of a year either; each crop is subject to Ushr, whether it is harvested once a year or twice a year.
- Ushr is payable on the produce of lands owned by minors and insane persons.
- Waaf lands are also subject to Ushr which will be paid away by the cultivator.
- If a piece of land is irrigated naturally as well as by artificial means, this fact will be taken into account while calculating Ushr. If the land has been irrigated naturally more often, Ushr will be one-tenth, otherwise one-twentieth.
- Ushr may be paid out in kind or in cash of equivalent value.
- Lands in possession of the Muslims living in non-Muslim states are subject to Ushr.
- Ushr is not annulled by the payment of land revenue.
- The heads of expenditure of Ushr are the same as of *Zakat*.

The Hidden Treasure

This may be minerals or some other treasure hidden in the earth. Regulations concerning it are briefly as follows:

According to Hadith, one-fifth of a treasure, which is unearthed, belongs to the Public Treasury (Bait-ul-Mal).

In case of minerals like iron, silver, gold, tin or sulfur, etc. one fifth will be handed in to the Public Treasury and four-fifth will be handed in to the Public Treasury and four-fifths will be retained by the mine owner.

There is no share of the Bait-ul-Mal in those things which do not melt in the fire, e.g. diamonds, gems, etc. Similarly minerals in liquid state like petroleum, mercury, etc. are exempt from Ushr duty.

Example:

A farmer cultivated a piece of land and spent Rs. 30,000 for fertilizers and pesticides. An extra expense was of water from tube well which cost Rs. 2000. The crop sold for Rs. 120,000. How much amount the farmer has to pay as Ushr?

Solution:

Net gain from the crop = 120000 – 30000 - 2000 = 88000

$$Ushr = 88000 \times \frac{5}{100} = 4400$$

Ushr = Rs. 4400

SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. Convert $1\frac{2}{5}\%$ to a fraction.

Explanation:

Since percent is part of 100, $1\frac{2}{5}\%$ becomes $\dfrac{1\frac{2}{5}}{100}$, which is written

$$1\frac{2}{5} \div 100 \ \rightarrow\ \frac{7}{5} \div \frac{100}{1} \ \rightarrow\ \frac{7}{5} \cdot \frac{1}{100} = \frac{7}{500}$$

2. $\dfrac{7}{3}$ is what percent?

Explanation:

Write an equation. "What percent" means what part of hundred. Thus, $\dfrac{7}{3} \cdot \dfrac{x}{100}$. Cross-multiply and solve:

$$3x = 700 \ \rightarrow\ \frac{3x}{3} = \frac{700}{3} \ \rightarrow\ x = \frac{700}{3}\% \ \rightarrow\ 233\frac{1}{3}\%$$

3. $83\frac{1}{3}\%$ Is how many sixteenths?

Explanation:

Save time and remember that $83\frac{1}{3}\% = \dfrac{5}{6}$. You could write $\dfrac{83\frac{1}{3}}{100}$ and simplify, but the time saved by memorizing the equivalents is significant. To continue,

$$\frac{5}{6} = \frac{x}{16} \ \rightarrow\ 6x = 5 \cdot 16 \ \rightarrow\ 6x = 80 \ \rightarrow\ \frac{6x}{6} = \frac{80}{6}$$
$$\rightarrow\ x = \frac{40}{3} \text{ or } 13\frac{1}{3}$$

4. Change .076 to a percent.

Explanation:

A quick way is to slide the decimal point two places to the right (to change a decimal to a percent): .076 = 7.6%. However, the answer may appear in fraction form, so .6 must be converted to $\dfrac{6}{10}$ or $\dfrac{3}{5}$. The answer is $7\frac{3}{5}\%$.

5. Change $8\frac{1}{2}\%$ to a decimal.

Explanation:

Change $\dfrac{1}{2}$ to a decimal: $2\overline{)1.0} = .5$

So $8\frac{1}{2}\% = 8.5\%$. Next, slide the decimal point two places to the left (to change a percent to a decimal) and drop the % sign: 8.5% = .085.

6. $4b$ is what percent of $30a$?

Explanation:

Write an equation, but be careful of the extra letters:

$$4b = \frac{x}{100} \cdot 30a \ \rightarrow\ \frac{4b}{1} = \frac{30ax}{100} \ \rightarrow\ 30ax \cdot 1 = 4b \cdot 100$$
$$\rightarrow\ 30ax = 400b \ \rightarrow$$
$$\rightarrow\ \frac{30ax}{30a} = \frac{400b}{30a} \ \rightarrow\ x = \frac{400b}{30a} \ \rightarrow\ x = \frac{40b}{3a}$$

7. $7b$ is $y\%$ of what number?

Explanation:

Let x be the missing number.

$$7b = \frac{y}{100} \cdot x \ \rightarrow\ 7b = \frac{y}{100} \cdot \frac{x}{1} \ \rightarrow\ \frac{7b}{1} = \frac{xy}{100}$$
$$\rightarrow\ xy = 700b \ \rightarrow\ \frac{xy}{y} = \frac{700b}{y} \rightarrow\ x = \frac{700b}{y}$$

8. Find the missing number: $\dfrac{?}{.24} = 12\%$

Explanation:

Put a letter where the question mark is, change the percent to a fraction, and solve:

$$\frac{x}{.24} = \frac{12}{100} \ \rightarrow\ \frac{x}{.24} \cdot \frac{100}{100} \ \rightarrow\ \frac{100x}{24} \ \rightarrow\ \frac{100x}{24} = \frac{12}{100}$$

Reduce to: $\dfrac{25x}{6} = \dfrac{3}{25}$

Cross-multiply and finish:

$$25x \cdot 25 = 6 \cdot 3 \ \rightarrow\ 625x = 18 \ \rightarrow\ \frac{625x}{625} = \frac{18}{625}$$
$$\rightarrow\ x = \frac{18}{625}$$

9. $\dfrac{1}{8}$ of 22 Is what percent of 4?

Explanation:

Write an equation, and it's easy:

$$\frac{1}{8} \cdot 22 = \frac{x}{100} \cdot 4 \ \rightarrow\ \frac{1}{8} \cdot \frac{22}{1} = \frac{x}{100} \cdot \frac{4}{1}$$

$\rightarrow \dfrac{22}{8} = \dfrac{4x}{100} \rightarrow \dfrac{11}{4} = \dfrac{x}{25} \rightarrow 4x = 275$

$\rightarrow \dfrac{4x}{4} = \dfrac{275}{4} \rightarrow x = \dfrac{275}{4}$ or $68\dfrac{3}{4}$

10. Shakir paid $7.50 to repair a toaster rather than buy a new one for $30. What percent of the cost of the new toaster did he save?

Explanation:

Use the question to write an equation: "What percent of the cost did he save?"

$\dfrac{x}{100} \cdot \$30 = \$22.50$

(To find out what he saved, subtract $7.50 from $30.) Simplify and solve: $x = 75\%$

11. On selling 17 balls at Rs. 720, there is a loss equal to the cost price of 5 balls. The cost price of a ball is:

Explanation:

(C.P. of 17 balls) - (S.P. of 17 balls) = (C.P. of 5 balls)

C.P. of 12 balls = S.P. of 17 balls = Rs.720.

C.P. of 1 ball = Rs $\left(\dfrac{720}{12}\right)$ = Rs. 60.

12. What will be the ratio of simple interest earned by certain amount at the same rate of interest for 6 years and that for 9 years?

Explanation:

Let the principal be P and rate of interest be R%.

Required ratio = $\left(\dfrac{P \times R \times 6}{100}\right)$

= 6PR = 6 = 2 : 3.

13. The compound interest on Rs. 30,000 at 7% per annum is Rs. 4347. The period (in years) is:

Explanation:

Amount = Rs. (30000 + 4347) = Rs. 34347.

Let the time be n years.

Then, $30000\left(\dfrac{1+7}{100}\right)n = 34347$

$\Rightarrow \left(\dfrac{1+7}{100}\right)n = \dfrac{34347}{30000} = \dfrac{11449}{10000} = \left(\dfrac{107}{100}\right)2$

n = 2 years.

14. By investing Rs. 1620 in 8% stock, Naveed Maemon earns Rs. 135. The stock is then quoted at:

Explanation:

To earn Rs. 135, investment = Rs. 1620.

To earn Rs. 8, investment = Rs. $\left(\dfrac{1620}{135} \times 8\right)$ = Rs. 96.

Market value of Rs. 100 stock = Rs. 96.

15. A 12% stock yielding 10% is quoted at:

Explanation:

To earn Rs. 10, money invested = Rs. 100.

To earn Rs. 12, money invested = Rs. $\left(\dfrac{100}{10} \times 12\right)$ = Rs. 120.

Market value of Rs. 100 stock = Rs. 120.

16. A man paid zakat of Rs. 1200 for the current year. What was his wealth in Rupees for which he paid the Zakat?

Explanation:

1200 is 2.5% of the wealth for which he paid Zakat.

$X \times \dfrac{2.5}{100} = 1200$

X = Rs. 48000

PERMUTATION

A permutation is an arrangement of objects in definite order or each of the different arrangements which can be made by taking same or all of a number of things is called a permutation. The simplest sort of permutations question might ask you how many different arrangements are possible for 6 different chairs in a row, or how many different 5 letter arrangements of the letters in the word SMOKE are possible. Both of these simple questions can be answered with the same technique.

Factorial

Factorial is nothing more than a notation represented by the sign!. A factorial is simply the product of a series of integers counting down to 1 from the specified number.

Example:

6! is read as 6 factorial and it means 6.5.4.3.2.1, which equals 720.

The number of possible arrangements of any group with n numbers is simply n!. In this way, the number of possible arrangements of the letters in SMOKE is 5!. Because there are 5 letters in the group, That means 5.4.3.2.1 arrangements, or 120.

Permutations in Small Groups

Permutations get a little difficulty when you work with smaller arrangements. For example, what if you were asked how many 2-letter arrangements could be made from the letters in SMOKE?

Here the total number of elements in the letter SMOKE is 5, and the number of elements in group is 2

You can solve this problem in quite a simple relation by introducing the terms

n = 5 and r = 2

Total Possible Arrangements = $\dfrac{n!}{(n-r)!}$

Hence in this case, the total arrangement = $\dfrac{5!}{(5-2)!} = \dfrac{5.4.3.2.1}{3.2.1} = 5.4 = 20$

Two Tasks Possibilities

If an operation can be performed in 'm' different ways and then a second operation can be performed in 'n' different ways, then the two operations taken together can be performed in $m \times n$ ways.

This can be extended to any finite number of operations.

Example:

A hall has 6 gates. In how many ways can a man enter the hall through one gate and come out through a different gate?

Since there are 6 ways of entering into the hall, therefore for coming out the hall through different gate, number of ways = 5

Hence by the fundamental principle of multiplication, the total number of ways $= 6 \times 5 = 30$.

Two Independent Tasks Possibilities

If an operation can be performed in 'm' different ways and another operation, which is independent of the first operation, can be performed in 'n' different ways, then either of the two operations can be performed in $(m+n)$ ways. This can be extended to any finite number of mutually exclusive events.

Example

There are 30 students in a class in which there are 20 boys and 10 girls. The class teacher selects either a boy or a girl for monitor of the class. In how many ways the class teacher can make this selection?

Clearly, there are 20 ways to select a boy and 10 ways to select a girl.

Number of ways $= 20 + 10 = 30$

Combinations

Combination is another form of arrangement problem. It differs from permutations in just one way:

In combinations, order doesn't matter. A permutations question might ask you to form different numbers from a set of digits. Order would certainly matter in that case, because 135 is very different from 513.

Similarly, a question about seating arrangements would be a permutations question, because the word "arrangements" tells you that order is important. So questions that ask about "schedules" or "orderings" require you to calculate the number of permutations.

Combinations questions, on the other hand, deal with groupings in which order isn't important. The group of Kausar - Laila - Aamir isn't any different from Aamir - Laila - Kausar, far as committees go, in the same way. Combinations questions often deal with the selection of committees, teams, or pairs.

Combination and permutation question can be very similar in appearance. Always ask yourself carefully whether sequence is important in a certain question before you proceed.

Calculating Combinations

Calculating combinations is quite easy. All you have to do is throw out duplicate answers that count as separate permutations, but not as separate combinations. You, if more mathematical mind might use the relation:

$$\text{Total Possible combinations} = \frac{n!}{r!(n-r)!}$$

SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. How many different 4- person teams can be made from a group of 9 players?
   A. 3,024
   B. 1,512
   C. 378
   D. 254
   E. 126

Explanation:

Here n = 9 and r = 5

Possible combinations = $\frac{9!}{5!(9-5)!}$ = 126. The right answer is E.

2. Suzuki comes in 5 models, 8 colors, and 3 sizes. How many Suzuki must the local dealer have on hand in order to have one of each kind available?
   A. 24
   B. 120
   C. 16
   D. 39

Explanation

5×8×3 =120. The right answer is B.

3. How many odd numbers of three digits each can be formed from the digits 2, 4, 6, and 7 if repetition of digits is permitted?
   A. 6
   B. 27
   C. 24
   D. 16

Explanation

As repetition is allowed, so first two of three positions have 4 possibilities each. The third position has only one possibility (to make the number odd, only 7 can be placed at 3rd position) Total number of cars= 4×4×1= 16

The right answer is D.

COUNTING

Although counting is often treated as one of the simplest tasks a human being can perform, it can be surprisingly difficult at times. This could sometimes result due to counting's inherent difficulty. Whereas, sometimes, it can be due to us forgetting some fundamental principles of counting.

One important rule to remember is that when we are counting elements in overlapping sets, the total number of elements will be equal to the number in one group added to the number in the other group minus the number common to both groups.

Example 1: How many students are taking math or history in a school where 20 students are taking math, 10 are taking history, while 7 are taking both?

(A) 20	(B) 22
(C) 23	(D) 25

Solution:
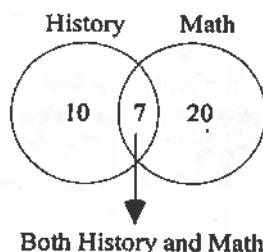
According to the above principle, we add 20 and 10 and then subtract 7 from the result. We get $(10 + 20) - 7 = 23$ students. Hence, the correct answer is (C).

The number of integers between two integers *inclusive* is one more than their difference.

Example 2: What is the number of integers between 49 and 101, inclusive?

(A) 50	(B) 51
(C) 52	(D) 53

According to the principle mentioned above, the number of integers would be $(101-49) + 1 = 53$. Hence, the correct answer is (D). To understand this bettern, consider smaller numbers such as, for example, 9 and 11. The difference between them is 2. However, there are three numbers between them inclusive (9, 10, and 11) i.e. on more than their difference.

Fundamental Principle of Counting: If an event occurs *m* times, and each of the *m* events is followed by a second event which occurs *k* times, then the second event follows the first event $m \cdot k$ times.

The diagram below shows the above given principle for an event occurring 3 times, and each occurrence is followed by a second event which occurs 2 times, amounting to a total of $3 \cdot 2 = 6$ events:
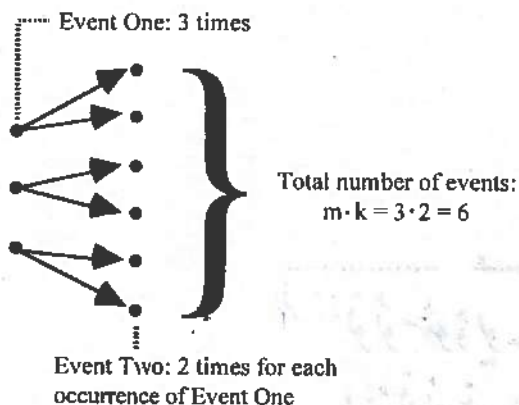
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Example 3: A drum has 3 to 5 jars in it, and each of these jars has 30 to 40 marbles. If 10 percent of the marbles are defective, what is the greatest possible number of defective marbles in the drum?

    (A) 51   (B) 40

    (C) 30   (D) 20

At most, there are 5 jars, and each of these jars has at most 40 marbles. So, by the fundamental counting principle given above, the number of marbles in the drum is 5 x 40 = 200. And since 10 percent of the marbles are defective, there are at most 20.= 10% x 200 defective marbles. Hence, the correct option is (D).

Example 4: The total number of Democrats is 50 less than 4 times the number of Republicans in a legislative body which has a total of 200 people. How many of the legislators are Republicans If one fifth of these legislators are neither Democrat nor Republican?

    (A) 42   (B) 50

    (C) 71   (D) 95

Let the total number of Democrats be D and the total number of Republicans be R. According to the question statement, one fifth of the legislators are neither Democrat or Republican. Hence, there are 200/5 = 40 total legislators who belong to neither party. This means that there are 200 – 40 = 160 Democrats and Republicans, or $D + R = 160$. By putting the statement "number of Democrats is 50 less than 4 times the number of Republicans" in the form of an equation, we get $D = 4R - 50$. Putting this into the equation $D + R = 160$, we get

$$4R - 50 + R = 160$$
$$5R - 50 = 160$$
$$5R = 210$$
$$R = 42$$

Hence, the correct answer is option (A).

Example 5: Along a 1015 feet long road, speed breakers are being setp-up at 20 foot intervals. If the first speed breaker is placed at one end of the road, how many total speed breakers are needed?

    (A) 49   (B) 50

    (C) 51   (D) 52

The number of full sections in the road can be calculated by dividing the total length of the road (1015 ft) with the interval between each breaker (20 ft). W get 1015/20 = 50.75, or 50 full sections. By ignoring the first speed breaker, and associating the breaker at the end of each section of the road with that section, we get 50 breakers in total i.e. one for each of the 50 full sections. If we include the first breaker in the total count, it comes out to be 51. Hence, the correct answer is (C).

ARITHMETIC AND GEOMETRIC SEQUENCES

Arithmetic Progression

An arithmetic progression is a sequence of numbers such that the difference of any two successive members of the sequence is a constant.

Example:

The sequence 1, 2, 3, 4, ... is an arithmetic progression with common difference **1**.

Example:

The sequence 3, 5, 7, 9, 11,... is an arithmetic progression with common difference **2**.

Example:

The sequence 20, 10, 0, -10, -20, -30, ... is an arithmetic progression with common difference **-10**.

If the initial term of an arithmetic progression is a_1 and the common difference of successive members is d, then the n-*th* term of the sequence is given by

$$a_n = a_1 + (n - 1)d, n = 1, 2, ...$$

The sum S of the first n numbers of an arithmetic progression is given by the formula:

$$S = \frac{n}{2}(a_1 + a_n)$$

where a1 is the first term and an the last one.

or

$$S = \frac{n}{2}(2a_1 + d(n-1))$$

Example:

Find the sum of first 10 terms of 2, 7, 12, 17, 22, 27, 32, 37, 42, 47, ...

Solution:

Common difference = d = 5

First Term = a_1 = 2

Number of terms to be sum up = n = 10

$$S = \frac{10}{2}(2 \times 2 + 5(10-1))$$

S = 245

Example:

Find the sum of the first 50 terms of the sequence

1, 3, 5, 7, 9, ...

Solution:

This is an arithmetic progression, and we can write down

a = 1 , d = 2 , n = 50 .

We now use the formula, so that

$$Sn = \frac{n}{2}(2a + (n - 1)d)$$

$$S50 = \frac{50}{2} \times (2 \times 1 + (50 - 1) \times 2)$$

$$= 25 \times (2 + 49 \times 2)$$

$$= 25 \times (2 + 98)$$

$$= 2500$$

Geometric Progression

A geometric progression (also inaccurately known as a **geometric series**) is a sequence of numbers such that the quotient of any two successive members of the sequence is a constant called the common ratio of the sequence.

A geometric sequence can be written as:

$aq^0=a$, $aq^1=aq$, aq^2, aq^3, ... where $q \neq 0$, q is the common ratio and a is a scale factor.

Example:

The sequence 1, 3, 9, 27, 81 is a geometric sequence. Note that after the first term, the next term is obtained by multiplying the preceding element by 3.

The geometric sequence has its sequence formation: $a_1, a_1r, a_1r^2, ..., a_1r^{n-1}, a_1r^n$

To find the *nth* term of a geometric sequence we use the formula:

$$a_n = a_1 r^{n-1}$$

where	r	= common ratio
	a_1	= first term
	a_{n-1}	= the term before the n th term
	n	= number of terms

Sum of Terms in a Geometric Progression

Finding the sum of terms in a geometric progression is easily obtained by applying the formulas:

nth partial sum of a geometric sequence

$$S_n = \frac{a_1(1 - r^n)}{1 - r}, \qquad r \neq 1$$

Example:

Write down the 8th term in the Geometric Progression 1, 3, 9, ...

Solution:

$a_1 = 1; a_2 = 3; a_3 = 9; n = 8$	write down key terms
$r = \frac{a_2}{a_1} = \frac{3}{1} = 3$	find the common ratio r using $r = \frac{a_2}{a_1}$
$a_8 = a_1 r^{8-1}$	substitute n = 8 to $a_n = a_1 r^{n-1}$
$= (1)(3)^7$	substitute $a_1 = 1$ and $r = 3$
$= (3)^7$	multiply (1) and $(3)^7$
$a_8 = 2187$	simplify $(3)7 = 2187$

Example:

Find the number of terms in the geometric progression 6, 12, 24, ..., 1536

Solution:

$a_1 = 6; \; a_2 = 12; \; a_3 = 24; a_n = 1536$ write down key terms

$r = \dfrac{a_2}{a_1} = \dfrac{12}{6} = 2$ find r using $r = \dfrac{a_2}{a_1}$

$1536 = (6)(2)^{n-1}$ substitute the values of a_1, a_n and r to $a_n = a_1 r^{n-1}$ to find n

$256 = (2)^{n-1}$ divide both sides by 6

$2^8 = 2^{n-1}$ change 256 to its exponential form form whose base = r

$8 = n - 1$ equate the indices since they both have the same base

$8 + 1 = n$ add 1 to both sides

$9 = n$ add 8 and 1

Hence, 1536 is the 9th term.

Finding the sum of a Geometric Series

Example:

Find the sum of each of the geometric series $-2, \dfrac{1}{2}, -\dfrac{1}{8} \ldots, -\dfrac{1}{37268}$

Solution:

$a_1 = -2; \; a_2 = \dfrac{1}{2}; \; a_3 = -\dfrac{1}{8}; a_n = -\dfrac{1}{37268}$ write down key terms

$r = \dfrac{a_2}{a_1} = \dfrac{\frac{1}{2}}{-2} = -\dfrac{1}{4}$ find r using $r = \dfrac{a_2}{a_1}$

$-\dfrac{1}{37268} = (-2)\left(-\dfrac{1}{4}\right)^{n-1}$ substitute the values of a_1, a_n and r to $a_n = a_1 r^{n-1}$ to find n

$\dfrac{1}{65536} = \left(-\dfrac{1}{4}\right)^{n-1}$ divide both sides by -2

$\left(-\dfrac{1}{4}\right)^8 = \left(-\dfrac{1}{4}\right)^{n-1}$ change $\dfrac{1}{65536}$ to its exponential form form whose base=r

$8 = n - 1$ equate the indices since they both have the same base

$8 + 1 = n$ add 1 to both sides

$9 = n$ add 8 and 1

$S_9 = \dfrac{-2\left(1-\left(-\frac{1}{4}\right)^9\right)}{1-\left(-\frac{1}{4}\right)}$ substitute the values of a_1, r and n to $S_n = \dfrac{a_1(1-r^n)}{1-r}$

$= \dfrac{1\left(1-\left(-\frac{1}{262144}\right)\right)}{\frac{5}{4}}$ evaluate $\left(-\dfrac{1}{4}\right)^9$ then subtract $-\dfrac{1}{4}$ from 1

$= \dfrac{\frac{262145}{262144}}{\frac{5}{4}}$ evaluate $\left(1-\left(-\dfrac{1}{262144}\right)\right)$

$S_9 = \dfrac{52429}{60536}$ divide $\dfrac{262145}{262144}$ by $\dfrac{5}{4}$

BASIC STATISTICS

Average

The term average can technically refer to a variety of mathematical ideas, but on the test, it refers to the arithmetic mean. It is found by adding the numbers given and then dividing this sum by the number of items being averaged. Hence the basic equation for average questions is:

$$Average = \frac{Sum\ of\ Entities}{Number\ of\ Entities} \rightarrow \frac{s}{n} = A$$

> **Alert**
>
> If a problem calls for simply the average or the mean, it is referring to the arithmetic mean.

Just in simple words, on the SAT, the average (also called arithmetic mean) of a set of 5 numbers is simply the sum of all the numbers divided by 5. In other words, if you want to find the average of three numbers add them up and divide by 3.

Example:

Find the arithmetic means of 2, 8, 5, 8, 6, and 12.

Solution:

The sum of numbers = 2 + 8 + 5 + 8 + 6 + 12 = 42

There are 6 numbers, hence n = 6

$$Arithmetic\ mean = \frac{2+8+5+9+6+12}{6}$$

$$= \frac{42}{6} = 7$$

Answer: The arithmetic mean is 7

Single Unit Quantities

SAT does not always write average questions with clear solutions. The easy questions base normally on single unit quantities like Currency, temperature, height, weight (Kgs).

If the question on the SAT gives you the monthly incomes (in any currency) of five persons, you can find the average simply by adding the income of all five persons and then dividing it by 5.

Sum of entities = (Number of entities) × Average. The average of two numbers is 5, the sum of the numbers is 5×2 = 10.

Average is also called as **mean** or **arithmetic mean**. It gives the central value of data.

Averages (Mixed Unit Quantities)

The quantities described by at least two other quantities cannot be averaged by using basic equation of arithmetic mean rather, to feel comfortable in time management, you'll have to use CAT table method explained by following examples.

Some Common Double Unit Entities

- $Price = \frac{Value}{Quanty}$

- $Average = \frac{Value\ Sum\ of\ All\ Entities}{Total\ Number\ of\ Entities}$

- $Concentration = \frac{Solute}{Solvent}$

- $Speed = \frac{Dis\ tan\ ce}{Time}$

To Find Average Price

$$\text{Average Price} = \frac{\text{Total Value}}{\text{Total Quanty}}$$

Example:

A man buys 5 Kg of Mangoes at the price of Rs. 80 per Kg. Next time, he purchases 10 Kg of mangoes at the price of Rs. 90 per Kg. Find the average price per Kg of the two transactions.

Solution:

Use CAT table method for mixed unit quantities.

Transaction 1	5	60	300
Transaction 2	10	120	1200
Totals	15	x	1500

15 x = 1500, x = 100 (Average price for 15 Kg mangoes)

Average of Averages

First, apply basic equation of average to find the sum of each average given, then add all sums and divide it by sum of all ns (numbers).

Example:

A boy scored 55 in average of five tests. He scored 65 in average of first two tests. What is his average score in last three tests?

Solution:

Since, this is the case of double unit entities so apply CAT table method.

First average	5	55	275
Second Average	2	65	130
Difference	3	x	145

$$3x = 145 \quad x = \frac{145}{3} = 48.33$$

Median

If a group of numbers is arranged in order, the middle number is called the median. If there is no single middle number (this occurs when there is an even number of items), the median is found by taking the arithmetic mean of the two middle numbers.

Example: The median of 6, 8, 10, 12, and 14 is 10.

Example: The median of 6, 8, 10, 12, 14, and 16 is the arithmetic mean of 10 and 12.

$$\frac{10+12}{2} = \frac{22}{2} = 11$$

Average of Evenly Spaced Number

The average of evenly spaced numbers is simply the average of the smallest number and the largest number. The average of all the integers from 13 to 77, for example, is the same as the average of 13 and 77:

$$\frac{13+77}{2} = \frac{90}{2} = 45$$

Mode

The mode of a group of numbers is the number that appears most often. In other words, mod is of the highest frequency entity in a set of data.

Examples: The mode of 10, 5, 7, 9, 12, 5, 10, 5 and 9 is 5.

Weighted Average

If some numbers among terms to be averaged occur more than once, the numbers must be given the appropriate weight. For example, if a student received four grades of 80 and 1 of 90, his average would not be the average of 80 and 90, but rather the average of 80, 80, 80, 80, and 90.

Set up a table listing the quantities, their respective weights, and their respective values.

- Multiply the value of each quantity by its respective weight.
- Add up these products.
- Add up the weights.
- Divide the sum of the products by the sum of the weights.

Example:

Assume that the weights for the following subjects are: English 3, Physics 2, Mathematics 2, Chemistry 2, and Urdu 1. What would be the average of a student whose marks are: English 80, Physics 85, Mathematics 84, Chemistry 82, and Urdu 90?

Solution:

Apply CAT table method for weighted entities:

Subject	Weight	Marks	
English	3	80	$3 \times 80 = 240$
Physics	2	85	$2 \times 85 = 170$
Mathematics	2	84	$2 \times 84 = 168$
Chemistry	2	82	$2 \times 82 = 164$
Urdu	1	90	$1 \times 90 = 90$
Totals	10	x	832

$$10 \, x = 832 \qquad x = \frac{832}{10} = 83.2$$

Answer: Average = 83.2

Note:

On the test, you might go directly to a list of the weighted amounts, here totaling 832, and divide by the number of weights; or you might set up a single equation.

Example:

Mr. Najam drove for 6 hours at an average rate of 50 miles per hour and for 2 hours at an average rate of 60 miles per hour. Find his average rate for the entire trip.

Solution:

$$\frac{6(50) + 2(60)}{8} = \frac{300 + 120}{8} = \frac{420}{8} = 5\tfrac{1}{2}$$

Answer: $52\tfrac{1}{2}$

SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. Mr. Kashif got an average of 50 in 6 tests. What should he get in the next test to attain the average of 60?
   A. 120   B. 60
   C. 100   D. 70

Explanation:
Total marks in 6 tests = 50 × 6 = 300. Total marks required in 7 tests (including next test) = 60 × 7 = 420. The marks in 7th test = Total marks in 7 tests - Total marks in 6 tests = 420 – 300 = 120
Answer (A)

2. The average income of a family of 6 members is Rs. 5000. The income of two of them is Rs. 12000. What is income of the remaining 3 persons?
   A. Rs. 12000   B. Rs. 90000
   C. Rs. 5000   D. Rs. 18000

Explanation:
Total income of the family = 6 × 5000 = 30000
Income of the three persons = 30000 – 12000 = 18000.   Answer (D)

3. A clerk filed 73 forms on Monday, 85 forms on Tuesday, 54 on Wednesday, 92 on Thursday, and 66 on Friday. What was the average number of forms filed per day?
   A. 50   B. 95
   C. 84   D. 74

Explanation:
$$\frac{73+85+54+92+66}{5}=74$$
Answer (D)

4. Find the arithmetic mean of 25.2, 13.5, 18.5, and 34.8
   A. 13   B. 23
   C. 27   D. 5

Explanation:
$$\frac{25.2+13.5+18.5+34.8}{4}=23$$
Answer (B)

5. The average of x, y, z and 40 is 10. What is the average of x, y, and z.
   A. 10   B. 0
   C. 2   D. 15

Explanation:
You are given $\frac{x+y+z+40}{4}=10$ and you are to find
$$\frac{x+y+z}{3}.$$
Solve the given x + y + z = 0 and hence $\frac{x+y+z}{3}=0$. Answer (B)

6. A and B can do a job in 6 days. If A do the job alone he takes 10 days. What will be the time required by B to complete the job alone?
   A. 8   B. 6
   C. 15   D. 3

Explanation:
$$\frac{1}{10}+\frac{1}{x}=\frac{1}{6}$$

7. The average height of a class of 14 boys is 5.3 feet. A new boy is admitted to the class. The new average of height now becomes 5.25. What is the height of the new boy?
   A. 4.55   B. 5.0
   C. 6.0   D. 3.5

Explanation:
(15 × 5.25) - (14 × 5.3) = 4.55 sum of heights of 15 boys – sum of heights of 14 boys = height of 15th boy. Answer (A)

8. A man bought 20 used laptops at $200 each, 9 at $300 each, and 6 at $100 each. Find the average price per laptops.
   A. $250.55   B. $208.57
   C. $400.50   D. $380

Explanation:
Using CAT Table Method:

20	200	4000
9	300	2700
6	100	600
35	x	7300

35 x = 7300 , x = 7300 ÷ 35 = 208.57
Answer (B)

9. Out of the 44 boys in a class, 9 are of the age of 10, 15 at the age of 9, and the rest are at the age of 8. Find the average age of the entire class.
   A. 7.85   B. 8.75
   C. 12.2   D. 14.35

Explanation:
Using CAT Table Method

9	10	90
15	9	135
20	8	160
44	x	385

44 x = 385 , x = 8.75. Answer (B)

10. The population of 8 villages is 900, 750, 1100, 1050, 835, 1250, 555, and 630. Find the population of ninth village if the average population of nine villages is 900.
    A. 1200   B. 1065
    C. 1030   D. 1800

Explanation:
Sum of 8 villages =
900+750+1100+1050+835+1250+555+630 =7070
Sum of Population of nine villages = 9 × 900 = 8100
Population of ninth village = 8100 – 7070 = 1030
Answer (C)

PROBABILITY

Probability is a mathematical expression of the likelihood of an event. The likelihood of any event is discussed in terms of all the possible outcomes. To express the probability of a given event, x, you would count the number of possible outcomes, count the number of outcomes that give you what you want, and arrange them in a fraction:

$$\text{Probability of x} = \frac{\text{number of outcomes that are x}}{\text{total number of possible outcomes}}$$

Furthermore, you can find the probability that something WILL NOT happen by subtracting the probability that it WILL happen from 1. For example, if the weatherman tells you that there is a 0.3 probability of rain today, then there must be a 0.7 probability that it won't rain, because 1- 0.3 = 0.7 . Figuring out the probability of any single event is usually simple. When you flip a coin, there are only two possible outcomes, heads and tails, the probability of getting heads is therefore 1 out of 2, or $\frac{1}{2}$. When you roll a dice, there are six possible outcomes , 1 through 6; the odds of getting a 6 is therefore $\frac{1}{6}$. The odds of getting an even result when rolling a dice are $\frac{1}{2}$ since there are three even results in six possible outcomes.

SOLVED EXERCISE

Directions: You are given following questions from the topic, with four choices A through D. Select the choice that will answer the question best.

The answers and explanations of the questions have been given at the bottom of each question.

1. A number is selected at random from first thirty natural numbers. What is the chance that it is a multiple of either 3 or 13?
    A. 17/30   B. 2/5
    C. 11/30   D. 4/15
Explanation:
Multiple of 3: 3,6,9,12,15,18,21,24,27,30
Multiple of 13: 13,26
Total of all multiple is 12, therefore the probability is $\frac{12}{30} = \frac{2}{5}$.
The right answer is B.

2. What is the probability of getting all six in a single throw of three unbiased dice?
    A. 1 / 6   B. 125 / 216
    C. 1 / 36   D. 1 / 216
Explanation:
Each dice has six faces. So, the sample space (total possibilities) is 6×6×6 = 216
Possible event having all dices facing 6 = 1
So, the probability is $\frac{1}{216}$. The right answer is D.

3. What is the probability that a two-digit number selected at random will be a multiple of '3' and not a multiple of '5'?
    A. 2 / 15   B. 4 / 15
    C. 1 / 15   D. 4 / 90

Explanation:
Total number of two digit number =90
Total multiples of 3 = 30
Total multiples of 5 = 18
Every third of multiple of 5 is also the multiple of 3, therefore total number of multiple of 3 not the multiple of 5 = 24
Probability = $\frac{24}{90} = \frac{4}{15}$. The right answer is B.

4. When two dice are thrown simultaneously, what is the probability that the sum of the two numbers that turn up is less than 11?
    A. 5 / 6   B. 11 / 12
    C. 1 / 6   D. 1 / 12
Explanation:
Sample space = 36
Not allowed events = 5+6, 6+5, 6+6
Number of possible outcomes = 33
Probability = $\frac{33}{36} = \frac{11}{12}$. The right answer is B.

5. When 4 dice are thrown, what is the probability that the same number appears on each of them?
    A. 1/36   B. 1/18
    C. 1/216   D. 1/5
Explanation:
Sample space = 6×6×6×6 =1296
Possible outcomes = 6
Probability = $\frac{6}{1296} = \frac{1}{216}$. The right answer is c.

GRID-INS

The way grid-in questions and multiple-choice questions could be differentiated is how their answers are marked. In grid-in questions, you are needed to write the answer numerical answer in a grid whereas in multiple-choice questions, you choose your answer from four answer-options.

The grid can only carry numerical answers hence the questions are always arithmetic. Algebra questions will still be there but the answers to them will not have any variables.

Keep in mind that there is no partial credit given for showing work on grid-ins unless you have made a good guess of what the answer to the question is. As there is a very low chance of guessing the questions, it is important that no time should be wasted on that.

Chances are that you will be able to write your answers in more than one form. For example, you can grid-in either 1/2 or .5:

You are not required to put a zero before the .5, but it will not be wrong if you do. In the example shown above, .5 is placed on the grid's right side but it could also be placed on the left side of the grid as well as the center.

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All the mixed fractions must be converted into improper fractions or decimals before gridding them in. The scoring computer will be reading 2 ½ as 21/2, hence it is crucial that they are converted to 5/2 or 2.5 before gridding in.

Incorrect and correct ways of gridding in 2 ½

Wrong!	Correct	Correct

The directions for grid-in questions are listed below. It is important that they are well understood beforehand.

Directions

In the following questions (16-25), you are to record your answer by filling in the ovals in the grid, as shown in the examples below:

Answer: $\frac{5}{13}$ or 5/13

Written answer →

Answer: 3.4

← Fraction line

← Decimal point

Grid-in answer →

Note: You can begin your answer in any column. If a column is not needed, it should be left blank.

- At the most, one oval is to be marked in any column.
- If the oval is filled in correctly, only then the credit is given.
- Answers must be written in the boxes at top of the columns to keep away from mistakes
- Only one of the answers must be grid for a problem having multiple answers to it.
- Negative answers will not appear.
- You must convert a mixed number such as 3½ into an improper fraction (7/2) or a decimal (3.5) before gridding it in. (The answer grid | 3 | 1 | / | 2 | will be interpreted as 31/2, not 3½.)

- Decimal Accuracy: For decimal answers, enter the most accurate value the grid will allow. For example, an answer such as 0.3333... should be entered as .333. The less accurate values .33 and .3 are unacceptable. Acceptable ways to grid 1/3 = .3333...

SECTION B

Algebraic expressions with one and two variables, Inequalities, Absolute value, and functions are the main topics covered in this section of quantitative review. Not so difficult algebra has been included on the SAT that it becomes a rock to crack. I have explained many of the simple rules to have the right answers without employing deep mathematical concepts.

Algebra

The methods or rules used in algebra are actually the extension of the methods or rules used in arithmetic. In algebra we use letters and symbols with or without numbers to represent quantities for example, in algebra we have terms like x^2, 5ab, $-3a^2xy$ etc. Consider a term $(-3a^2xy)$ used in algebra. It has following parts.

Coefficient:

The number part of this term i.e.(-3) is called coefficient.

Variable:

The letters or symbols used in an algebraic expression are called variables. 'a', 'x' and 'y' are three distinct variables.

Value of a Variable:

A variable may have one or more values in a given situation.

If $x^2 = 4$, then x may have two values (2) and (-2). If a condition that x is positive number is applied, then the value of x is only one that is (2).

Value of a variable can be changed according to the situation. That's why they are called variables.

Power or Exponent:

In $4x^2$, 2 is power or the exponent of x. in algebra. In general:

$a^n \times a^m = a^{m+n}$ $a^n \times a^m = a^{n+m}$ $(a^n)^m = a^{nm}$	$A^m \div A^n = A^{m-n}$ $A^n \div A^m = A^{n-m}$	If a number or variable has zero as an exponent, it is always equal to 1. I.e., $X^0 = 1$

Fractions in Power:

Same rules of exponents are applied for an algebraic expression if it has power in fraction.

$\sqrt{x} = x^{\frac{1}{2}}$ $\sqrt[3]{x} = x^{\frac{1}{3}}$ $\sqrt{x^2} = \pm x$ The solution of $\sqrt{-x^2}$ is out of scope of SAT's quantitative.	$\sqrt{x} \times \sqrt{x} = x$ $\sqrt[3]{x} \times \sqrt[3]{x} \times \sqrt[3]{x} = x$ $\sqrt{x^3} = +x$ and $\sqrt{-x^3} = -x$	$\frac{x}{\sqrt{x}} = \sqrt{x}$ $\frac{\sqrt{x}}{x} = \frac{1}{\sqrt{x}}$

Surds

Expressions such as $\sqrt{2}$, $\sqrt{3}$, $\sqrt{7}$ cannot be written as numerically exact quantities. Such numbers are called irrational or surds. For example $\sqrt{72}$ in the simplest possible surd can be written as $\sqrt{72} = \sqrt{(36 \times 2)} = 6\sqrt{2}$

Constants

All numbers used in an algebraic expression either as exponents, as coefficients or as a term are called constants as they have a fixed value.

Algebraic Expressions:

All expressions that connect variables, constants (coefficients) etc by algebraic operations of addition, subtraction, multiplication, and division are called algebraic expressions for example, $2xy + y$, $y^3 + y^9$, $z^3 -5ab, c + \sqrt{d}$ + etc.

Algebraic Term

An algebraic expression is a combination of algebraic terms joined by mathematical operations '+' or '-' Thus each part of an algebraic expression separated by '+'or '-'sign is an algebraic term or simply a term; for example, in expression $(x^3 - 3xy + 2xy^2 + 12)$ there are four terms $(x^3, 3xy, 2xy^2$ and 12).

Like Term

The algebraic terms having exactly the same variables and exponents are called like terms. They can differ only in their coefficients; for example, $(5x^2)$ and $(2x^2)$ are like terms whereas $(5x^2)$ and $(5y^2)$ are not.

Monomial

An algebraic expression that has only one term is called monomial. For example, $7, x^2, 2y^3, -4xy^3, a^2b^2$ etc.

Binomial

An algebraic expression having only two terms is called binomial. For example $x^2 + y^2, 2x^4 + 12$ and $3x^3 - 9$ etc.

Trinomials

An algebraic expression with three terms is called trinomials. For example, $3x - 2y + 2, 3x^2 + 15x - 1$ and $7x^2 - 2xy + 2x^2y^6$ etc.

Polynomial

An algebraic expression with more than three terms is called polynomial. In general, binomials and trinomials are also included or called polynomial. For example: $3x^2 + 53, 5x^6 + 7, 15x^2 - 2xyz + 7xy^2 + 1$

Operations on Algebraic Expressions

All mathematical operations can be applied to the algebraic expressions. Following is the detail of how to perform these operations.

PEMDAS- Sequence of Operations

The order or precedence of operations for algebraic expressions is same as that for numbers, we have discussed earlier in numbers.

Addition

In addition of algebraic expressions, coefficients of like terms of both expressions are added; for example:

$(2x^2 + 3x + 5) + (3x^2 + 4x + 7) =$

$2x^2$	$3x$	5
$3x^2$	$4x$	7
$5x^2$	$7x$	12

Subtractions

In subtraction the signs of all the terms of expression that is to be subtracted are inverted i.e. '+' to '-' and - to + then coefficients of like terms are added; for example

$(2x^2 + 8x + 5) - (3x^2 + 4x + 2) =$

$2x^2$	$8x$	5
$-3x^2$	$-4x$	-2
$-x^2$	$4x$	3

Multiplication

Similar Variable: In multiplication of single terms having same variable, coefficients of the terms are multiplied and the exponents are added; for example $3x^3 \times 5x^4 = 15x^7$

Dissimilar Variable:

In multiplication of two algebraic expressions, multiply each term of first expression with all terms of the other one by one. Combine like terms of the resultant terms and write all these terms as an expression; for example $3K^3 \times 2P^3 = 6K^3P^3$

Factors

If an algebraic expression is a product of other algebraic expressions then these expressions are called factors of the original expression for example,

$18x^4y + 12x^2y = 6x^2y (3x^2 + 2)$, Since the product of $6x^2y (3x^2 + 2)$ is $18x^4y + 12x^2y$, therefore, $6x^2y$ and $3x^2 + 2$ are factors of $18x^4y + 12x^2y$.

Division of Algebraic Expressions

Single term Expressions: If you are to divide $15x^6$ by $3x^2$, then divide the coefficient of numerator $(15x^6)$ by the coefficient of divisor $(3x^2)$ that is $15 \div 3 = 5$ which is the coefficient of the resultant expression. Now for dividing x^6 by x^2, just subtract the exponents that is $x^{6-2} = x^4$. The result of this division is $5x^4$.

> **Note**
>
> Since algebraic expressions can be multiplied, they can be squared, cubed or raised to any power.
>
> For squaring a term, take the square of the coefficient and multiply the exponent with 2; for example square of $5x^3$ is $25x^6$. Similarly, cube of $5x^4$ is $5^3x^{3\times4} = 125x^{12}$.
>
> The multiplication addition and subtraction of algebraic expressions are commutative, i.e., $2x^3 \times 3y^2 = 3y^2 \times 2x^3 = 6x^3y^2$.

Multi Term Expressions (Polynomials): If, for example you are to divide $6x^4 + 18x^2 - 24x$ by $3x$, then divide each term of the expression by $3x$ using the same rule described above for single term expression. You can write $\dfrac{6x^4}{3x} + \dfrac{18x^2}{3x} - \dfrac{24x}{3x}$ to have the required expression i.e., $2x^3 + 6x + 8$.

Value of an Expression

If we are provided with the values of all variables used in an expression, we can find the value of the expression. For example, the value of $5x^2 + 2x$ at $x = 2$ is $5 \times 2 + 2 \times 2 = 10 + 4 = 14$

Factoring an Algebraic Expression

Common factor of all terms: If an algebraic expression has a common multiplier in all terms then you can take it as a common factor. For example; $4x^3 + 2xy$ has $2x$ as a common factor i.e., $4x^3 + 2xy = 2x(2x^2 + y)$

Factor a Common Divisor: If an expression is consisted of the difference of two whole squares e.g. $a^2 - b^2$ then factors of this expression will be $(a-b)$, $(a + b)$ i.e., $a^2 - b^2 = (a + b)(a - b)$. For example: $4x^2 - 9y^2$ has factors $(2x - 3y)$ and $(2x + 3y)$

Facts:

- $a^2 + b^2 + 2ab = (a + b)(a + b) = (a + b)^2$
- $a^2 + b^2 - 2ab = (a - b)(a - b) = (a - b)^2$

Exponential Functions

A function is a definition. For example, function y is defined as $y = 5x^2 + 3$. In mathematics function is usually represented as $f(x)$. Usually a variety of symbols are used to represent a function on the SAT, like Ø, ¥, Δ, Ψ, #, @, $, &, *, ., and Λ etc. Don't get panic about SAT quantitative, no technical or complicated mathematical expressions or formulae are involved in solving the questions on the SAT.

Example:

If $¥N = 3N - 1$, then find $¥5$.

Solution:

Replace N by 5 in the expression. i.e., $¥5 = 3 \times 5 - 1 = 14$

Absolute Value:

The absolute value of a number x, denoted by $|x|$, is defined by the formula $|\pm x| = x$. In other words $|x|$ is always positive.

Note:

$|x| = 0$ if and only if $x = 0$

A number and its negative have the same absolute value $|-a| = |a|$

The absolute value of a product is the product of the absolute values $|ab| = |a||b|$

The absolute value of a quotient is the quotient of the absolute value $\left|\dfrac{a}{b}\right| = \dfrac{|a|}{|b|}$

The absolute value of the sum of two numbers is less than or equal to the sum of their absolute values $|a + b| \le |a| + |b|$

DEFINED FUNCTIONS

One of the most common topics in the test is the Defined Functions. In it, you will be given a symbol along with a property defining that symbol. Consider the following examples.

Example 1: Define $x\square y$ by the equation $x\square y = xy - y$. Then $2\square 3 =$

 (A) 1   (B) 3
 (C) 12   (D) 15

Based on the information given above, we know that $x\square y = xy - y$. By replacing x with 2 and y with 3 in the definition, we get: $2\square 3 = 2 \cdot 3 - 3 = 3$. Option (B) is the correct answer.

Example 2: What is the value of $\dfrac{z\Delta 2}{z\Delta 3}$ if $a \Delta b$ is defined to be a^2?

 (A) 2/3   (B) 1
 (C) 3/2   (D) 2

Based on the definition, Δ will square the first term. Hence, $z \Delta 2 = z^2$, and $z \Delta 3 = z^2$.

Putting it in fraction form, $\dfrac{z\Delta 2}{z\Delta 3} = \dfrac{z^2}{z^2} = 1$. Therefore, option (B) is correct answer.

Example 3: If x is a positive integer, define:

 $(x)^* = \sqrt{x}$, if x is even;
 $(x)^* = 4x$, if x is odd.
 Which one of the following equals $(2k - 1)^*$ if k is a positive integer?

 (A) $\sqrt{2k-1}$ (B) $k-1$
 (C) $8k-4$ (D) $\sqrt{8k-4}$

The first step is to determine whether $2k - 1$ is even or odd. (It cannot be both) Let $k = 1$. Then $2k - 1 = 2 \cdot 1 - 1 = 1$ i.e. an odd number. (Another way to prove this is that since $2k$ is a multiple of 2, it is even. And since $2k - 1$ is one unit less than an even number, it is odd). So we will use the bottom-half of the definition i.e. $(2k - 1)^* = 4(2k - 1) = 8k - 4$. The answer is, therefore, option (C).

One thing to remember about Defined Functions is that they do not differ from the functions, $f(x)$, you have already studied. The function in Example 3 could simply be written as $f(x) = \sqrt{x}$ and $f(x) = 4x$. The objective of defined functions is to figure out how well you can adapt to unusual structures. These problems become much easier to deal with once you realize that defined functions are manipulated and evaluated just as regular functions.

Example 4: Define x^* by the equation $x^* = \pi - x$. Then $((-\pi)^*)^* =$

 (A) -2π (B) -1
 (C) $-\pi$ (D) 2π

By working from the inner parentheses towards the outer, we have
$((-\pi)^*)^* = (\pi - (-\pi))^* = (\pi + \pi)^* = (2\pi)^* = \pi - 2\pi = -\pi$.
Therefore, option (C) is correct.

Example 5: If x is an integer, define:

 $/x\backslash = 5$, if x is odd;
 $/x\backslash = 10$, if x is even.
 If u and v are integers, and both $3u$ and $7 - v$ are odd, then $/u\backslash - /v\backslash =$

 (A) -5 (B) 0
 (C) 5   (D) 10

Since $3u$ is odd, u is odd. Since $7 - v$ is odd, v must be even. To understand this, suppose v were odd, then $7 - v$ would be even because the difference of two odd numbers is an even number. However, since we know that $7 - v$ is odd, therefore v must be even.

As we know that u is odd, the top part of the definition gives $/u\backslash = 5$. And as v is even, the bottom part of the definition gives $/v\backslash = 10$. Hence, $/u\backslash - /v\backslash = 5 - 10 = -5$. Thus, option (A) is correct.

Example 6: Which of the following must be true for all real numbers a and b, where $a \cdot b \neq 0$, let $a \Diamond b = a^b$,

 I. $a\Diamond b = b\Diamond a$

 II. $(-a)\Diamond(-a) = \dfrac{(-1)^{-a}}{a^a}$

 III. $(a\Diamond b)\Diamond c = a\Diamond(b\Diamond c)$

 (A) I only   (B) II only
 (C) III only   (D) II and III only

We can see that statement I is false. To illustrate this, $1\Diamond 2 = 1^2 = 1$, but $2\Diamond 1 = 2^1 = 2$. Thus, we can eliminate option (A). Statement II however is true:

$$(-a)\Diamond(-a) = (-a)^{-a} = (-1 \cdot a)^{-a} = (-1)^{-a}(a)^{-a} = \dfrac{(-1)^{-a}}{a^a}.$$

Thus we can eliminate option (C). Statement III is false as, $(2\Diamond 2)\Diamond 3 = 2^2\Diamond 3 = 4\Diamond 3 = 4^3 = 64$ and $2\Diamond(2\Diamond 3) = 2\Diamond 2^3 = 2\Diamond 8 = 2^8 = 256$. So option (D) can be eliminated. Hence, the answer is option (B).

It is to be noted that the expression $a \cdot b \neq 0$ makes sure that neither a nor b equals 0: if $a \cdot b = 0$, then either $a = 0$ or $b = 0$, or both. This prevents division by zero from occurring in the problem, otherwise if $a = 0$ and $b = -1$, then $0\Diamond(-1) = 0^{-1} = \dfrac{1}{0}$

Example 7: The operation @ is defined for all non-zero x and y by the equation $x @ y = x^y$. Then the expression $(x @ y) @ z$ is equal to

 (A) x^{y^z} (B) xyz

 (C) $(xy)^z$ (D) $\left(x^y\right)^z$

$(x@y)@z = \left(x^y\right)@z = \left(x^y\right)^z$. Therefore the correct answer is option (D). Although one might think that options (A) and

(D) are equivalent, they are actually not. Consider that, $\left(x^y\right)^z = x^{yz}$. This is not equal to x^{y^z}.

Example 8: For all real numbers x and y, let $x \# y = (xy)^2 - x + y^2$. Figure out the value of y which makes $x \# y$ equal to $-x$ for all values of x.

    (A) 0   (B) 2

    (C) 5   (D) 7

Putting $x \# y$ equal to $-x$ gives us	$(xy)^2 - x + y^2 = -x$
By canceling $-x$ from both sides of the equation, we get	$(xy)^2 + y^2 = 0$
By expanding the first term, we get	$x^2y^2 + y^2 = 0$
By factoring out y^2, we get	$y^2(x^2 + 1) = 0$
By setting each factor equal to zero, we get	$y^2 = 0$ or $x^2 + 1 = 0$

We know that $x^2 + 1$ is greater than or equal to 1. So, $y^2 = 0$

By taking the square root of both sides we get $y = 0$

Therefore, we get the answer to be option (A).

Example 9: If $[x]$ denotes the area of a square with sides of length x, then which one of the following is equal to $[9] \div [3]$?

    (A) [2]   (B) [3]

    (C) [16]   (D) [27]

The area of a square with sides of length x is x^2. The formula gives us,

$$[9] \div [3] = 9^2 \div 3^2 = 81 \div 9 = 9$$

And $[3] = 3^2 = 9$. Hence, option (B) is the correct answer.

SOLVED EXERCISE

1. For all $p \neq 2$ define $p*$ by the equation
$p* = \dfrac{p+5}{p-2}$. If $p = 3$, then $p* =$
(A) 8/5   (B) 8/3
(C) 4   (D) 8

2. Which of the following equals 2 given that $[x]$ be defined by the equation $[x] = \dfrac{x^2}{2}$.
(A) [2]   (B) [4]
(C) [6]   (D) [8]

3. For all a and b, define $a \# b$ to be $-\sqrt{(a+b)^2}$. Then $2 \# 3 =$
(A) −10   (B) −5
(C) −3   (D) −1

4. Which one of the following is equal to $<4> \cdot <6>$ if
$<d>$ denotes the area of a circle with diameter d?
(A) <10>   (B) <12>
(C) <24>   (D) $\pi \cdot <12>$

5. For all real numbers x, y, and z, let
$\overleftrightarrow{x, y, z} = (x-y)z$. For what values of a does
$\overleftrightarrow{0, 1, a} = \overleftrightarrow{1, a, 0}$?
(A) −3   (B) −1
(C) 0   (D) 3

6. Let $[x] = x^2 - 2$. If $[2] - [x] = x^2$, then $x =$
(A) $\sqrt{2}$ (B) $\sqrt{3}$
(C) 2   (D) 4

7. For all real numbers a and b, where $a \cdot b \neq 0$, let
$a \Diamond b = ab - \dfrac{a}{b}$. Which from the following must be true?
I. $a \Diamond b = b \Diamond a$
II. $a \Diamond a = (a+1)(a-1)$
III. $(a \Diamond b) \Diamond c = a \Diamond (b \Diamond c)$
(A) I only   (B) II only
(C) III only   (D) I and II only

8. The operation $*$ is defined for all non-zero x and y by the equation $x * y = x/y$. Then the expression $(x * y) * z$ is equal to
(A) z/xy (B) y/xz
(C) xyz (D) x/yz

9. Let $x @ y = x\sqrt{y} - y - 2x$. What value of x does $x @ y = -y$ for all values of y?
(A) 0   (B) $2/\sqrt{3}$

(C) $\sqrt{3}$ (D) 2

10. For all positive numbers n, $n* = \dfrac{\sqrt{n}}{2}$. What is the value of $(64*)*$?
(A) 1   (B) 2
(C) $\dfrac{\sqrt{32}}{2}$ (D) 4

11. What is the value of $<x + 2> - <x - 2>$ If $<x> = (x + 2)x$, for all x?
(A) −2   (B) $x + 4$
(C) 0   (D) $8(x + 1)$

12. For all numbers N, let $\overset{\infty}{N}$ denote the least integer greater than or equal to N. What is the value of $\overset{\infty}{-2.1}$?
(A) −4   (B) −3
(C) −2   (D) −1

13. Find $(2@8) - (3@3) =$? Given that $x @ y = \sqrt{xy}$ for all positive x and y.
(A) −4   (B) 1
(C) 2   (D) 9

14. Which of the following must be true given that ϕ is a function such that $1 \phi a = 1$ and $a \phi b = b \phi a$ for all a and b.
I. $a \phi 1 = 1$
II. $(1 \phi b) \phi c = 1 \phi (b \phi c)$
III. $\dfrac{1 \phi a}{b \phi 1} = 1$
(A) I only   (B) II only
(C) III only   (D) I, II, and III

15. What is the value of $\pi @ \sqrt{2}$? Given that the symbol @ denotes one of the operations from addition, subtraction, multiplication, or division. Also, $1 @ 1 = 1$ and $0 @ 0 = 0$.
(A) $\dfrac{\pi \cdot \sqrt{2}}{3}$ (B) $\dfrac{\pi \cdot \sqrt{2}}{2}$
(C) $\pi \cdot \sqrt{2}$ (D) $2\pi \cdot \sqrt{2}$

Questions 16–17: Use the following equations to define the symbol #,
$x \# y = (x - y)^2$, if $x > y$.
$x \# y = x + y/4$, if $x \leq y$.

16. $4 \# 12 =$
(A) 4   (B) 7

(C) 8   (D) 13 $x^* = 2 - x$, for all non-negative x.

17. Which of the following could be true if $x \# y = -1$?
I. $x = y$
II. $x > y$
III. $x < y$
(A) I only
(B) II only
(C) III only
(D) I and III only

18. $(a + b^*)^* =$
(A) $b - a$ (B) $a - b - 4$
(C) $b - a + 4$ (D) $a + b - 2$

19. If $(2 - x)^* = (x - 2)^*$, then $x =$
(A) 0   (B) 1
(C) 2   (D) 4

Questions 18–19: Use the following equation to define the symbol $*$,

ANSWERS AND EXPLANATIONS

1. Correct Answer: D
Explanation:
By substituting $p = 3$ into the equation $p^* = \dfrac{p+5}{p-2}$ we get

$3^* = \dfrac{3+5}{3-2} = \dfrac{8}{1} = 8$. Therefore, the correct answer is option (D).

2. Correct Answer: 8
Explanation:
It is usual practice in such tests to write answer choices in ascending order. Sometimes, however, they are listed in descending order as well. So, start with option (C). If you find that it is less than 2, then move onto option (D). And if you find that it is greater than 2, then move towards option (B).

Now, $[6] = \dfrac{6^2}{2} = \dfrac{36}{2} = 18$, which is greater than 2. Next

we shall check option (B). Now, $[4] = \dfrac{4^2}{2} = \dfrac{16}{2} = 8$,

which is greater than 2. Hence, by elimination, the correct option is answer is option (A). To verify:

$[2] = \dfrac{2^2}{2} = \dfrac{4}{2} = 2$

3. Correct Answer: B
Explanation:
$2\#3 = -\sqrt{(2+3)^2} = -\sqrt{5^2} = -\sqrt{25} = -5$. The correct option is (B).

4. Correct Answer: D
Explanation:
The area of a circle is πr^2 (r being the radius), or $\pi\left(\dfrac{d}{2}\right)^2$

(d being the diameter). We get,

$<4> \cdot <6> = \pi\left(\dfrac{4}{2}\right)^2 \cdot \pi\left(\dfrac{6}{2}\right)^2 = \pi 4 \cdot \pi 9 = 36\pi^2$. Now,

$\pi \cdot <12> = \pi \cdot \pi\left(\dfrac{12}{2}\right)^2 = \pi^2 6^2 = 36\pi^2$ Option (D) is the answer.

5. Correct Answer: C
Explanation:
$\xleftrightarrow[0,1,a]{} = (0-1)a = -a$, and $\xleftrightarrow[1,a,0]{} = (1-a)0 = 0$. By setting these results equal to one another we get $-a = 0$. Multiplying by -1 we get $a = 0$. Therefore, option (C) is correct.

6. Correct Option: A
Explanation:
$[2] = 2^2 - 2 = 2$, and $[x] = x^2 - 2$. By substituting these values into the equation $[2] - [x] = x^2$, we get
$2 - (x^2 - 2) = x^2$
$2 - x^2 + 2 = x^2$
$4 - x^2 = x^2$
$4 = 2x^2$
$2 = x^2$
$\sqrt{2} = x$
Hence, option (A) is the correct answer.

7. Correct Option: B
Explanation:
We know that statement I is false, because, for example,
$1 \lozenge 2 = 1 \cdot 2 - \dfrac{1}{2} = \dfrac{3}{2}$, but $2 \lozenge 1 = 2 \cdot 1 - \dfrac{2}{1} = 0$, thus eliminating options (A) and (D). Statement II is true:

$a \lozenge a = aa - \dfrac{a}{a} = a^2 - 1 = (a+1)(a-1)$. This eliminates option (C). Therefore, the answer is (B). Note: The expression $a \cdot b \neq 0$ makes sure that neither a nor b equals 0: if $a \cdot b = 0$, then either $a = 0$ or $b = 0$, or both.

8. Correct Answer: D
Explanation:

$(x*y)*z = \left(\dfrac{x}{y}\right)*z = \dfrac{\left(\dfrac{x}{y}\right)}{z} = \dfrac{x}{y} \cdot \dfrac{1}{z} = \dfrac{x}{yz}$. Therefore, the answer is option (D).

9. **Correct Answer: A**
Explanation:
From the equation $x @ y = -y$, we get
$$x\sqrt{y} - y - 2x = -y$$
$$x\sqrt{y} - 2x = 0$$
$$x(\sqrt{y} - 2) = 0$$
If $x = 0$, then $x(\sqrt{y} - 2) = 0$ will be true regardless the value of y. This is because the product of zero and any number is zero. Therefore, the answer is option (A).

10. **Correct Answer: A**
Explanation:
$\left(64^*\right)^* = \left(\dfrac{\sqrt{64}}{2}\right)^* = \left(\dfrac{8}{2}\right)^* = 4^* = \dfrac{\sqrt{4}}{2} = \dfrac{2}{2} = 1$. The answer is option (A).

11. **Correct Answer: D**
Explanation:
$<x+2> - <x-2> = ([x+2]+2)[x+2] - ([x-2]+2)[x-2]$
$= (x+4)[x+2] - x[x-2]$
$= x^2 + 6x + 8 - (x^2 - 2x)$
$= x^2 + 6x + 8 - x^2 + 2x$
$= 8x + 8$
$= 8(x+1)$
Option (D) is the correct answer.

12. **Correct Answer: C**
Explanation:
Following is the set of all integers greater than -2.1:
$\{-2, -1, 0, 1, 2, \ldots\}$
The least integer is -2. Hence, option (C) is correct.

13. **Correct Answer: B**
Explanation:
$(2 @ 8) - (3 @ 3) = \sqrt{2 \cdot 8} - \sqrt{3 \cdot 3} = \sqrt{16} - \sqrt{9} = 4 - 3 = 1$. The correct option is (B).

14. **Correct Answer: D**
Explanation:
Statement I is true:
$a \phi 1 =$
$1 \phi a =$ [Since $a \phi b = b \phi a$]
1 [Since $1 \phi a = 1$]
Thus eliminating options (B) and (C). Statement III is true:
$\dfrac{1 \phi a}{b \phi 1} =$

$\dfrac{1 \phi a}{1 \phi b} =$ [Since $a \phi b = b \phi a$]

$\dfrac{1}{1} =$ [Since $1 \phi a = 1$]

1

This eliminates option (A) as well. So the answer is option (D).

15. **Correct Answer: C**
Explanation:
From $1 @ 1 = 1$, we know that @ must denote multiplication or division; and from $0 @ 0 = 0$, we know that @ must denote multiplication, addition, or subtraction. Multiplication is the only common operation among these groups. The value of $\pi @ \sqrt{2}$ can be determined through the following:
$\pi @ \sqrt{2} = \pi \cdot \sqrt{2}$
The correct option is (C).

16. **Correct Answer: B**
Explanation:
As $4 < 12$, we use the bottom half of the definition of #:
$4 \# 12 = 4 + 12/4 = 4 + 3 = 7$
The correct answer is option (B).

17. **Correct Answer: D**
Explanation:
Statement I is possible:
$\left(-\dfrac{4}{5}\right) \# \left(-\dfrac{4}{5}\right) = -\dfrac{4}{5} + \dfrac{(-4/5)}{4} = -\dfrac{4}{5} - \dfrac{1}{5} = -\dfrac{5}{5} = -1$
However, statement II is impossible because since $x > y$, the top part of the definition of # shall apply. But we know that a square cannot be negative. Statement III, on the other hand, is possible: $-1 < 0$. Hence, by the bottom half of the definition,
$-1 \# 0 = -1 + \dfrac{0}{4} = -1$
The correct option is (D).

18. **Correct Answer: D**
Explanation:
$(a + b^*)^* =$
$(a + [2 - b])^* =$
$(a + 2 - b)^* =$
$2 - (a + 2 - b) =$
$2 - a - 2 + b =$
$-a + b =$
$b - a$
The correct option is (D).

19. **Correct Answer: D**
Explanation:
$(2 - x)^* = (x - 2)^*$
$2 - (2 - x) = 2 - (x - 2)$
$2 - 2 + x = 2 - x + 2$
$x = 4 - x$
$2x = 4$
$x = 2$
The correct option is (D).

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FUNCTIONS

Definition

A function is defined as a special relationship or correspondence between two sets such that for *each element x in its domain there is assigned one and only one element y in its range*.

There are two parts in this correspondence:

1)   For each *x* there is assigned *one y*.
2)   For each *x* there is assigned *only one y*.

The second part is what creates uniqueness. Two values of y cannot be assigned to one x. Uniqueness carries great value in mathematics. For example, we are aware that 2 + 2 = 4. However, if it could also equal something else, 5 for example, it would result in confusion. It would also lead to the condition in which we could never be certain as to the right answer to a question.

The correspondence between *x* and *y* is usually expressed with the function notation: $y = f(x)$, where *y* is called the dependent variable and *x* is called the independent variable. Hence, the value of *y* depends on the value of *x* entered into the function. For example, the square root function can be written as $y = f(x) = \sqrt{x}$. To calculate the correspondence for x = 4, we get $y = f(4) = \sqrt{4} = 2$. Meaning, that the square root function assigns the unique *y* value of 2 to the *x* value of 4. Most expressions can be expressed as functions. For example, the expression $2^x - \dfrac{1}{x}$ expressed as a function will become,

$$f(x) = 2^x - \frac{1}{x}$$

Domain & Range

A function has three parts. Namely, a domain, a range, and a correspondence between them.

Definition: The domain of a function is defined as the set of *x* values for which the function is defined.

For example, the function $f(x) = \dfrac{1}{x-1}$ is defined for all values of $x \neq 1$, which causes division by zero. There is an infinite variety of functions with restricted domains. However, our focus is only on two types: division by zero and even roots of negative numbers. For example, the function $f(x) = \sqrt{x-2}$ is defined only if $x - 2 \geq 0$, or $x \geq 2$. These two types of restrictions can be combined. For example, $f(x) = \dfrac{1}{\sqrt{x-2}}$. Here, $x - 2 \geq 0$ since it's under the square root symbol. Additionally, $x - 2 \neq 0$, or $x \neq 2$, since that would result in division by zero. Hence, the domain is all $x > 2$.

Definition: The range of a function is defined as the set of *y* values that are assigned to the *x* values in the domain.

For example, the range of the function $y = f(x) = x^2$ is $y \geq 0$ since a square is never negative. The range of the function $y = f(x) = x^2 + 1$ is $y \geq 1$ since $x^2 + 1 \geq 1$. Although you can calculate the range of a function algebraically, but it is preferable (usually) to graph the function and obtain its range from the graph's *y* values.

Graphs

The graph of a function is the set of ordered pairs $(x, f(x))$, where *x* is in the domain of *f* and $y = f(x)$.
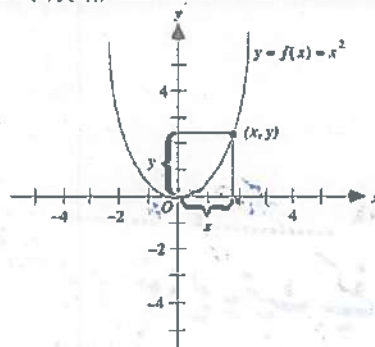
For the above given function, the domain is all *x* and the range is all $y \geq 0$. This is because the graph touches the *x*-axis at the origin point and is above it on all other points.
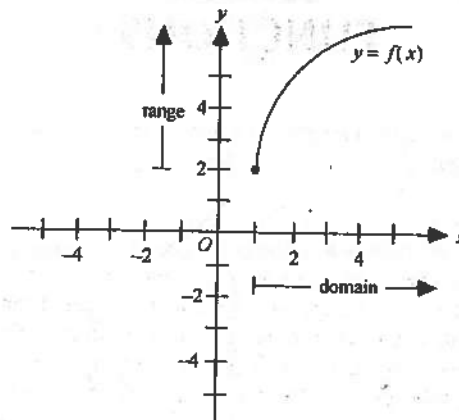
Here the domain is all $x \geq 1$ and the range is all $y \geq 2$.

Translation of Graphs

Graphs can be obtained by shifting a base graph around through adding positive or negative numbers to various places in the function. Consider, as an example, the absolute value function $y = |x|$.
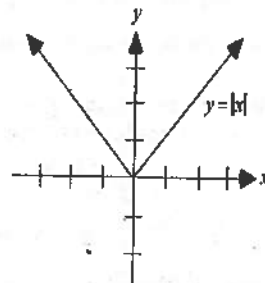
Sometimes an arrow is added to a graph to show that the graph continues indefinitely. While sometimes nothing is used. To show stoppage, a dot is added to the terminal point of the graph. Note that the domain of the absolute value function is all x. This is so because you can take the absolute value of any number. The range is $y \geq 0$ because the graph touches the x-axis at the origin, is above the x-axis everywhere else, and increases indefinitely.

In order to shift this base graph up one unit, we add 1 outside the absolute value symbol, $y = |x| + 1$:
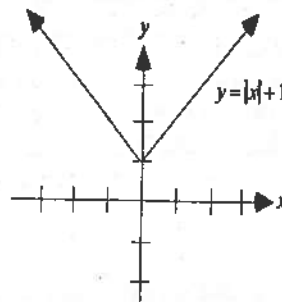
(Note that the range is now $y \geq 1$.)

While to shift it one unit downwards, subtract 1 outside the absolute value symbol, $y = |x| - 1$:
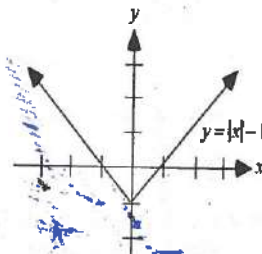
(Note that the range is now $y \geq -1$.)

In order to shift the base graph one unit to the right, we subtract 1 inside the absolute value symbol, $y = |x - 1|$:
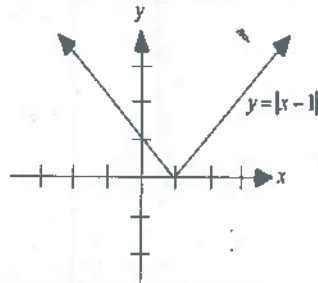
(Note that the range is still $y \geq 0$. Also of note is that subtracting 1 moved the graph to right. Students sometimes move the graph to the left since that's where the negative numbers are. Be mindful not to make this mistake.)

In order to shift the base graph one unit to the left, add 1 inside the absolute value symbol, $y = |x + 1|$:.
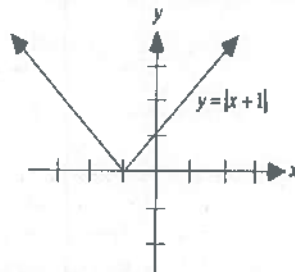
(Note that the range is still $y \geq 0$. Also of note is that adding 1 moved the graph to left. Students sometimes move the graph to the right since that's where the positive numbers are. Be mindful not to make this mistake.)

These translations hold true for all functions. In order to move a function $y = f(x)$ up c units, we must add the positive constant c to the exterior of function: $y = f(x) + c$. While in order to move a function $y = f(x)$ to the right c units, subtract the constant c from the interior of the function: $y = f(x - c)$. Thus,

To shift up c units:	$y = f(x) + c$
To shift down c units:	$y = f(x) - c$
To shift to the right c units:	$y = f(x - c)$
To shift to the left c units:	$y = f(x + c)$

Reflections of Graphs

Graphs can also be obtained by reflecting a base graph.

To do this, multiply a negative number with the various places in the function. For example, the square root function $y = \sqrt{x}$. Its graph is
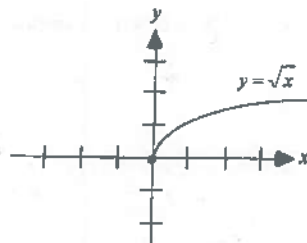
(Note that the domain of the square root function is all $x \geq 0$. This is so because the square root of a negative number cannot be taken. The range is $y \geq 0$ because the graph touches the x-axis at the origin, is above the x-axis everywhere else, and increases indefinitely.)

To reflect this base graph about the x-axis, multiply the exterior of the square root symbol by -1, $y = -\sqrt{x}$:

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$$y = -\sqrt{x}$$
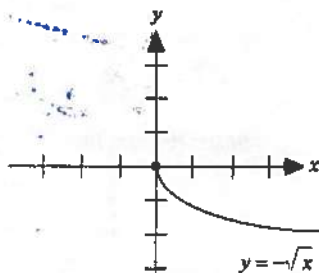
(Note that the range is now $y \leq 0$, while the domain has not changed.)

To reflect the base graph about the y-axis, multiply the interior of the square root symbol by -1, $y = \sqrt{-x}$:

$$y = \sqrt{-x}$$
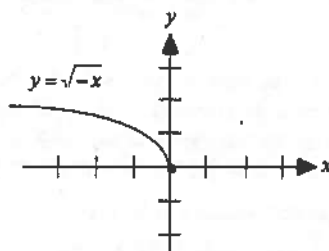
(Now note that the domain is $x \leq 0$ while range has not changed.)

This pattern of the reflections holds for all functions. Hence, in order to reflect a function $y = f(x)$ about the x-axis, multiply the exterior of the function by -1: $y = -f(x)$. To reflect a function $y = f(x)$ about the y-axis, multiply the interior of the function by -1: $y = f(-x)$. Thus,

To reflect about the x-axis:	$y = -f(x)$
To reflect about the y-axis:	$y = f(-x)$

Translations and reflections can be combined. Let's reflect the base graph of the square root function $y = \sqrt{x}$ about the x-axis, the y-axis, and then shift it to the right 2 units and finally up 1 unit:

$$y = -\sqrt{x}$$
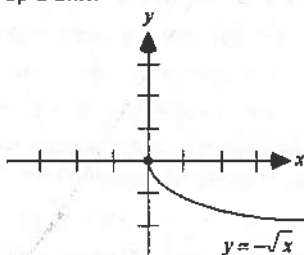
(Note that the domain is still $x \geq 0$ while now the range is $y \leq 0$.)

$$y = -\sqrt{-x}$$
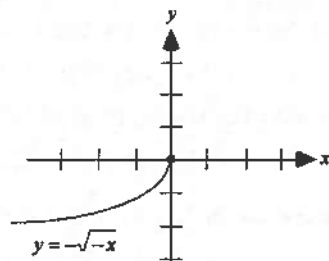
(Note that the domain is now $x \leq 0$ whereas the range is still $y \leq 0$.)

$$y=-\sqrt{-x+2}$$
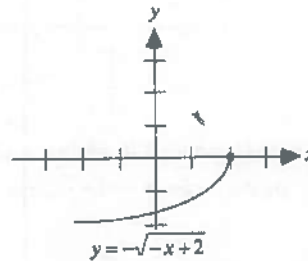
(Note that the domain is now $x \le 2$ while the range is still $y \le 0$.)

It is to be noted that 2 was added to the interior of the function, yet it shifted to the right. This apparently seems to be in violation of the rule discussed earlier: To move a function $f(x)$ to the right c units, subtract the constant c from the interior of the function: $f(x - c)$. This, however, does not violate the rule because $-x$ is not the innermost part of the function, x is. So, subtracting 2 from x, not $-x$,

gives $-\sqrt{-(x-2)}$. Now, distributing the negative inside the radical gives $-\sqrt{-x+2}$.)

$$y=-\sqrt{-x+2}+1$$
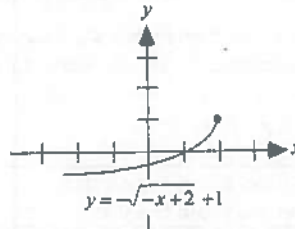
(Note that the domain is still $x \le 2$ while the range is now $y \le 1$.)

Evaluation & Composition of Functions

The letter f in the function notation $f(x)$ can be considered as the name of the function. Instead of using the equation $y = x^3 - 1$ to describe the function, we can simply write $f(x) = x^3 - 1$. In this, f is the name of the function while $f(x)$ denotes the value of the function at x. This means that the value of the function at 2 is $f(2) = 2^3 - 1 = 8 - 1 = 7$.

We can use any letter as the independent variable in a function. For example, the previous function could be written $f(p) = p^3 - 1$. This is to show that the independent variable in a function is just a placeholder. To write it without a variable,

$$f(\ ) = (\ )^3 - 1$$

Here, the function can be seen as an input/output operation. Meaning that if we put 2 into the function $f(2)$, then we get $2^3 - 1$ as a return.

We can plug expressions into functions as well. For example, by plugging $y + 1$ into the function $f(x) = x^2 - x$ we get,

$$f(y+1) = (y+1)^2 - (y+1)$$

Expressions in terms of x may also be plugged into a function. By plugging $2x$ into the function $f(x) = x^2 - x$ we get,

$$f(2x) = (2x)^2 - 2x$$

Remember that x in function is merely a placeholder. In $f(\ ) = (\ )^2 - (\ )$, we plug $2x$ into the left side $f(2x)$ and it returns the right side $(2x)^2 - 2x$.

Composition

Now let us plug in other functions into functions. First consider that in the example above with $f(x) = x^2 - x$ and $2x$, we call $2x$ by the name $g(x)$. In other words, $g(x) = 2x$. Then the composition of f with g (that is plugging g into f) is

$$f(g(x)) = f(2x) = (2x)^2 - 2x$$

Or for another example, let $f(x) = \dfrac{1}{x+1}$ and let $g(x) = x^2$. Then $f(g(x)) = \dfrac{1}{x^2 + 1}$ and $g(f(x)) = \left(\dfrac{1}{x+1}\right)^2$.

As soon as you realize that the composition of functions merely substitutes one function into another, such problems become easy to manage. Note that the composition operation $f(g(x))$ is not performed from left to right, but rather from the inner parentheses out. In the operation $f(g(2))$, the number 2 is first plugged into the function g and then that result is plugged in the function f.

A function can be composed with itself. Meaning that it can be substituted into itself. Let $f(x) = \sqrt{x} - 2$. Then $f(f(x)) = \sqrt{\sqrt{x} - 2} - 2$.

Example 1:

Below, a graph for the expression $y = f(x)$ is given. Which one of the following could be the value of $f(v)$ if $f(-1) = v$,?
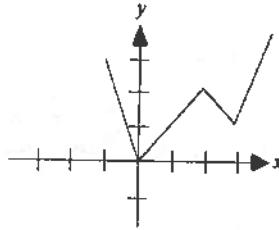
(A) 0   (B) 1
(C) 2   (D) 2.5

As we are to evaluate $f(v)$ and told that $v = f(-1)$, all that we are really being asked to do is to just compose $f(x)$ with itself i.e. to calculate $f(f(-1))$. From the graph, $f(-1) = 3$. So $f(f(-1)) = f(3)$. Also from the graph, $f(3) = 1$. So $f(f(-1)) = f(3) = 1$. The correct answer is therefore option (B).

Quadratic Functions

Quadratic functions (parabolas) appear in form shown below:

$$y = f(x) = ax^2 + bx + c$$
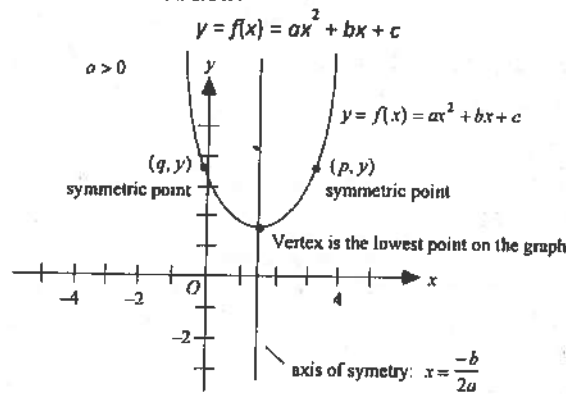
Vertex is the highest or lowest point on a quadratic graph. The x–coordinate of the vertex occurs at $x = -b/2a$. This vertical line also forms the axis of symmetry of the graph, which means that if the graph were folded along its axis, the left and right sides of the graph would coincide.

If $a > 0$ in graphs of the form $y = f(x) = ax^2 + bx + c$ if $a > 0$, the graph opens up.
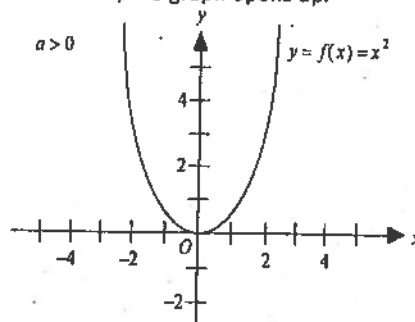
Whereas if $a < 0$, the graph opens down.

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$$y = f(x) = -x^2$$
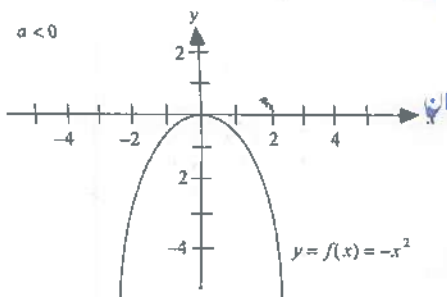
By completing the square, the form $y = ax^2 + bx + c$ can be written as $y = a(x - h)^2 + k$. This is a helpful form since the vertex occurs at the point (h, k) and the axis of symmetry is the line $x = h$.

Up till now, we've analyzed quadratic functions that are vertically symmetric. Sometimes they can be horizontally symmetric, given in the following form:

$$x = g(y) = ay^2 + by + c$$
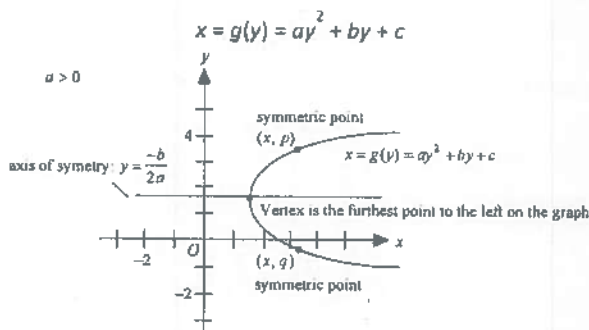
On this graph, the vertex is the furthest point to the left. The y-coordinate of the vertex occurs at $y = -b/2a$. This horizontal line also forms the axis of symmetry of the graph. Meaning that if the graph were folded along its axis, the top and bottom parts of the graph would coincide.

If $a > 0$ in graphs of the form $x = ay^2 + by + c$, then the graph opens to the right. While it opens to the left if $a < 0$.

Example 2:

Which one of the following is the smallest possible slope of line k provided that the graph of $x = -y^2 + 2$ and the graph of the line k intersect at $(0, p)$ and $(1, q)$.

(A) $-\sqrt{2} - 1$

(B) $-\sqrt{2} + 1$

(C) $\sqrt{2} - 1$

(D) $\sqrt{2} + 1$

By expressing $x = -y^2 + 2$ in standard form we get $x = -1y^2 + 0 \cdot y + 2$. Since $a = -1$, $b = 0$, and $c = 2$, the graph opens to the left and its vertex is at $(2, 0)$.
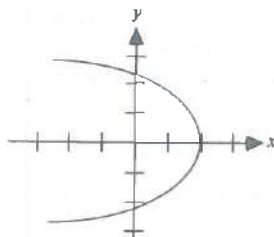
As p and q can be positive or negative, there are four possible positions for line k (the y-coordinates in the graphs below can be calculated by plugging $x = 0$ and $x = 1$ into the function $x = -y^2 + 2$):

$(0, \sqrt{2})$

$(1, -1)$
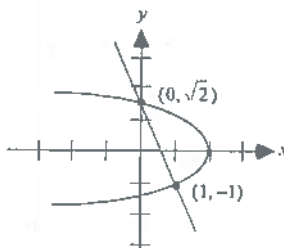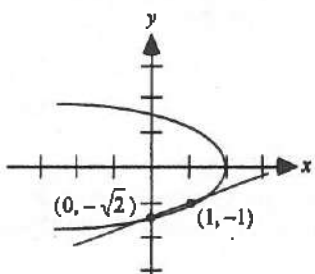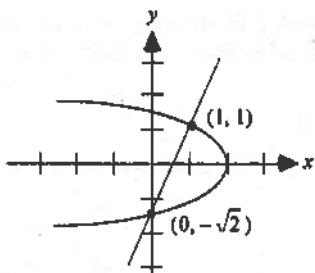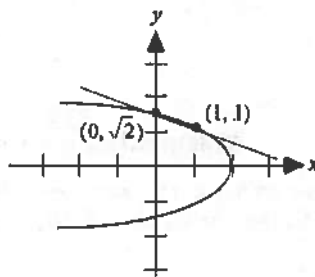
The line in the first graph is the smallest possible slope as it has the steepest negative slope. On calculating the slope we get,

$$m = \frac{\sqrt{2}-(-1)}{0-1} = \frac{\sqrt{2}+1}{-1} = -\left(\sqrt{2}+1\right) = -\sqrt{2}-1$$

The correct answer is therefore, option (A).

Qualitative Behavior of Graphs & Functions

In this topic we'll how a function and its graph are related. Also, how to identify the zeros of a function based on its graph. The zeros, or roots, of a function are the x-coordinates of where it crosses the x-axis.

In addition, during the test you may be given two graphs and asked for what x values are their functions equal. The functions will be equal where they intersect.

Example 3:
The graphs of y = f(x) and y = 1 are shown. For how many x values does f(x) equal 1?
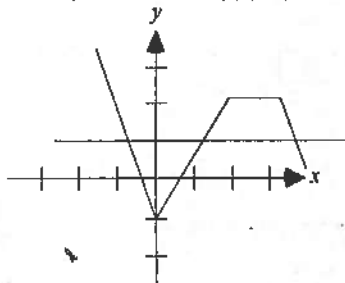
(A) 0   (B) 1
(C) 2   (D) 3

We can see that the graphs intersect at three points. Both graphs have a height, or y-coordinate, of 1 at all of these points. The points are approximately $(-.8, 1)$, $(1.2, 1)$, and $(4, 1)$. Therefore, $f(x) = 1$ for three x values. The correct option is (D).

Functions as Models

An application of functions is that they can be used to predict outcomes of physical events or real-life situations. For example, a function can predict the number of movie tickets that will be sold at a given price or for example the maximum height a projectile will reach when fired with an initial velocity, or

Example 4:
The graph shows the number of music CDs sold at various prices. At what price should the CDs be marked to sell the maximum number of CDs?
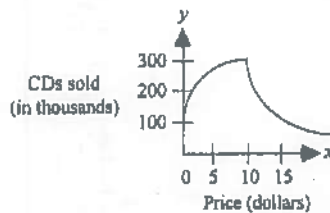
(A) 0	(B) 5
(C) 10	(D) 15

Sales increase quickly at first but then slow down to a maximum of around 300,000. Thereafter, as the price continues to increase, sales keep on dropping and then slowly approach zero. Sales of 300,000 units on the y-axis correspond to a price of about \$10 on the x-axis. Hence, the correct option is (C).

SOLVED EXERCISE

1. For what values of x is $g(x)$ a real number in the function below?

$$g(x) = (2x - 3)^{1/4} + 1$$

   (A) $x \geq 0$ (B) $x \geq 1/2$
   (C) $x \geq 3/2$ (D) $x \geq 2$

2. Consider the table given below. It shows the values of the quadratic function f for values of x. Which one of the following functions best represents f?

x	−1	0	1	2
$f(x)$	1	3	1	−5

   (A) $f(x) = -2x^2$ (B) $f(x) = x^2 + 3$
   (C) $f(x) = -x^2 + 3$ (D) $f(x) = -2x^2 + 3$

3. Which of the following could be a value of k in the function below if $f(k) = 2$?
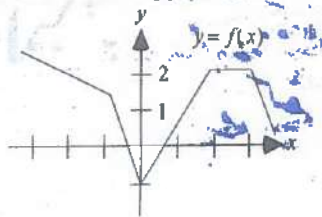
   (A) −1   (B) 0
   (C) 0.5   (D) 2.5

4. If $3h(v) = 18$, which one of the following is the value of $h\left(\dfrac{v}{4}\right)$, provided that the function h is defined by $h(x) = \sqrt{x} + 2$?

   (A) −4   (B) −1
   (C) 0   (D) 4

5. The graph shows a parabola that is symmetric about the x-axis. Determine the graph's equation.
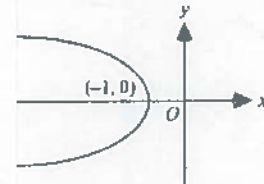
   (A) $x = -y^2 - 1$ (B) $x = -y^2$
   (C) $x = -y^2 + 1$ (D) $x = y^2 - 1$

6. A pottery store owner determines that the revenue for sales of a particular item can be modeled by the function $r(x) = 50\sqrt{x} - 40$, where x is the number of the items sold. How many of the items must be sold to generate \$110 in revenue?

   (A) 5   (B) 6
   (C) 7   (D) 9

7. At time $t = 0$, a projectile was fired upward from an initial height of 10 feet. Its height after t seconds is given by the function
$h(t) = p - 10(q - t)^2$, where p and q are positive constants. What was the height, in feet, of the projectile when $t = 4$, if the projectile reached a maximum height of 100 feet when $t = 3$?
(A) 62   (B) 70
(C) 85   (D) 90

8. Consider the graph below of $y = a - x^2$ for some constant a. Calculate the value of a if, given that the square ABCD intersects the graph at points A and B and the area of the square is 16.

A) 2   (B) 4
(C) 6   (D) 8
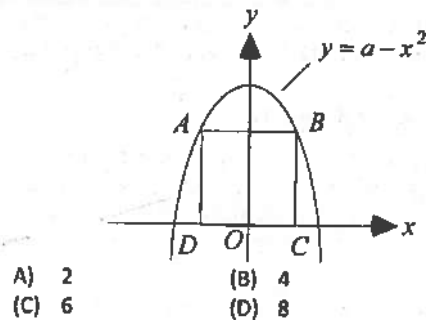
ANSWERS AND EXPLANATIONS

1. Correct Answer: C
Explanation:
By changing the fractional notation to radical notation we get, $g(x) = \sqrt[4]{2x - 3} + 1$. The expression under the radical must be greater than or equal to zero because we have an even root. Therefore, $2x - 3 \geq 0$. By adding 3 to both sides we get, $2x \geq 3$. Now, divide both sides by 2. We get $x \geq 3/2$. The correct option is, therefore, (C).

2. Correct Option: D
Explanation:
In order to find the function that'll return the function values in the bottom row of the table we need to plug the x table values into each given function. To begin with, put $x = 0$ as it is the easiest number to calculate with. Based on the table $f(0) = 3$. As
$f(0) = -2(0)^2 = -2(0) = 0$, we can discard option (A).
Let us now put choose $x = 1$. Based on the table $f(1) = 1$.
This eliminates option (B) as $f(1) = 1^2 + 3 = 1 + 3 = 4$.
And as $f(1) = -(1)^2 + 3 = -1 + 3 = 2$, option (C) is discarded. Therefore, option (D) is the answer.

3. Correct Option: D
Explanation:
For every value of x between 2 and 3 the graph has a height of 2. It has a height of 2 at about $x = -2$ as well. The only number offered in this interval is 2.5. This is illustrated by the dot and the thick line in the following graph:
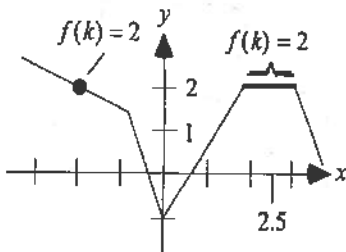
Option (D) is the correct answer.

4. Correct Option: D
Explanation:
Evaluating the function $h(x) = \sqrt{x} + 2$ at v gives us $h(v) = \sqrt{v} + 2$. Putting this value into the equation $3h(v) = 18$ we get
$3(\sqrt{v} + 2) = 18$
$\sqrt{v} + 2 = 6$ divide both sides by 3
$\sqrt{v} = 4$ subtract 2 from both sides
$(\sqrt{v})^2 = 4^2$ square both sides
$v = 16$ since $(\sqrt{v})^2 = v$
Putting $v = 16$ into $h\left(\dfrac{v}{4}\right)$ we get
$h\left(\dfrac{v}{4}\right) = h\left(\dfrac{16}{4}\right) = h(4) = \sqrt{4} + 2 = 2 + 2 = 4$
Option (D) is the correct answer.

5. Correction Answer: A
Explanation:
The base graph is $x = y^2$ as the graph is symmetric about the x-axis. As the graph opens to the left, we know that the exterior of the base function is multiplied by -1, giving us $-y^2$. The graph is shifted one unit to the left, we know that one is subtracted from the exterior of the function. We get $x = -y^2 - 1$. Option (A) is correct.

6. Correct Answer: D
Explanation:
We are asked to find the value of x for which revenue is $110. We must solve the equation $r(x) = 110$. As
$r(x) = 50\sqrt{x} - 40$, we get

$$50\sqrt{x} - 40 = 110$$
$$50\sqrt{x} = 150$$
$$\sqrt{x} = 3$$
$$\left(\sqrt{x}\right)^2 = 3^2$$
$$|x| = 9$$
$$x = 9 \quad \text{or} \quad x = -9$$

As $x = -9$ has no physical interpretation for this problem, we know that $x = 9$. Option (D) is the correct answer.

7.   Correct Answer: D
       Explanation:
       Method I:
Remember from earlier that when a quadratic function is written in the form $y = a(x - h)^2 + k$, its vertex (in this case, the maximum height of the projectile) occurs at the point (h, k). The function $h(t) = p -10(q - t)^2$ can be rewritten in the form $h(t) = a(t - h)^2 + k$. We changed y to $h(t)$ and x to t.

$$h(t) = p - 10(q - t)^2$$
$$= -10(q - t)^2 + p$$
$$= -10(-[-q + t])^2 + p$$
$$= -10(-[t - q])^2 + p$$
$$= -10[-1]^2[t - q]^2 + p$$
$$= -10([+1][t - q])^2 + p$$
$$= -10(t - q)^2 + p$$

Here, we can see that the vertex (maximum) occurs at the point (q, p). We know that the maximum height of 100 occurs when t is 3. Hence, $q = 3$ and $p = 100$. By putting this in our function we get

$$h(t) = -10(t - q)^2 + p = -10(t - 3)^2 + 100$$

Putting $t = 4$ gives us,

$$h(4) = -10(4 - 3)^2 + 100$$
$$= -10(1)^2 + 100$$
$$= -10 \cdot 1 + 100$$
$$= -10 + 100$$
$$= 90$$

Option (D) is the answer.

Method II:

In this method, we are going to solve a system of two equations in two unknowns in order to determine the values of p and q in the function $h(t) = p -10(q - t)^2$. At time $t = 0$, the projectile had a height of 10 feet. In other words, $h(0) = 10$. At time $t = 3$, the projectile had a height of 100 feet.

Or, $h(3) = 100$. Putting this into the function $h(t) = p -10(q - t)^2$ we get,

$$h(0) = 10 \implies 10 = p - 10(q - 0)^2$$
$$h(3) = 100 \implies 100 = p - 10(q - 3)^2$$

Now, subtract the bottom equation from the top equation:

$$10 = p - 10q^2$$
$$(-) \quad 100 = p - 10(q - 3)^2$$
$$\overline{-90 = -10q^2 + 10(q - 3)^2}$$

Solving for q gives us

$$-90 = -10q^2 + 10(q - 3)^2$$
$$-90 = -10q^2 + 10(q^2 - 6q + 9)$$
$$-90 = -10q^2 + 10q^2 - 60q + 90$$
$$-90 = -60q + 90$$
$$-180 = -60q$$
$$3 = q$$

Putting $q = 3$ into $10 = p - 10q^2$ gives us,

$$10 = p - 10 \cdot 3^2$$
$$10 = p - 10 \cdot 9$$
$$10 = p - 90$$
$$100 = p$$

And so, the function $h(t) = p -10(q - t)^2$ becomes $h(t) = 100 -10(3 - t)^2$. Solving at $t = 4$ we get,

$$h(4) = 100 - 10(3 - 4)^2$$
$$= 100 - 10(-1)^2$$
$$= 100 - 10 \cdot 1$$
$$= 100 - 10$$
$$= 90$$

Option (D) is the answer.

8.   Correct Answer: D
       Explanation:
       Let the length of a side of square $ABCD$ be s. The area of the square is 16, so we get $s^2 = 16$. By taking square root on both sides, we get $s = 4$. So, AB has length 4. Since the parabola is symmetric about the y-axis, Point B is 2 units from the y-axis (as is Point A) i.e., the x-coordinate of Point B is 2. As BC has length 4, the coordinates of Point B are $(2, 4)$. Since the square and the parabola intersect at Point B, the point $(2, 4)$ must satisfy the equation $y = a - x^2$:

$$4 = a - 2^2$$
$$4 = a - 4$$
$$8 = a$$

Option (D) is the correct answer.

EQUATIONS

An equation is a statement that says that two given algebraic expressions are equal e.g. $3X - 5 = 7$, $x^2 + 2x - 6 = 0$, $x^2 + y^2 = 16$ etc.

- Addition of same number on both sides does not affect the equations.
- Same number can be subtracted from both sides.
- Both sides if multiplied or divided by same number (except 0) do not affect the equation.
- Both sides can be squared.
- Square root of both sides van be taken if both sides are positive.
- Reciprocal of both sides can be taken.

Solution of Equation

Solution of an equation is to find the value of the variable used in the equation. For example, $3X - 5 = 7$ can be solved to find the value of x.

$3X - 5 = 7 \rightarrow 3x = 7 + 5 \rightarrow x = \frac{12}{3} \rightarrow x = 4$ is the solution of the equation.

Solution of equation involving one variable

1	Remove fractions by multiplying both sides with least common denominator	Multiply both side of $3(X-2) + 2(x+1) + \frac{1}{2}$ with 2 to get $6(x-2) = 4(x + 1) + 1$
2	Remove parenthesis and use the rule a (b +c) = ab + ac	$6x - 12 = 4x + 4 + 1$
3	Combine like terms on both sides	$6x - 12 = 4x + 5$
4	By adding and subtracting get all variables on left side	Subtract 4x from both sides $2x - 12 = 5$
5	By adding and subtracting get constants on right side	Add 12 on both sides $2x = 17$
6	Divide both sides by the coefficient of variable	Divide both sides by 2 and get x = 17/2

SOLUTION OF QUADRATIC EQUATIONS

Quadratic equation is a second – degree equation (highest power of variable is 2) of form $ax^2 + bx + c = 0$ where a, b and c are real numbers, for example $3x^2 + 5x + 2 = 0$

Quadratic equation has two solutions: $x = \frac{-b + \sqrt{b2 - 4ac}}{2a}$ and $x = \frac{-b - \sqrt{b2 - 4ac}}{2a}$

Normally, quadratic equation has two real values for the variable, but it may have only one solution if the discriminator $(b^2 - 4ac) = 0$. In this case solution of equation will be $x = \frac{-b}{2a}$

SYSTEM OF EQUATIONS

A group of equations having more than one variable is called simultaneous equations or system equations.

Example: $2x + 3y = 23$ and $4x - 2y = 6$

Solution of simultaneous equations

The solution or solution set of system of equations consisted of value of all the variables present in the equations. It is necessary that these values must satisfy all the equations.

Solution of simultaneous equations

From the first equation, find the value of one variable in terms of the other variable.

Put the value of the variable, found in the first step, Into the second equation. The second equation will be converted to a single variable equation.

Find the value of the variable in the converted equation.

Find the value of the second variable by putting the value of the second variable found in the third step.

Example:

Solve the simultaneous equation $2x + 3y = 23$ and $4x - 2y = 6$.

Solution:

To solve the equations is to find the values of x and y.

Find the value of first variable, x from the first equation in terms of the second variable, y.

$$2x + 3y = 23$$
$$2x = 23 - 3y$$
$$x = \frac{23 - 3y}{2}$$

Put the value of x into the second equation

$$4\left(\frac{23 - 3y}{2}\right) - 2y = 6$$
$$2(23 - 3y) - 2y = 6$$
$$46 - 6y - 2y = 6$$
$$-8y = 6 - 46$$
$$-8y = -40$$
$$y = \frac{40}{8} = 5$$

Put the value of y = 5 in the first equation

$$2x + 3(5) = 23$$
$$2x + 15 = 23$$
$$2x = 8$$
$$x = 4$$

The solution set: $x = 4$ and $y = 5$

The system of three equations involving three variables can be solved by similar method i.e., first find two variable as described above and then putting the values of two variables in the third equation to find the third variable.

Note:

You need one equation to solve single variable equation.

You need two equations to solve two variable system of equations.

You need n equations to solve n variable system of equations.

MATRICES AND DETERMINANTS

A **matrix** is simply a set of numbers arranged in a rectangular table.

On the right is an example of a 2 × 4 matrix. It has 2 rows and 4 columns. We usually write matrices inside parentheses ( ) or brackets [ ].

$$\begin{bmatrix} 3 & 1 & 5 \\ 7 & 2 & 0 \end{bmatrix}$$

We can add, subtract and multiply matrices together, under certain conditions.

A **determinant** is a square array of numbers (written within a pair of vertical lines) which represents a certain sum of products. A determinant of a matrix represents a single number. We obtain this value by multiplying and adding its elements in a special way. We can use the determinant of a matrix to solve a system of simultaneous equations.

For example, if we have the (square) 2 × 2 matrix:

$$\begin{bmatrix} 5 & 7 \\ 2 & -3 \end{bmatrix}$$

then the **determinant** of this matrix is written within vertical lines as follows:

$$\begin{vmatrix} 5 & 7 \\ 2 & -3 \end{vmatrix}$$

Calculating a 2 × 2 Determinant

In general, we find the value of a 2 × 2 determinant with elements a, b, c, d as follows:

$$\begin{vmatrix} a & b \\ c & d \end{vmatrix} = ad - bc$$

We multiply the diagonals (top left × bottom right first), then subtract.

Example:

$$\begin{vmatrix} 4 & 1 \\ 2 & 3 \end{vmatrix} = 4 \times 3 - 1 \times 2 = 10$$

The final result is a single number.

INEQUALITIES

Inequalities represent relation of two algebraic expressions in which one expression is greater or less than the other expression. For example: $x < 3$, $2x + 7 < 15$, $x + y > 7$

The solution of an inequality is not a single value rather it is a set of all values satisfying the inequality, for example; $x < 3$ means all numbers less than three contribute the solution set.

Addition or subtraction of same number on both sides does not affect the inequality.

If both sides are multiplied or divided by same positive number (except 0) inequality remains the same.

Both sides can be squared.

Square root of both sides can be taken if both sides are positive.

Multiplying or dividing both sides with a negative number reverses the inequality.

Taking reciprocal of both sides reverses the inequality.

All methods of solving equations can be used to solve inequalities.

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SOLVED EXERCISE

Directions: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all questions following a passage on the basis of what is stated or implied in that passage.

The answers and explanations of the questions have been given at the bottom of each question.

1. If $2x + 5y = 18$ and $x = 4$ then what is the value of y?
   - A. 2   B. 3
   - C. 4   D. 5

Explanation:
A is the best response.
Put the value of x in the equation.
$2(4) + 5y = 18$
$5y = 18 - 8$
$Y = \frac{10}{5} = 2$

2. In All Pakistan Weight Lifting competition in Multan, double of first lift of Mr. Sahiwal was 150 kilograms more than his second lift and the sum of two lifts was 375 kilograms. What was the weight of his first lift?
   - A. 300   B. 350
   - C. 175   D. 100

Explanation:
C is the best response.
L is the weight of first lift and P is the weight of the second lift. Based on given conditions you have the equation $2L = P + 150$ and $L + P = 375$

3. ^ of N is defined as five subtracted from twice the N. What is the value of ^7.
   - A. 7   B. 5
   - C. 14   D. 9

Explanation:
D is the best response.
Given function is $^N = 2N - 5$
So, $^7 = 2 \times 7 - 5 = 14 - 5 = 9$

4. If three times of a number is 6 more than twice the number. What is the value of the number?
   - A. 2   B. 4
   - C. 6   D. 8

Explanation:
C is the best response.
X is the number. Based on the given condition, the equation is
$3x = 2x + 6$
$3x - 2x = 6$
$X = 6$

5. Saima bought two black pencils and three red pencils for Rs. 23. After a week, she bought three black pencils and two red pencils for Rs. 16. If price of pencils remained the same for both transactions, how much she paid for one black pencil?
   - A. 2   B. 3
   - C. 4   D. 5

Explanation:
A is the best response.

If B is the price of black pencil and R is the price of red pencil, then First equation based on the information given is $2B + 3R = 23$ and the second equation is $3B + 2R = 16$.

6. The value of $x^2 + 5x + 6$ at $x = 2$ is?
   - A. 2   B. 20
   - C. 40   D. 10
   - E. 15

Explanation
By putting the value of $x = 2$ in the equation, you have $2^2 + 5 \times 2 + 6 = 4 + 10 + 6 = 20$. The right answer is B.

7. One positive number is $\frac{2}{3}$ of the other and their product is 24. what is the sum of the two?
   - A. 6   B. 18
   - C. 36   D. 24
   - E. 10

Explanation
E is the best response.
Convert the given conditions in equations,
$X = \frac{2}{3} Y$ and $XY = 24$. Solve the equations to have the answer.

8. If $x + 2y = 11$ and $2x + 3y = 17$ then y is?
   - A. 6   B. 5
   - C. 4   D. 3
   - E. 0

Explanation
B is the best response.
Multiply the first equation by 2 and then subtract the second equation from it.

9. Twice the age of son is 4 year more than the age of his father. What is the age of the son if father is of 40?
   - A. 22   B. 20
   - C. 18   D. 16
   - E. 14

Explanation
A is the best response.

10. The equation based on given conditions is $2S - 4 = F$. Now put F= 40.
    If $\#n = (n-5)^2 + 5$, then find $\#3 \times \#5$.
    - A. 50   B. 55
    - C. 30   D. 40
    - E. 45

Explanation
E is the best response.
$\#3 = (3 - 5)^2 + 5 = 9$
$\#5 = (5 - 5)^2 + 5 = 5$
$\#3 \times \#5 = 9 \times 5 = 45$

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SETS

A *set* is the name given to a collection of objects, and these objects are called *elements* of that set. A *union* of two sets contains all the objects from both sets. The *intersection* of two sets contains those elements which are common in each of the two sets. For example, if the Set A = {1,5,7} and Set B = {7, 11, 13}, then the union of Sets A and B would be {1, 5, 7, 11, 13} and the intersection would be {7}.

SOLVED EXERCISE

1. How many integers are there between 29 and 69, inclusive?
   (A) 39   (B) 40
   (C) 41   (D) 42

2. There are a total of 150 students in a school. 63 students are taking French class, 48 students are taking chemistry, while 21 are taking both of these classes. Calculate the number of students taking NEITHER Chemistry nor French.
   (A) 60   (B) 65
   (C) 71   (D) 75

3. What is the number of minutes in 1 1/3 hours?
   (A) 60   (B) 65
   (C) 71   (D) 80

4. If a printing press prints 5 pages after every 2 seconds, how many pages will it print in 7 minutes?
   (A) 350   (B) 540
   (C) 700   (D) 1050

5. There are a total of 90 students in a school, 30 of them are taking physics, 25 are taking Englishm, while 13 are taking both. What is the percentage of students taking Physics or English?
   (A) 30%   (B) 36%
   (C) 47%   (D) 51%

6. At a radio show, the callers numbered 49 through 91 won a prize. How many of the callers won a prize?
   (A) 42   (B) 43
   (C) 44   (D) 45

7. A rancher is constructing a fence by attaching wire between posts which are 20 feet apart. If the fence has a total length of 400 feet, how many posts must the rancher use?
   (A) 18   (B) 19
   (C) 20   (D) 21

8. What is the number of marbles in x jars, containing 15 marbles each, plus the number of marbles in $3x$ jars, containing 20 marbles each?
   (A) $65x$ (B) $70x$
   (C) $75x$ (D) $80x$

9. What is the number of integers from 2 to 10^3, inclusive?
   (A) 997   (B) 998
   (C) 999   (D) 1000

10. 16 people in a town own Toyota cars, while 11 people own Hondas. If exactly 15 people own only one of the two types of cars, how many people own both types of cars?
    (A) 2   (B) 6
    (C) 7   (D) 12

ANSWERS AND EXPLANATIONS

1. **Correct Answer: C**
   Explanation:
   As we know that the number of integers between two integers inclusive is one more than their difference, we get 69 − 29 + 1 = 41 integers. Therefore, the answer is option (C).

2. **Correct Answer: A**
   Explanation:
   Let us first put the given information in a Venn diagram,

French   Chemistry

63 21 48
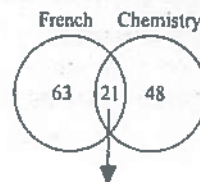
Both French and Chemistry

If we add the total number of students taking Chemistry with the number of students taking French, and then subtracting the number of students taking both from the result, we get, (63 + 48) - 21 = 90. This is the number of students enrolled in *either* Chemistry, or French, or both. By subtracting this from the total number of students in the school i.e. 150, we get 150 − 90 = 60

students enrolled in *neither* Chemistry nor French nor chemistry. Hence, the correct option is (A).

3. **Correct Answer: D**
   Explanation:
   An hour has a total of 60 minutes. Which means there are $1\frac{1}{3} \cdot 60 = 80$ minutes in 1 1/3 hours. The correct option is (D).

4. **Correct Answer: D**
   Explanation:
   A minute has a total of 60 seconds. We know that the press prints 5 pages every 2 seconds. Therefore, in one minute, the press prints $5 \cdot 30 = 150$ pages. While in 7 minutes, the press prints $7 \cdot 150 = 1050$ pages. The correct option is (D).

5. **Correct Answer: C**
   Explanation:
   Let us first put the given information in a Venn diagram,

   Physics   English

   30 (13) 25
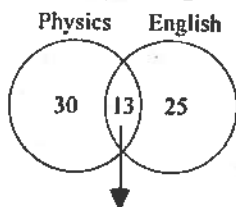
   Both Physics and English
   If we add the number of students taking physics and those taking English, and then subtracting the number of students taking both, we get $(30 + 25) = -13 = 42$ i.e. the number of students enrolled in *either* English, or Physics, or both. The total students enrolled at the school is 90. By creating the ration, we get,

   $$\frac{physics\ or\ english\ enrollment}{total\ enrollment} = \frac{42}{90} \approx .47 = 47\%$$

   The answer is (C).

6. **Correct Answer: B**
   Explanation:
   As we know that the number of integers between two integers inclusive is one more than their difference, therefore, $(91 - 49) + 1 = 43$ i.e. the number of callers who won a prize. Hence, the correct answer is option (B).

7. **Correct Answer: D**
   Explanation:
   The fence is 400 feet long in total and the posts are all 20 feet apart. Therefore, the number of sections in the fence is given by $400/20 = 20$. By ignoring the first post and associating the post at the end of each section with that section, we get a total of 20 posts i.e. one for each of the twenty sections. By including the first post in the total count, we get 21 total posts. Hence, the correct option is (D).

8. **Correct Answer: C**
   Explanation:
   The x jars have $15x$ marbles, and the $3x$ jars have $20 \cdot 3x = 60x$ marbles. The total number of marbles is given by $15x + 60x = 75x$ marbles. Hence, the correct option is (C).

9. **Correct Answer: C**
   Explanation:
   As we already know, the number of integers between two integers inclusive is one more than their difference, we get a total of $(10^3 - 2) + 1 = (1000 - 2) + 1 = 999$ integers. Hence, option (C) is correct.

10. **Correct Answer: B**
    Explanation:
    Method 1
    Let x be the number of people who own both types of cars. The number of people who only own Toyotas is $16 - x$. The number of people who only own Hondas is $11 - x$. By adding these two equations, we get the number of people who own only one of the two types of cars (which is 15):
    $(16 - x) + (11 - x) = 15$
    Add like terms:
    $27 - 2x = 15$
    Subtract 27 from both sides of the equation:
    $-2x = -12$
    Divide both sides of the equation by -2:
    $x = 6$
    Hence, we get the correct answer i.e. option (B).
    Method 2 (Plugging-in)
    Another way to solve this problem is by using the Plugging-in method, in which we plug-in the answers given in the options i.e. working backwards from the soltions, as explained below:

    Let's begin with option (A). If 2 people own both types of cars, then 14 ($= 16 - 2$) own only a Toyota and 9 ($= 11 - 2$) own only a Honda. And so 23 ($= 14 + 9$) own only one type of car. However, we already know that 15 (not 23) own only one type of car. Thus, we can eliminate choice (A) as a potential answer.

    Lets try option (B) next. If only 6 people own both types of cars, then 10 ($= 16 - 6$) own only a Toyota while 5 ($= 11 - 6$) own only a Honda. And so, 15 ($= 10 + 5$) own only one type of car. This matches with the information we are given (i.e. that exactly 15 own only one type of car). Hence, the correct answer is option (B).

MATHEMATICAL WORD PROBLEMS

Translating Words into Mathematical Symbols:

Translating words into mathematical symbol is one of the key factors in being able to solve mathematical word problems. The following is a partial list of words and their mathematical equivalents.

Concept	Symbol	Words	Example	Translation
equality	=	is	2 plus 2 is 4	$2 + 2 = 4$
		equals	x minus 5 equals 2	$x - 5 = 2$
		is the same as	multiplying x by 2 is the same as dividing x by 7	$2x = x/7$
addition	+	sum	the sum of y and π is 20	$y + \pi = 20$
		plus	x plus y equals 5	$x + y = 5$
		add	how many marbles must John add to collection P so that he has 13 marbles	$x + P = 13$
		increase	a number is increased by 10%	$x + 10\%x$
subtraction	−	more	the perimeter of the square is 3 more than the area	$P = 3 + A$
		minus	x minus y	$x - y$
		difference	the difference of x and y is 8	$|x - y| = 8$
		subtracted	x subtracted from y	$y - x$
		less than	the circumference is 5 less than the area	$C = A - 5$
multiplication	× or •	times	the acceleration is 5 times the velocity	$a = 5v$
		product	the product of two consecutive integers	$x(x + 1)$
		of	x is 125% of y	$x = 125\%y$
division	÷	quotient	the quotient of x and y is 9	$x \div y = 9$
		divided	if x is divided by y, the result is 4	$x \div y = 4$

The following guidelines may be helpful in solving word problems:

1. As a first step, choose a variable to stand for the least unknown quantity, and then attempt to write the other unknown quantities in terms of that variable.

Consider for an example that we are given that Shabana's age is 5 years less than twice Javaria's and the sum of their ages is 16. Then Javaria's age would be the least unknown, and we let

x = Javaria's age. Expressing Shabana's age in terms of x gives *Shabana's age = 2x − 5*.

2. For the second step, you should write an equation that involves the expressions given in the previous step. A lot of word problems hinge on the fact that two quantities in the problem are equal. Deciding which two should be set equal is the most fundamental aspect of solving word problems as it can require considerable effort.

For the example above, we would get $(2x − 5) + x = 16$.

3. The third step involves, solving the equation in from step 2 and interpreting the results.

For the example above, by adding the x's we get:

$$3x − 5 = 16$$

Add 5 to both sides $3x = 21$

Divide by 3 $x = 7$

Therefore, Javaria is 7 years old while Shabana is $2x − 5 = 2 \cdot 7 − 5 = 9$ years old.

Different Types of Word Problems

Motion Problems: Pretty much all motion problems are related to the formula *Distance = Rate × Time*, or

$$D = R \times T$$

Overtake Problems: In this, a person catches up with or overtakes another. The fundamental point to understand here is that at the moment one person overtakes the other they have traveled the same distance.

Example 1: Sameer starts jogging from point X to point Y. A half-hour later his friend Ghafoor who jogs 1 mile per hour slower than twice Sameer's rate starts from the same point and follows the same path. If Ghafoor overtakes Sameer in 2 hours, how many miles will Ghafoor have covered?

(A) 2 1/5   (B) 3 1/3
(C) 4   (D) 6

Let r = *Sameer's rate*. Hence, $2r - 1$ = *Ghafoor's rate*. Now, as per step 2, we will look for two equal quantitles. Remember that when Ghafoor overtakes Sameer, they will have traveled the same distance. From the formula $D = R \times T$, Sameer's distance is

$$D = r \times 2\frac{1}{2}$$

Ghafoor's distance is given by

$$D = (2r - 1)2 = 4r - 2$$

Setting these expressions equal, we get

$$4r - 2 = r \times 2\frac{1}{2}$$

Now, solving this equation for r

$$r = 4/3$$

Hence, Ghafoor will have traveled $D = 4r - 2 = 4\left(\dfrac{4}{3}\right) - 2 = 3\dfrac{1}{3}$ miles. Option (B) is the correct answer.

Opposite Direction Problems: In this, two people start at the same polnt and travel in opposite directions. The main point here is that the total distance traveled is the sum of the individual distances traveled.

Example 2: Two people start jogging in opposite directions at the same point and time. If the rate of one jogger is 2 mph faster than the other and after 3 hours they are 30 miles apart, what is the rate of the faster jogger?

(A) 3   (B) 4
(C) 5   (D) 6

Putting r as the rate of the slower jogger. The rate of the faster jogger is $r + 2$. As they are jogging for 3 hours, the distance traveled by the slower jogger is $D = rt = 3r$, and the distance traveled by the faster jogger is $3(r + 2)$. As they are 30 miles apart, adding the distances traveled gives

$$3r + 3(r + 2) = 30$$
$$3r + 3r + 6 = 30$$
$$6r + 6 = 30$$
$$6r = 24$$
$$r = 4$$

Therefore, the rate of the faster jogger is $r + 2 = 4 + 2 = 6$. Option (D) is correct.

Round Trip Problems: The fundamental point in these is that the distance going and distance returning is the same.

Example 3: A cyclist travels 20 miles at a speed of 15 miles per hour. What speed did he return if he returns along the same path and the entire trip takes 2 hours?

(A) 15 mph   (B) 20 mph
(C) 22 mph   (D) 30 mph

Solving $D = R \times T$ for T gives us $T = D/R$. For the first half of the trip, we get $T = 20/15 = 4/3$ hours. As the complete trip takes 2 hours, the return trip takes $2 - 4/3$ hours, or $2/3$ hours. Now, the return trip is also 20 miles, so solving $D = R \times T$ for R gives us,

$$R = \frac{D}{T} = \frac{20}{2/3} = 20 \cdot \frac{3}{2} = 30$$

Option (D) is the correct answer.

Compass Heading Problems: Scuh problems usually Invovle two people that are traveling in perpendicular directions. The main thing here is often the Pythagorean Theorem.

Example 4: Ship A leaves port heading due west at x miles per hour at 1 PM. Two hours later, Ship B is 100 miles due south of the same port and heading due north at y miles per hour. How far apart are the ships at 5 PM?

(A) $\sqrt{(4x)^2 + (100 + 2y)^2}$ (B) $x + y$

(C) $\sqrt{x^2 + y^2}$ (D) $\sqrt{(4x)^2 + (100 - 2y)^2}$

Ship A is traveling at x miles per hour, so its distance traveled at 5 PM is $D = rt = 4x$. The distance traveled by Ship B is $D = rt = 2y$. This is given in the diagram:
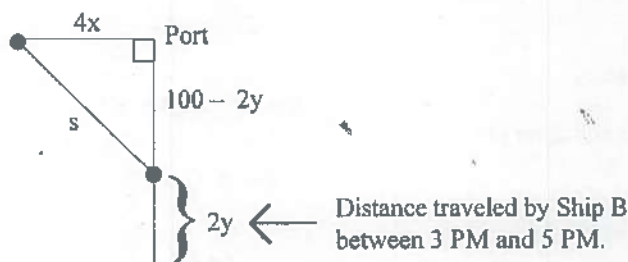
Using the Pythagorean Theorem, we get $s^2 = (4x)^2 + (100 - 2y)^2$. Taking the square root, we get $s = \sqrt{(4x)^2 + (100 - 2y)^2}$. Option (D) is the correct answer.

Circular Motion Problems: Here, the fundamental point is often the arc length formula $S = R\theta$, where S is the arc length (or distance traveled), R is the radius of the circle, and θ is the angle.

Example 5: The figure shows the path of a car moving around a circular track. How many miles does the car travel in going from point A to point B?

    (A) $\pi/6$
    (B) $\pi/3$
    (C) π
    (D) 30
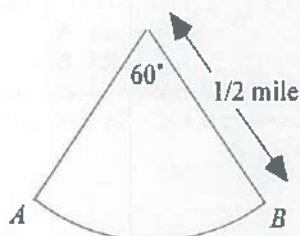
We must convert degree measure to radian measure when calculating distance. To do this, multiply by the conversion factor $\pi/180$.

Multiplying $60°$ by $\pi/180$ gives us $60 \cdot \dfrac{\pi}{180} = \dfrac{\pi}{3}$. The length of arc traveled by the car in moving from point A to point B is S. Plugging this information into the formula $S = R\theta$ yields $S = \dfrac{1}{2} \cdot \dfrac{\pi}{3} = \dfrac{\pi}{6}$. Option (A) is the answer.

Example 6: If a wheel is spinning at 1200 revolutions per minute, how many revolutions will it make in t seconds?

    (A) $2t$ (B) $10t$
    (C) $20t$ (D) $48t$

First we must find the number of revolutions per second and multiply that number by t.
The wheel is spinning at 1200 revolutions per minute and there are 60 seconds in a minute.

$$\frac{1200 \text{ revolutions}}{60 \text{ seconds}} = 20 \text{ rev/sec}$$

In t seconds, the wheel will make $20t$ revolutions. Option (C) is the correct answer.

Work Problems: For such problems, remember the formula, *Work = Rate × Time*, or $W = R \times T$. The amount of work done is usually 1 unit. The formula then becomes $1 = R \times T$. Solving this for R gives us $R = 1/T$.

Example 7: Jamal can mow the lawn in 30 minutes. Jamal and Bobby combined can mow the lawn in 20 minutes. How long would it take Bobby to mow the lawn if he is working alone?

    (A) 1/2 hour   (B) 3/4 hour
    (C) 1 hour   (D) 3/2 hours

Let Bobby's rate be $r = 1/t$. The rate at which they work together is the sum of their rates:

Total Rate = Jamal's Rate + Bobby's Rate

$$\frac{1}{20} = \frac{1}{30} + \frac{1}{t}$$

$$\frac{1}{20} - \frac{1}{30} = \frac{1}{t}$$

$$\frac{30 - 20}{30 \cdot 20} = \frac{1}{t}$$

$$\frac{1}{60} = \frac{1}{t}$$

$$t = 60$$

Bobby alone can do the job in 1 hour. Option (C) is the correct answer.

Example 8: A tank is being drained at a constant rate. How much longer will it take to drain the tank completely, if it takes 3 hours to drain 6/7 of its capacity?

    (A) 1/2 hour   (B) 3/4 hour

    (C) 1 hour   (D) 3/2 hours

As per the data, the formula $W = R \times T$ becomes $6/7 = R \times 3$ (since 6/7 of the tank drains in 3 hours). Solving for R we get $R = 2/7$. As 6/7 of the work has been completed, 1/7 is remaining. By putting this into the formula we get, $W = R \times T$ gives $\frac{1}{7} = \frac{2}{7} \times T$. Solving for T gives $T = 1/2$. Option (A) is the answer.

Mixture Problems: The thing to remember here is that the combined total of the concentrations in the two parts must be the same as the whole mixture.

Example 9: How many ounces of a solution that is 30 percent salt must be added to a 50-ounce solution that is 10 percent salt, in order to get a resulting solution that is 20 percent salt?

    (A) 20   (B) 30

    (C) 40   (D) 50

Putting the ounces of the 30 percent solution as x. The amount of salt in that solution is given by 30%x. The final solution will be 50 + x ounces, and its concentration of salt will be 20%(50 + x). The original amount of salt in the solution is 10% · 50. The concentration of salt in the resulting solution will be given by the concentration of salt in the original solution plus the concentration of salt in the added solution:

$$10\% \cdot 50 + 30\%x = 20\%(50 + x)$$

Multiplying by 100 (to remove percents) and then solving for x gives us, $x = 50$. Option (D) is thus the answer.

Coin Problems: The main point here is to keep the quantity of coins distinct from the value of the coins.

Example 10: Lamia has 20 coins consisting of quarters and dimes. If she has a total of $3.05, how many dimes does she have?

    (A) 3   (B) 7

    (C) 10   (D) 13

Let the number of dimes be D, and let the number of quarters be Q. The total number of coins is 20, so $D + Q = 20$, or put another way, $Q = 20 - D$. Each dime is worth 10¢, so the value of the dimes is 10D. Similarly, the value of the quarters is $25Q = 25(20 - D)$. Put in table form,

	Dimes	Quarters	Total
Number	D	$20 - D$	20
Value	10D	25(20 − D)	305

Note that the total value entry in the table was converted from $3.05 to 305¢. Adding up the value of the dimes and the quarters yields the following equation:

$$10D + 25(20 - D) = 305$$
$$10D + 500 - 25D = 305$$
$$-15D = -195$$
$$D = 13$$

Option (D) is the correct answer.

Age Problems: Here, start by x being a person's current age and then the person's age a years ago will be $x - a$ and the person's age a years in future will be $x + a$.

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Example 11: John is 20 years older than Steve. Steve's age will be half that of John's in 10 years. Calculate Steve's age.

   (A) 2   (B) 8

   (C) 10   (D) 20

Let x = Steve's age and then $x + 20$ is John's age. Steve and John's ages will be $x + 10$ and $x + 30$, respectively, ten years from now on. In table form,

	Age now	Age in 10 years
Steve	x	$x + 10$
John	$x + 20$	$x + 30$

In ten years, Steve's age will be half that of John's, so,

$$\frac{1}{2}(x+30) = x + 10$$
$$x + 30 = 2(x + 10)$$
$$x + 30 = 2x + 20$$
$$x = 10$$

Therefore, Steve is 10 years old. Option (C) is correct.

Interest Problems: Remember the formula,

$$\text{Interest} = \text{Amount} \times \text{Rate} \times \text{Time}$$

The fundamental point here is often that the total interest is given by interest earned from one account plus the interest earned from another.

$$\text{Total Interest} = (\text{Interest from first account}) + (\text{Interest from second account})$$

Example 12: A total of $1200 is deposited in two savings accounts for one year, part at 5% and the remainder at 7%. How much was deposited at 5% if $72 was earned in interest?

   (A) 410   (B) 520

   (C) 600   (D) 650

Let x be the amount deposited at 5%. The amount deposited at 7% is given by 1200 - x. The interest on these investments is $.05x$ and $.07(1200 - x)$. The total interest is $72. This gives us,

$$.05x + .07(1200 - x) = 72$$
$$.05x + 84 - .07x = 72$$
$$-.02x + 84 = 72$$
$$-.02x = -12$$
$$x = 600$$

Option (C) is the answer.

SOLVED EXERCISE

1. Sameer was 3 times as old as Karima, seven years ago. How old is Sameer if he is now 5 years older than Karima?

   (A) 12½   (B) 13

   (C) 13½   (D) 14½

2. A dress was initially listed at a price that would have given the store a profit of 20 percent of the wholesale cost. The dress sold for a net profit of 10 dollars after reducing the asking price by 10 percent. Calculate the wholesale cost of the dress.

   (A) 200   (B) 125

   (C) 100   (D) 20

3. A dress was initially listed at a price that would have given the store a profit of 20 percent of the wholesale cost. The dress sold for 50 dollars. Calculate the wholesale cost of the dress.

   (A) 100   (B) 90

   (C) 75

   (D) Not enough information to decide

4. The capacity of glass X is 80 percent of the capacity of glass Y. In addition, glass X contains 6 ounces of punch and is half-full, while glass Y is full. How many more ounces of punch does glass Y contain as compared to glass X?

   (A) 1   (B) 3

   (C) 6   (D) 9

5. The capacity of glass X is 80 percent of the capacity of glass Y. In addition, glass X is 70 percent full while glass Y is 30 percent full. How many more ounces of punch does glass X contain as compared to glass Y?

   (A) 1   (B) 3

   (C) 6

   (D) Not enough information to decide

6. It took car X 30 minutes to travel from city A to city B. The first half of the distance was covered at 50 miles per hour while the second half was covered at 60 miles per hour. Calculate the average speed of car X.

(A) 200/11   (B) 400/11
(C) 500/11   (D) 600/11

7. Sameer bought some apples at $.60 and oranges at $.50 each. How many apples did Sameer buy if he paid a total of $4.10 for a total of 8 apples and oranges?
(A) 1   (B) 2
(C) 3   (D) 5

8. Cyclist M leaves point P at 12 noon and travels in a straight path at a constant velocity of 20 miles per hour. Cyclist N leaves point P at 2 PM, travels the same path at a constant velocity, and overtakes M at 4 PM. Calculate the average speed of N.
(A) 15   (B) 24
(C) 30   (D) 40

9. A pair of pants and a shirt cost $52.50. The pants cost two and a half times as much as the shirt. Calculat the cost of the shirt alone.
(A) 10   (B) 15
(C) 20   (D) 27

10. Javaria and Alina are 4 miles apart. Javaria starts walking toward Alina at 3 miles per hour and at the same time Alina starts walking toward Javaria at 2 miles per hour, how much time will pass before they meet?
(A) 20 minutes   (B) 28 minutes
(C) 43 minutes   (D) 48 minutes

11. Rohail can assemble a model car in 30 minutes. While Kareem can assemble the model car in 20 minutes. Working together, how long would it take them to assemble the model car?
(A) 12 minutes   (B) 13 minutes
(C) 14 minutes   (D) 15 minutes

12. How many ounces of nuts costing 80 cents a pound must be mixed with nuts costing 60 cents a pound to make a 10-ounce mixture costing 70 cents a pound?
(A) 3   (B) 4
(C) 5   (D) 7

13. Tameem is 10 years older than Kareem. Five years ago Tameem was twice as old as Kareem. What is Kareem's age.
(A) 5   (B) 10
(C) 12   (D) 15

14. Two cars start at the same point and travel in opposite directions. One of them travels at 45 miles per hour and the other at 60 miles per hour. Calculate how much time will pass before they are 210 miles apart.
(A) .5 hours   (B) 1 hour
(C) 1.5 hours   (D) 2 hours

15. If the value of x quarters is equal to the value of x + 32 nickels, x =

(A) 8   (B) 11
(C) 14   (D) 17

16. Sameer has $5.25 in nickels and dimes. How many nickelts does he have if he has 15 more dimes than nickels?
(A) 20   (B) 25
(C) 27   (D) 30

17. Karima has equal numbers of nickels and quarters worth a total of $7.50. How many coins does she have?
(A) 20   (B) 25
(C) 50   (D) 62

18. Rohail leaves to visit his friend Sameer who lives 200 miles down Interstate 10. Sameer leaves one hour later through the National Highway to visit Rohail. Calculate the miles Sameer will have driven when they cross paths, if Rohail drives at 60 mph and Sameer drives at 40 mph.
(A) 56   (B) 58
(C) 60   (D) 65

19. Ship A leaves port at 1 PM, traveling 15 mph. Three hours later, Ship B leaves the same port in the same direction traveling 25 mph. Calculate the time time when Ship B will pass Ship A.
(A) 8:30 PM   (B) 8:35 PM
(C) 9 PM   (D) 9:15 PM

20. A car traveled z miles in x hours and y minutes. Calculate the car's speed in miles per hour.
(A) $\dfrac{z}{60+y}$ (B) $\dfrac{60z}{60x+y}$
(C) $\dfrac{60}{60+y}$ (D) $\dfrac{z}{x+y}$

21. The price of a commodity is reduced by $90 through a 30% discount. What will be the price of the commodity if the discount is reduced to 20%.
(A) $180   (B) $210
(C) $240   (D) $270

22. In a class of 40 students, the number of students who passed the math exam is equal to half the number of students who passed the science exam. It is given that all students passed at least one of the two exams. What is the number of students who passed the maths exam if 5 passed both exams.
(A) 5   (B) 10
(C) 15   (D) 20

23. A train of length l, traveling at a constant velocity, passes a pole in t seconds. What is the length of the platform if the same train traveling at the same velocity passes a platform in 3t seconds?
(A) 0.5l   (B) l

(C) 1.5*l* (D) 2*l*

(A) 28 (B) 30
(C) 32 (D) 34

24. Two workers can assemble a car in 8 hours. A third worker can assemble the same car in 12 hours. Calculate the time it would take for the three workers to assemble the car working together.
(A) 5/12 hrs. (B) 2 2/5 hrs.
(C) 2 4/5 hrs. (D) 4 4/5 hrs.

25. The age of B is half the sum of the ages of A and C. Calculate the age of B, if B is 2 years younger than A and C is 32 years old.

26. The ages of three people are such that the age of one person is twice the age of the second person and three times the age of the third person. What is the age of the youngest person if the sum of the ages of the three people is 33?
(A) 3 (B) 6
(C) 9 (D) 11

ANSWERS AND EXPLANATIONS

1. Correct Answer: D
Explanation:
Let Sameer's age be given by S and Karima's be given by K. Putting "If Sameer is now 5 years older than Karima, how old is Sameer" into an equation, we get,

$S = K + 5$

Sameer's age 7 years ago can be shown as $S - 7$, while Karima's as $K = -7$. Putting "Seven years ago, Sameer was 3 times as old as Karima was at that time" in equation form, we get $S - 7 = 3(K - 7)$.
By combing the above with $S = K + 5$, we get,

$S - 7 = 3(K - 7)$
$S = K + 5$

Solving this, we get $S = 14½$. Option (D) is the correct answer.

2. Correct Answer: B
Explanation:
Since the store would have made a profit of 20 percent on the wholesale cost, the original price P of the dress was 120 percent of the cost: $P = 1.2C$. Putting "After reducing the asking price by 10 percent, the dress sold for a net profit of 10 dollars" in equation form, we get,
$P - .1P = C + 10$
$.9P = C + 10$

$$P = \frac{C+10}{.9}$$

Putting the above in $P = 1.2C$, we get,

$$\frac{C+10}{.9} = 1.2C$$

We get $C = 125$. Option (B) is the correct answer.

3. Correct Answer: D
Explanation:
Insufficient information (as the selling price is not related to any other information). It is to be noted

that "initially listed" means that there was more than one asking price. The information would've been sufficient had that phrase not been there.

4. Correct Answer: D
Explanation:
Based on "the capacity of glass X is 80 percent of the capacity of glass Y,"

$X = .8Y$

Based on the data provided, we know that the capacity of glass X is 12 ounces. Putting this in the above, we get,
$12 = .8Y$
$12/.8 = Y$
$15 = Y$

So, Y contains $15 - 6 = 9$ more ounces as compared to glass X. Option (D) is correct.

5. Correct Answer: D
Explanation:
Insufficient information (absolute numbers are not provided). Consider the following two diagrams and situations: one in which Glass X contains 5.2 more ounces of punch than glass Y, and one in which Glass X contains 2.6 more ounces than glass Y.

Situation 1 (Glass X contains 5.2 more ounces than glass Y.)
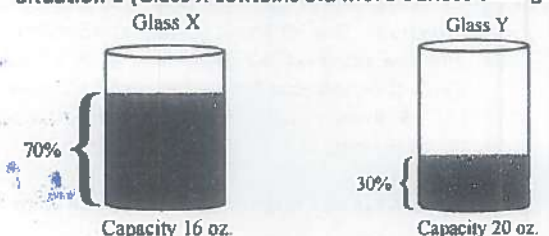
Situation 2 (Glass X contains 2.6 more ounces than glass Y.)

Glass X

Glass Y

70%

30%

Capacity 8 oz.

Capacity 10 oz.

Option (D) is the answer.
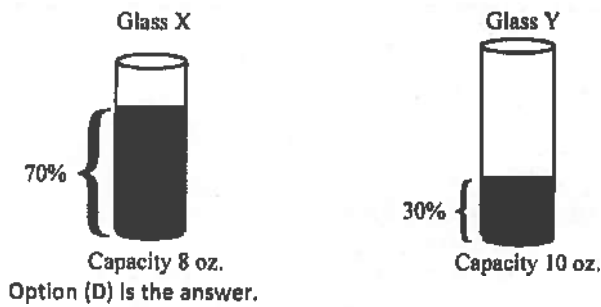
6. **Correct Answer: D**
    Explanation:

    We know that $Average\ Speed = \dfrac{Total\ Distance}{Total\ Time}$.

    The total time of the trip is 30 minutes. In order to get the answer, we need the distance of the trip.
    Let t be the time for the first half of the trip. The trip took 30 minutes (or 1/2 hour), so the second half of the trip took $1/2 - t$ hours. From *Distance = Rate × Time*, we get for the first half of the trip,

    $$\frac{d}{2} = 50 \cdot t$$

    For the second half,

    $$\frac{d}{2} = 60\left(\frac{1}{2} - t\right)$$

    $d = 300/11$
    So,

    $$Average\ Speed = \frac{Total\ Distance}{Total\ Time} = \frac{300/11}{1/2} = \frac{600}{11}.$$

    Option (D) is correct.

7. **Correct Answer: A**
    Explanation:
    Let the number of apples be bought be shown by x, and the number of oranges bought be shown by y. The sentence "Steve bought some apples at a cost of $.60 each and some oranges at a cost of $.50 each" in equation form is given as,

    $.60x + .50y = 4.10$

    As there are two variables and only one equation, the key to this problem is finding a second equation that relates x and y. We know that he bought a total of 8 apples and oranges. So we have,

    $x + y = 8$
    $x = 1$
    Option (A) is correct.

8. **Correct Answer: D**
    Explanation:
    Distance = Rate × Time, or $D = R \cdot T$. From the second sentence, we get for Cyclist N:

    $D = R \cdot 2$

    Cyclist M took 4 hours to travel 20 miles per hour. Total distance is given by,

$D = R \cdot T = 20 \cdot 4 = 80$ miles
Since the cyclists covered the same distance at the moment they met, we can plug this value for D into the equation $D = R \cdot 2$:
$80 = R \cdot 2$
$40 = R$
Option (D) is correct.

9. **Correct Option: B**
    Explanation:
    Taking the cost of the pants as p and the cost of the shirt as s. From the data in the question, $p + s = 52.50$. Putting "The pants cost two and a half times as much as the shirt" into equation form gives us $p = 2.5s$. Putting this in the above, we get,
    $2.5s + s = 52.50$
    $3.5s = 52.50$
    $s = 15$
    Option (B) is correct.

10. **Correct Answer: D**
    Explanation:
    Let x be the distance that Javaria walks. Alina will walk $4 - x$ miles as they are 4 miles apart from eachother. The key to this problem is that when they meet each person will have walked for an equal amount of time. Solving $D = R \times T$ for T we get, $T = D/R$.

    $$\frac{x}{3} = \frac{4-x}{2}$$

    $2x = 3(4 - x)$
    $2x = 12 - 3x$
    $5x = 12$
    $x = 12/5$
    The time that Javaria walks is given by

    $$T = \frac{D}{R} = \frac{12/5}{3} = \frac{12}{5} \times \frac{1}{3} = \frac{4}{5}$$ of an hour.

    In minutes, this will be $\dfrac{4}{5} \times 60 = 48$ minutes. Option (D) is correct.

11. **Correct Answer: A**
    Explanation:
    The time it takes the boys to assemble the car while working together is given by t. Their individual rates are 1/30 and 1/20, their combined rate is 1/t. Their combined rate is the sum of their individual rates:

    $$\frac{1}{t} = \frac{1}{30} + \frac{1}{20}$$

    $t = 12$.
    Option (A) is correct.

12. **Correct Answer: C**
    Explanation:
    The amount of nuts at 80 cents a pound is given x. $10 - x$ is the amount of nuts at 60 cents a pound. The cost of the 80-cent nuts is $80x$ while the cost of the 60-

cent nuts is 60(10 – x). The cost of the mixture is 70(10) cents. So, putting this data in equation form, we get,

80x + 60(10 – x) = 70(10)

x = 5. Option (C) is correct.

13. Correct Answer: D
Explanation:
Let K be Kareema's age. Tameem's age is $K + 10$. Five years ago, Kareema's age was $K – 5$ and Tameem's age was $(K + 10) – 5 = K + 5$. As Tameem was twice as old as Kareema at the time, $5 + K = 2(K – 5)$, $K = 15$. Option (D) is correct.

14. Correct Answer: D
Explanation:
The time each car travels is the same as they start at the same time. Let t be the time when the cars are 210 miles apart. $D = R \times T$, gives us,

210 = 45 · t + 60 · t

210 = 105 · t

2 = t

Option (D) is correct.

15. Correct Answer: A
Explanation:
The value of the x quarters is 25x, and the value of the x + 32 nickels is 5(x + 32). As they are equal, we can write it as,

25x = 5(x + 32)

25x = 5x + 160

20x = 160

x = 8

Option (A) is correct.

16. Correct Answer: B
Explanation:
Let the number of nickels be N. The number of dimes is given by $N + 15$. The value of the nickels is 5N while the value of the dimes is 10(N + 15). Since the total value of the nickels and dimes is 525¢,

5N + 10(N + 15) = 525

15N + 150 = 525

15N = 375

N = 25

Option (B) is correct.

17. Correct Answer: C
Explanation:
Let the number of nickels and the number of quarters be given by x. The value of nickels is 5x and the value of the quarters is 25x. As the total is $7.50,

5x + 25x = 750

30x = 750

x = 25

So, x + x = 25 + 25 = 50. She has 50 coins. Option (C) is correct.

18. Correct Answer: A
Explanation:
Let the time Sameer has been driving be given by t. The time Rohail has been driving is given by $t + 1$. The distance traveled by Stameer is $D = rt = 40t$. Rohail's distance is $60(t + 1)$. At the moment they cross paths, they will have traveled a combined distance of 200 miles.

40t + 60(t + 1) = 200

40t + 60t + 60 = 200

100t + 60 = 200

100t = 140

t = 1.4

And hence, Sameer will have traveled $D = rt = 40(1.4) = 56$ miles. Option (A) is correct..

19. Correct Option: A
Explanation:
Let the time that Ship B has been traveling be given by t, and $t + 3$ the time that Ship A has been traveling. The distance traveled by Ship B is $D = rt = 25t$, and Ship A's distance is given by $15(t + 3)$. At the moment Ship B passes Ship A, they will have traveled the same distance.

25t = 15(t + 3)

25t = 15t + 45

10t = 45

t = 4.5

As we know that Ship B left port at 4 PM and overtook Ship A in 4.5 hours, it passed Ship A at 8:30 PM. Option (A) is correct.

20. Correct Option: B
Explanation:
First, we need to change the minutes into hours as time is given in mixed units. There are 60 minutes in an hour, so y minutes is equal to y/60 hours. The car's travel time, "x hours and y minutes," then becomes $x + y/60$ hours. Putting this and the distance traveled, z, into the formula $d = rt$, we get

$$z = r\left(x + \frac{y}{60}\right)$$

$$z = r\left(\frac{60}{60}x + \frac{y}{60}\right)$$

$$z = r\left(\frac{60x + y}{60}\right)$$

$$\frac{60z}{60x + y} = r$$

Option (B) is correct.

21. Correct Option: C
Explanation:
Let x denote the original price of the commodity. The reduction in price due to the 30% discount is 0.3x.

Expressing that 30% discount reduced the price of the commodity by $90 in equation form,

$0.3x = 90$

$x = 300$

The original price was $300. The value of a 20% discount on $300 is

$.20(300) = 60$

The new selling price,

$300 - $60 = 240

Option (C) is correct.

22. Correct Option: C

Explanation:

Let the number of students in the class who passed the math exam be denoted by x. We know that number of students who passed the math exam is half the number of students who passed the science exam, hence, the number of students in the class who passed the science exam is $2x$. Five students passed both exams. Therefore, the number of students passing only the math exam is given by $(x - 5)$, while the number of students passing only the science exam is given by $(2x - 5)$. As each student passed at least one exam, the number of students who failed both exams is 0.

Thus, the students in the class can be divided into four groups:

1) Those who passed only the math exam: $(x - 5)$
2) Those who passed only the science exam: $(2x - 5)$
3) Those who passed both exams: 5
4) Those who failed both exams: 0

The sum of the number of students from each of these four categories is equal to the number of students in the class (40). In equation form,

$(x - 5) + (2x - 5) + 5 + 0 = 40$

$3x - 5 = 40$

$3x = 45$

$x = 15$

15 students passed the math exam. Option (C) is correct.

23. Correct Option: D

Explanation:

The distance traveled by the train while passing the pole is l (which is the length of the train). The train takes t seconds to pass the pole. We know that velocity = distance/time. So,

$$\text{velocity} = \frac{l}{t}$$

The train travels a distance of $l + x$ while passing the platform, where x is the length of the platform. The train takes $3t$ seconds at the velocity of l/t to cross the platform. Putting the values in the above formula,

$$l + x = \frac{l}{t} \times 3t$$

$l + x = 3l$

$x = 2l$ the length of the platform

Option (D) is correct.

24. Correct Option: D

Explanation:

The fraction of work done in 1 hour by the first two people working together is 1/8. The fraction of work done in 1 hour by the third person is 1/12. When working together, the total amount of work done by the three in 1 hour is 1/8 + 1/12 = 5/24. The time taken to complete the job is,

$$\frac{1}{\text{fraction of work done per unit time}} =$$

$$\frac{1}{5/24} =$$

$$\frac{24}{5} =$$

$$4\frac{4}{5}$$

Option (D) is correct.

25. Correct Option: D

Explanation:

Let the ages of A and C be given by a and c, respectively. And b represents the age of B. So, based on the data $b = \dfrac{a+c}{2}$. B is 2 years younger than A. This gives the equation $a = b + 2$. The age of C is 32. Putting these values into the equation $b = \dfrac{a+c}{2}$, we get $b = \dfrac{(b+2)+32}{2}$. Thus, we get $b = 34$. Option (D) is the answer.

26. Correct Option: B

Explanation:

Let the age of the oldest person, the second person, and the youngest person be shown by a, b, and c respectively. The age of the first person is twice the age of the second and three times the age of the third. So, $a = 2b$ and $a = 3c$. Solving these for b and c we get $b = a/2$ and $c = a/3$. The sum of the ages of these three is $a + b + c = 33$. Plugging the values of b and c in this,

$a + a/2 + a/3 = 33$

$6a + 3a + 2a = 198$ (multiply both sides by 6)

$11a = 198$

$a = 198/11 = 18$ (divide both sides by 11)

As $c = a/3$,

$c = a/3 = 18/3 = 6$

Option (B) is correct.

SECTION C

GEOMETRY

In Geometry, perhaps more than one any other section of the exam, you must know definitions and formulas. Take the time now to learn all of the following information so you will not have to spend even moment thinking about it on the exam you will automatically know the rules and can simply plug in the relevant information.

Basic Concepts

Angles

The two lines that make an angle are called rays. Theoretically, rays are of infinite length. Angles are measured in degrees; each degree is $\frac{1}{360}$ of a round trip (circle).	
Angles greater than 0 degrees and less than 90 degrees are called acute.	
Angles that are exactly 90 degrees are called right angles. Right angles are usually represented by a box in the corner of the angle.	
Angles that are greater 90 degrees and less than 180 degrees are called obtuse angles.	
Angles that are greater than 180 degrees and less than 360 degrees are called reflective angles.	
Angles that add up to 90 degrees are called complementary angles. If x + Y = 90° then x and y are complementary angles.	
Angles that add up to 180 degrees are called supplementary angles. If x + y = 180° then x and y are supplementary angles.	
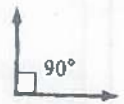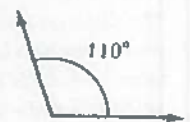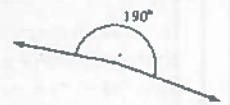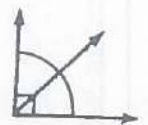
| Angles that are opposite to one another are called vertical angles and are equal. | |

| All angles around a point add up to 360 degrees. | |

| With two parallel lines, angles that are in the same position are equal. For instance, in the figure, angles 1 and 5 are both in the upper right – hand corner and must be equal. Angles 3 and 7 are both in the lower left – hand corner and must be equal. Since angle 1 is opposite angle 3 they are equal; angle 5 is opposite angle 7 and they are equal. Therefore, angles 1, 3, 5 and 7 are equal. Also, angles 2, 4, 6 and 8 are equal. | $\ell 1 \parallel \ell 2$ |
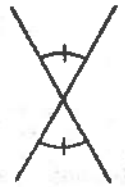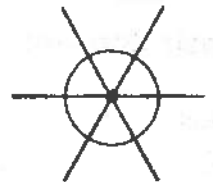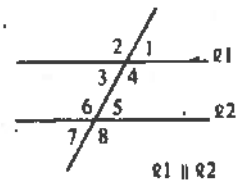
Circles

| A line from the center (also known the midpoint) of a circle to the circumference of the circle is called a radius. | |

| A line going from one side of the circle to the other and through the midpoint is called the diameter. | |

| A diameter is equal to two radii. | |
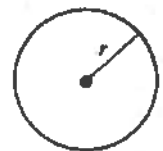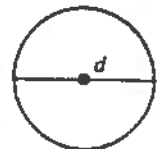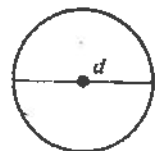
A line connecting any two points on a circle is called a chord.
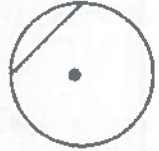
The longest chord in a circle is the diameter.
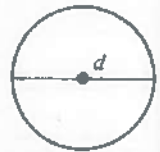
The circumference, which is the perimeter of the circle, is $2\pi r$ (π multiplied by twice the radius), or πd (π multiplied by the diameter; remember that the diameter is the same as two radii.

Arc AB
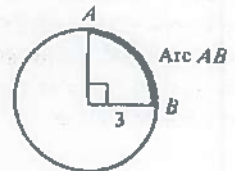
The area of a circle πr^2 (multiply the radius by itself; take that product and multiply it by π)

An arc is a portion of the circle's circumference and is measured in linear units. To find an arc, use three steps. First, find the total circumference of the circle using the $2\pi r$ formula. Second, find the fraction that the arc is of the total circumference by putting the degree measure of the arc over 360 (the total degrees in a circle). Third, multiply the fraction by the total circumference to find the measure of the arc.
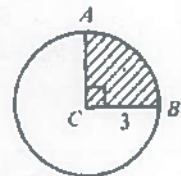
A sector is a portion for the area of a circle and is measured in square units. To find a sector, use three steps: First, find the total area of the circle, using the πr^2 formula. Second, find the fraction that the sector is of the total area by putting the degree measure of the sector over 360 (the total degrees in a circle). Third, multiply the fraction by the total area to find the measure of the sector.

Any angle in a circle with its endpoints on the circumference and its midpoint on the center of the circle is called a central angle. A central angle has the same degree measure as its intercepted arc (which is the portion of the circumference between the endpoints of the angle)
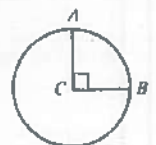
Arc $AB = 90°$

Any angle in a circle with its endpoints on the circumference and its midpoint on the circumference is called an inscribed angle. An inscribed angle has one half the degree measure of its intercepted arc (which is the portion of the circumference between the endpoints of the angle).
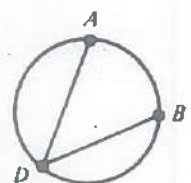
Arc $AB = 90°$
$\angle ADB = 45°$

When a central angle and an intercepted angle have the same endpoints, the central angle has twice the degree measure of the intercepted angle.
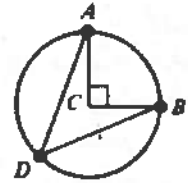
$\angle ACB = 90°$
$\angle ADB = 45°$

A triangle is a three – sided closed figure. There are three types of triangles. A triangle with three equal sides and three equal angles is called equilateral. A triangle with two equal sides and two equal angles is called isosceles. A triangle with no equal sides and no equal angles is called scalene.
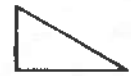
The area of a triangle is found by taking $\dfrac{1}{2}$ of the product of the base and height ($\dfrac{1}{2}$ bh). The height (also known as the altitude) is defined as a line going from the tallest point of the triangle to the base at a right (90 degrees) angles. Height may be inside triangles, outside, triangles, or along the side of a triangle.
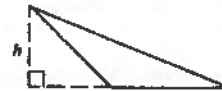
A triangle with a 90- degree angle is called a right triangle.

Within right triangles only, the sides are in a ratio of $a^2 + b^2 = c^2$ where a and b are the sides of the triangle and c is its hypotenuse. This formula is called the Pythagorean Theorem.

There are five basic ratios that you should memorize to avoid having to perform the entire $a^2 + b^2 = c^2$ calculation. These formulas, remember, work only on right triangles and are:

$3:4:5$, $5:12:13$, $7:24:25$, $1:1:\sqrt{2}$, $1\sqrt{3}:2$

Note: that since these are ratios, the sides may be in any multiple of such ratios (for example, the side may be 6:8:10, which is twice the 3:4:5 ratio)

The perimeter of a triangle is found by adding up all the sides of the triangle

The interior angles of any triangle add up to $180°$.

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Polygons

A polygon is a many sided close figure. Memorize the following terms:

3 sides: triangle

4 sides : quadrilateral

5 sides : pentagon

6 sides : hexagon

7 sides : heptagon

8 sides : octagon

9 sides : nonagon

10 sides: decagon

When a polygon's angles are all equal and its sides are all equal, it is called regular. Examples of regular polygons are equilateral triangles (a regular triangle) and squares (a regular quadrilateral)

The exterior angles of any polygon add up to 360 degrees.

The interior angles of any quadrilateral add up to 360 degrees. To find the interior angles of any other polygons. Use the following formula:

(Number of sides minus by 2) multiplied by 180: $(n-2)$ 180. Since you know that 180 is the number of degrees in a triangle you are simply finding how many triangles there are in the figure then multiplying that by 180. Note in the figure that a pentagon can be divided into 3 triangles (number of sides, 5 minus 2, equals 3) which are each $180°$ for a total of 540 degrees

To find the average measure of an interior angle of a polygon, find the total measure (sing the formula just given) and divide by the number of sides:

$\dfrac{(n-2)\,180}{2}$. Note that this is only an average.

To find the exact angle measure of an interior angle, you must have a regular polygon so all sides are equal and all angles are equal.

Then use the formula (number of sides minus 2) multiplied by 180, all divided by the number of sides: $\dfrac{(n-2)\,180}{2}$

You will not be asked to find the area of figure with more than four sides. You already know that the area of a triangle is half of the base multiplied by the height ($\dfrac{1}{2}$ bh). The area of most quadrilaterals 9square, rhombus, rectangle, and parallelogram) is base multiplied by height (bh) (note that most quadrilaterals are simply two triangles). The formula for a trapezoid is different.

A trapezoid is four – sided figure with one set of parallel sides and one set of nonparallel sides. To find the area, take half of the sum of bases (base one + base two) and multiply by the height. Note that you are actually just finding the average of the bases (adding them together and dividing by 2 is the same as adding them together and multiplying them by $\dfrac{1}{2}$) then multiplying that by the height.

$\dfrac{1}{2}(8+12) \times 6 =$

$\dfrac{1}{2}(20) \times 6 =$

$10 \times 6 = 60$

BASIC GEOMETRICAL SHAPES AND FORMULAE

Not every concept or formula of solid geometry is covered on the test. You need not to memorize a long list of formulae to solve each and every question. Following concepts and formulae in addition to some basic concepts already known to intermediate level students are required to solve almost all questions on the test.

Rectangle
Opposite Sides are of equal length

All angles are of measure=90°

Perimeter = 2(h + b)

Area = bh
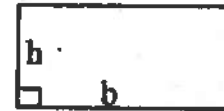
Parallelogram
Opposite sides are of equal length

Opposite angles are equal but not of 90°

Area = bh

Perimeter = 2(s + b)
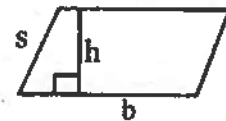
Rhombus
All sides are of equal length

Opposite angles are of equal but not of 90°

Area = = $\frac{1}{2}$ (d₁× d₂)

Perimeter = 4S

Square
All sides are of equal length

All angles are of 90°

Area = = S^2 or ½ d^2
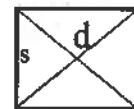
Perimeter = 4S

Trapezoid
All sides are of different lengths

All angles are of different measures

Area = $\frac{1}{2}$ h (b₁ + b₂)

Perimeter = S₁+S₂+S₃+S₄
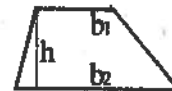
Triangles
Sum of all interior angles = 180° Perimeter = Sum of sides

An angle and its opposite side are Proportional

Area= $\frac{1}{2}$ bh
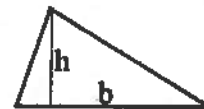
Equilateral Triangle
All sides are of equal length

All angles are of 60°

Area = $\frac{\sqrt{3}}{4}$ S^2

Perimeter = 3S
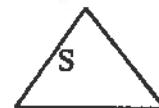
- If two sides of triangle are congruent, the angles opposite these sides are congruent
- If two angles of a triangle are congruent, the sides opposite these angles are congruent.
- The sum of the measure of the angles of a triangle is 180^0

- The measure of an exterior angle of a triangle is equal to the sum of the measure of the two remote interior angles.

Circle

AB = D = Diameter

AC = BC = Radius = r

Area = πr^2

Circumference = $2\pi r$
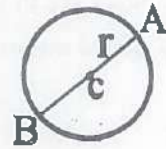
Rectangular Solid

Volume = abc

Surface Area = 2ab + 2bc + 2ac
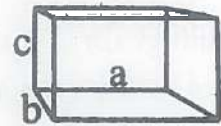
Cube

All sides are of equal length, a = b = c

Volume = a^3

Surface Area = $6a^2$
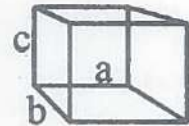
Cylinder

Volume = $\pi r^2 h$

Surface Area of Cylinder

For hollow cylinder = $2\pi rh$

For solid cylinder = $2\pi rh + 2\pi r^2$
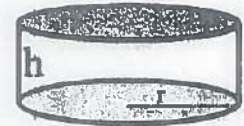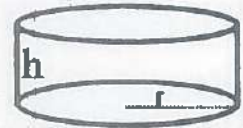
SOLVED EXERCISE

Directions: In this section solve each problem, using any available space on the page for scratch work. Then decide which the best of the choices given is and circle the corresponding letter.

The answers and explanation of each question has been given at the bottom of the question.

1. A rectangle is 16 cm long and 10 cm wide. If the length is reduced by k cm and its width is increased also by k cm so as to make it a square then its area changes by:

    A. 169
    B. 256
    C. 100
    D. 9
    E. None of the above.

Explanation:

The right answer is D.

Initial area of the rectangle = 16 × 10 = 160

As the rectangle becomes square after change, so both sides are equal. (16 – K) = (10 – K) => K = 3. Therefore, the new area is 169. The change in area is 9.

2. If the radius of a circle is increased by 20% then the area is increased by:

    A. 44%
    B. 120%
    C. 144%
    D. 40%

Explanation

The right answer is A.

Apply formula for change. Area of circle = πr^2, Put $\pi = 1$ (ho change) and r = 1.2 (20% increase). New area = 1×1.2^2 = 1.44. Which shows 44% increase.

3. AB = BC = CD = DE = EA and OA = OB= OC = OD = OE. <BOA =?
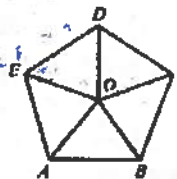
    A. 15
    B. 30
    C. 45
    D. 72

Explanation

The right answer is D.

At center O, total angle of 360° is divided in five equal parts. Moreover, all triangles are equilateral. Hence, each angle is of 72°.

4. ED is parallel to BC. Angle A equals 74°. Angle B equal 41°. Angle AED equals
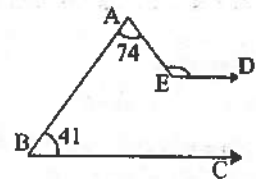
    A. 41°
    B. 65°
    C. 115°
    D. 106°

Explanation

The right answer is C.

Extend AE to touch the side BC. The angle E is the exterior angle of the triangle. Exterior angle is equal to the sum of the remote angles of the triangle. Hence < E = 74 + 41 = 115°.

5. Angle EGA equals
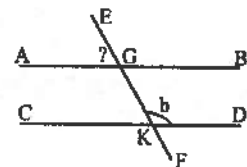
    A. b
    B. b-180
    C. 90-b
    D. 180-b

Explanation

The right answer is D.

Angle AEG + angle EGB = 180°. Angle G = angle b. Hence, angle AGE = 180° - b.

6. Radius OA equals 6. AB equals 2. The area of the shaded portion equals

A. 4π

B. 18π

C. 28π

D. 32π
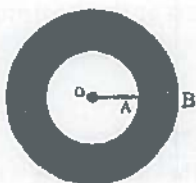
Explanation

The right answer is C.

Area of shaded portion = Area of large circle − area of small circle. $64\pi - 36\pi = 28\pi$

7. An angle is 30° more than one −half its complement. Find the angle.

A. 20°

B. 30°

C. 50°

D. 60°

Explanation

The right answer is C.

$x - 30 = \dfrac{1}{2}(90 - x)$, $x = 50°$

8. The area of the triangle is

A. 780

B. 585

C. 1170

D. 540

Explanation

The right answer is D.

Draw perpendicular as shown in the figure. By applying triad (5, 12, 13) or Pythagoras theorem the length of the perpendicular = 36. Area of each triangle
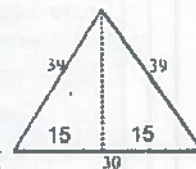
$= \dfrac{1}{2} \times 15 \times 36 = 270$. Total area = 2 × 270 = 540

9. $\dfrac{bc}{2}$ is equal to
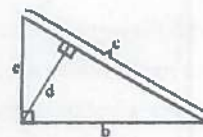
A. $\dfrac{bc}{2}$

B. $\dfrac{ce}{2}$

C. bc

D. $\dfrac{cd}{2}$

Explanation

The right answer is D.

Find the area of the triangle by taking d as height and c as base.

10. A rectangular lot 50 feet by 100 feet is surrounded on all sides by a concrete walk 5 feet wide. Find the number of square feet in the surface of the walk.

A. 1600

B. 5250

C. 5500

D. 6100

Explanation

The right answer is A.

Existing area = 50 × 100 = 5000. Each side is increased by 10 feet. New area = 60 × 110 = 6600. Area of the walk = 6600 − 5000 = 1600.

COORDINATE GEOMETRY

Coordinate geometry, or Cartesian geometry, is the study of geometry using a coordinate system and the principles of algebra and analysis.

Cartesian Coordinate System

The Cartesian coordinate system, shown below, consists of an X-axis (which runs horizontally) and a Y-axis (which runs vertically). The Cartesian coordinate system, also known as the coordinate plane, is used to graph lines, circles, parabolas, points, and other mathematical objects.

The power of the coordinate plane lies in the use of ordered pairs. The ordered pair (5,-2) refers to the point which has an x value of 5 and a y value of -2. Stated differently, the pairing is in the form (x, y). If two or more points are connected, a line or curve is formed.
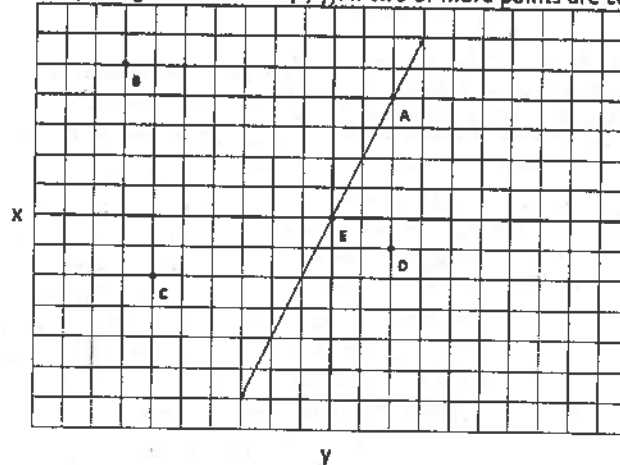
The following terms are used when interacting with coordinate planes:

X-Axis - The horizontal line running through the center of the graph from left to right.

Y-Axis - The vertical line running through the center of the graph from bottom to top.

Ordered Pair - The means of identifying a point through its coordinates. The proper notation is: (X, Y) where (0, 0) is the intersection of the x and y-axis.

For example, point A is at (2, 4) since it is horizontally 2 units to the right of the center and it is vertically 4 units above the center. Similarly, point C is at (-6, -2) since it is horizontally 6 units to the left of the center and it is vertically 2 units below the center.
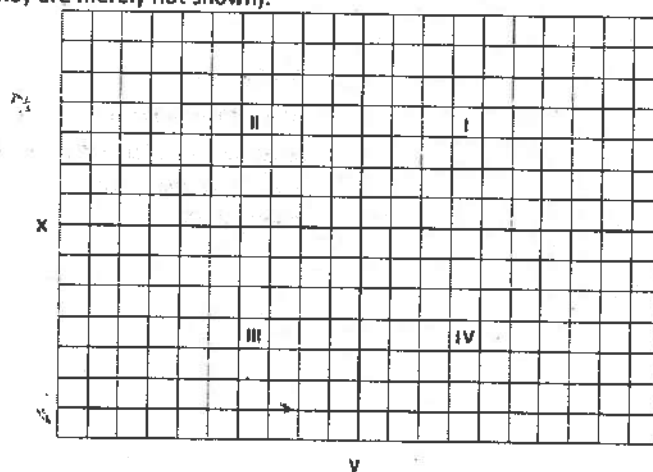
Point E: (0, 0)

Point B: (-7 , 5)

Point D: (2, -1)

Origin - The point in the center of the coordinate plane where the x and y axis intersect (0, 0). The origin is point E in this graph.

Quadrants

Each coordinate plane is divided up into four quadrants, labeled below. (Note: Some graphs only show one quadrant. In this case, the other quadrants still exist, but they are merely not shown).

In the first quadrant, both x and y are positive while in the second quadrant x is negative and y is positive. The chart below depicts the sign of x and y [denoted (X, Y)].

Quadrant I: (+, +)
Quadrant II: (-, +)
Quadrant III: (-, -)
Quadrant IV: (+, -)

Slope

One property of a line is its slope, which is a measure of the steepness of the line. Every line has a slope defined by rise over run (i.e., the amount the line rises vertically over the amount the line runs horizontally). Rise over run refers the change of the rise (y values) of any two points on the line over the change in the run (x values) of the same two points on the line. For example:
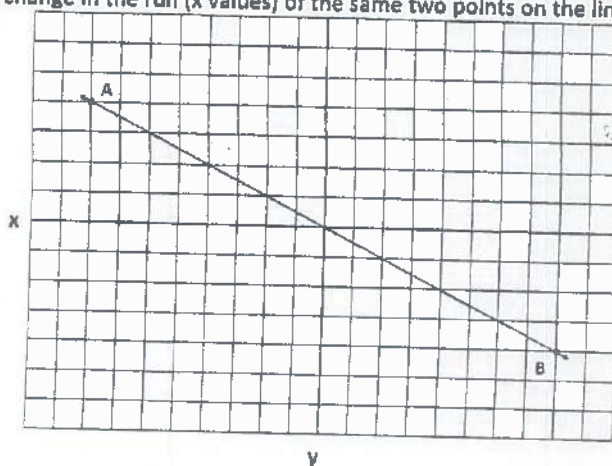
In the above graph, point A is at (-8, 4) and point B is at (8, -4).

$$\text{Slope} = \frac{\text{Rise}}{\text{Run}} = \frac{\text{Change in Y}}{\text{Change in X}} = \frac{4 - (-4)}{-8 - (8)} = -\frac{8}{16} = -\frac{1}{2}$$

Slope Categories

There are four types of slope: positive, negative, zero, and undefined.
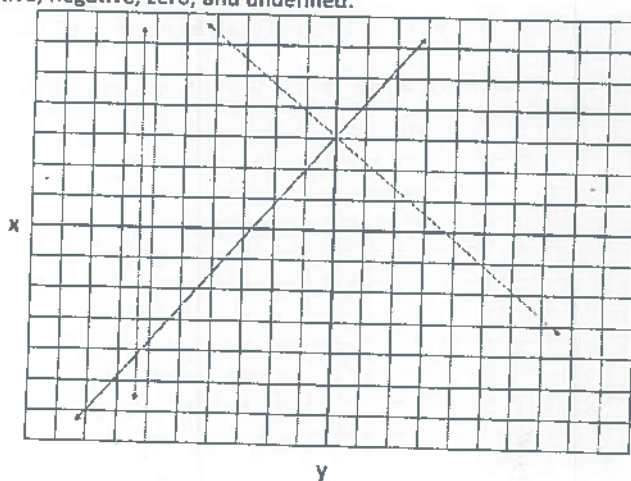
- Blue Line - Positive Slope
- Red Line - Negative Slope
- Green Line - Slope of Zero
- Brown Line - Undefined Slope

Lines

$$y = mx + b$$

In the above coordinate planes, the lines appeared without any explanation as to why the line pointed in a certain direction at a certain steepness. The location and slant of a line is determined by an equation. It is the line that graphs out all the points that satisfy this equation. Since this is important, it bears repeating: a line on a coordinate plane is a graphical representation of a series of points that fulfill a mathematical equation.

The standard form in which linear equations which are graphed appear on a coordinate plane is:

$y = mx + b$

y is the y-coordinate (or the number of spaces vertically above or below the x-axis)
m is the slope, or the degree of steepness of the line, as defined above
x is the x-coordinate (or the number of spaces horizontally right or left from the y-axis)
b is the y-intercept, which is the number of units above or below the horizontal axis where the line crosses the vertical axis

Example:

Graph the series of points satisfying the equation $y = 2x + 3$

One means to do this would be to manually generate a list of points that satisfy this equation. For example, if x = 0, y must equal 3; if x = 1, y must equal 5; etc.

However, there is a faster way. According to the $y = mx + b$ formation of a line, m = 2 and b = 3. Consequently, the line being graphed must cross the vertical axis 3 units above the horizontal axis and it must rise vertically 2 units for every 1 unit it runs horizontally.
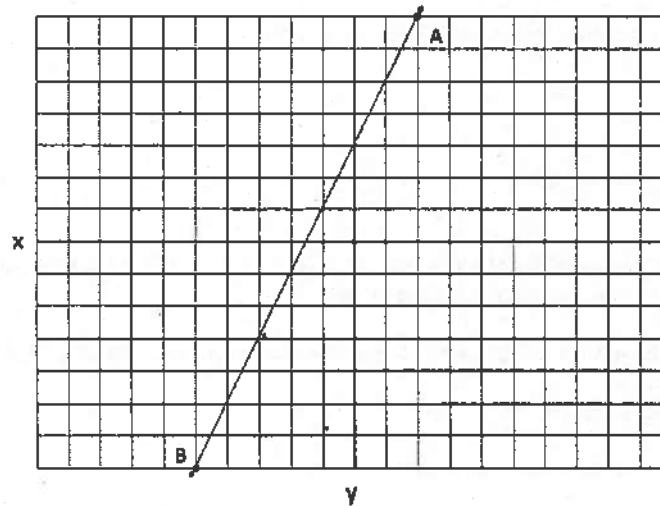
Horizontal and Vertical Lines
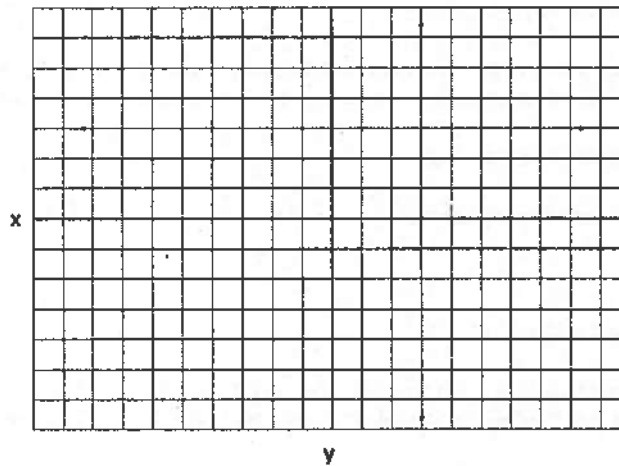
- A horizontal line can be written as y = b since for each value on the line, the y-coordinate will be the same (regardless of the x-coordinate). Since the line does not rise when it runs, the slope, m, is 0.
  In the coordinate plane above, the light blue line can be written as: y = 3

- A vertical line can be written as x = n since for each value on the line, the x-coordinate will be the same (regardless of the y-coordinate). However, since the line does not run when it rises, the slope is $^{n}/_{0}$, which is undefined since you cannot divide by zero.
  In the coordinate plane above, the red line can be written as: x = 3

Writing the Equation of a Line

It is important to know how to take a pair of points (whether from a graph or from a word problem) and write an equation for a line that satisfies the two points. This process involves solving for m and b in the equation y = mx + b. Consider the following example:
Find the equation of a line that passes through the points (3, 6) and (-2, -4).

The goal is to take these two points and write an equation in the form y = mx + b that passes through the points.
1. Find m, the slope
   Slope = $^{rise}/_{run}$ = $^{(6-(-4))}/_{(3-(-2))}$ = $^{10}/_5$ = 2
2. Plug in a point (it does not matter which one) and solve for b
   y = 2x + b
   6 = 2(3) + b
   6 = 6 + b
   b = 0
3. Plug in m and b to write an equation:
   y = 2x

Axis Intercepts

The x and y-intercept are important properties of a line and it is often necessary to find the exact location where a line intersects the x-axis and y-axis. The best means to find an intercept is algebraically.

X-Axis Intercept

When a line crosses the x-axis, its y-value will be zero. Consequently, by setting y = 0 and solving for x, the x-coordinate at which the line crosses the x-axis can be found.
What is the x-intercept of the equation y = 2x + 4?

The line will cross the x-axis at y = 0, or ordered pair (x, 0).
y = 0 = 2x + 4
-4 = 2x
x = -2
The line will cross the x-axis at x = -2 and y = 0.

Y-Axis Intercept

When a line crosses the y-axis, its x-value will be zero. As a result, by setting x = 0 and solving for y, the y-coordinate at which the line crosses the y-axis can be found. If an equation is in y = mx+b format, recall that since setting x = 0 yields y = b, the value of b is the y intercept.
What is the y-intercept of the equation y = -15x + 17?

The line will cross the y-axis at x = 0, or ordered pair (0, y).
y = -15(0) + 17
y = 0 + 17
y = 17
The line will cross the y-axis at x = 0 and y = 17.

Parallel Lines

Parallel lines are lines that never intersect. In order to never intersect, two lines must have the same angle (technically called slope). If two lines do not have the same slope, they will eventually intersect. However, if two distinct lines have the same slope, they will never intersect.
What is the slope of a line parallel to the line that connects points (1, 4) and (5, 16)?

The line that is parallel will have the same slope as the line that connects the two points mentioned above.
Slope of line connecting two points: $^{rise}/_{run}$ = $^{(16-4)}/_{(5-1)}$ = $^{12}/_4$ = 3
Consequently, any line with a slope of 3 will be parallel with the line that connects (1, 4) and (5, 16).

Perpendicular Lines

Line A is perpendicular to Line B if Line A intersects Line B at a 90° angle. The most important property of perpendicular lines is as follows:
The slope of perpendicular lines forms negative reciprocals

**Slope of Line A   Slope of Line Perpendicular to Line A**

| Slope of Line A	Slope of Line Perpendicular to Line A
$^1/_2$	-2
3	$-^1/_3$
-5	$^1/_5$
$-^4/_7$	$^7/_4$

Distance Between Points

In order to find the distance between two points, either: (1) use the distance formula [to be derived] or (2) draw a triangle and use the Pythagorean theorem.

The distance formula comes from the Pythagorean theorem, as the example below shows:

In the graph below, what is the distance between points K and L?
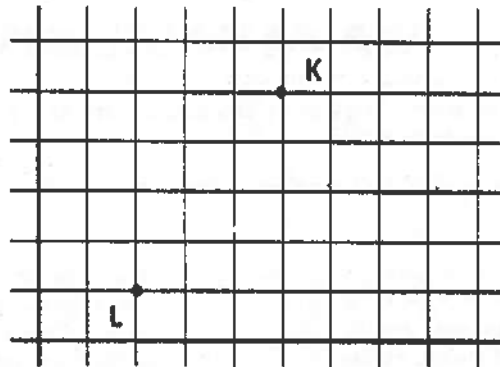
1. The best means to solve this type of a question is by drawing in a triangle and solving for the hypotenuse, which is the distance between points K and L. In order to do this, sketch in a triangle by placing a third point such that a right angle is formed (point N below is such a point):
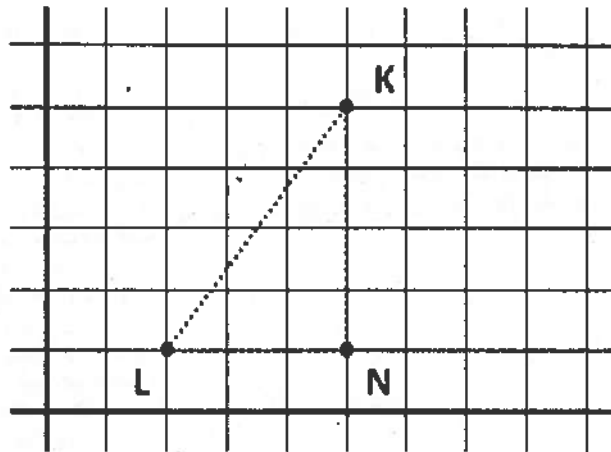
2. By inspection, the location of each point is as follows:

    L: (2, 1)

    N: (5, 1)

    K: (5, 5)

3. Find the length of each leg of the right triangle:

    LN = 5 - 2 = 3

    KN = 5 - 1 = 4

4. Use the Pythagorean theorem to find the length of KL:

    $(KL)^2 = (LN)^2 + (KN)^2 =$

    $(KL)^2 = 3^2 + 4^2$

    $(KL)^2 = 9 + 16$

    $(KL)^2 = 25$

    KL = 5

Distance Formula

The process above can be simplified using the following formula:

$$d = \sqrt{(y_1 - y_2)^2 + (x_1 - x_2)^2}$$

The coordinates of K are x_1, y_1 or (5, 5).

The coordinates of L are x_2, y_2 or (2, 1).

d = KL

Notice that the distance formula immediately above is simply a formulaic representation of the graphical process undertaken above to solve for KL.

WARM UP EXERCISE

Directions: In this section solve each problem, using any available space on the page for scratch work. Then decide which the best of the choices given is and circle the corresponding letter.

The answers and explanation of each question has been given at the bottom of the question.

1. Naghmana has 4 shirts of red, blue, green, and brown colors. She also has 3 trousers of black, brown, and white colors. How any different shirt trouser combinations can she wear, if she has decided to wear the white trouser?
   - A. 4
   - B. 6
   - C. 8
   - D. 12
   - E. 24

Explanation:
A is the best response.
Since she has decided to wear white trouser, she only has options on the color of her shirt. Here, she has 4 choices.

2. What is the value of the function $k(x) = x^2 - 2$ when $x = 7$?
   - A. 5
   - B. 9
   - C. 45
   - D. 47
   - E. 51

Explanation:
D is the best response.
$7^2 - 2 = 47$.

3. Of the following, which value of x produces the greatest value of $f(x)$?
   - A. -2
   - B. -1
   - C. 1
   - D. 2
   - E. 3

Explanation:
E is the best response.
By substituting values, we can see that 3 produce the greatest value of $f(x)$.

4. Each man contributed dollars equal to the number of women and each woman contributed dollars equal to the number of men in a group of 120 people, the total amount collected was Rs. 7200. How many men were there in the group?
   - A. 72
   - B. 60
   - C. 40
   - D. 80
   - E. None of these

Explanation:
B is the best response.
Let the number of men be n. Then the number of women will be 120 - n.
Money contributed by men= n (120 - n)
Money contributed by women = (120 - n)n

Thus total money = n(120 - n)+(120 - n)n = 7200
Thus n (120 - n) = 3600
i.e. $n^2 - 120n + 3600 = 0$
$(n - 60)^2 = 0$ and hence n = 60

5. If Dabeer is $1/3^{rd}$ the age of his father Agha Jameel now, and was $1/4^{th}$ the age of his father 5 years ago, how old will his father Agha Jameel be 5 years from now?
   - A. 20
   - B. 45
   - C. 40
   - D. 50
   - E. 15

Explanation:
D is the best response.
Since Dabeer is $1/3^{rd}$ the age o Agha Jameel now, let their ages be x and 3x respectively. Agha Jameel was four times as old as Dabeer five years ago. So, (3x -50 = 4 (x -5). Which means the current ages of Dabeer (x) and Agha Jameel (3x) are 15 years and 45 years respectively. Since we need the age of Agha Jameel 5 years from now.

6. Two spinning machines A and B can together produce 300,000 meters of cloth in 10 hours. If machine B alone can produce the same amount of cloth in 15 hours, how much cloth can machine A produce alone in 10 hours?
   - A. 200,000 meters
   - B. 100,000 meters
   - C. 150,000 meters
   - D. 50,000 meters
   - E. 250, 000 meters

Explanation:
B is the best response.
Since machine B alone can produce 3000,000 meters in 15 hours and A and B together can produce 300,000 meters in 10 hours, we can get the time machine A takes to produce 300,000 meters of cloth using ht.relation:
$1/a +1/15= 1/10$. Therefore, $1/a = 1/30$ i.e. machine A takes 30 hours to produce 3000,000 meters of cloth alone. Thus, machine A can produce $1/3^{rd}$ this amount in 10 hours.

7. The ratio of illiterate male to illiterate female persons in Ghotkee is 5:3. If 60% of the illiterate males have enrolled for a Govt sponsored literacy campaign, what is the greatest possible proportion of propels enrolled from among the total illiterate population in Ghotkee?
   - A. 5/8
   - B. 3/8
   - C. 3/5
   - D. 2/5
   - E. 3/4

Explanation:

E is the best response.

Since the ratio of male illiterates of female illiterates sis 5:3, let 8x be the total illiterate population of which 5x are male and 3x are female. It Is given that 60% of male illiterates have enrolled which means t ha only 3x male illiterates have enrolled. So, greatest proportion of enrollment will be (3x +3x) /8x which Is possible when all the 3x female illiterates enroll of the program.

8. In his wardrobe, Tahir has 3 trousers. One of them is black, the second blue, and the third brown. In his wardrobe, he also has 4 shirts. One of them is black and other 3 are white. He opens his wardrobe in the dark and picks out one shirt – trouser pair, without examining the color. What is the likelihood that neither the shirt nor the trouser is black?

   A. 1/12
   B. 1/6
   C. 1/4
   D. 1/3
   E. 1/2

Explanation:

E is the best response.

The likelihood of a trouser not being black is 2/3. For a shirt to not be black, the likelihood is ¾. Hence, for neither of them to be black, the likelihood is 2/3×3/4=1/2.

9. Value of T is given by $T = K\sqrt{\frac{l}{g}}$. If k and g remain unchanged, what should be the parentage change in l such that T increase by 10%?

   A. 10% increase
   B. 10 % decrease
   C. 20% increase
   D. 21% increase
   E. 20% decrease

Explanation:

D Is the best response.

$\frac{110}{100} \times T = k\sqrt{\frac{l\prime}{g}}$ But $T = k\sqrt{\frac{l}{g}}$

By dividing the first equation by the second, we get:

$1.1 = \sqrt{\frac{l\prime}{l}}$

$\rightarrow \frac{l\prime}{l} = 1.1 \times 1.1 = 1.21$. This means that there is a 21% increase in l.

10. Two trains start simultaneously towards each other from two points A and B separated by a distance of 1200 miles. Train leaving A moves at an average speed of 80 miles per hour while train leaving B moves at an average speed of 120 miles per hour. After how much time will both trains meet and what distance would be covered by the train leaving A by then?

   A. 15 hours, 1200 miles
   B. 10 hours , 800 miles
   C. 6 hours, 480 miles
   D. 12 hours, 960 miles
   E. 6 hours, 1000 miles

Explanation:

C is the best response.

Since both the trains are moving in opposite directions, the effective sped of approach till the time they meet is 200 miles per hour (80 mph+120 mph). At this rate, the two trains will take 1200/200 = 6 hours to meet each other. The distance covered by train leaving A during this time is equal to 6×80=480 miles.

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SOLVED EXERCISE

Directions: In this section solve each problem, using any available space on the page for scratch work. Then decide which the best of the choices given is and circle the corresponding letter.
The answers and explanation of each question has been given at the bottom of the question.

1. One-sixth of a day is what part of the time between 3 p.m. Monday and 3 p.m. Thursday of the same week?
   A. $\dfrac{1}{10}$
   B. $\dfrac{1}{18}$
   C. $\dfrac{1}{15}$
   D. $\dfrac{1}{12}$

Explanation:
C is the best response.
One-sixth of a day is $\dfrac{1}{6}(24) = 4$ hours. Find the number of hours from 3 p.m. Monday to 3 a.m. Thursday. There are 9 hours remaining on Monday plus 24 hours on Thursday plus 24 hours on Wednesday plus 3 hours to begin Thursday or 9 + 24 + 24 + 3 = 60 hours. 4 hours is $\dfrac{4}{60}$ or $\dfrac{1}{15}$ of 60 hours.

2. If you have 50 green, 50 orange, and 50 yellow jelly beans, how many bags can you fill for Halloween each containing 2 green, 3 orange, and 4 yellow jelly beans?
   A. 12
   B. 13
   C. 16
   D. 17

Explanation:
A is the best response.
Concentrate on the yellow jelly beans because the largest number of jelly beans placed in one bag will be that color. Divide 4 into 50, giving 12 and a remainder.

3. If $abc = 2$ and $a = c$ then $b =$
   A. a^2
   B. $\dfrac{1}{2a}$
   C. $\dfrac{2}{a^2}$
   D. $2 - a^2$

Explanation:
C is the best response.
The five choices all contain the letter a, so eliminate c by substituting a for it.
$abc = 2aba = 2$
$a^2 b = 2$
$b = \dfrac{2}{a^2}$

4. t is an integer greater than 5. The expression that must represent an odd integer is
   A. $t(t + 1)$
   B. $3t - 1$
   C. t^2
   D. $2t - 3$

Explanation:
D is the best response.
You are not told whether t is odd or even, so assume it can be either.
Choice A.: If t is odd, then $t + 1$ will be even. If t is even, then $t + 1$ will be odd. The product of an even and an odd is always even. Choice B.: 3 times an even number will be even and 1 less than an even will be odd. However, 3 times an odd number is odd and 1 less than an odd is even. Choice C.: An even integer raised to the second power is even. Choice D. 2 times either an odd number or an even number will have an even result. Subtracting 3, an odd number, from an even will always give an odd result.

5. Which of the following is the sum of two consecutive prime numbers?
   A. 66
   B. 52
   C. 41
   D. 29

Explanation:
B is the best response.
With the exception of 2, every prime number is odd. The sum of two consecutive odd primes is an even integer. Therefore, choices C., D., and (E) can't be correct. If you run out of time at this time moment, guess either A. or B. The odds would be in your favor to take this educated guess. The primes needed are 23, 29, 31, and 37. 23 + 29 = 52, and neither 29 + 31 nor 31 + 37 equals 66.

6. If Myra had bowling scores of b + 6, b -2, b + 4, and b -5, what must she score in the next game to get an overall average of b +2?
   A. b + 7
   B. b – 3
   C. b + 3
   D. b - 7

Explanation:
A is the best response.
Let x = Myra's score in the next game.
Average = $\dfrac{\text{sum of the scores}}{\text{number of games}}$
$\dfrac{b+6+b-2+b+4+b-5+x}{5} = b+2$
$5b + 10 = 4b + 3 + x$
$x = b + 7$

7. A clock gain 8 minutes every x hours. How many hours will the clock gain in 3 days?
   A. $\dfrac{576}{x}$

B. $\dfrac{48}{5x}$

C. $\dfrac{24}{x}$

D. $\dfrac{576}{5x}$

Explanation:

B is the best response.

You want to compare the time gained and also the time to do the gaining. Write a proportion, but be sure to use compatible units. Compare 8 minutes with "how many hours." Use any letter other than x (because x is already being used). Change y hours to 60y minutes. Next, compare x hours with 3 days, but change 3 days to 3(24), or 72, hours.

$$\frac{8 \text{ minutes}}{60y \text{ minutes}} = \frac{x \text{ hours}}{72 \text{ hours}}. \text{ Solve for y: } 60xy = 576$$

$$y = \frac{576}{60x} = \frac{48}{5x}$$

8. How many integers between 28 and 98 are exactly divisible by 7?
    A. 9
    B. 11
    C. 12
    D. 8

Explanation:

A is the best response.

The word "between" means that 28 and 98 cannot be considered. The first number greater than 28 that is divisible by 7 is 35. The first number less than 98 that is divisible by 7 is 91. How many are divisible by 7 from 35 to 91? Subtract, divide by 7, then add 1 to count the first number that is not counted when you subtract, $\dfrac{56}{7} + 1 = 8 + 1 = 9$.

9. Four people are asked to stand in a straight line. In how many different orders can they line up?
    A. 12
    B. 16
    C. 24
    D. 6

Explanation:

C is the best response.

The people can stand in any one of four positions: first in line, second in line, third in line, or fourth in line. In the first position, any of the four can stand. After one stays in that position, the second position can be filled only by one of the three still not in line. After one stays in the second position, the third position can be filled by only one of the two people still not in line. After the third position is filled, there is only one person remaining to fill the fourth position. Therefore, the possibilities for people to fill the positions in line are: 4 in the first, 3 in the second, 2 in the third, and 1 in the fourth. The number of different ways they can arrange themselves is the product of the possibilities. (4)(3)(2)(1) = 24 ways.

10. If $(p - 3)(p + 5) > (p - 3)(p + 8)$, what is the best description of p?
    A. $p = 3$
    B. $-8 < p < -5$
    C. $p = \{\ \}$
    D. $p < 3$

Explanation:

D is the best response.

Multiply on each side of the inequality using the FOIL method, giving
$p^2 + 5p - 3p - 15 > p^2 + 8p - 3p - 24 \quad p^2 + 2p - 15 > p^2 + 5p - 24$
Add $-p^2 - 2p + 24$ to each side, leaving $9 > 3p$. Divide by 3: $3 > p$, which means that p is less than 3.

11. In solving an arithmetic example, Lubna, by mistake multiplied by 6 instead of dividing by 6. If her answer was $13\frac{1}{5}$, what should be the correct answer to the example?
    A. $2\dfrac{8}{11}$
    B. $\dfrac{5}{66}$
    C. $2\dfrac{1}{5}$
    D. $\dfrac{11}{30}$

Explanation:

D is the best response.

To find the number Lubna mistakenly multiplied by 6, do the opposite and divide $13\frac{1}{5}$ by 6.

$$13\frac{1}{5} \div 6 = \frac{66}{5} \times \frac{1}{6} = \frac{11}{5}$$

Now do what she should have done, divide by 6.

$$\frac{11}{5} \div 6 = \frac{11}{5} \times \frac{1}{6} = \frac{11}{30}$$

12. If $(36)(?)(7) = 21$, then ? equals
    A. $\dfrac{21}{43}$
    B. $\dfrac{1}{42}$
    C. $\dfrac{1}{12}$
    D. $\dfrac{1}{11}$

Explanation:

C is the best response.

Put x in place of the question mark and solve. $(36)(x)(7) = 21$

$$x = \frac{21}{36(7)} = \frac{3}{36} = \frac{1}{12}$$

13. How many tens are equal to the number whose

hundreds, tens, and units digits are a, b, and c, respectively?

A.   b

B. $a+\dfrac{1}{10}b+\dfrac{1}{100}c$

C.   10a + b + c

D. $10a+b+\dfrac{c}{10}$

Explanation:

D is the best response.

The number is represented as 100a + 10b + c. To find the number of tens, divided by 10. $\dfrac{100a+10b+c}{10}=10a+b+\dfrac{c}{10}$

14.   If a machine can place a cap on a bottle of soda every 0.8 seconds, how many bottles can be capped in 2 hours?

A.   8000

B.   9000

C.   300

D.   900

Explanation:

B is the best response.

Write a proportion, but first change 2 hours to seconds. There are 3600 seconds in an hour, and 7200 seconds in 2 hours.

$$\dfrac{1\ bottle}{x\ bottles}=\dfrac{.8\ second}{7200\ seconds}$$

.8x = /200 Multiply both sides by 10 to remove the decimal point, giving

8x = 72000

x = 9000

15.   The death rates for three diseases are

Disease R   2 people out of 10,000

Disease S   13 people out of 1,000,000

Disease T   9 people out of 100,000

What is the combined death rate for the three diseases?

A.   123 out of 1,000,000

B.   42 out of 10,000

C.   42 out of 1000,000

D.   303 out of 1,000,000

Explanation:

D is the best response.

The words "out of" indicate a ratio (fraction). "Combined" means to add. Express the rates fractionally, and add.

$$\dfrac{2}{10,000}\times\dfrac{100}{100}=\dfrac{200}{1,000,000},\dfrac{13}{1,000,000},$$

$$\dfrac{9}{100,000}\times\dfrac{10}{10}=\dfrac{90}{1,000,000}\rightarrow$$

$$\dfrac{200}{1,000,000}+\dfrac{13}{1,000,000}+\dfrac{90}{1,000,000}=\dfrac{303}{1,000,000}$$

16.   If 7 apples cost y cents, how many apples will x

dollars buy?

A. $\dfrac{x}{7y}$

B. $\dfrac{7x}{y}$

C. $\dfrac{7x}{100y}$

D. $\dfrac{700x}{y}$

Explanation:

D is the best response.

A proportion should be written, but first pick a letter to represent the missing number of apples. Don't use x or y because these letters are used to stand for money. Also, change x dollars to 100x cents.

$$\dfrac{7\ apples}{a\ apples}=\dfrac{y\ cents}{100x\ cents}$$

Cross-multiply and solve for a. ay = 700x

$$a=\dfrac{700x}{y}$$

17.   Subhan is twice as old as Bukhari, who is 3 years older than Shakir. If Shakir is 4a years old, Subhan's age is

A.   8a

B.   22a

C.   14a

D.   8a + 6

Explanation:

D is the best response.

Start with Stave's age.

Shakir = 4a.

Bukhari's age = 4a + 3

Subhan's age = 2(4a + 3) = 8a + 6

18.   If $3\frac{1}{5}c=2\frac{1}{2}b$ and $c\ne0$, then $\frac{b}{c}=$

A. $\dfrac{25}{32}$

B. $\dfrac{7}{8}$

C. $\dfrac{32}{25}$

D. $\dfrac{11}{10}$

Explanation:

C is the best response.

Remember that it is not necessary to find the exact values of letters if you are comparing their relative sizes. Multiply both sides of the given equation by 10, the LCD, giving 32c = 25b.

Divide by $25c.\frac{32}{25}=\frac{b}{c}$

19.   The average height of five men is 68 inches. If one

man is 70 inches tall and three others have an average of 67 inches, the height of the fifth man, in inches, is

A. 68
B. 69
C. 70
D. 71

Explanation:

B is the best response.

Find the sum of the heights and divide by 5. let x = the height of the fifth man

$$68 = \frac{70+3(67)+x}{5} \quad 340 = 70 + 201 + x$$

340 = 271 + 3

x = 69 inches

20. If p is a negative integer and $p^2 + 11p = t$, a value of t could be

A. 12
B. 18
C. -18
D. 11

Explanation:

C is the best response.

Add −t to both sides, resulting in $p2 + 11p - t = 0$, a quadratic equation. If the values of p have to be negative, as stated, the two factors of the trinomial $p^2 + 11p - t$ must each be p plus some number (because p plus a number = 0 will become p = a negative number). Therefore, the third term, -t, must represent a positive number, which means that t is negative (the negative of a negative is positive). There are two choices that are negative. If t were -11, the trinomial would be $p^2 + 11p + 11$, which cannot be factored into integers. If t equals -18, the trinomial would be $p^2 + 11p + 18$, which factors to (p + 2)(p + 9). When each factor is set equal to 0, p will be -2 and -9.

SWEET CANDIES

Directions: In this section solve each problem, using any available space on the page for scratch work. Then decide which the best of the choices given is and circle the corresponding letter.

Answer of each question has been given at the end of the exercise.

1.

COMPANY CAR PRODUCTION IN YEAR X	
Company A	
Company B	

= 200,000 compact cars
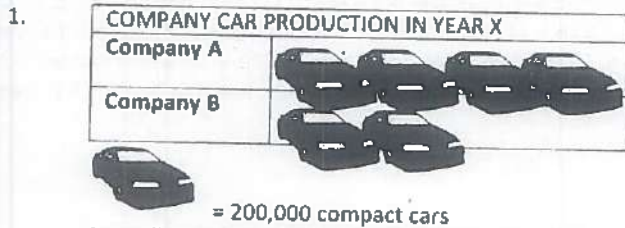
According to the chart above, Company A produces approximately how many more compact cars in year X than Company B did?
   A. 200,000
   B. 250,000
   C. 400,000
   D. 500,000

2. A businessperson started a business with a capital of Rs. 80,000. His first year accumulated profit was 10% and second year profit was 20%. What was the total amount after second year?
   A. 105600
   B. 201200
   C. 50,000
   D. 100050

3. In the rectangular solid above, AD = 6, CD = 8, and BC = ½ CD. What is the volume of the solid?
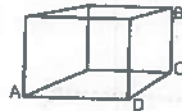
   A. 18
   B. 208
   C. 192
   D. 302

4. If $\dfrac{x}{9} = \dfrac{2}{3}$, then x =
   A. $\dfrac{8}{3}$
   B. 6
   C. 3
   D. $\dfrac{27}{2}$

5. Multan traffic authority requires that an applicant for a driver's license answer at least 80 percent of the questions on a written test correctly. If the test has 60 questions on it, at least how many of these questions must be answered correctly.
   A. 20
   B. 44
   C. 46
   D. 48

6. If $\dfrac{x}{y} = -1$, then x + y =

   A. 0
   B. 1
   C. y
   D. 2x

7. If it takes 4 days for 3 machines to do a certain job, how many days are required to complete the job by two machines?
   A. 6 days
   B. $5\dfrac{1}{2}$ days
   C. 5 days
   D. $4\dfrac{1}{2}$ days

8. A and B do a job together in two hours. Working alone A does the job in 5 hours. How long will it take B to do the job alone?
   A. 2 hrs
   B. $2\dfrac{1}{3}$ hrs
   C. $2\dfrac{1}{2}$ hrs
   D. $3\dfrac{1}{3}$ hrs

9. Yesterday Sagher earned Rs. 100 less than Bilal, and today Sagher earned Rs. 75 more than Bilal. Which of the following must be true about Sagher's total earnings for the two days compared to Bilal's?
   A. Sagher earned ¼ of what Bilal earned.
   B. Sagher earned $17.50 more than Bilal.
   C. Sagher earned $2.50 more than Bilal
   D. Sagher earned $25 less than Bilal.

10. An oil burner in a housing development burns 76 gallons of fuel oil per hour. At 9 A.M. on a very cold day, the superintendent asks the housing manager to put in an emergency order for more fuel oil. At that time, he reports that he has on hand 266 gallons. At noon, he again comes to the manager, notifying him that no oil has been delivered. The maximum amount of time that he can continue to furnish heat without receiving more oil is
    A. $\dfrac{1}{2}$ hr
    B. 1 hr
    C. $1\dfrac{1}{2}$ hr
    D. 2 hr

11. If $P^2 + 5 = 22$, then $P^2 - 5 =$
    A. 12
    B. 17
    C. 39
    D. 144

12. If r, s, and t are integers greater than 1, where rs = 15 and st = 33, which of the following must be true?
    A. t > r > s
    B. s > t > r
    C. r > t > s

D.   s > r > t

13. A total of 60 drawing note books were sold. If 20 percent of the first 20 sold were in color, 40 percent of the next 30 sold were in color, and 80 percent of the last 10 sold were in color, what percent of the 60 note books were in color?
A. 30%
B. 40%
C. 60%
D. 20%

14. The positive difference between k and $\frac{1}{8}$ is same as

the positive difference between $\frac{1}{2}$ and $\frac{1}{3}$. Which of

the following could be the value of k?
A. $\frac{1}{7}$

B. $\frac{7}{24}$

C. $\frac{23}{24}$

D. $\frac{1}{6}$

15. How many polythene bags, each holding 8 ounces, are needed to hold 3 quarter of vegetable oil? (1 quarter = 32 fluid ounces)
A. 8
B. 12
C. 14
D. 16

16. If (2n - 4)(9 − 5) = 16, then n =?
A. 1
B. 4
C. 7
D. 6

17. In a screening process of 5600 candidates, 20% of the candidates were disqualified in the first test. In the second test 40% of the first test qualifiers were disqualified. How many candidates qualified the test?
A. 2688
B. 1344
C. 3600
D. 5000

18. The number p is 4 more than 3 times the number r. The sum of p and r is 10. Which of the following pairs of equations could be used to find the values of p and r?
A. p = 3r + 4
    p + r = 10
B. p = 3r + 4
    pr = 10
C. p = 3(r + 4)
    p + r = 10

D. p + 4 = 3r
    p + r = 10

19. A class of 30 girls and 40 boys sponsored a mango party. If 60 percent of the girls and 25 percent of the boys went on the party, what percent of the class went on the party?
A. 30%
B. 35%
C. 50%
D. 40%

20. If x = yz, which of the following must be equal to xy?
A. yx
B. yz^2
C. y^2z
D. x/y

21. Which of the following operations has same effect as multiplying by 0.5
A. Multiplying by ½
B. Multiplying by 2
C. Dividing by ½
D. Dividing by 3

22. The average of a, b, s, and t is 6 and the average of s and t is 3. What is the average of a and b?
A. 3
B. 18
C. 9
D. 12

23. If x is a positive number, then 50 percent of 10x equals
A. 2x
B. 4x
C. 20x
D. 5 x

24. What is the least of three consecutive integers whose sum is 18?
A. 2
B. 3
C. 4
D. 5

25. If $\frac{5}{6}n = 60$, then $\frac{1}{6}n = ?$
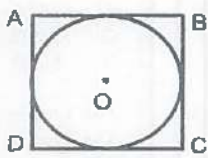A. 8
B. 10
C. 12
D. 50

Answers									
1.	C	2.	A	3.	C	4.	B	5.	D
6.	A	7.	A	8.	D	9.	D	10.	A
11.	A	12.	A	13.	B	14.	B	15.	B
16.	A	17.	A	18.	A	19.	D	20.	C
21.	A	22.	C	23.	D	24.	D	25.	C

BRAIN BUSTERS

Directions: In this section solve each problem, using any available space on the page for scratch work. Then decide which the best of the choices given is and circle the corresponding letter.

Answer and explanation of each question has been given at the end of the exercise.

1. $\dfrac{\sqrt{15}\sqrt{5}}{\sqrt{25}} =$
   A. $\sqrt{3}$
   B. $\sqrt{9}$
   C. $\sqrt{15}$
   D. $\sqrt{6}$

2. If $\dfrac{2}{y-3} = \dfrac{2}{7}$ then y equals
   A. 4
   B. $5\frac{1}{2}$
   C. $8\frac{1}{2}$
   D. 10

3. Which is the greatest?
   A. $\dfrac{4}{9}$
   B. $\dfrac{5}{11}$
   C. $\dfrac{8}{15}$
   D. $\dfrac{9}{17}$

4. If for any number b
   $b\# = b+2$ and $\#b = b-2$, which of the following is equal to (7#) (#2)?
   A. Zero
   B. 9
   C. 5
   D. 14

5. A bus that takes $2\frac{1}{2}$ hours to travel 90 miles will, at the same speed, take how many hours to travel 60 miles?
   A. $1\frac{5}{8}$
   B. $\frac{7}{8}$
   C. $1\frac{3}{4}$
   D. $1\frac{2}{3}$

6. For how many integer values of g is 6 < 3g < 12?
   A. Four
   B. Three
   C. Two
   D. One

7. The average of four consecutive even integers is T. The second of these integers can be represented in terms of T as:
   A. $T-1$
   B. $T+1$
   C. $T+2$
   D. $4T-8$

8. The total number of eighths in 3¾ is:
   A. 15
   B. 54
   C. 30
   D. 24

9. If st is a negative integer, which of the following statements must be true?
   I.   s + t is an integer
   II.   s + t is a negative integer
   III. $\frac{s}{t}$ is a negative integer
   IV. $(st)^3$ is a negative integer
   A. I only
   B. II only
   C. IV only
   D. I, II, IV

10. In the figure, the area of circle O = 9π, What is the area of ABCD?

    A. 24
    B. 30
    C. 35
    D. 36

11. If 12 pounds of fudge are placed in boxes that each holds 8 ounces, how many boxes will be filled? (1 pound = 16 Ounces)
    A. $1\frac{1}{2}$
    B. 96
    C. 6
    D. 24

12. If 8 is 4 percent of k, then k is 4 percent of:
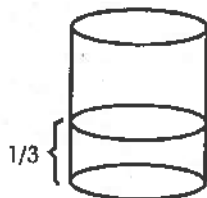   A. 5000
    B. 4000

C. 800
D. 80
E.

13. If, in the class of 33, 3 are honor students, what part of the class are not honor students?

A. $\dfrac{89}{100}$

B. $\dfrac{.9}{10}$

C. $\dfrac{10}{11}$

D. $\dfrac{9}{10}$

14. If $3y = 7$, the value of $6y - 3$ is:
A. 39
B. 13
C. 11
D. 10
E.

15. As shown in the figure, a cylindrical oil tank is 1/3 full. If 3 more gallons are added, the tank will be half full. What is the capacity, in gallons, of the tank?

A. 15
B. 16
C. 17
D. 18

16. If a is 20% of b, and b is 75% of c, then a is what percent of c?
A. 15
B. 55
C. 95
D. 40
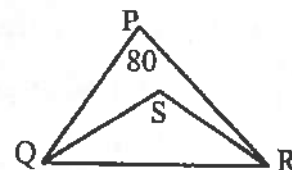
17. Ayesha and Bisma together have $20. Bisma and Adnan together have $16. Ayesha and Adnan together have $24. What is the smallest number of dollars that any girl has alone?
A. 4
B. 6
C. 10
D. 24

18. The average of the first 35 positive integers is:
A. $16\frac{1}{2}$
B. 17
C. 18
D. $18\frac{1}{5}$

19. In triangle PQR, QS and SR are angle bisectors and angle P=80°. How many degrees are there in angle QSR?

A. 115
B. 120
C. 125
D. 130

20. If $2^m = 4x$ and $2^w = 8x$, what is m in terms of w?
A. $w - 1$
B. $w + 1$
C. $2w - 1$
D. $2w + 1$

Answers									
1.	A	2.	D	3.	C	4.	A	5.	D
6.	D	7.	A	8.	C	9.	C	10.	D
11.	D	12.	A	13.	C	14.	C	15.	D
16.	A	17.	B	18.	C	19.	D	20.	A

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Explanations
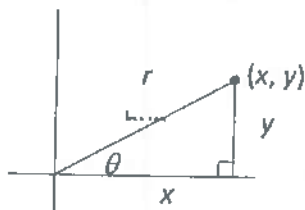
1.	A	$\dfrac{\sqrt{15}\sqrt{5}}{\sqrt{25}} = \dfrac{\sqrt{75}}{\sqrt{25}} = \dfrac{\sqrt{25\times3}}{\sqrt{25}} = \sqrt{3}$
2.	D	If a fraction is equal to another fraction and their numerators are the same, then their denominators must be equal. Therefore, $y - 3 = 7$. Solving, $y = 10$.
3.	C	Multiply each of the numerators by 2 and see if they are greater than their respective denominators. This will identify those fractions greater than $\dfrac{1}{2}$, which must be greater than those less than $\dfrac{1}{2}$. Only $\dfrac{8}{1}$ and $\dfrac{9}{17}$ are greater than $\dfrac{1}{2}$, so compare them by cross-multiplying.
4.	A	By definition $(7\#) = 7 + 1 = 8$ and $(\#2) = 2 - 2 = 0$, therefore $(7\#)(\#2) = 8 \times 0 = 0$
5.	D	By using proportions $\dfrac{2\frac{1}{2}\,\text{hours}}{x\,\text{hours}} = \dfrac{90\,\text{miles}}{60\,\text{miles}}$ Cross-multiply and solve: $90x = 150 \quad x = 1\frac{2}{3}$
6.	D	Separate the inequality into two parts. If 6 is less than 3g, then, by dividing by 3, we see 2 is less than g. Reversed, g is greater than 2. If 3g is less than 12, then g is less than 4. The only integer that is greater than 2 but less than 4 is 3. Now don't make the careless error of picking choice (B), three. Read the question again: there is only one value of g that satisfies the given inequality.
7.	A	Let x = the first integer, x + 2 = the second consecutive even integer, x + 4 = the third, and x + 6 = the fourth. Write an equation showing that the average of these four numbers is T. $\dfrac{x+x+2+x+4+x+6}{4} = T$ Collect like terms, cross-multiply, and solve for x. $\dfrac{4x+12}{4} = T$ $4x + 12 = 4T$ $4x = 4T - 12$ $x = T - 3$ Therefore, if the first integer can be represented as $T - 3$, the second $(x + 2)$ will be $T - 3 + 2$, or $T - 1$.
8.	C	$3\tfrac{3}{4} \div \dfrac{1}{8}$
9.	C	The key word is "must", which means the statement will always be true when any and all possible values of s and t are considered. If st is a negative integer, then one number must be positive while the other is negative. However, s and t do not have to be integers. If s were $-\dfrac{3}{2}$ and t were $\dfrac{2}{3}$, then st would equals -1, a negative integer. Statement I is not true because the sum of $-\dfrac{3}{2}$ and $\dfrac{2}{3}$ would not be an integer. Statement II is false for the same reason. In statement III, $-\dfrac{3}{2}$ divided by $\dfrac{2}{3}$ is $-\dfrac{9}{4}$, which is not an integer. In statement IV, st, a negative integer, is raised to the third power. Any negative integer raised to the third power will have a negative integer as the result, since $(-)(-)(-) = -$.
10.	D	Area of the circle $= 2\pi r = 9\pi$ Hence $r = 3$ Any side of the square ABCD, say AB = 6

		Therefore, Area of the square is 36
11.	D	As each box holds 8 ounces, 1 pound needs two box. So 12 pounds need 24 boxes.
12.	A	First find the value of k, then substitute its value into a second equation. "Is" means "equals" and "of" means "times". Let x = the missing number. $8 = \dfrac{4}{1000}k = \left(\dfrac{100}{4}\right) 8 = \dfrac{4}{100}k\left(\dfrac{100}{4}\right) =$ $k = 200$ $k = \dfrac{4}{100}x = 200 = \dfrac{4}{100}x = x = 5000$
13.	C	If 3 out of 33 are honor students, then 33 − 3, or 30, are not honor students. 30 out of 33 is $\dfrac{30}{33} = \dfrac{10}{11}$.
14.	C	Don't solve for y. Notice that 6y is twice 3y, so 6y = 2(7) = 14 6y − 3 = 14 − 3 = 11
15.	D	Capacity $\times \dfrac{1}{3} + 3 = \dfrac{1}{2}$ Capacity $\dfrac{1}{2}$ Capacity $- \dfrac{1}{3}$ Capacity = 3 Capacity = 18
16.	A	You'll save time if you know that 20% $= \dfrac{1}{5}$ and 75% $= \dfrac{3}{4}$. $a = \dfrac{1}{5}b$ and $b = \dfrac{3}{4}c$. $a = \dfrac{x}{100}c$. Since the five choices contain numbers, not letters, the letters b and c must be eliminated. Substitute. If $a = \dfrac{1}{5}b$ then $a = \dfrac{1}{5}\left(\dfrac{3}{4}c\right) =$ $\dfrac{3}{20}c$. Therefore, $\dfrac{3}{20}c = \dfrac{x}{100}c$. Divide both sides by c, then multiply both sides by 100, leaving 15 = x.
17.	B	Write three equations with three unknowns, then solve. A = Ayesha, B = Bisma, C = Adnan. A + B = 20; B + C = 16; A + C = 24. Multiply the second equation by -1, and then add the result to the first equation. A + B = 20 plus −B − C = -16 gives A − C = 4. Add this to the third equation, giving 2A = 28, A = 14. Substitute 14 for A to find B and C. B = 6, and C = 10. The smallest amount of money is 6.
18.	C	You certainly do not have the time to add 1 + 2 + 3 …. + 35, then divide by 35. The catch is to realize that these numbers can be paired. The average of the first number, 1, and the last number, 35, is $\dfrac{1+35}{2} = 18$. The average of the second number, 2, and the next-to-last number 34, is $\dfrac{2+34}{2} = 18$. Therefore, the average must be 18.
19.	D	Sum of angle Q and angle R = 180 − 80 = 100 Bisectors of angle Q and angle R = 50 So, angle S = 180 −50 = 130
20.	A	$2^w = 8x = 2 \ 4x = 2 \times 2^w = 2^{w+1}$ Hence, w = m + 1. So, m = w − 1

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TRIGONOMETRY

In Trigonometry we name the various ratios of the sides of a triangle according to angle of the triangle. These ratios are simple yet they carry an indefinite number of properties, formulas, and applications.

TRIGONOMETRIC FUNCTIONS AND FORMULAS YOU MUST KNOW

$$\sin\theta = \frac{opp}{hyp} = \frac{y}{r} \qquad \csc\theta = \frac{hyp}{opp} = \frac{r}{y} = \frac{1}{\sin\theta}$$

$$\cos\theta = \frac{adj}{hyp} = \frac{x}{r} \qquad \sec\theta = \frac{hyp}{adj} = \frac{r}{x} = \frac{1}{\cos\theta}$$

$$\tan\theta = \frac{opp}{adj} = \frac{y}{x} = \frac{\sin\theta}{\cos\theta} \qquad \cot\theta = \frac{adj}{hyp} = \frac{x}{y} = \frac{1}{\tan\theta}$$

Example 1: Evaluate cos B, given right triangle $\triangle ABC$
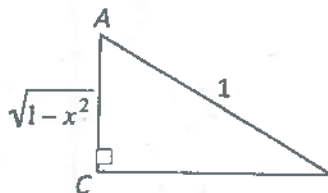
- (A) c/a
- (B) a/c
- (C) b/c
- (D) b/a
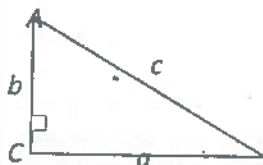
There can be trigonometric problems that are as simple as this one. By definition,

$$\cos B = \frac{adj}{hyp} = \frac{a}{c}$$

The answer is (B).

Example 2: Evaluate Tan A, given right triangle $\triangle ABC$

- (A) $\dfrac{\sqrt{1-x^2}}{x}$
- (B) $\sqrt{1-x^2}$
- (C) $\dfrac{1}{x}$
- (D) $\dfrac{x}{\sqrt{1-x^2}}$

The length of segment CB is required to calculate tan A. When we apply the Pythagorean Theorem to $\triangle ABC$, we get

$$1^2 = \left(\sqrt{1-x^2}\right)^2 + \left(\overline{CB}\right)^2$$

$$1 = 1 - x^2 + \left(\overline{CB}\right)^2$$

$$x^2 = \left(\overline{CB}\right)^2$$

$$x = \overline{CB}$$

After we apply the definition of the tangent, we get

$$\tan A = \frac{opp}{adj} = \frac{CB}{AC} = \frac{x}{\sqrt{1-x^2}}$$

The answer is (D).

TRIGONOMETRIC IDENTITIES YOU SHOULD BE FAMILIAR WITH, BUT PROBABLY DO NOT NEED TO MEMORIZE

Sum or Difference formulas:

$$\sin(x \pm y) = \sin x \cos y \pm \cos x \sin y$$
$$\cos(x \pm y) = \cos x \cos y \mp \sin x \sin y$$
$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$$

Double Angle formulas:

$$\sin 2\theta = 2 \sin\theta \cos\theta$$
$$\cos 2\theta = 1 - 2\sin^2\theta$$
$$= 2\cos^2\theta - 1$$
$$= \cos^2\theta - \sin^2\theta$$
$$\tan 2\theta = \frac{2\tan\theta}{1 - \tan^2\theta}$$

Pythagorean formulas:

$$\sin^2\theta + \cos^2\theta = 1$$
$$\tan^2\theta + 1 = \sec^2\theta$$
$$\cot^2\theta + 1 = \csc^2\theta$$

Example 3: If $x = a\sin\theta$ for $-\pi/2 < \theta < \pi/2$ and $a > 0$, then $\dfrac{\sqrt{a^2 - x^2}}{x} =$

(A) $\tan\theta$ (B) $\cot\theta$
(C) $a\tan\theta$ (D) $a\cot\theta$

As we replace x with $a\sin\theta$ in the expression $\dfrac{\sqrt{a^2 - x^2}}{x}$, it becomes

$$\frac{\sqrt{a^2 - x^2}}{x} = \frac{\sqrt{a^2 - (a\sin\theta)^2}}{a\sin\theta}$$
$$= \frac{\sqrt{a^2 - a^2\sin^2\theta}}{a\sin\theta}$$
$$= \frac{\sqrt{a^2(1 - \sin^2\theta)}}{a\sin\theta}$$
$$= \frac{\sqrt{a^2\cos^2\theta}}{a\sin\theta}$$
$$= \frac{a\cos\theta}{a\sin\theta}$$
$$= \frac{\cos\theta}{\sin\theta}$$
$$= \cot\theta$$

The answer is (B).
Half Angle formulas:

$$\sin^2\theta = \frac{1}{2}(1 - \cos 2\theta)$$

$$\cos^2\theta = \frac{1}{2}(1 + \cos 2\theta)$$

$$\sin\frac{\theta}{2} = \pm\sqrt{\frac{1 - \cos\theta}{2}}$$

$$\cos\frac{\theta}{2} = \pm\sqrt{\frac{1 + \cos\theta}{2}}$$

$$\tan\frac{\theta}{2} = \frac{\sin\theta}{1 + \cos\theta} = \frac{1 - \cos\theta}{\sin\theta}$$

Sum and Product formulas:

$$\sin x \cos y = \frac{1}{2}[\sin(x + y) + \sin(x - y)]$$

$$\cos x \sin y = \frac{1}{2}[\sin(x + y) - \sin(x - y)]$$

$$\cos x \cos y = \frac{1}{2}[\cos(x + y) + \cos(x - y)]$$

$$\sin x \sin y = \frac{1}{2}[\cos(x - y) - \cos(x + y)]$$

$$\sin x + \sin y = 2\sin\left(\frac{x + y}{2}\right)\cos\left(\frac{x - y}{2}\right)$$

$$\sin x - \sin y = 2\cos\left(\frac{x + y}{2}\right)\sin\left(\frac{x - y}{2}\right)$$

$$\cos x + \cos y = 2\cos\left(\frac{x + y}{2}\right)\cos\left(\frac{x - y}{2}\right)$$

$$\cos x - \cos y = -2\sin\left(\frac{x + y}{2}\right)\sin\left(\frac{x - y}{2}\right)$$

Reduction formulas:

$$\sin(-\theta) = -\sin\theta$$

$$\cos(-\theta) = \cos\theta$$

$$\sin\theta = -\sin(\theta - \pi)$$

$$\cos\theta = -\cos(\theta - \pi)$$

Conversion factors:

$$1° = \frac{\pi}{180} \text{ radians}$$

$$1 \text{ radian} = \frac{180°}{\pi}$$
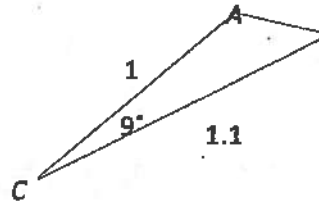
FORMULAS FOR SOLVING NON-RIGHT TRIANGLES

Law of Cosines:

$$c^2 = a^2 + b^2 - 2ab\cos C$$

where a, b, and c are the sides of the triangle and C is the angle opposite side c

Example 4: Find the length of side AB from the given triangle $\triangle ABC$

   (A) $\sqrt{1^2+(1.1)^2}$

   (B) $\sqrt{1^2-(1.1)^2}$

   (C) $\sqrt{1^2+(1.1)^2-2(1)(1.1)\cos 9°}$

   (D) $\sqrt{1^2+(1.1)^2+2(1)(1.1)\cos 9°}$

The side AB is opposite angle C so the Law of Cosines gives

$$AB^2 = a^2 + b^2 - 2ab\cos C$$

Suppose $a = 1$, $b = 1.1$ (or $a = 1.1$ and $b = 1$), and $C = 9°$, we get

$$AB^2 = 1^2 + (1.1)^2 - 2(1)(1.1)\cos 9°$$

Now as we take square root of the both sides of this equation, we finally get

$$AB = \sqrt{1^2 + (1.1)^2 - 2(1)(1.1)\cos 9°}$$

The answer is (C).

Law of Sines:

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

where angle A is oppsite side a, etc.

TRIGONOMETRIC VALUES FOR SPECIAL ANGLES

Angle	$\sin\theta$	$\cos\theta$	$\tan\theta$	$\cot\theta$	$\sec\theta$	$\csc\theta$
0 or 0°	0	1	0	Undefined	1	Undefined
$\pi/6$ or 30°	1/2	$\sqrt{3}/2$	$\sqrt{3}/3$	$\sqrt{3}$	$2\sqrt{3}/3$	2
$\pi/4$ or 45°	$\sqrt{2}/2$	$\sqrt{2}/2$	1	1	$\sqrt{2}$	$\sqrt{2}$
$\pi/3$ or 60°	$\sqrt{3}/2$	1/2	$\sqrt{3}$	$\sqrt{3}/3$	2	$2\sqrt{3}/3$

Example 5: If $\sin\dfrac{\theta}{2} = \sqrt{\dfrac{1-\cos\theta}{2}}$, then find $\sin\dfrac{\pi}{8}$

(Note: Any of the given values from the above table can be used)

   (A) $2-\sqrt{2}$ (B) $\sqrt{2}$

   (C) $\dfrac{\sqrt{2-\sqrt{2}}}{4}$ (D) $\dfrac{\sqrt{2-\sqrt{2}}}{2}$

We are meaning to write $\pi/8$ as half of one of the special angles in the table so that we can use the given Half Angle Formula:
$\sin\dfrac{\theta}{2} = \sqrt{\dfrac{1-\cos\theta}{2}}$. Now, $\dfrac{\pi}{8} = \dfrac{\pi}{2\cdot 4} = \dfrac{1}{2}\left(\dfrac{\pi}{4}\right) = \dfrac{\pi/4}{4}$, by replacing θ in the formula with $\pi/4$, we get
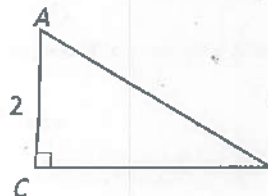
$$\sin\frac{\pi}{8} = \sin\frac{\pi/4}{2}$$

$$= \sqrt{\frac{1-\cos\pi/4}{2}}$$

$$= \sqrt{\frac{1-\frac{\sqrt{2}}{2}}{2}} \qquad \text{from the table } \cos\pi/4 = \frac{\sqrt{2}}{2}$$

$$= \sqrt{\frac{\frac{2}{2}-\frac{\sqrt{2}}{2}}{2}}$$

$$= \sqrt{\frac{\frac{2-\sqrt{2}}{2}}{2}}$$

$$= \sqrt{\frac{2-\sqrt{2}}{4}}$$

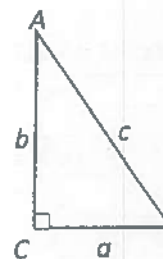$$= \frac{\sqrt{2-\sqrt{2}}}{2}$$

The answer is (D).

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SOLVED EXERCISE

1. The length of side AC is 2 of the right triangle △ABC. Find the length of the hypotenuse AB, given that the cosine of angle A is 1/2.

   (A) 4
   (B) $\dfrac{4}{\sqrt{3}}$
   (C) $\sqrt{3}$
   (D) 2

2. In the right triangle △ABC: $\dfrac{\sec B}{\sin a} =$

   (A) 1
   (B) a/c
   (C) $\left(\dfrac{c}{a}\right)^2$
   (D) c^2

3. If $\cos A = \dfrac{b}{c}$, $b > 0$, and $0 < A < \pi/2$, then $\sin A$ will be

   (A) $\dfrac{c}{\sqrt{c^2 - b^2}}$
   (B) c/b
   (C) $\dfrac{\sqrt{c^2 + b^2}}{c}$
   (D) $\dfrac{\sqrt{c^2 - b^2}}{c}$

4. The secant of one of the angles in the given right triangle is c/a. Find the tangent of this angle.

   (A) $\dfrac{a}{\sqrt{c^2 - a^2}}$
   (B) $\dfrac{\sqrt{c^2 - a^2}}{a}$
   (C) $\dfrac{\sqrt{c^2 - a^2}}{c}$
   (D) $\sqrt{c^2 - a^2}$
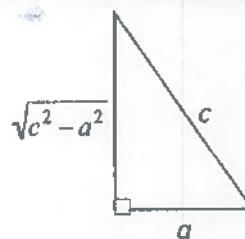
5. Find the value of csc A in the right triangle △ABC

   (A) $\dfrac{2}{\sqrt{5}}$
   (B) $\dfrac{\sqrt{5}}{2}$
   (C) $3/2$
   (D) $\sqrt{5}$

6. Given that $\tan(x-y) = \dfrac{\tan x - \tan y}{1 + \tan x \tan y}$ and $\dfrac{\pi}{12} = \dfrac{\pi}{3} - \dfrac{\pi}{4}$, Find $\tan\dfrac{\pi}{12}$

(Note: You can use the values in the table below.)

θ	$\tan\theta$
$\pi/4$	1
$\pi/3$	$\sqrt{3}$

(A) $\dfrac{\sqrt{3}-1}{1+\sqrt{3}}$

(B) $\dfrac{\sqrt{3}+1}{1+\sqrt{3}}$
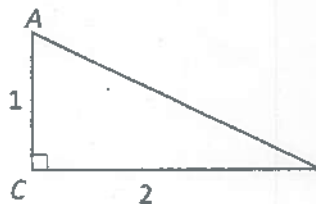
(C) $\dfrac{\sqrt{3}+1}{1-\sqrt{3}}$

(D) $\dfrac{\sqrt{3}-1}{\sqrt{3}}$

ANSWERS AND EXPLANTIONS

1. **Correct Answer: A**
Explanation:
As per the definition of cosine, we get

$$\cos A = \frac{adj}{hyp} = \frac{2}{AB}$$

As we have $\cos A = \dfrac{1}{2}$, we get

$$\frac{2}{AB} = \frac{1}{2}$$

We get $AB = 4$ when we solve this equation, and the answer is (A).

2. **Correct Answer: C**
Explanation:
As per the definitions of secant and sine, we have

$$\frac{\sec B}{\sin A} = \frac{hyp/adj}{opp/hyp} = \frac{c/a}{a/c} = \frac{c}{a} \cdot \frac{c}{a} = \left(\frac{c}{a}\right)^2$$

The answer is (C).

3. **Correct Answer: D**
Explanation:
As the cosine is the ratio of the adjacent side to the hypotenuse in a triangle, we have
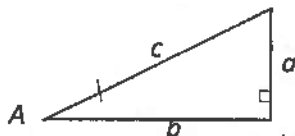
We first have to calculate the length of side a in order to determine $\sin A$. Applying The Pythagorean Theorem to the triangle yields $c^2 = a^2 + b^2$. Solving this equation for a gives $a = \sqrt{c^2 - b^2}$, the figure results in:
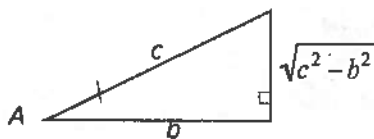
Hence, $\sin A = \dfrac{opp}{hyp} = \dfrac{\sqrt{c^2 - b^2}}{c}$. The answer is (D).

4.   Correct Answer: B

Explanation:

When we divide the hypotenuse by the adjacent side, we get secant. So we are dealing with the angle at the lower right-hand corner of the triangle. Suppose it as B:
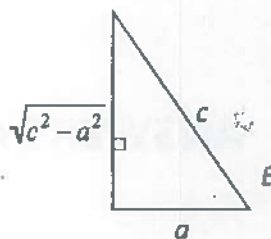
As per the definition of tangent:

$$\tan B = \frac{opp}{adj} = \frac{\sqrt{c^2 - a^2}}{a}$$

The answer is (B).

5.   Correct Answer: B

Explanation:

We first need to calculate the length of hypotenuse AB for finding csc A. Applying The Pythagorean Theorem to $\triangle ABC$ will give us:

$$AB^2 = 1^2 + 2^2$$
$$AB^2 = 5$$
$$AB = \sqrt{5}$$

After we apply the definition of the cosecant to angle A, we get:

$$\csc A = \frac{hyp}{opp} = \frac{AB}{CB} = \frac{\sqrt{5}}{2}$$

The answer is (B).

6.   Correct Answer: A

Explanation:

After we replace $\dfrac{\pi}{12}$ with $\dfrac{\pi}{3} - \dfrac{\pi}{4}$ in the expression $\tan\dfrac{\pi}{12}$, we get

$$\tan\frac{\pi}{12} = \tan\left(\frac{\pi}{3} - \frac{\pi}{4}\right)$$

$$= \frac{\tan\frac{\pi}{3} - \tan\frac{\pi}{4}}{1 + \tan\frac{\pi}{3}\tan\frac{\pi}{4}} \qquad \text{since } \tan(x - y) = \frac{\tan x - \tan y}{1 + \tan x \tan y}$$

$$= \frac{\sqrt{3} - 1}{1 + \sqrt{3} \cdot 1} \qquad \text{from the table}$$

$$= \frac{\sqrt{3} - 1}{1 + \sqrt{3}}$$

The answer is (A).

QUANTITATIVE COMPARISONS

Question of this type gives you two quantities listed in two columns, A and B, for some items, information concerning, one or both of the compared quantities will be centered between the two columns. You are to decide which quantity. If any, is the greater of the two. If A is greater choose answer A. If B is greater, answer B, if they are equal, choose answer C, if there isn't enough information to tell, choose answer D. In contrast to the other questions on the examination, which have five possible choices for answers, these questions have only four possible choices.

Always remember that if you are doing lengthy written work in finding an answer, there must be an easier way. No problems should involve multiplication or division with large numbers.

1.	Column A	Column B
	$\dfrac{17}{(462)(8)}$	$\dfrac{19}{(231)(16)}$

Explanation

The denominators of both fractions are equal, and 19 > 17, Therefore, B is the greater fraction.

2.	$x > 0, y > 0, z = 0$	
	Column A	Column B
	$15z(2x + y)$	$9x(z + 5y)$

Explanation

If $z = 0$, then $15z = 0$ and the product of the factors in column A is 0. In column B, the product will be $(3x)(5y)$, which is positive. Therefore, B is greater.

3.	$x < 0, y > 0, z = 0$	
	Column A	Column B
	$3z(2x + 5y)$	$3x(2z + 5y)$

Explanation Again, the product of the factors in column A will be 0, since $3z = 0$. In column B, $3x$ will be negative, $5y$ will be positive, so their product will be a negative number. A is greater.

4.	$x^2 = 81$ $y^2 = 64$	
	Column A	Column B
	x	y

Explanation

If $x^2 = 81$, x may be 9 or -9. If $y^2 = 64$, y may be 8 or -8. If x is 9 white y is 8, x will be greater. But if x is -9 while y is -8, y will be greater. Therefore, correct answer is (D).

5.	Column A	Column B
	x^3	x^2

Explanation

If x is greater than 1, A is greater. If ix is a fraction between 0 and 1, or any negative number B, is greater if x is 0 or 1, both A and B are equal. Therefore, the correct answer is (D).

6.	$1 < x < 3$ $1 < y < 99$	
	Column A	Column B
	x	y

Explanation

If x and y are both 2, A and B are equal. If x Is $2\dfrac{1}{2}$ and y is 2, A is greater, If x is 2 and y is 17, B is greater, again, the correct answer is (D).

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SOLVED EXERCISE

Directions: Each of the following questions consists of two quantities in boxes, on in Column A and one in Column B. You are to compare the two quantities and write the correct answer next to the question number.

A if the quantity in Column A is greater;

B if the quantity in Column B is greater;

C if the two quantities are equal;

D if the relationship cannot be determined from the information given.

The answers and explanation of each question has been given at the bottom of the question.

Note:

In some questions, information is given about one or both of the quantities to be compared. In such cases, the given information is centered above the two columns.

In a given question, a symbol that appears in both columns represents the same thing in Column A as it does in Column B.

Letters such as x, n and k stand for real numbers.

1.		
	x, y and z are positive	
	$x + y + z = 10$ and $x = y$	
	x	5

Explanation

The best response is B.

Let's say $x = 4$. Since $x = y$, that means $y = 4$. As $x + y + z = 10$, so $z = 2$. Column B can be greater.

If $x = 5$, then $y = 5$ and $z = 0$; that's no good, z has to be positive. If $x = 6$, then $y = 6$ and $z = -2$. That doesn't work either. Column B has to be greater.

2.	The number of distinct prime factors of 30	The number of distinct prime factors of 60

Explanation

The right response is C.

Prime factors of 30 = $2 \times 3 \times 5$

Prime factors of 60 = $2 \times 2 \times 3 \times 5$

Distinct prime factors are equal.

3.	x^2	$(x + 1)^2$

Explanation

The best response is D.

For positive numbers B is greater and for negative numbers A is greater.

4.		
	$x = 3$	
	$\dfrac{x}{10}$	$\dfrac{x}{100}$

Explanation

The best response is A.

$\dfrac{3}{10}$ = .3 and $\dfrac{3}{100}$ = .03. Since .3 is greater than .03m Column A is greater

5.	The average of 1,199 and 700	The average of 10,90 and 800

Explanation

The best response is C.

In Column A, the sum of the numbers is 900. There are three numbers, so you need to divide 900 by 3, which gives you an average of 300. For Column B, the sum of the numbers is also 900, and there are also three numbers, so the average must be the same.

6.	$-3 < z < 0$	
	$3 - z$	$z - 3$

Explanation

The best response is A.

You need to plug in numbers for z that are between -3 and 0. If z = -2, then Column A is 5 and Column B is -5. Since Column A is bigger, you can cross out choices B and C. Now plug in a weird number. If z = -1.5, then Column A is 4.5 and Column B is negative -4.5. Since Column A is still greater and this is an easy question, you can be sure that A is the answer.

7.	Line segments FG and JK interest at point X such that $FX = \frac{1}{2} GX$	
	JX	$\frac{1}{2} KX$

Explanation

The best response is D.

The question tells you how JK divides up FG, since it says $FX = \frac{1}{2} GX$. But you have no idea how JK itself gets divided up when the two lines cross. JX might equal $\frac{1}{2} KX$, or maybe not. So the answer must be D.

8.	A is the average of two consecutive positive even integers and K = 2A.	
	The remainder when K is divided by 2	1

Explanation

The best response is B.

Since 2A is even so K is divisible by 2 giving remainder zero.

9.	10% of P is 20% of 100	
	P	50

Explanation

The best response is A.

$$\frac{10}{100} \times P = \left(\frac{20}{100}\right) \times 100.$$

P = 200

10.	The average of positive integers P and Q is 3	
	P	Q

Explanation

The best response is D.

P + Q = 6. It's possible that P =3 and Q = 3, in which case the columns are equal. But it's also possible that P = 4 and Q = 2, in which case Column A is greater. Since you can get more than one result, the answer must be D.

SWEET CANDIES

Directions: Each of the following questions consists of two quantities in boxes, on in Column A and one in Column B. You are to compare the two quantities and write the correct answer next to the questions number.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.
Answer of each question has been given at the end of the exercise.

Note:

In some questions; information is given about one or both of the quantities to be compared. In such cases, the given information is centered above the two columns.

In a given question, a symbol that appears in both columns represents the same thing in Column A as it does in Column B. Letters such as x, n and k stand for real numbers.

#	Column A	Column B
1.	The number P is 8 less than the number K.	
	P	K
2.	The total cost of 2 pencils and 3 ballpoints is Rs. 1.70	
	The cost of one pencil	The cost of one ballpoint
3.	$1.2 = \dfrac{S}{100}$	
	S	100
4.	N is a member of the set {-1, 0, 3, 5}, M is a member of the set {-2, 1, 2, 4}	
	N − M	-6
5.	Point P, Q, R, and S are each on a circle with center O and radius 10.	
	The length of PQ	The length of RS
6.	$\dfrac{A}{B} = \dfrac{2}{3}$	
	$9A^2$	$4B^2$
7.	K = 3H; H > 0	
	K + H	K × H
8.	The average of 3 integers a, b, and c is 40.	
	The average of a, b, c, and 39	40
9.	$5 < 2A − 1 < 9$	
	A	$\dfrac{9}{2}$
10.	Twenty-seven white cubes of the same size are put together to form a large cube. The larger cube is painted blue.	
	The number of the smaller cubes that have exactly three blue faces	9

#	Column A	Column B
11.	KP = 0	
	K	0
12.	$\dfrac{3}{2} - \dfrac{1}{2}$	$\dfrac{7}{8} - \dfrac{1}{8}$
13.	$A^3 = B$	
	A^6	B^2
14.	The circumference of a circle with radius 2	The sum of the circumferences of two circles, each with radius 1
15.	A + 3 > 5	
	A + 2	4
16.	6A − 2B < 0	
	A	0
17.	Set T consists of all of the 3-digit numbers greater than 450 that contain the digit 2, 4, and 5 with no digit repeated.	
	The number of 3-digit number in set T	4
18.	Points A and B lie on a circle. Line segment AB does not pass through the center of the circle. The length of line segment AB is 32.	
	The circumference of the circle	32
19.	G is a positive integer.	
	The remainder when G is divided by 7	The remainder when G^2 is divided by 7
20.	A and B are integers 0<A<B<10	
	The number of multiples of A between 1 and 100	The number of multiples of B between 1 and 100

Answers

26.	B	27.	D	28.	A	29.	A	30.	D
31.	C	32.	D	33.	B	34.	B	35.	B
36.	D	37.	A	38.	D	39.	C	40.	A
41.	D	42.	B	43.	A	44.	D	45.	A

BRAIN BUSTERS

Directions: Each of the following questions consists of two quantities in boxes, on in Column A and one in Column B. You are to compare the two quantities and write the correct answer next to the questions number.

A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given.

Answer and explanation of each question has been given at the end of the exercise.

#	Column A	Column B
1.	$\dfrac{2}{3} \div 2$	30%
2.	$\dfrac{4}{17}$	$\dfrac{2}{15}$
3.	$3\dfrac{1}{2}$ expressed as a percent	3.5%
4.	$\sqrt{25.1}$	5.1
5.	Cost per egg if 2 dozen cost Rs. 1.90	9
6.	$(2 + .2)(2 - .2)\left(\dfrac{1}{5}\right)$	$(.2)(1.8)((2.2)$
7.	$\sqrt{\dfrac{1}{4} + \dfrac{1}{9}}$	$\dfrac{1}{2} + \dfrac{1}{3}$
8.	$A = 3, B = -2$	
	$(A + B)^2$	$(A - B)^2$
9.	The distance from Quetta to Mangochar is 15 miles. The distance from Mangochar to a town K is 20 miles.	
	25 miles	The distance from Quetta to K
10.	x^5	x^3

#	Column A	Column B
11.	The area of a circle is 36π	
	Diameter of the circle	36
12.	The average of 5 numbers is 20	
	The sum of five numbers	110
13.	$\dfrac{1}{5}$	$\dfrac{1}{.05}$
14.	$.1\pi$	$\sqrt{.9}$
15.	Area of a square having perimeter 32	Area of circle having radius 5
16.	$A + 8 = B^2 - 1$	
	A	B
17.	$K^2 = 144$	
	K	12
18.	$A > B > 0$	
	$\dfrac{1}{A}$	$\dfrac{1}{B}$
19.	$(2)(2)(P) = (3)(3)(3)$	
	P	2
20.	$-4 < x < -2$	
	$\dfrac{1}{x^4}$	$\dfrac{1}{x^5}$

Answers

1.	A	2.	A	3.	A	4.	B	5.	B
6.	C	7.	B	8.	B	9.	D	10.	D
11.	B	12.	B	13.	B	14.	B	15.	B
16.	D	17.	D	18.	B	19.	A	20.	A
21.		22.		23.		24.		25.	
26.		27.		28.		29.		30.	

EXPLANATIONS

1.	A	$\dfrac{2}{3} \div 2 = \dfrac{2}{3} \cdot \dfrac{1}{2} = \dfrac{1}{3} = \dfrac{1}{3} \times 100\% = 33\dfrac{1}{3}\%$
2.	A	Cross multiply the fractions. Since 4 times 15 is greater than 17 times 2. Therefore, the first fraction is greater.
3.	A	$3\dfrac{1}{2} = 3.5 = 3.5 \times 100\% = 350\%$
4.	B	$\left(\sqrt{25.1}\right)^2 = 25.1 \quad (5.1)^2 = 26.01$
5.	B	$\dfrac{1.9}{24} \approx 8$ Pesa
6.	C	$2 + .2 = 2.2$ $2 - .2 = 1.8$ $\dfrac{1}{5} = .2$ Factors on both sides are the same.
7.	B	$\sqrt{\dfrac{1}{4} + \dfrac{1}{9}} = \sqrt{\dfrac{13}{36}} = \dfrac{\sqrt{13}}{6}$ $\dfrac{1}{2} + \dfrac{1}{3} = \dfrac{5}{6}$
8.	B	$(A + B)^2 = (1)^2 = 1$ $(A - B)^2 = (5)^2 = 25$
9.	D	The location of town K is unknown. It may be away from Mangochar, or it is in between Quetta and Mangochar.
10.	D	For different values of x, both columns have different values. If $x > 1$, A is bigger. If $x = 1$, A and B are equal. If $x < 0$, B is bigger.
11.	B	$36\pi = \pi r^2$ $36 = r^2 \quad r = 6$ diameter = 12
12.	B	The sum of the numbers is 100.
13.	B	$\dfrac{1}{.5} = \dfrac{10}{5} = 2$ $\dfrac{1}{.05} = \dfrac{100}{5} = 20$
14.	B	$0.1 (3.14) = 0.314$ $\sqrt{.9} = 0.94$
15.	B	Since each side of the square = $\dfrac{32}{4} = 8$ therefore, Area of the square is 64. Area of the circle is $25\pi = 25(3.14)$ is greater than 64.
16.	D	Both A and B are unknown. For different values of B we have different values of A. For B = 4, A is 11 and for B = 1, A is -6.
17.	D	K may be either 12 or -12.
18.	B	If A is greater, then $\dfrac{1}{A}$ is smaller.
19.	A	$4P = 27 \quad P = 6\dfrac{3}{4}$
20.	A	Since x is negative, any even power of x is positive, while any odd power x is negative.

ESSAY WRITING SKILLS

THE ART OF ESSAY WRITING

1. Define the scope of the essay.
Before you start writing an essay on a given subject, it is important to define the scope of the subject. It is here that most students falter. They take a clue from a key word in the title of the essay and write down all they know about it. They hardly realize how much off the track they are. *The Problems of Industrialization. The Evils of Industrialization and Should Pakistan Be industrialized* are three different subjects which need different treatment. The first essay needs an elaborate discussion of the various problems of industrialization, viz., the availability of raw materials, energy, labor, marketing conditions, etc. The second essay discusses the evil effects of industrialism, e.g., the exploitation of labor, the concentration of wealth in a few hands, pollution of the atmosphere, etc. In the third essay, we have to discuss the situation in our country and decide whether we should try to strengthen our agriculture or go for all-out industrialization.

2. Jot down the ideas.
Having defined the scope of the essay, start thinking about it. Jot down the ideas as they occur to you. But be sure that the ideas that you are jotting down are relevant to the given subject and carry sufficient weight in them. A composition cannot be built upon trivialities, nor can a mere jumble of irrelevant Ideas make an essay. Long drawn out illustrations also do little credit to the composition. Therefore, take care that you include nothing irrelevant or shallow, you do not forcibly stretch your ideas and you do not include long, casual-looking illustrations.

3. Prepare the outlines.
Now it is time to arrange these ideas and prepare your outlines. The arrangement should be logical in a reflective essay and chronological in a narrative one. If you are writing about an event, describe it as it happened. If your subject needs arguments, arrange them logically. The importance of arranging the ideas cannot be overemphasized. Proper arrangement can often make up for lack of material. Your essay must leave the impression that it is a well-integrated pattern of thoughts.

4. Think of an attractive beginning.
Decide how you are going to begin the essay. Your introduction should be fresh, original and arresting, but it should be strictly relevant to the subject. Perhaps you could begin your essay with some observation of your own, or with some quotation of a known writer, if you can think of it on the spur of the moment.

5. The conclusion has to be stated clearly and firmly.
The conclusion of the essay has also to be thought of beforehand. Even before you lay the first brick, you must know where you will put the last one, i.e., you must know

how you are going to conclude your essay. In a narrative or descriptive essay, you could sum up with the impact, the scene, the person or the event left on your mind. In a reflective essay, you could conclude by giving your own views on the subject. It must give the impression that you have said the last word on the subject.

6. Develop different points in different paragraphs.
With the help of the outlines you have prepared, clearly develop your thoughts point by point. Your thoughts should show logical development and must not be jumbled. Division of the essay into various paragraphs will help keep your thoughts unentangled.

7. Revise if there is time.
A rough draft of your essay is ready. Now revise it, if you have time at your disposal. It is a good habit to revise, and it pays. While revising your essay, your aim should be to eliminate repetition of words and phrases, ambiguity of ideas or style and any digressions that might have crept in.

8. Never be irrelevant.
The temptation of introducing beautiful ideas or beautiful words and phrases just because they happen to be beautiful should be resisted. However beautiful a remark, if it is out of place, it fails to attract. Pertinence of an idea should be the first consideration, not its beauty. Moralizing or preaching a sermon is also undesirable. Vague generalizations, arbitrary conclusions, violent statements, false accusations and dogmatic assertions should be carefully avoided.

9. Do not overload your essay with statistics.
An essay on Bank Nationalization or Food Crisis might need figures to endorse your stand, but don't forget that you are not writing as a student of Economics. The examiner wants to see the clarity of your ideas and the beauty of your expression. Don't let statistics destroy the beauty of your essay.

10. Use simple language.
Try to keep your language simple and elegant. Simplicity is a big virtue. Avoid verbosity, pompousness and garrulity. It is not advisable to write long, complex sentences unless you are confident that you can handle them deftly. Complex sentence structure makes room for ambiguity and grammatical mistakes. Stock phrases and clangs should also be avoided.

11. Develop the habit of reading newspapers and periodicals.
You cannot write a good essay unless you have a good knowledge of the subject, a fairly good vocabulary and a

style of your own. For extensive knowledge and rich vocabulary, you ought to develop the habit of reading newspapers, periodicals as well as good books. You should not only train yourself to read but also to appraise what you are reading. You must frequently pause to consider, digest and criticize.

Unfortunately very few people develop the habit of thinking. Modern world discourages original thinking. Therefore, most of us suffer from paucity of ideas. G.K. Chesterton has rightly remarked, "None of us think enough of those things on which the eye rests. Why should the eye be so lazy? Let us exercise the eye until it learns to see the starting facts than run across the landscape as plain as a painted fence. Let us be ocular athletes. Let us learn to write the essay on a stray cat or a coloured cloud...." One can learn to write only by writing. So just write on.

THE PRESS, ITS FUNCTIONS AND RESPONSIBILITIES

Synopsis:

1.   **Introduction.** The daily newspaper has become an integral part of our life.

2.   **The various functions of newspapers.** (a) To spread news; (b) to give news and views on all subjects of general interest like politics, religion, literature and commerce; (c) to act as a kind of liaison between the government and the people; (d) to spread political awareness among the people.

3.   **Cheap journalism, scandal-mongering.** But newspapers often fall prey to cheap journalism and scandal-mongering. Then they become a vicious influence and deserve some kind of censor.

4.   **Conclusion.** The editors must be fully conscious of their responsibility. Since they wield a mighty influence on the society, it is very important that they behave in a responsible manner.

Essay

To know what is going on around us is a primitive instinct. In a smooth and uneventful mode of life, this instinct would be moderate and perhaps resistible. But in modern times, when each new dawn is likely to bring a momentous change, it is hard to live in ignorance of the events. If ever a newspaper observes a holiday, a feeling of vacuum grips our mind. The morning newspaper is as indispensable for a good start to our day as a morning cup of tea. And this is not the case with the city-bred elites only. The usually self-centered villager is equally enthusiastic to know about the world. The two lakh plus readership that a popular Pakistani newspaper enjoys today is well spread over towns and villages.

Of course, the primary function of the newspaper is to disseminate news, local, national, as well as international. But along with the news, the newspaper carries views as well. Whenever information is passed on to someone, it is usual to add a direct or indirect comment. This is nothing but the expression of views. The newspaper performs this function consciously and with a well-defined purpose.

A newspaper is, in fact, a book, pulpit, platform and forum, all in one. And there is not an interest – religious, literary, commercial, scientific, agricultural or mechanical – that is not within its grasp. It may thus be described as the 'people's university.' Someone might be interested in recent political developments in a neighboring country; another in the detailed report of some hockey, cricket or tennis match; still another in the outcome of a strike in a local college. A student of literature may look up to a newspaper for a fair evaluation of the latest arrivals. A man of commerce would like to be acquainted with the current market trends. The farmer is interested in the weather report and the newest innovations in the modes of land cultivation. A student might be more attracted by the sports column or the scientific articles, or just the latest cinema releases. A newspaper is the most intimate friend of the politician, the most reliable guide of an average citizen and the sole recreation of an old man.

The newspaper acts as a kind of liaison between the government and the people. It acquaints people with the policy and principles of the government. At the same time, it reflects the public reaction to this policy and thus enables the government to modify it. Since it gives such extensive publicity to the movements of the ministers and other high-ups, it exercises a very sobering influence on them. It does not let them forget that they are in office as the representatives of the people to whom they are finally answerable. Thus it keeps a powerful check on the corruption and tyranny of the government. It is perhaps this aspect of a newspaper's function that prompted Thomas Jefferson to remark; "Were it left to me to decide whether we should have a government without newspapers or newspapers without a government, I should not hesitate a moment to prefer the latter."

Perhaps the most important function of a newspaper in a democratic government is to spread political awareness among the public. An average citizen has neither capability, nor will, nor the time to formulate and express original opinions on most of the issues. He seeks guidance from the newspaper he subscribes to. The observations he makes in the circle of his friends flourish he has perhaps borrowed from the day's editorial in his favorite newspaper. Thus, a newspaper has a definite educational value. The success of democracy depends upon the judicious use of one's vote, which is impossible without political education and a newspaper is the most effective source available to us for this type of education.

If newspapers can check corruption in the government, they can themselves be a victim of the worst kind of corruption. Rivalry and competition may lead a newspaper to be breezy and sensational. It may try to win cheap popularity by publishing scoops and scandals or spicy, sordid but baseless gossip about the personal lives of the people in power. It may color fact with fiction or may disguise fiction as fact and thus mislead the masses. Since almost every important newspaper is either the organ of some political party or some business magnate, there is every fear that it may sacrifice objectivity and fairness in the interest of the party or the individual. It may omit a report or suppress it. It may so edit a statement that it might belie the intention of the speaker. Sometimes, it might give misleading and tendentious headlines. A newspaper run by a party with a communal bias can still be more dangerous. It can vitiate the entire social atmosphere of the country and shatter communal harmony. Newspapers often foster communal, regional and religious rivalries among the masses. It helps them to thrive but they conveniently forget at what cost. Some newspapers are unabashedly sycophant. They extol everything the

government does, even those measures that are anti-people or anti-nation. These newspapers betray the masses to pursue the interest of their owners.

This places a great responsibility upon the editors, the correspondents and the professional reviewers of a newspaper. If we depend upon it to get news, we expect it to furnish us with authentic news only. If we place so much confidence in its reviews of films, books, cultural events, the least it should do is to be disinterested and fair in the reviews it publishes. It is possible to be honest even in the slant given to the interpretation of policies and events. Let a newspaper be free to criticize and project a certain point of view if it deems reasonable but let it not misquote and misrepresent.

(Liaison – connection; primitive-original, very old; resistible-that which can be checked; Indispensable-which cannot be dispensed with, without which we cannot live; Disseminate-to spread; Pulpit-platform; Innovations-new things introduced; Accumulate-to collect; Scoop-a sensational news; Tendentious-purposely giving a slant; Vitiate-to spoil; Foster-to encourage; Unabashedly-shamelessly; Sycophant-flatterer; Extol-to praise; Authentic-genuine, authoritative.)

THE POWER OF PUBLIC OPINION

Synopsis:

1. **Opinion governs people.** It controls our religious beliefs, social habits, moral and ethical outlook. The governments, whether constitutional or despotic, swear by the name of the people to justify their actions.

2. **What is public opinion?** It is the opinion held in general by the people on important issues in spite of differences of disposition, circumstances, interest, attachments and habits. Mutual forbearance and tolerance are necessary.

3. **Agreement on essential points.** Since the good of the community in general is the aim, there is agreement on essential points.

4. **Kinds of public opinion.** (a) Passive and false, (b) active and real. Idle, uneducated, disunited or timid people express false opinion whereas vigilant and alert people who actively exercise their voice in the management of the country offers an instance of true or active public opinion.

5. **Agencies through which public opinion is expressed.** (a) Press, (b) platform, (c) political parties, and (d) educational institutions.

6. **Fields for the exercise of public opinion.** Its power is most felt in social and political spheres. It serves as a check on the government's high-handedness-appoints or dismisses it.

7. **The voice of the people – the voice of God.** Though not yet fully developed, it is assuming unthinkable proportions and potency.

Essay

Today people are governed by opinions. The power of opinion manifests itself not only in politics but in almost all the spheres of human activities and thoughts. It controls our religious beliefs, our social habits as well as our moral and ethical outlook. People want to make their voice heard and to manage their own affairs. So loud and persistent is the demand of people that rightly or wrongly all states now claim to be based on the opinion of the governed.

Whatever they do, they do in the name of the people. The most constitutional governments and despotic rulers swear alike by the name of the people to justify their actions. What then is public opinion? Public opinion is the opinion held by the people in general on any important issue. People are not made in the same mold, like a lot of bricks. It would have been unfortunate if it had been so. Consequently, even in the same country, men differ in disposition and manners and opinions. Their sentiments, aims and objectives, thinking, all differ. It is necessary for us, therefore, to cultivate a generous spirit of forbearance and tolerance towards those who may think and act differently from ourselves.

Public opinion must be based on reason and must aim at the good of the community on the whole. It cannot be called public opinion unless it is substantially shared by the dominant portion of the community. This does not mean that all people must think alike and in the same way. All that is signified is that on essential points they must be in

agreement, though on non-essential matters they may differ.

Public opinion may be passive and false, or active and real. It is claimed in theory that all governments are ultimately based on the opinion or sanction of the governed. But we find that, in practice, the people's rights are often trodden down and tyranny and oppression are allowed to continue. The government succeeds in being tyrannical, not because the people want it to be so but because they are too idle, too uneducated and too disunited or timid to oppose the government. Such public opinion is passive and false, and not an active verdict. But when we find people alert, intelligent and determined to let the government know their will, when they want to actively exercise their voice in the management of their country, we have an instance of true or active public opinion.

True public opinion is formed by and expressed through the press, the platform of political parties and educational institutions. These institutions have sacred duties to perform, duties on which depends the ultimate good of the entire community. Hence, they should thoroughly realize their responsibilities. The press today wields a tremendous influence. So it should support the right cause and movements and condemn the wrong ones and thus teach people to form correct opinions. The people should have access to accurate and unbiased information. The masses get disillusioned and feel frustrated when the government adopts important policies without bringing them to the gaze of the public. A free and fair press ventilates the grievances of the public. Thus, a healthy relationship develops between the people and the government through an unbiased press. The service which is done on a large scale by the press is also done in a limited way by speeches from the platform. Political parties also help to create and regulate opinions. An equally important part is played by the educational institutions which train the minds of the young people who will be the citizens of tomorrow. It has been said that modern Germany and China have been made by their universities.

The field for the exercise of public opinion is very wide. However, its power is most felt in social and political spheres. It has assumed great strength. The voice of the people is the voice of God. It is the inexorable voice of destiny that has now made itself felt everywhere. It is people's will as expressed through the elections that appoints the government and can dismiss the government at the polls. It now serves as a check on the high-handedness of the government. With the gradual awakening of the masses it is assuming an unthinkable proportion and potency.

However, the force of public opinion has not yet been fully formed in our country, far from being an ideal democratic government in which all men enjoy equal rights and privileges, but instead the state exists for all is yet to be fully realized here. It is necessary that the young and the growing minds should imbibe the spirit of fellow-feeling, the spirit of tolerance, the habit of compromise, and show due regard for the feelings and opinions of others, without which a democratic society cannot function, let alone succeed. When there is true awakening of the people, we shall have the real and conscious public opinion. And justice will reign on earth and truly will the voice of the people be the voice of God.

CORRUPTION IN PUBLIC LIFE

Synopsis:

1. **Corruption is a deep-rooted menace.** It has soaked into every sphere of life and grown into gigantic proportions. It has become such an integral part of our life that we have stopped feeling scandalized by it.

2. **It is grown rapidly.** Opportunities for the growth of corrupt practices have multiplied after independence.

3. **Even education and religion have got corrupted.** It is a pity that even the fields of education and religion that should foster morality have got corrupted.

4. **The Philosophy of corruption.** Some people accept bribes because there are others to offer it. Common people embrace corruption because they find it difficult to behave like angels in isolation.

5. **Corruption spreads from top to bottom.** Ordinary people emulate their superiors in all walks of life. Since people at the top are corrupt, corruption inevitably spreads at the lower rungs of society.

6. **Reform should also begin at the top.** Top level officials in the government and our political leaders should cultivate moral values if this menace is to be effected successfully.

Essay

Corruption is a deep-rooted menace that has eaten into the vitals of society, distorted all values and made mincemeat of morality, truth and virtue. The evil has grown to gigantic proportions and there is hardly any sphere of social, political, economic or even religious activity that is free from deception and corruption of some kind. Like the air we breathe in, it has become all pervasive. It has seeped into the social fabric to such an extent that now it looks like its natural colour. One wonders whether we should accept it as the price of socialism, progress and civilization.

Edmund Burke warned the world that a corrupt influence is a perennial spring of decay and disorder. Once the evil of corruption is born, it grows very fast. The opportunities for palm-greasing and bribery have increased

with the increase in trade and commerce. Securing of raw materials and permits and licenses becomes much simpler if there is an attractive sum to offer.

Shocking enough, our education system is also not free from corruption. Parents have to offer huge 'donations' to procure admission for their children. It is indeed shameful that meritorious students are denied admission in prestigious courses like engineering and medicine while those with large pockets find their way through. The power of money can be seen even at the places of worship where the ones with generous offerings manage to meet the Lord first!

The philosophy of corruption operates interestingly. So long as there are people to offer a bribe, there are also people to take it, directly or indirectly. We rationalize the situation and console ourselves that easy money is a human weakness difficult to overcome. The standard of living is constantly rising, soaring prices of essential commodities have broken the back and we indulge in corrupt ways for our children's sake and since everyone else does it, why not us? Must we be the only angels on earth? Every man, it is said, has his price. When the entire economic and social set-up breathes what is called 'speed money' to push things through, it is almost impossible to resist temptation – human beings are, after all, human beings. But the stink lies not only in the prevalence of the lure but in the hypocrisy that accompanies it. People accept bribes under the table, then come out to rise anti-corruption slogans at the top of their voice and urge others to be honest and pure.

It is not difficult to locate the causes of corruption. Corruption breeds at the top and then gradually filters down to the lower levels. Gone are the days when people who joined politics were imbued with the spirit of serving the nation. Those who threw themselves in the fight for freedom knew that there were only sacrifices to be made

and no return was expected. So only the most selfless people came forward. But the modern politicians' ideals. They win elections at a huge personal cost and then try to make the best of the opportunity they get. Powerful business magnates who are forced to give huge donations to political parties indulge in corrupt practices not only to make up their losses but even to consolidate their gains. When people in power indulge in corruption so unabashedly, the common man gets a kind of sanction. Ironically, instead of fighting against the menace of corruption, our political leaders declare it a worldwide phenomenon and accept it as something inevitable.

Promises and oaths of honesty are made and soon forgotten. However, measures calculated to produce a social climate both among public servants and in the general public are essential. A new tradition of integrity can be established only if the members of the government are the example of his superiors. Our freedom-fighters were selfless people; so the common man was willing to sacrifice his all for his country. Since the majority of the modern political leaders are interested only in self-advancement, the common man too is also hankering after the loaves and fishes of office. Today, the first step is to be honest and admit that our conduct and character lack that grace and strength which are the distinguishing marks of free people everywhere. We must submit to some serious introspection and realise the enormity of the decline in our character. Once we have realised this, it should not be difficult to end corruption at all levels of life. In fact, public apathy is an unconscious sanction to corruption.

(Gigantic – of immense size; indignation – anger; emulate – to try to do or as well as better than; Rung – levels; Menace – danger, threat; Blatant – shameless; Perennial – Perpetual; Deterrent – that which discourages; Stringent – strict; Introspection – looking into one's heart; Apathy – indifference.)

ENVIRONMENT POLLUTION

Synopsis:

1. **The importance of the environment.** The environment of the earth is a great blessing for mankind. There are various activities in the environment.

2. **Various technological processes initiated by man disturb the ecological balance.** It is a pity that it has never occurred to man that what he considers great technological break-through are serious threats to his environment.

3. **Enormous damage done in the recent past.** Much damage had not been done till the end of the last century. The rapid pace of technological development in the twentieth century has, however, caused enormous damage.

4. **Various causes of environmental pollution.** The smoke emitted from factories, insecticides, synthetic

detergents, inorganic nitrogen fertilizers contaminate the air and water that we use. The dumping of human refuse into rivers also contaminates the water used by us. The destruction of forests, erosion of soil, loss of wildlife etc. are other factors responsible for environment pollution. Pollution due to nuclear testing. Noise pollution.

5. **How to check environmental pollution.** (i) There should be stringent laws to tackle the problem. (ii)Suitable public opinion should be built up. (iii)Scientific knowledge should be used to keep the environment pure.

Essay

Earth is the only planet endowed with an environment. The thin cover of air and water that surrounds the earth, known as biosphere, protects and sustains life. Biosphere is a finely balanced mixture of oxygen, nitrogen, carbon

dioxide, argon and water vapors. It has been maintained and established by the life-cycle of plants, animals and bacteria. Without the biological processes that have gone on the soil for thousands of years, we could have neither coal, oil or food crops. Without the photosynthetic activity of green plants, there would be no oxygen to support human or animal life. Similarly, for the supply of pure water we have to be thankful to myriads of microorganisms in aquatic systems as also to the action of plants and animals. Man has always made use of his inventive genius to force nature to yield its secrets. He has made spectacular break-through in technology, firmly believing that the sort of progress he is making is an unmixed blessing. He has seldom given thought to the fact that the air he breathes, the water he drinks, or the food he eats could be exhausted. And so would be the rich raw materials which he makes the earth yield. He has always assumed the bounties of nature to be inexhaustible. There is little realization on his part that what he considers progress is seriously disturbing the ecological balance and leading to the breakdown of the life-supporting system on the earth. Nature has been suffering for the past several hundred years but the problem did not assume serious proportion so long as the damage was containable and not beyond self-repair. These limits were exceeded with the spectacular technological break-through accomplished during the recent years. The highly developed nations which benefited most from these break-throughs were the first to experience the environmental diseases bred by advanced technology.

In Pakistan, the problem of environmental pollution is related to an increase in industrial activity which has brought along air, water and noise pollution. It would be worthwhile to discuss the causes of such pollution and to try and eliminate those which are well within our reach. One of the chief air pollutants is smoke which arises from our factories and is harmful for our lungs. The increase in respiratory diseases may be attributed to the rising air pollution. Efforts should be made to confine the factories and chemical laboratories to the outskirts of the cities. The unfortunate incident of gas leakage at Quetta which claimed so many lives and left so many people permanently handicapped was an extreme effect of air pollution. The ever rising number of heavy vehicles is adding to air pollution by constantly emitting foul smoke.

Water that we just cannot do without is not free from pollution either. Human waste, animal-bathing, industrial waste etc. make water unfit for drinking. It is not surprising to find diseases like cholera frequently spreading in the form of epidemics. Even major rivers like the Ravi have become extremely polluted, because of which it has become essential to clean its waters at a very great expense.

A new kind of pollution that is acquiring serious dimensions is noise pollution. Loud horns from an excessively large number of vehicles on roads, loud-speakers, amplifiers, music systems, etc. disturb the peace of the already tense modern man. Very loud sounds have impaired hearing in a large number of people and caused nervous problems in several others. It is quite possible to check this pollution by the use of silencers in vehicles, by playing soft music and by prohibiting the use of loud speakers etc.

Nuclear tests during recent years have played havoc with our environment. The fall-out from these tests has increased the incidence of cancer and congenital diseases. Radiation from nuclear plants is also very dangerous for human health. The recently concluded Gulf War during which several oil wells caught fire and not only emitted dense smoke but also disturbed the temperature pattern of the region has caused great damage to our environment. In recent years, there has been an increasing realization of the gravity of the problem. The UN itself has been taking steps to focus attention on this hazard. In fact, the degradation of the environment is not merely the question of pollution but it embraces the whole concept of the quality of human life. The destruction of forests, the erosion of the soil, the neglect of lands, the loss of wildlife, the accumulation of wastes, the plight of urban areas are some of the examples of degradation of the environment. So are disease, dirt, hunger, malnutrition and other companions of poverty. All these grossly affect Nature's balance which is so vital to healthy human and animal life. To meet the situation in an effective manner, the anti-pollution laws have to be made stringent. Laws have to be passed banning the use of certain types of fuels and inefficient equipment. Enlightened public opinion can play a very useful role. More scientists and technical experts should be employed to keep the atmosphere and the water supplies clean and healthy. Organic wastes should be properly treated and processed. Soil nutrients can be produced from much of the human and industrial wastes. In the ultimate analysis, environmental pollution reduces itself to the question of reordering the relationship among the economic needs of man and the biology of the planet. The basic need is to keep the environment clean and conducive to good health. We must stop abusing nature and develop an aesthetic sense to appreciate and preserve the environment which is a prerequisite for living a happier and fuller life.

(Ecological – related to the environment; Contaminate – to make impure; Erosion – the process of wearing away; Stringent – strict; Myriads – numberless; Aquatic – related to water; Spectacular – remarkable; Bounties – blessings; Incidence – occurrence; Congenital – from the time of birth; Hazard – risk; Malnutrition – state of being undernourished; Nutrients – elements that give nourishment; Conducive – helping to produce.)

GENERATION GAP

Synopsis:

1. **Generation gap is an all-time phenomenon.** Generation gap indicates the antithesis between the ebullience of youth and the caution of old age.

2. **Factors responsible for the generation gap.** (a) Modern youth find very little relevance in the education they receive. They also get alienated by indifferent teachers. (b) The struggle for existence has become so acute that parents find little time to devote to their children. There is no effort to promote intimacy between the old and the young. This widens the gap between the two. (c) The young feel disgusted by the widespread corruption all around them and revolt against it.

3. **The effects of generation gap.** In Pakistani society where tradition dominates progressive thinking, the initiative of the youth is killed. Often when the youth feel neglected, they resort to unconventional and even undesirable behavior only to attract attention.

4. **The gap should be reduced as far as possible.** The old should be sympathetic towards the youth. The youth should be more responsible in their behavior.

Essay

Generation gap is actually the difference between the ebullience of youth on one hand and the caution and prudence of old age on the other. Or, it is the expression of the rivalry between the old and the young; the old want to prolong their hold on authority while the young are over-eager to grab it. The old declare the younger lot to be arrogant fools; the young declare the older people to be senile and insipid. The gulf between the two generations seems unlikely to be bridged.

As a phenomenon, the generation gap is not new to our times alone. It has always been there – in all ages, at all places. However, in modern times, lifestyles are changing so fast that the gap between the two generations becomes easily perceptible. Numerous other factors have also contributed to bringing about this situation. In a country like ours' young people are feeling disgruntled because their upbringing is inadequate and unsatisfactory while their education is irrelevant. Rather than equipping them to earn a decent living, education appears to be rendering them unemployable. The old are often heard complaining that the young are ignorant of what they want. Maybe that is true. But they surely know what they do not want. They are quite justified in revolting against the hypocrisy and immorality of their teachers and the irrelevance of what they are taught.

The youth are also protesting against the difference between the myth and reality of the society in which they are growing. In fact, they are passing through a period of transition. Long accepted social norms and codes of conduct have almost collapsed. An attitude of dissent and irreverence has come to replace spontaneous faith and quiet acceptance of the wisdom of the old. The socio – economic changes have deeply affected the life pattern of the people. Fast growing population has resulted in the disintegration of family life. The bitter struggle for existence has left the parents with little time to devote to their children and to properly direct and supervise their activities. This has resulted in lack of understanding between the old and the young.

In these circumstances, the talk of dedication to ideals, moral vigor, basic human virtues, etc. leaves the young cold and unconvinced. They are no longer prepared to blindly follow whatever their elders tell them. Instead, they critically review all the social and political values they are called upon to accept. When they see high-sounding principles being ignored for expediency, political leaders deliberately fooling the masses, vested interests being allowed to frustrate the State at every step, corruption common in high places and a gaping difference between promise and performance, they naturally revolt against social and economic injustice and clamor for change.

In Pakistani society where tradition and modernity are often in conflict, there is always an undercurrent of tension. There is also the dismal fact that in traditional societies, age dominates youth completely. This dominance kills the spirit of initiative in the young. They gradually become mere executors of other people's will – soulless people who, when they are idle or only partially employed, resort to violence and take to the streets on the slightest pretext. They want to attract attention to themselves through unconventional behavior and clothes. They fall victim to self-pity, develop an aversion to honest hard work and remain on the look-out to have something for nothing. It is sad that it is no longer an anxious Young Man going into a hostile world, but a hostile Young Man going into an anxious world without being sure of what is expected of him.

Generation gap implies dissent, which is necessary and obligatory even when things go wrong. It becomes dangerous when it takes the shape of violence. Violence is an expression of intolerance and in a general unleashing of violence, dissent is the first casualty. The elders have grave dissatisfaction with the modern youth but it also betrays a lack of sympathetic understanding and realistic appreciation of the dilemma in which the younger generation finds itself. The youth must also learn to earn the right to dominate the scene through responsible conduct and show that they are not always wild, irresponsible, noisy and needlessly demonstrative. They should work for the promotion of basic human rights and mankind's liberation from shackles of poverty, inequality and injustice. A fine blend of age and youth is needed for

human welfare. Left to themselves and shorn of the elders' experience and guidance, the youth would make a mess of the world and destroy whatever has been assiduously built. Their own interest demands that the elders should stay and train the youth for power. It would not do for the elders to condemn the youth and find fault with them – it is easy enough. The youth should be made responsible, equipped and trained to inherit a world that would conform to their noble vision. Expression to such a cynic as Wendell Philips who says, "Every step of progress the world has made has been made from scaffold to scaffold and from stake to stake."

Related topic. Are we happier than our forefathers?
(Criterion – standard; Elicit – to draw forth; Instantaneous – immediate; Counteract – to act in opposition to; Congestion – an overcrowded condition; Alienate – to estrange; Conductive – leading to the promotion of; Ambiguous – vague, doubtful; Austerity – severe simplicity of style, dress or habit; Epicurean – given to luxury; Felicity – Happiness; Latitude – freedom from restraint; Monotony – dullness; Drudgery – hard labor; Disparity – inequality; Cry hoarse – to cry loudly; Fanaticism – excessive religious enthusiasm; Maniac – a mad man; Corporal – belonging to the body; Scaffold – a raised platform for execution.)

THE IMPORTANCE OF DISCIPLINE IN LIFE

Synopsis:

1. **Introduction.** Discipline implies acting in life according to certain laws or norms of society. Discipline is very essential for the preservation of social values.
2. **Discipline in nature.** Nature reflects perfect discipline. The movement of planets, the change of seasons and other natural phenomena show perfect discipline.
3. **The importance of discipline in domestic, social and political life.** There can be no happiness in a family in which there is no discipline. In a discipline less society, life becomes insecure. Discipline is the backbone of political life.
4. **The importance of discipline to students and their teachers.** Discipline is important both for the teachers and the taught. Undisciplined teachers are never respected; undisciplined students gain nothing.
5. **Discipline is not servility.** Discipline does not mean blind submission to authority. In social and political life, discipline should never be military discipline.

Essay

Discipline, precisely, means to act in life according to certain rules or norms of society. Primarily, these rules relate to our social code of conduct. Discipline demands a strict control over man's sense of freedom which, if unchecked, may bring disorder and anarchy in the normal life of a country. The basic animal instinct in man, lest it should prove harmful for society, must be checked by means of discipline.

Nature is the best mirror of perfect discipline to all of us. Every object in nature moves according to a strictly regulated plan. One can easily notice a perfect order prevailing in the movement of the sun, the moon and the other planets. Seasons change according to a certain plan. Rains do not precede summer nor does spring precede winter. Tides in the oceans, crops in the fields, animals in the forest – all follow a certain pattern which is extremely essential to sustain life. Nature, thus, provides us with a sense of orderly manner and places before us an ideal to be followed in our own life. Can we imagine how chaotic, uncertain and unpredictable life would be if there were no order, no pattern in it?

There is hardly any sphere of life in which the value of discipline is not realized sooner or later. Life in a house or an office just becomes a mess if a proper sense of discipline is not cultivated among its members. In our social life, we are expected to follow certain norms of behavior in order to maintain the smooth running of the social order. Without it, life gets upset and soon goes out of gear. People must demonstrate a sense of discipline even in small things like boarding buses and trains, buying cinema tickets or vegetables. In the political life of a nation, discipline proves its backbone. A political party of a democratic nation soon loses its prestige in the eyes of the common man if it does not shed off its internal differences or if it suffers from groupism or factionalism. No citizens will be encouraged to follow in the footsteps of those political leaders who fight among themselves for petty and selfish ends without caring for the party discipline. Such a political party soon goes to dogs and the voters lose all confidence in it.

Discipline is necessary for both, the teachers and the taught. A good teacher has a great responsibility of keeping a high image of his personality in society. This cannot be done unless he maintains an intellectual and moral discipline of a high order. No student will obey and respect an undisciplined teacher, however high may be his knowledge and scholarship. Similarly, only a serious and self-disciplined student achieves something worth the name in life. Undisciplined students just wander here and there, waste away their precious time and energy in useless activities and later on repent in life. They soon learn that there is no shortcut to success and it is only through consistent hard work and self-discipline that they can achieve their objective in life.

Some people misunderstand the meaning of discipline. They say that discipline leads to blind submission to authority, and it negates our independent judgement. This

is a misconceived notion and a wrong interpretation of discipline. We must know that discipline, ultimately, is a great trainer. It ensures a tremendous moral force to the people of a country. A disciplined nation is definitely better placed in all respects than an undisciplined one. Every country's moral and economic advancement is linked up with its disciplined course of life. It is to be clearly noted that only the type of discipline enforced by a Hitler which is virtually the regimentation of society is bad for a country. But it should not be mistaken for our military discipline which imposes a certain code of conduct upon our army personnel. Military discipline demands a high spirit of self-sacrifice for the sake of the country, particularly when the nation is in peril.

LIFE IN A CROWDED CITY

Synopsis:

1. **Introduction.** People are crazy to migrate to crowded cities in the hope of getting opportunities for development, but while the opportunities evade them, they are confronted with numerous problems.

2. **The major problem: finding suitable accommodation.** Finding suitable accommodation is a major problem in a crowded city. Rents are sky high and accommodation is not easily available. So large families have to live crowded in small tenements.

3. **Other problems.** Other problems like unreliable transport systems, frequent power failures, scarcity of water particularly in summers, pollution of the atmosphere by smoke, and noise pollution make life unbearable.

4. **Life is extremely tense.** The tempo of life in a crowded city is very fast, because of which one is faced with unnecessary tension.

5. **There is always a sense of loneliness.** In a crowded city, although one is surrounded by people all the time, one is overcome by an acute sense of loneliness.

6. **Conclusion.** Life in a crowded city is an infernal experience. It is highly deplorable that people are so keen to migrate to the cities.

Essay

During the last two centuries, there has been a craze among people to migrate to big cities, as a result of which the cities have been getting crowded. The city life does look glamorous from a distance. So there is no wonder that people residing in the countryside find the temptation irresistible and forsake their life in natural surroundings for the superficial glitter of the cities. But what surprises one is that they keep clinging to the cities in spite of early disillusionment. That the life in big cities has a few advantages cannot be denied, but the advantages are very few while the inextricable caught in a mesh of problems that he never gets an opportunity to avail himself of those few advantages. To illustrate the point, a crowded city will perhaps offer better opportunities to witness dramatic performances, to attend meetings and seminars on topics of literary or current interest, or to see sports events of international standards. But how many of the ordinary people will ever find them accessible? How many will have adequate resources in terms of money, transport and time to enjoy these opportunities? Months and years pass without one's being able to afford to see a Davis Cup tie or a film at the International Film Festival or to attend a lecture by a celebrity in the field of one's liking.

Life in a crowded city like Karachi or Lahore is beset with numerous chronic problems, foremost among which is the problem of finding a tolerably decent accommodation at a reasonable rent. Rents being exorbitant, often a family of as many as six to seven members is forced to be huddled into a single-room tenement in miserably poor surroundings and awful sanitary conditions. With privacy gone from the life of the couples and the children in school and college finding no congenial atmosphere to study in, little charm is left in life. The residence is often inconveniently situated, being far away from the place of one's work or from the institution where one's children are studying. This condemns one to a round of long, unending queues. There is the anxiety to reach the office or the university in time and the hurry to get back home in time in the evening. Most of one's time is spent in this onerous and mechanical routine. In addition to this, there are various other irritating problems. There are frequent power failures that can plunge the city into darkness at any odd hour. There is scarcity of water, particularly in summer, when those who aren't living at the ground floor hardly get any water. With the factories continually emitting dense smoke as well as the smoking vehicles moving about at all hours of the day, there is a very little chance of getting clean and fresh air. Then there is the noise pollution. With vehicles noisily rumbling about, transistors and radios broadcasting irksome advertisements of soaps and detergent powders, loud-speakers blaring hymns at inordinately high itch, there is hardly any moment of peace and quietude.

The tempo of life in a crowded city is very fast. The spirit of competition tends to be more acute in a city than in a village. The rat race for money and power is also more fierce in a city. This creates unnecessary tension in the minds of the people. The city-dwellers seldom seem to be relaxed. There must be one thing or the other hanging heavy on their nerves. People of refined sensibility find it very difficult to adjust with the unending whirl of life in a crowded city. They get disgusted with the 'fever and fret' of the city and seek consolation in the company of nature. "A crowd is not a company", says Bacon. So living in a crowded city does not imply that one is living among

friends. In fact, in big cities people are so self-centered, so much preoccupied with their personal affairs that they hardly have the time to look at anyone else. The whole village is present to attend a wedding or a funeral and visitors to anyone's house are welcome as a guest to the whole village. But such a feeling of community life is never to be seen in a crowded city. In a big city, there are no neighbors; there are only strangers. The cities are so soulless that though surrounded by a crowd, one is overwhelmed by an acute sense of loneliness. City life also dehumanizes people. There are often instances where men are lying on the road and dying, with an utterly unconcerned crowd of people passing by them. The passerby's stop for an instant, cast a casual, hasty glance at the unfortunate victim, put on a well-measured sympathetic look, shrug their shoulders in a what could be done attitude and hastily move along. They have neither the time nor the inclination to fetch a doctor or report the matter to the police.

Life in crowded cities, as conceded earlier, is not without its compensations. On account of their having a large population, various facilities in the field of education,

culture, health, etc. have to be centered there. They have big industrial complexes and marketing centers. They have laboratories and libraries equipped with elaborate scientific apparatus and rare books and documents. They have all the facilities for cultural development. But the tragedy is that those who can afford these facilities usually lack sensibility while those who are endowed with sensibility find the facilities inaccessible. This breeds a great deal of discontent among people. Shelley felt so disgusted with the city life that he wrote, "Hell is a city much like London, a populous and a smoky city". And what he said about London is almost equally true of every other crowded city.

(Evade – to escape; Tenement – one of a set of apartments in on building; Infernal – hellish, miserable; Deplorable – lamentable; Irresistible – impossible to resist; Forsake – to give up; Disillusionment – getting free from illusion, disappointment; inextricably – in such a way that it is not possible to get free; Accessible – within easy reach; exorbitant – very high; Congenial – agreeable; onerous – oppressive, burdensome; Blare – to sound loudly; Quietude – quietness; Overwhelm – overpower.)

PLEASURES OF READING

Synopsis:

1.   **Introduction.** Reading offers a great variety of pleasures. It offers an escape from monotony and leads us to a strange and exciting world.
2.   **Reading helps people both to escape and face the world.** Reading helps us to escape the monotony of life. But by giving us an imaginative experience of life, it also prepares us to face life.
3.   **Reading is a mental exercise.** Reading is to the mind what exercise is to the body. It helps people to improve mentally.
4.   **Reading is useful while travelling or waiting for a bus.** On such occasions, it helps us to escape boredom while it enables us to make a profitable use of our time.
5.   **We must develop proper reading habits.** It is unfortunate that people do not go beyond newspapers or cheap journals. If we want to enjoy our reading and make full use of it, we must develop proper reading habits.
6.   **We must be careful in the choice of books.** Since a very large number of books are available now, we must be careful in the choice of books and we must read them very carefully.

Essay

The pleasures of reading are many. Most people, when they get bored with the daily routine of their lives, get a very pleasurable escape in reading. They forget and are relieved of their worries, their cares, and their tensions,

which are so characteristic of modern life. Just consider a person after a day's hard work sitting in the evening by a fire or in a quilt if it is winter, and reading the book of his choice. He vicariously enjoys the experience of the protagonists of the book. He shares their joys, their sorrows and their struggles, and thus modifies his own view of life. Surely by the time he goes to bed, he is free and fresh and ready for a sound sleep. Similarly, the pleasures of a holiday, on a sea-beach or on a hill station increase when one also has the companionship of the book one likes. This pleasurable escape from dull situations through reading is universal and time-honored. It is a pity that this situation is now undergoing a very undesirable change. The small screen has invaded our houses so ruthlessly that it appears people will soon forget that there is something like the habit of reading and reflecting also. Most people now prefer to watch serials on the television than turn to a book or a journal.

Reading helps people to escape the world. But it is interesting to observe that it also helps them to come back to it. And strangely, for whichever of the two purposes one reads, it is equally delightful. There is a section of people who read to keep up with the latest trends in human conduct. In this way they get better knitted to the society they live in. They not only develop an awareness of the current social norms but also get acquainted with the latest fashions in clothes, in make-up and in dishes. Reading about these things is very satisfying, particularly to women. They look forward to publications on these topics with a rare delight.

"Reading makes a full man," said Bacon long ago. And "Reading," said Sir Richard Steel, "Is to the mind what exercise is to the body". Nobody will dispute the truth of these sayings. When people read with these mottos in mind and are able to improve themselves, they feel a mysterious sense of fulfillment which affords them much pleasure. They have more knowledge about themselves, about the world and are able to deal with their day-do-day problems more effectively.

On certain occasions, people are not bored or tired, nor do they have much leisure, and still they glance through a paper or a pictorial magazine. One gets these moments while traveling in a bus or in the drawing room of a friend waiting for him. There is invariably something to attract one's attention. One's face beams with joy and that short moment of wait loses its sting. So even such a fleeting and perfunctory contact with books and magazines can be so invigorating.

We thus see that the range and nature of pleasures we derive from reading are very extensive. Our pleasure from reading will increase manifold if our reading habits are developed from the beginning. Unfortunately the reading habits and reading capacity of the modern man are pitiably low. Many people do not go beyond a newspaper or a magazine. Perhaps the rapid pace of modern times and the increasing use of other media of entertainment are responsible for this. Still reading habits can be formed and improved. Here children have got to be paid more attention. Once they fall in love with reading, they will continue to derive pleasure from it throughout their lives. The possession, the choice and the manner of reading books, magazines, etc.also have a great deal to do with the pleasures of reading. Books are our best friends. They are windows in the house of our mind. Can one think of a house without windows? Yet it is a pity that in the drawing rooms of the neo-rich, one may find every conceivable luxury, but not a single book! They certainly miss one of the greatest blessings of life.

There is virtually a perennial flood of reading material these days. The variety offered is sometimes so enormous that one feels confused. It suits all tastes and temperaments. Fiction, poetry, drama, biography, travel history, philosophy, psychology, religion, ethics, sociology, astronomy and magic, health and hygiene, sex and marriage, games and sports, farming and gardening, tailoring and knitting home and cooking – is not this range fantastic? There are books for the common reader even on specialized subjects like law, politics, mathematics, physics and chemistry, they certainly make a delightful reading. We have, therefore, to be very careful in the choice of our reading material. This will depend on the nature of pleasure we want to derive from reading. For a long lasting pleasure we have naturally to restrict our choice to the classics.

Closely related to the choice of books is the manner of their reading. Here the advice of Bacon is very sound. He says, "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested." Unfortunately, some people read every word of a newspaper and think they have done their job. They certainly miss what judicious reading has to offer. Although every person has his demands and expectations and he will adjust his reading to suit his aims, yet a wise and balanced approach is necessary in such matters. This will add to the variety and intensity of the pleasures of reading.

(Monotony – dullness; Vicariously – the feeling of an individual experienced by someone else; Protagonists – chief characters; Perfunctory – hasty and superficial; Invigorating – inspiring; Conceivable – imaginable; Perennial – permanent.)

THE VALUE OF HUMOUR IN LIFE

Synopsis:

1. **Introduction.** Humor implies the capability to laugh and make others laugh. Humor is extremely important in our day-to-day relationship with our relatives and friends.

2. **Jovial nature is welcome to all.** It can win us numerous friends and get us out of numerous difficulties. It can help us in tackling a variety of odd situations.

3. **Good humor springs from a healthy attitude towards life.** We cannot cultivate humor or enjoy it unless we have a healthy attitude towards life, unless we can see a silver lining behind every dark color, unless we can take everything in its proper perspective.

4. **Conclusion.** Men of great genius have also been men with a sense of humor.

Essay

"If you weep, you weep alone; if you laugh, the world laughs with you," is a very good maxim. But one ought to be gifted with a sense of other laugh. Humor means the ability to laugh and make others laugh. It is one of the greatest blessings of God to mankind. A humorous temperament is a great merit of a man's character. It helps him to overcome depression or irritation not only of his own but also of his numerous friends and colleagues. Humor plays an important role in our day-to-day relationship with our friends and relatives. A hearty laughter contributes greatly to the health and happiness of mankind.

A person with a humorous and jovial nature is welcome to all. He meets everybody with sunshine and gaiety. Such a person has a large vision of life. He has the capacity to

laugh away his worries. In the present evil, he sees the future good. A man with cheerful and jovial temperament is capable of discerning moral sunshine gleaming through the darkest clouds. Usually he is also a man of practical wisdom. And who can deny the usefulness of humor in our practical life? A businessman with a good sense of humor keeps his customers happy and is able to do better business than his counterpart with a sullen face. If, in an office, the boss is gifted with a sense of humor, he maintains a cheerful atmosphere and the efficiency of work is considerably enhanced, and if a subordinate has a sense of humor, he can save himself from the fury of his boss. In a nutshell, a good sense of humor can get us out of numerous difficulties.

Though a sense of humor is very much a matter of inborn temperament, it can also be cultivated like any other habit. It all depends upon us whether we extract joy or sorrow from a particular situation. There are always two sides of life which we can look at. We can develop the attitude of looking at the bright side of things instead of the dark one. A careful and continuous practice is required to develop this habit. By nature we should be able to see the silver lining and point out its beauty to other people while we see the dark cloud in the sky. It is rightly stated: "Two men saw behind the bars: one saw the cloud, the other the stars'. All this means that a sense of humor, of cheerful

temperament, generates a healthy and optimistic outlook upon life. While worry and discontent weaken our heart and mind, a humorous and cheerful nature provides us with moral strength and harmony. Humor has rightly been called the bright weather of the heart. People with a strong sense of humor can develop in themselves the great virtue of endurance, they cannot be easily provoked and can easily avoid indulging in undue resentment and self-tormenting cares. Such people seldom fall sick. Solomon has rightly said that "a merry heart doeth good like a medicine. It has been seen that men of great genius have also been men with a great sense of humor. They have relished every moment of their life. Abraham Lincoln, Winston Churchill and the Quaid-e-Azam, among the greatest men of recent times, were gifted with great wit and humor. They had the ability to even laugh at themselves. This quality was a secret of their success to a very great extent.

Most of the great literary writers like Shakespeare, Shaw, Dickens, Fielding and Lamb have been men of wit and humor. One can easily and readily trace a sense of humor from their great creations. Their sense of humor served an important purpose. It helped them to expose the social and political evils and malpractices.

(Gaiety – Cheerfulness; Discern – to see, to make out; Endurance – tolerance; Self-tormenting – torturing oneself).

LEISURE – ITS USES AND ABUSES

Synopsis:

1. **Introduction.** Leisure means freedom from occupation. As civilization has developed, we have become busier and leisure has progressively decreased.

2. **Leisure is mostly abused.** Most of the people do not know what to do with leisure, so they abuse leisure. People indulge in loitering, gossiping, back-biting, which is the abuse of leisure.

3. **How to make a good use of leisure.** During one's leisure one should pursue some fruitful hobby. Women can take to embroidery tailoring, etc. Men can do some useful manual work. Useful social work can also be undertaken. In any case, leisure should not be wasted.

Essay

Leisure: how sweet and musical is the sound of this bi-syllabic word. What is its meaning? The dictionary, our worthy know-all, defines it as "time free from employment" or "freedom from occupation". The more I think of the word 'leisure' and all that it means, the more I wish that people – not forgetting my own self, had heaps more of this commodity. But alas! The more our world progresses, the more our work increases. And as work increases, leisure progressively decreases. Well, that is the way of the world. When one side of the balance rises, the other goes down.

So, in my opinion, there is no point in wishing for more. We should simply see how we can utilize this precious thing called leisure to the utmost.

Like all the other good things in this world of ours, leisure, too can be used properly or abused thoroughly. First I propose to see its abuses, so that knowing these, we know what to avoid. Then we can go on to its uses, and we will be able to profit fully by looking at it the right way.

Most people do not know how to make use of their few hours, or perhaps a few moments of leisure. This may be because leisure is so rare. Some people spend their leisure wondering what to do. Others lounge around smoking, gossiping, back-biting, and tearing reputations to the tiniest bits possible. Still others spend it in gambling or aimlessly wandering around. Young boys may be found spending their leisure in ogling girls and in eve-teasing. Young girls, dressed to kill, parade up and down, drawing the attention of the boys.

There is one crucial word in the above paragraph which provides a clue to the reason of this abuse of leisure. The word is 'aimlessly'. Aimlessness has become almost a habit with us. It is because of this habit of ours that when we are free from our work, we find ourselves with nothing to do. This is wrong. One has to aim at some occupation to earn one's living, or to get qualified to do so. Now this aim covers our time of work. For our leisure we can have an aim

of another kind. This can be the practice of some hobby. Rare is the man or woman for that matter – unless he is born a complete idiot or a moron-who is not skillful in some art or another or who has no interest in anything. What better time than our leisure time to practice these? Several housewives spend their extremely few moments of leisure in embroidery, tailoring, trying out new recipes, and the like. By making a good and enjoyable use of their free time, they make their home a beautiful one, spending next to nothing in cash, though a great deal in love. This would certainly not have been possible if they had indulged in the abuse of leisure.

There are many young men and boys who are deft and skillful with their hands. These people can take up carpeting in their spare moments. Others may be interested in metal or leather work. Just imagine the many useful things that they can make, and at the same time make good use of their leisure. Some People are interested in drawing or painting. They can devote their leisure to create masterpieces of art.

There is so much social work that can be done in our leisure. We can adopt an orphan, a handicapped child, an old man or woman, visit their place, spend some time with them and do some odd jobs of theirs. This will bring a ray of cheer in their life and give us great emotional satisfaction. We can also teach an illiterate adult or some poor child who is deprived of educational facilities. Or, we can form groups and undertake community service in villages in our neighborhood. For what better use can we put our spare time if we spend it in alleviating the misery of some unfortunate people?

Leisure is not supposed to be a waste of time. Certainly not! It is a privilege, and as such, to be fruitfully employed. It is our duty to set out mind working, find out how we can make a full and proper use of leisure, and go ahead to do so. Then, and then alone, when God asks us, what use we made of our time, can we say: "Lord, I made the best use I could of the time you gave me, even my leisure."

(Commodity – thing; Lounge around – to sit around: Ogling – looking at fondly with side glances; incite – to move to action; Crucial – the essential point; Clue – key point to the solution of a mystery; Moron – a somewhat feeble-minded person; Deft – clever; Alleviate – to reduce.

SOCIAL RESPONSIBILITY OF BUSINESSMEN

Synopsis:

1. **Introduction.** Business is a collective activity concerning a large number of people. Profit earning cannot be the sole motive of business activity. Businessmen have certain social responsibilities that must be met.
2. **Classical view of the social responsibility of business.** Friedman holds this classical view, according to which the only social responsibility of business is to use efficiently the resources available to it. But businessmen are citizens also, so they have their social responsibilities.
3. **Business ethics should be observed.** Nefarious activities like adulteration, hoarding, black-marketing, smuggling, etc.should be avoided.
4. **Businessmen's responsibility towards the Government.** (a) Abiding by rules and regulations; (b) functioning within the economic structure; (c) avoiding black-marketing activity; (d) timely payment of taxes.
5. **Their responsibility towards their customers.** The wide variety available in the market baffles the customers. Businessmen should educate their customers. They should guide them about the kind of products that will suit them in view of their needs and purchasing capacity.
6. **Their responsibility towards their employees.** Businessmen should not take undue advantage of the poor employment situation in the country. They should pay their employees well and try to keep them happy and satisfied.
7. **Conclusion.** If businessmen behave in a responsible manner, they will be the first to be benefited.

Essay

Ours is a materialistic age. All activities are governed by acquisitional ethos. Honor and nobility sound hollow; truth and honesty are synonymous with foolishness; and the amount of wealth possessed by a person is the only yardstick applied to measure his greatness. Thus, all around us, there is a frenzied race going on to accumulate as much wealth as possible, businessmen seem to be the leaders of this race. They have been blinded by the dazzle of riches and they are perpetually in mad, blind pursuit of the goddess of wealth. They have made profit-earning to the be-all and end – all of their lives. Little do they realize the social aspect of business, the responsibility they owe to their society, which they ought to discharge ungrudgingly. It is interesting to note that whether business houses are expected to assume any social responsibilities is also considered a debatable point. Even an eminent economist like Milton Friedman is of the view that the one and only social responsibility of businessmen is to use their resources and engage in activities designed to increase their profits. The only responsibility he acknowledges is to stay within the rules of the game. But it should not be forgotten that businessmen are not only promoters of business but citizens of a nation also. The welfare of the nation is as much their responsibility as of any other citizen.

Like every other activity, business too has its own ethics, its own rules of the game which should be honestly followed. Tempted by the desire of gleaning rich profits, businessmen

often indulge in nefarious activities like adulteration, hoarding, black marketing, smuggling, etc. Such activities do bring some quick money, but they eat into the very vitals of the economy. Adulteration is a great peril to public health. Hoarding creates panic and insecurity and obstructs the smooth and steady growth of the economy. Black-marketing leads to inflation. It also deprives the Government of substantial monetary sources that could be used for social welfare. Smuggling is another anti-social activity that drains away the country's resources and restrains her economic growth. Business ethics demand that businessmen should resist the temptation of growing rich quickly by taking resort to such harmful activities.

Our Government has repeatedly declared its ultimate objective of establishing a socialistic pattern of society in which there will be equitable distribution of income and each Pakistani will be given equal opportunities of progress. Our businessmen must contribute all they can towards the realization of this objective. First and foremost, they must abide by the rules and regulations of the Government. They must function within the economic structure provided by the Government. They must not try to corner profitable situations; they must not grab monopolistic positions; they must not indulge in black – marketing, and they must pay their taxes in time. They ought to realize that their non-observance of rules breeds corruption and other clandestine activities. This is the least that can be expected of them.

All businessmen owe an important responsibility towards their customers. There is such a wide variety of goods available in the market that the customers just feel baffled by them. Besides, the market is also full of poor quality goods packed in glossy, fascinating cartons. There is an abundance of imitation goods also. However clever the customers may be, it is not always possible for them to make wise decisions while purchasing various articles. A number of businessmen deliberately mislead them in order to earn quick profits. This tendency should be completely curbed. The relationship between the businessman and the customer has a sanctity of its own and that sanctity should not be violated. Businessmen should try to educate the customers. They should offer them genuine products and guide them about what exactly will answer their needs. This might be a time-consuming exercise but it is likely to bring rich dividends even to businessmen.

Finally businessmen have a responsibility towards their employees. Since Pakistan suffers from mass unemployment and the business sector can offer employment to a large number of people, it is easy for businessmen to exploit their employees. Often, employees are underpaid. Other benefits like leave facilities and provident fund are almost non-existent. Security of service is also absent. The Government has from time to time enacted laws to protect the interest of the employees but their weak economic condition renders them liable to easy exploitation. It is essential that businessmen themselves realize their responsibility and pay their employees according to a basic minimum standard. A satisfied employee is an asset to a business house. A dissatisfied employee is one of the greatest liabilities. So businessmen should take care that their employees are their assets.

If businessmen discharge their responsibility towards the society sincerely, it will improve the social climate of the country and the business community will also be greatly benefited. Businessmen are customers also. If they preserve the interest of their customers, in a sense, they help to preserve their own interests. If they pay their taxes in time and keep their employees satisfied, they will help to raise the general standard of living. The purchasing power of people will go up and businessmen will be able to make higher profits. If they voluntarily assume their social responsibilities, it will reduce the pressure for and incidence of State regulations and they will be equally benefited.

(Acquisitional ethos – a code of values based on the acquisition of money; Frenzied – mad).

THE IMPORTANCE OF CONSUMER MOVEMENT

Synopsis:

1. **The importance of the consumer.** Theoretically, the manufacturer and the businessmen exist for the consumer. His wishes should reign supreme in the field of production.
2. **The poor status of the consumer in the Pakistani economy.** In reality the consumer in Pakistan is at the mercy of unscrupulous traders. The consumer is cheated in all possible ways. He is given spurious goods. He is overcharged. He is made a victim of false scarcities.
3. **Why the consumer is exploited.** Pakistan being a developing economy, the demand always exceeds the supply. Besides, our consumers are an illiterate lot. Litigation is costly and the consumers do not feel inclined to enter into a well-pitched battle against the businessmen.
4. **Time is ripe for a consumer movement.** Consumers should become vigilant. Consumer organizations should be set up. Free legal aid should be given to such organizations. The Government should make stringent laws against erring traders.

Theoretically speaking the consumer should be held supreme in any economy. It is his ultimate satisfaction that matters. His taste, his style of living, his requirements, his financial standing are the major factors that determine the shape of the economy. Howsoever good or useful a product might be, if it fails to catch the fancy of the consumer, it is just doomed. But sometimes some virtually ridiculous products come into vogue and earn a fortune for their producers. For a manufacturer, thus the consumer is not less than a god. While addressing a group of businessmen, a customer is the most important visitor on our premises. He is not dependent on us. We are dependent on him. He is not an interruption in our work. He is the purpose of it. He is a part of it. We are not doing him a favor by serving him. He is doing us a favor by giving us an opportunity to do so.

Essay

Pakistani consumer is an utterly helpless fellow. He has no say in the quality or nature of goods that are sent to the market for his consumption. He is a victim of numerous malpractices. He is often made to buy adulterated or substandard goods. Second hand goods are passed on to him as new. Dangerous goods are sold without any warning. He is misled on the quality and price of the things that he buys. Very often he falls a victim to a falsely created shortage and he is made to pay through his nose even for very ordinary goods. Clever businessmen, through glossy salesmanship, misleading advertisements and tall claims about their products, rob the consumer of his hard earned money. These businessmen make no scruple of selling even spurious drugs so dangerous for the life of the consumer. The consumer knows what is happening to him. But except making a loud, individual kind of protest, which has no

effect on the mammon-worshipping businessmen, there is very little that he can do to check his systematic exploitation.

The fact is that ours is a developing economy in which demand is always ahead of supplies. The manufacturers know that however poor the quality of their goods may be, they will be able to sell whatever they produce. So in defiance of all ethical considerations, they keep on producing poor quality goods. Since a majority of our consumers, particularly in the rural areas, are illiterate, they are not able to distinguish between the genuine and the spurious or the good and the bad. It is mainly these consumers who suffer at the hands of unscrupulous businessmen. Our consumers also suffer from a total absence of awareness among them. They know nothing about their rights. They are ignorant of the laws. First of all, the laws on trade marks, essential commodities, drugs, weights and measures, etc. are not very effective. Secondly, the standard of morals in our country being what it is, the businessmen do not find it difficult to steer clear of laws through greasing the palms of the inspection staff. Besides, litigation is such a costly and time-consuming affair that no consumer has the courage and patience to throw cudgels on behalf of his ever-suffering community.

But time is now ripe for a well-organized consumer movement. The consumers should no longer take things lying down. They should know their rights and fight for them. They should be vigilant so that they do not walk into the traps laid by clever businessmen. If artificial scarcities are created and there are rumors about the non-availability of certain goods, they should not get unnecessarily panicky. Instead, they should try other substitutes. They should also help in the evolution of an efficient distribution system so that the goods that are available are able to reach all the people. If the consumers feel that there is an indiscreet hike in prices, they should resist it; if they come across a black-marketer, instead of patronizing him, they should expose him and force the authorities to take appropriate legal action against him. Some consumer organizations in some parts of the country have already been functioning for some time. Their hands should be strengthened. Enlightened men in the legal profession should offer free legal aid to such organizations. If the Government provides for stringent punishment to erring traders, it will go a long way in strengthening the consumer movement.

(To come into vogue – to become popular; Pedestal – stand; To make no scruples – to suffer no pricks of conscience; Spurious – fake; In defiance of – neglecting; Ethical – moral; Unscrupulous – not moved by any moral considerations; To throw cudgels – to fight; Vigilant – alert; Panicky – scared; Indiscreet – not prudent, unwise; Stringent – rigorous.)

SPORTSMANSHIP

Synopsis:

1.   **Introduction.** We need sportsmanship to face the rude challenges of life.

2.   **Sportsmanship implies fair play.** A true sportsmanship prefers losing the game to playing it foul.

3.   **It means team spirit.** A true sportsman plays for the whole team and not for his individual glory. He shows great cooperation. And co-operation is one of the most important qualities in life.

4.   **It teaches discipline.** A true sportsman shows loyalty and discipline. He obeys the captain. This kind of discipline is needed in domestic, social and political spheres of life.

5.   **A true sportsman is broad-minded.** A true sportsman is very large-hearted. He admires even his rival. He has a great spirit of tolerance.

6.   **Conclusion.** It is a matter of great regret that we lack sportsmanship in our life. As a matter of fact, we do not show sportsmanship even in the field of sports.

Essay

Life is a queer game. While it offers vast possibilities, it is also full of threats to our existence. How to stand the rude challenges of life? Does it become a man to succumb to the challenges and play foul in life? What is the safest way to keep intact human integrity while fighting against the heavy odds of life? The remedy lies in playing the game of life according to the spirit imbibed on the playfield.

Sportsmanship is a rare virtue. Victory or defeat hardly matters in a game. What matters is the fairness with which the game is played. In the world of games, neither are there victors nor those who get vanquished, because nothing is lost if the players learn how to play fair.

Sportsmanship means fair play. A true sportsman will prefer losing the game to playing it foul. The teams that encourage foul play are exposed to universal condemnation. We are all players in this game of life and must be fair to ourselves and to others in our daily dealings. The cardinal virtues of honesty, frankness and integrity are conducive to a pleasant and smooth social climate. Hypocrisy, double-dealing, intriguing and duplicity are the means of success for a man who has no moral conscience. Such a man plays foul and feels rewarded. But a true sportsman will never behave in a foul manner.

A true sportsman plays for the glory of his team. All the individual players in a team play with team-spirit. No good player can afford playing for his personal glory. An individual player is nowhere recognized when the team is routed. All the players are confederates in a single cause. Even the best players cannot put up a brilliant show without the cooperation of their friends in the team. Don't we need team-spirit in life also? Isn't our life without mutual cooperation reduced to petty competitions and sinister designs? We

forget that every individual is an integral part of the society. Imagine the state of chaos and anarchy if all are individually busy in the pursuit of their selfish ends. Man is selfish but he can do a bit for others also. A nation can touch the heights of glory if all her people are integrated towards common ends. Petty persons die and are forgotten after their burial. It is only the selfless who go down as immortal in the annals of human history. It is such men who make a nation's pillars deep and lift them to the sky.

Faith, loyalty, discipline and obedience are the qualities of a true sportsman. He obeys the captain and never questions his intentions. A team will fall under if players start questioning their captain. The best players would ungrudgingly leave the playground even if the referee is wrong. Such a spirit leads to harmony. We require discipline in life also. Discipline, obedience to the established authority and loyalty to seniors will create an era of prosperity. We must have regard for our cultural values, our institutions and traditions. All the planets are subject to strict discipline. What would happen to the world if a few planets revolted against their authority, left their fixed positions and collided? Discipline does not negate freedom but it does regulate its use. Liberty is not licensed. We have to observe the rules of the road, otherwise we will be unable to remove the injured to the hospital.

A true sportsman admires even his rival. There are no barriers for a true sportsman. This large-heartedness makes our life happy. We are often jealous of our opponent's success. We must have a spirit of tolerance and the capacity to appreciate merit where merit is. Antony's high tribute to Brutus in Julius Caesar is a fine example of sportsmanship. His elegiac words about Brutus's nobility and integrity brighten his image.

In recent times, there has been a great decline of the sportsman spirit. Now we play not for the sake of playing but for money, power and personal glory. When millions of dollars are at stake, who would care for fair play? Ben Johnson was stripped of his gold medal in the Seoul Olympics for having used banned drugs to improve his muscular efficiency. Isn't that a sad commentary on our attitudes? There are frequent heated exchanges between the players and umpires in various tennis tournaments. The tribe of John McEnroe, Javed Miandad and Dennis Lillee is on the increase while players like Ramanathan Krishnan and G.R. Vishwanath have become a rare commodity. And what is true of sports is equally true of life. Nobody cares for fair play and honesty. Money has become the most important value of life. Everything else is secondary. What a sorry state of affairs!

(Queer – strange; Succumb – to sink under pressure; Imbibe – to absorb; Vanquish – to defeat; cardinal – fundamental; conducive – favorable; Intriguing – scheming; Duplicity – insincerity; Confederates – companions; Sinister – evil; Chaos – confusion; Anarchy – lawlessness; Annals – record; Fall asunder – to fall apart; Ungrudgingly – without any complaint, willingly, Elegiac – mournful.)

HOBBIES

Synopsis:

1. **Introduction.** A hobby is a pursuit followed for pleasure. Since most of the people do not get the jobs of their liking it is very important to pursue hobbies.

2. **Kinds of hobbies.** Any pursuit capable of giving one pleasure can become a hobby. Stamp collecting, autograph collecting, photography, music, rambling in the countryside are some of the popular hobbies.

3. **Basic Principles for the selection of hobbies.** (a) A hobby should not become a passion. (b) It should be within one's means. (c) It should not be absurd, idle pursuit. (d) It should not be allowed to distract a person from discharging his personal obligations.

4. **Conclusion.** Hobbies are not as popular in Pakistan as in the West.

Essay

A hobby is a pursuit followed for pleasure, not for profit. With the problem of unemployment so aggravated, it is often difficult to find a job to one's liking. In such a case one can satisfy one's natural craving in a side pursuit. But even if one finds one's job absorbing and fruitful. The necessity of a hobby is not eliminated. Variety is said to be the spice of life. A hobby provides one with a welcome change. When one is back home after a strenuous day with an exhausted and jaded mind, one's mind is enlivened by a hobby. It is an occupation in which one is one's own master, no terms are dictated; no restrictions are imposed. If one succeeds, it is so pleasant and heartening; if one doesn't, it hardly matters. There is no end to the kinds of hobbies. Stamp collecting seems to be one of the most popular and universally practiced hobbies. Students derive great pleasure from it. Autograph collecting is another favorite. It provides opportunities to meet great people. It also helps people to cast off their shyness and approach great men. But, once when I approached a great dramatist to get this autograph, he wrote in my autograph book – getting autographs is a sign of adolescence. I felt so flushed, I have never again asked anyone for his autograph. Fishing is yet another popular hobby. But it is a hobby essentially of the reflective or imaginative mind. One can sit for hours near a tank or a rivulet, with rod or line in hand, lost in the paradise of one's own creation. Rambling in the countryside is a very refreshing pursuit. It helps to restore man's ties with nature, which stand almost snapped. Besides, it can prove highly educational. Someone with well-developed creative faculties can make decorative pieces with the odd knick-knack available in the house. One of my friends has made the Minar-a-Pakistan purely from empty penicillin vials. Another one makes beautiful decorative wall plates with empty cigarette packets. Then there are gardening, horse-riding, reading favorite authors, photography, painting, music coin or insect collecting, hitch-hiking and so on. In fact, hobbies can be multiplied and infinitum.

Some of the hobbies can be quite ridiculous too. One of my friends has the hobby of collecting discarded tins and cartons, and empty bottles. Another one is interested in collecting the small confectionery wrappings. Still another one's hobby is to collect a variety of cigars. Great men too have hobbies. They derive considerable personal pleasure from their pursuits but their hobbies are motivated by some other consideration too. A politician may turn to a science laboratory or a priest may take to dramatics purely for relaxation and still produce remarkable results.

A few basic principles ought to be observed in the selection of hobbies. A hobby should of course be an absorbing source of pleasure. But it should be pursued as a hobby only. It should not be allowed to become a passion or an obsession. Nor should it be allowed to interfere in one's professional life. Secondly, it should be within one's means. It should not be expensive that it starts draining one's financial resources. Photography and record – collecting have become luxuries. If one can afford them. They are highly satisfying. But there can be equally satisfying inexpensive hobbies to-reading, writing or painting, for example. Painting or writing can even be made a source of income. Thirdly, hobbies should not be absurd, idle pursuits. They should serve some useful purpose. There is palmistry, a fascinating and educational study. There is gardening to provide physical exercise as well as fresh vegetables and colorful flowers. Finally, hobbies are purely personal affairs. They should not be allowed to distract one from one's domestic and social obligations.

Hobbies are very popular in the west. It is a common saying that Every Englishman rides a hobby horse. But Pakistanis do not fully realise the importance and advantage of such a pursuit. Our most popular hobby seems to be gossiping. Ladies, in particular, hold coffee-cum-mud flinging sessions in the afternoon. How light and relaxed they feel after a two-hour long character dissection of their neighbors! The need of relaxation is felt by one who is strained in his professional life. Since many of us do not take their jobs seriously, they are mostly in a state of idle relaxation. Hence they need no hobbies.

(Ramble – to walk for pleasure; Distract – to draw in a different direction; Aggravate – to make worse; Strenuous – causing Exertion; Jaded, – dull; Enliven – to brighten up, to refresh; Flush – to become red in the face; knick-knack - small ornamental articles; Unassuming – modest; Obsession – a fixed idea; Mud-slinging – heaping abuse at.)

EXAMINATIONS

Synopsis:

1. **Introduction.** Examinations are an integral part of our system of education but they are extremely faulty.

2. **They fail to give an accurate assessment of a student.** They do not test a student's intelligence or ability. They test only his cramming power. Judging by the examination results, many of the great scientists were quite dull.

3. **The element of chance in the examinations.** Making of scripts is never uniform. Some examiners may be strict, others very lenient.

4. **Examinations make the work round the year uneven.** Students just study near the examinations and idle away their time during the rest of the year. This makes their work round the year very uneven.

5. **This system adversely affects class teaching.** A good teacher feels hampered by the limits imposed by the examination system.

6. **Examinations are a necessary evil.** If there were no examinations, students would not study at all. And it must be said to their credit that, in spite of all the drawbacks in them, a good student has not usually failed nor a third-rater topped.

7. **The need for reforms.** Instead of completely doing away with the system, we should try to introduce certain reforms: (a) Semester systems can make the work round the year more even. (b) Marking scripts should be made more accurate and uniform. (c) Examinations may be accompanied with viva voce, particularly in the case of marginal students. (d) Unfair means should be checked.

Essay

Examinations have come to stay as a part of our education system. They are considered to be a big nuisance and both the teachers and the students detest them. It is really possible to discover a large number of defects in them; still in the absence of any other satisfactory system of evaluation, it is impracticable to abolish them. They are perhaps evil, yet they are indispensable.

If we accept the aim of education as the harmonious development of human personality, we observe that examinations fail to assess this development accurately. They neither take a measure of one's physical and spiritual development nor even of one's intelligence. All they can claim to do is to test one's memory or one's capacity for cramming. Since a student is aware of the type of questions he will be asked and he can fairly successfully anticipate a few, if he has the knack of pleasing the examiners, he will come out with flying colors. But another student, more reflective and analytical, more inquisitive and industrious, will perhaps cut a sorry figure. It is but a well-known fact

that Einstein once failed in Mathematics and Hegel, one of the greatest philosophers of the world, consistently secured poor marks in philosophy. Judging by the results, Einstein and Hegel could be condemned as poor students, although later in their life, they achieved singular success in their fields of study.

Examinations are often condemned on account of the very prominent role of chance involved in them. Marking of the scripts can never be uniform. Even if we grant that all examiners are sincere and earnest – in fact many of them are whimsical and willful – we can still not affirm that examinations are scientifically impartial to all examinees. The possibility of the personal prejudices of an examiner beclouding his better judgement cannot be excluded. If an average script follows three brilliant scripts, it will be awarded poor marks; if it follows two exceptionally poor ones, it will earn a better reward than it deserves. Mr. Shahid might be too strict. He will bewail the poor standards and make fascinating crisscross patterns on the scripts. Mrs. Nadia might be a bit too lenient. She would like to give every student a pass on humanitarian grounds. How far can the awards given by these two examiners be accepted as a fair index of the relative ability of their examinees?

Under the prevailing system of examinations, the students enjoy a ten-month holiday and have a two-month working session. They merrily skip around and flirt their time away for the first ten months. Then, as the examinations approach, one can sniff a chill of seriousness in the air. Atmosphere starts getting heavy, the infection is gradually rife and the students start pouring over their books. They skim through their syllabi, just to get the hang of what they are about, manage to stuff their brains with some ill-digested facts temporarily, then forget all about them once the examinations are over. But these two months play havoc with their physique. The whole period is spent in extreme nervous tension. Shave and hair-cut, cosmetics and coiffures are all forgotten. Chemists are pestered to procure pills causing sleeplessness. The erstwhile lotus-eater suddenly becomes a Ulysses. But to his utter dismay, he often discovers that he is no match for the giant that examination is and collapses with acute nervous exhaustion.

This system exercises an adverse effect on the class teaching in two ways. First, a good teacher always finds himself hampered by the limitations imposed by the examination system. He does not teach, he prepares the students for the examination. Secondly, a number of students, by virtue of having a good memory, get into a class where they do not deserve to be. Their lessons being beyond their comprehension, they feel bored in the class and create mischief. It is these students who pollute the

atmosphere in the class and are responsible for the widespread indiscipline found in colleges.

But even the devil must be given its due. It must be acknowledged that the examinations do compel students to study a little. Or they would not study even this much. Secondly, despite all the tricks played by chance, it is never noticed that a good student has failed or a third – rater has topped. Thus examinations may not be scientifically accurate or impartial, still they do substantial justice. If we spread out our examinations and minimize the element of subjectivity involved, we could make this system fairly satisfactory. Let us have biennial examinations with a viva-voce and let us give due weightage to class work. It is also desirable to have an interview with the marginal cases before their final result is declared. If the examiners could once go through the whole script before they started marking individual questions one by one, they could improve their judgment. It involves more time and labor but the labor would not be wasted.

With the spread of education, there has been a fabulous increase in the number of examinees. This has brought about further deterioration in an already not-so-sound system. Examinations are often conducted in very poor conditions. Invigilation and supervision leave much to be desired. Leakage of question papers has gone up. Examiners are appointed en masse and they often do a bad job of the work entrusted to them. But then there is no better substitute for this system. We cannot abolish these examinations. All we can do is to improve upon them so that they cease to be a lottery indiscreetly doling out a few lacs with innumerable blanks.

Related topics. The uses and abuses of examinations. Examinations are a necessary evil.

(Indispensable – something that cannot be done away with; Harmonious – balanced, well–proportioned; Anticipate – to guess, to foresee; Reflective – thoughtful; Inquisitive – curious to know; Whimsical – having odd ideas; Willful – obstinate; Becloud – to make dim; Coiffure – style of hair dressing; Exhaustion – fatigue; Pollute – to spoil; Biennial – twice a year; Fabulous – enormous; Indiscreetly – without any consideration, rashly.)

STUDENTS AND POLITICS

Synopsis:

1.   Introduction. In general, students should avoid politics.

2.   The evil effects of indulging in politics. (a) Their studies suffer. (b) Even those students who pursue politics as their general profession fare badly since, their academics having been neglected, they fail to grasp the important national and international issue.

3.   Politicians should not be allowed to exploit student power. However important the political issues may be, politicians must be kept off the campus.

4.   Students and the struggle for freedom. It is true that our students were in the forefront of the struggle for freedom but the situation at that time was different from the present situation.

5.   Conclusion. Students should cultivate political awareness but should not actively participate in politics. Student participation in politics is a highly debatable issue. Strong arguments can be put forward both in favor of and against the issue. It may be said that early initiation of the youth when they are passing through a sensitive phase of their life may prove to be harmful. One the other hand, it may be argued that the current political atmosphere is so vitiated and the present lot of politicians are, generally speaking, so corrupt that unless they are completely ousted and the youth take charge of the situation, there appears to be no hope for the country. Both the arguments carry weight. However, anything attempted prematurely does not bring very happy results. If the youth are not strong enough to fight infection, they might catch the infection themselves. Both sides having been carefully considered, perhaps it is better for the students to shun politics, at least in the early stages of their student life.

The first great disadvantage the students suffer when they participate in politics is the general neglect of their studies. It is not difficult to come by intelligent young students who have been victims of extreme indulgence in politics. They cut a sorry figure at examinations and then repent, but it is too late. Even those who become professional politicians when they grow up fare poorly. They are ill-equipped for the job. They lack an all-round general education and are also unaware of the basic concepts of politics. They fail to grasp great national and international issues in the fields of economics, science and technology. If we examine the educational qualifications and general mental caliber of our politicians, we shall get a jolt. How can such politicians lead us on to progress? Perhaps one reason for this situation may be that they pursued politics immaturely and at the cost of their studies when they were young.

If we want this unfortunate situation to be avoided, we must take concrete steps at all levels of our national life to save young students from the ill effects of politics. To begin with, all political parties must agree not to touch the student community for their own benefit. They may have very just causes and they might like to enlist the support of everybody, but even then they should not involve students in their activities. This would be in the larger interest of the country. Nor should the political parties support, financially or otherwise any contestant in student elections.

Colleges and universities can also do a lot in saving their students. They should not allow any party to function on the campus or in the premises of a college. While admitting students, a college or a university might insist on some sort of undertaking from the students and their parents that active politics would be shunned at all costs.

What has been said above may, it is feared, lead some people to believe that we want students to be ignorant of politics. They would argue that education would be incomplete without a good dose of politics. They would also invoke history and say that during the independence struggle many students left their studies, took part in the freedom movement and played an important role in the life of the country.

This argument is strong and cannot be brushed aside. We agree that students should not be ignorant of politics. But this does not call for compulsory involvement in politics. As for the students leaving their studies during the struggle for freedom, it may be said that the situation has now changed. There is no such great movement today as may call for this disruption of student life. The big problems that the country faces – problems of poverty, unemployment, corruption, illiteracy – can be solved only if the student community diligently pursues its studies.

Students should only be spectators of the political happenings around them. They should observe and absorb the various movements with the help of their teachers and parents. They may show a keen interest but in a peaceful manner. For this purpose we may have mock parliaments, Governments and Cabinets. Peaceful debates will help them form their views. They will thus be better prepared for life when they complete their studies. So passive participation in politics by students is the best solution to the problem.

(Involve – to call to help; Disruption – breach; Adduce – to quote;)

THE VALUE OF GAMES IN EDUCATION

Synopsis:

1.   **Introduction.** Games are an integral part of education. Education aims at the development of both mind and body. Games take care of the development of the body.

2.   **They improve one's health.** Games improve one's health. Only healthy bodies can have healthy minds in them. Healthy students are generally optimistic in their attitude towards life.

3.   **Games are a source of recreation.** Playing games even for a short while can banish day's fatigue and boredom.

4.   **The help in the building of Character.** Games impart moral instruction and teach qualities that tend to make a person a better citizen.

5.   **They teach sportsmanship.** Games teach sportsmanship which includes qualities like team-spirit, discipline, co-operation, fair play and taking victories and defeats in the right spirit.

6.   **Conclusion.** It is good that we have started realizing the importance of games.

Essay

If we take a balanced view of education, we shall recognize that games and sports are an integral part of education. Education aims at the development both of body and mind and prepares us to meet the challenge of life boldly and successfully. We shall certainly fail to meet this challenge if we take a lop-sided view of education and exclude games and sports from it or do not pay them due attention. Our mind will develop, though certainly not to its full powers, but our body will not, it will in course of time waste away and many a disease will beset it. One may, then, only exist and not live.

The first great value of games, therefore, is a sound and healthy body which they help us to have. "Health is wealth" and "a sound mind in a sound body" are age-old proverbs. But very few people realize their true significance. It is obvious that those who take part in games not only have a healthy and robust body but also possess an agile mind. Their outlook on life is generally broad and optimistic. Games and sports also provide us with a lot of recreation and fun. They are an excellent pastime with some people. A little participation in games at the end of a day's hard work will bring back our lost energy, afford us relaxation and banish our boredom.

One aim of education is to build character, to impart some sort of moral instruction and inculcate certain traits which help a person in leading a responsible life – a life in which he is able to strike a happy balance among his obligations towards society, towards the State and towards himself. Books and contacts with the outside world do teach us these aspects, but games also have an important role to play in their development. A player learns these traits in a practical manner on the playground.

Most of the games like cricket, football and hockey depend upon team-work. The success of the team is the supreme passion of each player. There is mutual cooperation and obedience to the captain. The captain coordinates and directs the activities of all the players. The teams in their turn are subject to the judgement of umpires and referees. So those who participate in games are generally able to develop the sterling qualities of team-spirit, obedience to rightful authority and a sense of fair play. Such players,

when they start their lives in right earnest do not plough a lonely furrow but work untidily for the common good. Here one may recall what the Duke of Wellington said after the defeat of Napoleon. He said that Napoleon was defeated not at Waterloo (though he actually and literally was) but on the playing fields of Eton. Obviously, the Duke meant that the qualities of discipline, sacrifice and self-dedication inculcated by the English boys in their games were a decisive factor in the fall of Napoleon.

Since the chief motive in games and sports is fun and unalloyed excitement, players accept their defeat smilingly. They play for the sake of the game and develop what is popularly called sportsmanship. This is an important trait of one's personality and is more useful today than it ever was. Today defeats and disappointments stare us in the face at every step and the strain caused by the pace of the modern world is sometimes unbearable. This quality of accepting a defeat cheerfully will therefore be extremely useful to us.

So we see that the games are of great value in the process of education. But it is unfortunate that in our country sufficient attention is not paid to games and sports. We are generally said to lack sports-consciousness. Although several measures are being taken to remedy the situation, yet it will take a long time before we can compete with countries like the U.S.A., Australia and even the U.K. It is a happy augury that recently a chain of regional colleges for physical education have been established. We also have a National Institute of Sports at Islamabad. No doubt these institutions will play an important role in training people and popularizing games and sports which surely have an individual, social, national and international importance. (Lop sided – one-sided; Agile – active; Pastime – hobby; Inculcate – to develop; To plough a lonely furrow – to work alone; Unalloyed – unabated; Augury – omen.)

LIFE IN A COLLEGE HOSTEL

Synopsis:

1. **Introduction.** The general notion is that life in a college hostel is free from all restraints. Students are not subjected to any strict discipline and they are, in general, their own masters.

2. **Very little restraint in the hostel.** It is partially true that there is very little restraint in the hostel. Students enjoy plenty of liberty. While some students make good use of it, others act in an irresponsible manner.

3. **Advantages of living in a hostel.** (a) Students can do their work without any external interference. (b) Difficult topics can be discussed with fellow students. (c) Students learn initiative. (d) They learn to be efficient and self-sufficient.

4. **Risks of living in a hostel.** (a) Students get alienated from their families. (b) It is easy to fall into bad company and catch bad habits. (c) Drug addiction has become a common phenomenon in the hostels. (d) Sometimes hostels become dens of nefarious political activity.

5. **The role of the authorities.** If the students have to make good use of their stay at the hostel, the authorities must realize their responsibility and make the hostel atmosphere conducive to studies.

6. **Conclusion.** Students also should behave in a disciplined way and strike a balance between liberty and restraint.

Essay

Hostel life at the college stage is very different from that during one's school years. The greatest charm of hostel life is the great sense of liberty, the resident experiences. The boys and girls find themselves completely free from parental restraint which so irked them when at home. They find that they can remain in bed as long as they like, and, joy of joys, no one comes to drag them out of the arms of sleep. They may, if they so please, stay all day in the hostel, and no one comes to ask them why they have missed college they study or not according to their own sweet will and pleasure, parents being too far away to reproach them. Hostel students find all the above mentioned things possible. However, this does not imply that they do take advantage of all these opportunities. That would indeed be a gross misrepresentation of facts. Those who are born lazy, or are so inclined, make good use of the golden opportunity to indulge in these ways. Others are there, however, who realize their responsibility and exercise this liberty in moderation.

Now all this may make people think that hostel life is not very healthy for college students. A hostel provides the students greater facilities to study. They are free to do their own work unhampered by their younger brothers and sisters. A hostel resident will be able to discuss difficult topics with fellow inmates and can get to use more reference books. Hostel life helps in developing the initiative of our young men and women. Managing the mess, co-operating in the daily life of the hostel, they come out better able to manage their own affairs than students who live at home. They learn how to be efficient and self-sufficient.

Since every coin has two sides to it, hostel life has its risks as well, it has often been observed that those students who spend many years in hostels get alienated from their families. When they go back to their families at the end of their student life, they find it difficult to adjust. They do not

feel strong emotional ties with their families, nor do they realize their problems. Thus for a long time, they live like strangers in their own houses. Besides, in the hostels, it is very easy to fall in bad company. Lack of restraint leads to an abuse of their freedom. They neglect their studies and allow entertainment and fashion to become the pivot of their existence. They fall prey to the bad habits of smoking, gambling and even drinking. Worse still, they get addicted to drugs, and begin sliding down the path of immorality at a very rapid rate. Sometimes hostels become dens of nefarious political activity. Immature and inexperienced as they are, students prove to be an easy material for exploitation. They fall into the hands of unscrupulous politicians and their careers are spoiled.

These pitfalls can be avoided provided the hostel authorities recognize their responsibilities. They should realize that in the absence of the parents, they are required to play the role of the parents of their students. They should not only be aware of the students' problems, which they should try their best to solve, but also be easily accessible to them for all kinds of counseling. If they are able to give proper and timely career or psychological guidance to the students, they will be able to carve a rosy future for many of them.

Thus we see that hostel life for college students can be good or bad. This depends both on the students and the hostel authorities. The authorities cannot put the students into a straitjacket and curtail their movements. Such a harsh step is just not possible. But they can definitely chalk out some kind of a broad code of conduct to guide the students. More than that, they can inculcate a sense of discipline and other moral values so that the students devise their own code of conduct. Self-discipline is always better than discipline imposed from outside. Students should be made to realize that their future depends upon how they behave during their stay in the hostel, and this realization will transform them into a disciplined and responsible lot dedicated to noble ideas.

(Irk – Irritate; Reproach – reproof, rebuke; Unhampered – undisturbed; Lax – slack, not strict in discipline; Appalling – horrible; Pivot – a pin on which anything turns; Put into a straight jacket – to impose restrictions; Curtail–to cut short.)

SCIENCE: MANKIND'S FRIEND OR ENEMY

Synopsis:

1. **Introduction.** Science is a neutral but powerful source of energy It can be a friend or an enemy depending upon how it is used.
2. **Science as a friend.** (a) science and medicine; (b) science and means of agriculture; (c) science and industry; (d) science and means of transport and communication; (e) science has helped to spread knowledge; (f) science has brought comforts to mankind.
3. **Science as an enemy.** (a) science has given lethal weapons of war. (b) science has led to large-scale industrialization which has concentrated wealth in a few hands. (c) life has become mechanical. (d) wars have become global wars. (e) science has given rise to competition among people. (f) science has destroyed man's faith in God as well as in himself.

Essay

"Science," says Huxley, "is nothing but trained and organized common sense." And Holmes equates it with "knowledge". Is common sense or knowledge mankind's friend or enemy? The question is not hard to answer. Knowledge is neutral. It's being beneficial or dangerous depends upon the man himself. Common sense declares what is right and what is wrong. It is man's own discretion to follow this guidance or to spurn it. Thus it is man himself who is his own friend or enemy. As simple as that! Science

is knowledge or common sense with illimitable possibilities of application. We can apply our knowledge to establish a new factory or destroy another one already functioning. The decision lies in our own hands.

Science has proved mankind's friend in numerous ways. It has wrought miracles in the spheres of medicine and surgery and greatly alleviate human suffering. Till only a few years back diseases like leprosy, cancer, tuberculosis and polio were considered to be incurable. Patients suffering from them would strike horror and pity on the one hand and dismay and despair on the other. But today most of these diseases can be diagnosed and at least in their early stages, they yield themselves to treatment. Plague, cholera and influenza epidemics used to carry off millions. Today an epidemic is rare occurrence. Operations used to be so painful that most of the patients would die of shock. But the discovery of anesthetics has made possible even the most complicated operations like the transplantation of heart. Science has given eyes to the blind, ears to the deaf, legs to the crippled; it has lowered the infant mortality rate, improved the standard of health, checked the incidence of disease and increased the longevity of human life. Plastic surgery can even change a monster into a fairy.

In unscientific agriculture, a farmer was wholly dependent on the inclemency of the weather and the vagaries of the rain-god He might pray for rain and get a drought or pray for dry weather and torrential rain. Sometimes, he would grow crops after months of painful labor, only to be

cheated by floods that would sweep off the entire produce. Science has helped man to build dams and dig canals. The flow of water is now controlled. Canals prove a perennial source of water for irrigation. Then there are tractors and other mechanized implements to make a play of the farmer's hazards, tilling, sowing, weeding, hoeing and harvesting. Fertilizers improve soil productivity while insecticides and pest killers check the diseases of the plants. On account of refrigerated storage, even distribution of grains throughout the year is ensured. Science has substantially contributed to the development of large-scale industry. Hand-made goods took inordinately long to make, and they were neither very refined in appearance nor very durable. Large-scale industry ensures quicker, cheaper production of goods which are aesthetically more satisfying to use. Machines relieve man of all heavy and unpleasant work. They create new openings of employment; at the same time they provide man with more leisure.

Science has brought about incredible rapidity in the means of transport and communication. Travel amenities now available have made travelling a luxury. Only a couple of centuries ago, pilgrims going to visit various religious places despaired of returning and said final good-bye to their friends and relatives before they left. Today man has even reached the moon and safely came back. And the whole journey does not take more than six days. Flight from Moscow to Lahore takes just a few hours. This quickness has very far-reaching consequences. It is now possible to rush help to any part of the world In case of an epidemic, flood, earthquake etc., it has reduced the world to the size of a small family. It has promoted trade relations among even the most distant countries. It has brought everything within the reach of everybody. Even an ordinary man can command at his table the daintiest dishes beyond the reach of the past emperors. But above all, It has multiplied interdependence and released mankind from narrow nationalism and inculcated a new spirit of internationalism. Science has helped large-scale dissemination of knowledge. Scholarship is now no longer the monopoly of a few. Printing press has taken knowledge to every household. It has expelled ignorance and promoted enlightenment thus bringing about a radical change in outlook. Modern man is a rational being. He works by reason and logic. He does not attribute disease to black magic and is no longer the slave of superstition and blind faith, mortally afraid of the worth of gods.

Science has brought innumerable comforts to human life. We need no longer sweat in heat, nor shiver from cold. Nor do we have to cower in the dark at night. Electric gadgets can finish cooking in half an hour. Washing, drying and pressing can be mechanically done. This liberates the housewife from much monotonous work and makes her free for more useful employment. Science has also provided us with very quick means of entertainment. There is the radio, cinematography, and the television. We can relax in our bed and witness a cricket match being played in some far-away stadium. The cinema transports us to a world of fantasy.

But science has also given the world highly destructive weapons of war. God-sent epidemics have been checked but man has acquired the power to spread the live germs of any disease and cause an epidemic. Dams have been raised to check floods. But a single bomb can smash any of these dams and play havoc with the entire population of a country. Nuclear weapons can destroy in a moment what takes centuries to build.

Even other scientific innovations have not proved an unmixed blessing. Machines that were meant to be man's obsequious servants have instead become his cruel masters. Large-scale industrialization has caused the concentration of wealth in a few hands leading to the exploitation of labor. It has also alienated man from nature. If man has developed an international outlook, his wars have also become international. If aid can be rushed to a center of earthquake, explosives can also be rushed to a distant center of war. A country can simultaneously fight on a number of fronts. This is what explains the fact that a world war is only a twentieth century phenomenon. A minor skirmish in any remote corner of the world can flare up into a world war. Better living standard has caused competition. People vie with each other for greater materialistic possessions. A mad scramble for the acquisition of material goods destroys the sleep of many. If man does not believe in black magic or witchcraft, he is no longer content with his lot. He is too absorbed in material pursuits to strive for spiritual flights. He has gained the world but lost his soul. But all this happens because man allows himself to be ruled by his scientific discoveries and inventions rather than use them discreetly.

Related topics. **The uses and abuses of science. Science is a blessing or a curse.**

(Lethal—deadly, Spurn—to reject; Alleviate—to reduce, to mitigate: Inclemency—severity; Vagaries—whims; Perennial—permanent; Amenities—facilities; Daintiest—most delicious; Dissemination—spread; Cower—to sink through fear; Wrath—anger; Monotonous—dull; Fantasy—imagination; Obsequious—obedient like a servant; Skirmish—quarrel; Scramble—mad rush; Disgruntled—discontented.)

SCIENCE AND WAR

Synopsis:

1. **Science is often thought to be responsible for war.** Twentieth century is the age of science. And this century has undergone two destructive global wars. So people often think that science is responsible for war.

2. **Wars were fought even before the advent of science.** Wars were being fought even when science was not much developed. Wars are fought because there are people mad for power and such people exist in all ages.

3. **Science has only changed the technique of war.** War is now fought in laboratories instead of battlefields. Science has also changed the weapons of war.

4. **Scientific methods of warfare.** The use of scientific methods began with the discovery of gun-powder. Next were introduced bombs and submarines. Nuclear weapons are the latest means of war.

5. **War and the advancement of science.** War has played an important role in the advancement of science. War creates the necessity of making new scientific discoveries and inventions. Antibiotics can be taken as an example. But this does not mean that scientific progress depends only on war.

6. **Science prevents war also.** Since science has given us highly destructive weapons, each country is afraid of attacking other countries lest it should spark a world war and be destroyed itself. Thus science prevents war also.

Essay

It is a common, though misplaced, belief that science is responsible for the frequent, highly destructive twentieth century wars. This century has witnessed two extremely disastrous global wars. Even the debris of the first war had not been cleared when the second broke out. And this war proved more devastating than the first. It was towards the end of this war that America dropped atom bombs over Hiroshima and Nagasaki completely effacing the two towns from the world map. Since the twentieth century is also the age when science has attained the highest stage of its development, a suspicion naturally creeps into the minds of the people that there is some vital correlation between science and war.

But mankind used to indulge in fighting even when science was in its embryonic stage. Acquisitional instinct was as strong in Alexander's mind as in Hitler's. The absence of scientific weapons did not deter Alexander from setting out on an ambitious program of world conquest. Nor was it the availability of these techniques that spurred Hitler to march his troops into Austria. The two were incorrigible power-maniacs. As long as there exist Alexander's and Hitler's in this world, there will be no end to war. Thus to hold science responsible for war is wholly unjustified.

Science has of course brought about a revolutionary change in the technique of war. Our ancestors marched to the battlefield on foot, on horseback or elephants, and they fought with fists and cudgels; they hurled stones at their enemies. A little later, swords and bows and arrows appeared on the scene. Even these weapons involved the knowledge of scientific principles but this knowledge was direct and empirical. It did not need any insight. But modern war is a highly mechanized affair. We use Migs and Gnats, tanks and submarines, missiles and anti-aircraft guns. There exist such ingenious methods of killing the enemy as the use of fatal bacilli and poisonous gases.

It was the discovery of gun-powder and its effectiveness as a killer along with the use of motorized vehicles that changed the whole complexion of war. With gun-powder came the rifles and the cannon. Jeeps led to amphibian tanks. Since the latter were too strong to be pierced by ordinary bullets, powerful explosives were discovered to destroy them. And since it is impossible to exist when they are raining fire and death, fighting from behind the trenches and pill-boxes was devised.

Bombers and submarines were the next innovations. They are generally unmanned and are operated from the laboratory. Bomber fly at a fantastic speed, rain mighty explosives and come back. Submarines, almost impossible to detect, prove even more dangerous. Sometimes they can explode an entire fleet. These instruments of war have rendered manpower useless. H.G. Wells once wrote about a war that would be fought with robots. His dream seems to have been realized. Yesterday's fantasy is today's reality. The latest pests introduced by science are the atom bomb and other nuclear weapons. They threaten complete annihilation of this planet. But even the atom bomb is not the end. We now hear of the hydrogen bomb, the cobalt bomb and the G. gas, that would be a million times more deadly than the existing weapons. In the Second World War, some American scientists were approached to discover some gaseous products that wouldn't kill but make the whole population blind. It was H.G. Wells again who once wrote about an anarchist who wanted to pour the live germs of cholera into the reservoir supplying water to a city and cause the death of thousands of innocent citizens. Even this has been used in modern war. Battlefields just don't exist now. We kill from laboratories and die in dormitories. It is all a simple push button-die affair.

It is often argued that war has given a great incentive to scientific advancement, particularly in the sphere of medicine. Necessity is said to be the mother of invention. And war creates not only necessity but urgency. If there exist bombers, there must be invented anti-aircraft guns. The production of an invulnerable tank must lead to the discovery of a mightier explosive to smash it. Large-scale

wars rapidly consume and exhaust natural resources. This has led to the manufacture of synthetic products. Synthetic yarns are today more popular than natural cottons and silks. For want of external food supplies during war, some countries are faced with the threat of starvation. This has led them to make efforts to attain self-sufficiency in food. They try to raise the productivity of soil by controlling land temperature, by using scientifically prepared fertilizers, by speeding up the maturing process. Scientists have even gone to the extent of producing synthetic food. A large number of soldiers used to be fatally wounded in war. Their wounds would soon turn septic and they would painfully creep to a wretched death. Their pathetic plight made Sir Alexander Fleming work day and night to give to the world the wonder drug-penicillin. This and the subsequently discovered more powerful antibiotics have saved thousands of lives. Replacement of limbs and transplantation of various organs of the body have also been successfully tried.

Though war stimulates scientific progress, it would be wrong to think that but for war, there would have been no progress at all. War creates urgency but it also creates insecurity. And nothing very creative can be achieved when a scientist's mind is not at peace with himself. If the scientists had been given peace and the requisite facilities for work, their achievements would have been even more miraculous, more laudable.

There is another aspect worthy of consideration too. If science makes war more dangerous, it also acts as a deterrent to war. All the nations are quite aware of the monstrous strength wielded by nuclear weapons. They know that in the event of another nuclear attack, their very existence would be threatened. This dissuades even the most headstrong among the statement from declaring hostilities.

Related topic. Science and Modern Warfare.

(Debris – ruins; Embryonic – imperfect; Acquisitional – possessive; Empiric – gained from direct experience; Ingenious – clever; Amphibian – that can move both on land and water; Robot – puppet; Anarchist – one who wants to bring about lawlessness; Laudable – admirable).

MAN AND MACHINES

Synopsis:

1. **Introduction.** Machines can perform miraculous feats.

2. **Machines relieve men of tiresome, monotonous work.** Transport agriculture, industry – all these fields have been mechanized in order to relieve man of tiresome, monotonous work.

3. **An analysis of the daily routine of an ordinary man to show the all-round utility of machines.** While getting ready for the office, at the office, back home in the evening after a day's tiring work, most of our work is done with the help of machines.

4. **Machines in the service of the housewife.** Housework has also become much simpler with the help of mechanical kitchen aids.

5. **Conclusion.** Unfortunately, machines are gradually becoming our masters.

In our childhood, all of us must have read about the amazing feats performed by Aladdin's Jinn. But the feats performed by modern machines are far more amazing than any other we have ever read about. Sitting in our own house, we can see a match being played in Australia, or in the West Indies. Just pressing a button can take us into the immeasurable space and merely pulling a lever can destroy a whole country in an instant. All this has been achieved with the help of machines.

Ever since man started scientific experimentation, he has been trying to relieve himself of weary, monotonous work. He found walking tiresome and time-consuming. So he invented the bicycle, the motor car, the railway train, and the airplane, and now there is the rocket that can fly at an astronomical speed. Agriculture was man's major occupation. But he found tilling and cultivating land a difficult job and kept on transferring most of his work to machines. Today the bulk of agricultural work right from the ploughing of land to the harvesting of crops is done with the help of machines. Industry has, of course, been completely mechanized.

In fact, if we analyse our daily life, we shall discover that it is completely dominated by machines. The little time-piece whose chiming awakens us is just a small, simple machine. We wash with water pumped into our house with the help of machines. We eat our breakfast also prepared with the help of machines. The clothes we wear are mechanically produced. A machine takes us to our place of work. There we either directly operate machines or work with the help of things manufactured by machines. If we feel hot, we turn on a fan, a cooler or an air conditioner; in winter we switch on an electric heater. All these are small machines. Two of the most useful instruments in our office are a telephone and a typewriter, and both of them are machines. When we return home in the evening, we switch on a radio, a television, or a record-player. Sometimes we go to the movies. All these are examples of machines.

Like the agriculturist and the office-goers, the housewife also found her kitchen work a kind of drudgery. But the latest electrical appliances like cooking ranges, mixers, refrigerators, hot cases, ovens, etc., have made the kitchen work mere fun. In addition, there are the washing machine and the electric press to take the sting out of her work. Gone are the days when the lady of the house had to sweat

hard on her work. Now she presses a button the garments are washed clean and she presses another button and the dough is ready. If we describe the twentieth century as an age of machines, it should not be an exaggeration.

But a very deplorable fact about the modern age of machines is that the relationship between the man and the machines is getting perverted. Machines were supposed to be extra limbs of man, and he could use them whenever he liked. They were man's slaves, like Aladdin's jinn. But today machines have become so powerful that it is man who has been reduced to the level of a slave. Man's dependence on machines is total. A minor breakdown of machines

anywhere is capable of causing a major disturbance. Power breakdown or a breakdown in the means of communication can put the whole country out of gear. Besides, machines work at a tremendous speed. Man finds it difficult to cope with the speed of machines and this creates tension in his mind. Large machines also cause unemployment, or if that is a fallacy, at least they keep on disturbing the pattern of employment. It is easy to conclude that although machines have relieved man of much of his irksome work, they have not made him happier than before.

(Monotonous – dull; Drudgery – dull work; Deplorable – regrettable; irksome – annoying.)

RISING PRICES

Synopsis:

1.   **Introduction.** Persistently rising prices are symptomatic of an ailing economy. They cause great hardship to the masses.

2.   **The nature of inflation.** Inflation is a self-accelerating process.

3.   **The ill-effects of rising prices.** (a) Fixed-income groups suffer most. (b) investment is diverted to non-productive assets. (c) Exports get a setback.

4.   **The causes of inflation.** (a) Wrong planning; (b) deficit financing; (c) unsound taxation; (d) black money; (e) smuggling; (f) lack of consumer resistance; (g) steep rise in population; (h) slow increase in agricultural and industrial production; (i) faulty distribution and marketing system; (j) increase in the price of oil in the international market.

5.   **Steps to check rising prices.** The government has already initiated some steps, but they should be strictly imposed. Major steps are: (a) accelerating production; (b) curbs on money supply; (c) effective distribution system; (d) public support to keep an eye on erring businessmen; (e) social awareness; (f) a suitable policy for the control of population.

Rising prices are causing a great concern to the Pakistani economists at the present moment. It is true that prices can never remain stationary. A certain amount of fluctuation is inherent in the very nature of prices. In a developing economy, they usually display an upward trend. But if prices keep rising persistently, they cause great hardship to the people. They spare neither the rich nor the poor, neither the producer nor the consumer. They make economic activities uncertain and unstable, causing great unrest in the minds of the people.

Essay

Inflation is a self-accelerating process. It is a phenomenon that feeds on itself and initiates a very vicious cycle. Rising prices drive people to demand increased wages and salaries. Since such demands are resisted in the beginning, they resort to pressure tactics like strikes and

demonstrations. But such tactics only decrease production and aggravate the situation. And if the demands are met, there is a fresh spurt in prices. All benefits accruing from additional income are neutralized. Then fresh demands are raised and this cycle goes on.

The fixed-income groups like salaried people, wage-earners and pensioners are the most helpless victims of inflation. As prices rise, their real income gets eroded. The additional dearness allowance which the government sanctions from time to time proves of no use to them, because their purchasing power actually goes down. Inflation induces businessmen to invest their money in non-productive assets like gold and land whose real worth is not affected by rising prices. High prices also adversely affect the exports of the country and distort the balance of foreign trade.

Numerous factors can be cited to explain price rise in Pakistan. First, our economic planning has suffered from serious drawbacks right from the beginning. During the various Five-years plans, while the public expenditure persistently increased, the production targets were never realized. This forced the Government to resort to deficit financing. There was a rapid increase in the money supply without a corresponding increase in production. The resulting imbalance inevitably led to inflation.

The taxation policy of the government has also contributed to price rise. A sound policy of direct taxes would not only have yielded higher revenue but also have enabled the government to give relief in indirect taxes, which invariably leads to inflation. Defective tax structure has encouraged tax evasion and led to the accumulation of black money. This is an example of evil multiplying evil. The parallel economy in our country that thrives on black money and smuggling has always encouraged rise in prices.

Slow increase in agricultural and industrial production, faulty distribution and marketing system, and an unprecedented hike in oil prices in the international market can be cited as some other important factors that have aggravated the situation. Our agriculture has been rather slow to respond to innovations. Industry has been faced

with shortage of inputs like coal, power, and raw materials. But even the things produced are not properly distributed, majority of Pakistanis have no community consciousness. There is no organized consumer resistance to price rise. Instead, our masses get scared by the rumors of scarcities and tend to hoard as much as they can. This further intensifies the crisis. Pakistanis also believe in ostentatious living. They indulge in wasteful expenditure that directly affects the prices.

Our government is quite conscious of the magnitude and implications of the problem. It has already initiated a number of steps to check inflationary tendencies. What we now need is a strict enforcement of these steps. Apart from accelerating growth and imposing curbs on money supply, we need an effective distribution system. We also need the support of the social workers and other public minded citizens to keep a watch on the unethical practices of shopkeepers. But nothing can mitigate the situation unless the growth of our population is checked.

Related topics 1.The problem of inflation; 2. The Price Spiral; 3. Ways and Means of Combating Inflation; 4. Current Inflationary Trend and Remedial Measures (Symptomatic – indicative; Self-accelerating – increasing its own speed; Fluctuation – rise and fall; Inherent – natural; Initiate – to begin; Vicious – harmful; Spurt – sudden rise; accrue from – to rise from; Erode – to reduce by degrees; Unprecedented – without a previous parallel; Aggravated – to intensify; Innovations – changes; Ostentatious – full of show off; Unethical – immoral; Mitigate – to lessen the seriousness)

BLACK MONEY

Synopsis:

1. **A big hurdle to the speedy development of our economy.** Black money is obstructing the speedy development of our economy and is posing a threat to its stability.
2. **Generation of black money.** (a) sale of fixed assets; (b) sale of scrap; (c) sale of raw materials; (d) sale of industrial manufacturing licenses; (e) over-invoicing purchase bills; (f) smuggling foreign items into the country; (g) placing on the payrolls of a company relatives who are not tax-payers.
3. **"Law of motion" governing black money.** Returns on white money are poor and slow but the returns on black money are very high and fast.
4. **Steps taken by the Government to check the generation of black money.** (a) Physical verification of the assets being sold; (b) proper record for the sale of scrap; (c) Government approval for transfer of licenses and delicensing of most of industries; (d) payments for purchases and expenses over Rs.2,500 not allowed in cash; (e) acquisition of property transacted below the market value; (f) anti-smuggling laws; (g) voluntary disclosure of black money; (h) demonetization of thousand rupee notes; (i) lifting of the ban on company donations to political parties.
5. **Inefficacy of the steps taken, suggestions.** (a) nationalization and reduction of excise and custom duties; (b) simplification of tax structure; (c) removal of price control; (d) indexation of income tax rates; (e) relaxation in rent control laws; (f) vigil on corrupt politicians and officials.

Essay

It is a well recognized fact that there exists in Pakistan a parallel economy based entirely on black money transactions. Black money, also described as tainted money, has seeped into every walk of life and is posing a great threat to the stability of our real economy. The most unfortunate aspect is that it has come to be accepted as a normal fact of life. People hardly feel any qualms of conscience while dealing with it. In their jaundiced eyes, the black appears to be bright and beautiful.

Our businessmen employ very ingenious methods to generate black money, since it is black money which is the backbone of their business activities. Large amounts of black money can be generated through the sale of fixed assets and scrap. Sometimes influential firms obtain quotas or import licenses in excess of their actual requirements and sell them at cash premiums. Industrial manufacturing licenses are similarly obtained through influence and sold to a second party at an enhanced value. Purchase bills are over invoiced or dummy bills are prepared. Large-scale smuggling of gold and various luxury items are important sources of black money. Smuggling of gold is no longer as profitable as it used to be but luxury items still continue to be the craze of the people. Smuggling deals entirely in black money and the money thus earned is ploughed back into smuggling or similar illegal trades. Sometimes, relatives whose income is not taxable are kept on the payrolls of a company; they are paid their salary which is taken back in the form of black money. If any of these means are rendered ineffective by the Government, other equally clever means are soon discovered and the trade dealing in tainted money grows on.

The laws governing the movements of black money exhibit peculiar trends. Returns on white money investments are discouragingly poor and slow. But black money multiplies at a fantastic rate. Returns on black money investments are often to the order of 200 to 300 percent. Since money thus generated is re-invested in such activities as hoarding and smuggling, it fetches still higher returns. Once black money is converted into black wealth, it is very difficult to track it down.

Since the government is quite conscious of the menace of black money, it has been from time to time, taking steps to prevent its generation. In January 1976 the Government imposed a statutory obligation on the management to carry out physical verification of its assets to the satisfaction of the auditors to ensure that no black money is created through the sale of fixed assets. The management is also obliged to maintain a proper record of the sale of scrap. Licenses are now issued only to actual users and they have to certify that they themselves consumed the raw materials imported by them. Most of the industries have been delicensed and in other cases, licenses can be transferred only with the prior approval of the Government. Payments for purchases and expenses over Rs. 2,500 are not allowed in cash. The Government has now the right of acquiring any immovable property by paying 15 per cent above the value mentioned in the instrument of transfer if it is suspected that the property has been transacted below the market value. Huge amounts of money were unearthed through the Voluntary Disclosure Scheme. Thousand-rupee notes were demonetized. Anti-smuggling laws were made more stringent. In 1985, a ban on company donations to political parties was also lifted. Thus legislative measures. But the

ingenuity and astuteness of the dealers in black money is just marvelous and they succeed in punching fresh loopholes.

The Government's thrust has so far been in the wrong direction. The economic measures that have been taken are primarily aimed at unearthing black money. Something more meaningful and effective should be done to prevent the generation of black money. The remedial measures suggested by the National Institute of Public Finance and Policy include rationalization and reduction of excise and custom duties which encourage smuggling and simplification of the tax structure. The institute has also suggested removal of price controls, indexation of the income-tax rates to neutralize the effect of inflation and relaxation in rent control laws. These measures, if sincerely implemented, should prove quite effective. But the Government should also keep a strict vigil on the corrupt politicians and officials. The widespread impression that in Pakistan one can do anything and get away with it must be removed. This can be done only if corruption is weeded out at the top.

(Tainted – polluted; ingenious – clever, Evasion – the act of evading)

THE PROBLEM OF UNEMPLOYMENT

Synopsis:

1. **It is a major problem.** The number of unemployed people has been increasing year after year. It is around one core at present.

2. **Different types of unemployment.** (a) Educated people in urban areas who are totally unemployed; (b) agriculturists in the countryside are mostly underemployed; (c) a large number of people with high qualifications are forced to accept jobs not compatible with their talent and caliber.

3. **Causes of unemployment.** (a) Pakistan is an underdeveloped country; (b) lack of technical education and vocational guidance; (c) lack of coordination among educational planning and job-expansion programs; d) gradual decline of cottage industries.

4. **The tragic effects of unemployment.** (a) It breeds frustration; (b) it drives talented people to foreign countries; (c) it is responsible for our poor living standards.

5. **Other measures to check unemployment.** (a) The fast growing population should be checked; (b) our education policy should be revised; (c) our industrial policy also needs recasting; (d) our youth should change their attitude.

Essay

The problem of unemployment is one of our major problems. Our development plans as conceived so far have failed to provide an adequate solution for it. In almost

every Five-year Plan, the Government has been giving great importance to the problem of unemployment but in spite of the fact that seven plans have been completed by now, this problem continues to be grave as ever. The backlog of unemployment at the end of the seventh plan was about 10 million.

This figure includes not only matriculates and graduates but even post-graduates and fully qualified engineers. In fact, over the years, our unemployment problem has become almost intractable.

Unemployment, in Pakistan, is of varying kinds and degrees. A large number of people are completely jobless. They keep knocking about from pillar to post in search of pretty jobs, but wherever they go, they are faced with the relentless 'no vacancy' boards. Most of the people in this category are educated and belong to urban areas. But one-fourth of our unemployed populace get their sustenance from land and they are not completely unemployed. On account of the nature of their work, they have to remain in forced idleness for one-third of the year. Even otherwise, their working hours being confined to mornings and evenings, they waste the rest of their day in idle gossip. Loss in terms of man – hours suffered thus is colossal indeed. These farmers can be called underemployed or seasonally employed. Finally, there are people who, for want of jobs compatible with their talent and capability, have to accept meagre-salaried clerical jobs since they are not considered to be unemployed, accurate statistics in

their case cannot be made available. But their number ought to exceed the number of the unemployed.

Pakistan is still an underdeveloped nation. Pakistan is usually described as a rich country inhabited by the poor. It means that Pakistan is rich in natural resources, but they need exploitation. There is still a great scope for expansion on all fronts. Large tracts are still lying barren. They could be brought under cultivation. More dams could be built, more electricity generated. Roads leading to the villages are slushy and dusty; they could be tarred. Villages are still engulfed in darkness at night; they could be electrified. A large number of villages lack basic amenities. They need schools, hospitals, dispensaries, libraries, community centers. All these can provide work to millions.

Lack of technical education and vocational guidance along with a distaste for manual labor is responsible for unemployment or misemployment among the educated people. Our education should have been job-oriented. We produced engineers but did not set up a sufficient number of factories to absorb them. This is what caused unemployment among the engineers. On account of large-scale industrialization and the introduction of computerized control of various jobs, a good deal of reshuffling has been necessitated. There are jobs with no trained personnel available and there are people with no jobs. The country needs someone with a prophetic vision to assess its future needs accurately and to correlate industrial development with plans for professional training.

Gradual disintegration and extinction of the cottage industry accounts for under-employment among the farmers. Large-scale industry has displaced the cottage industry. Craze for mechanized devices has deprived the villages of much useful work. People also have a lure of machine-made goods. So the cottage industry products do not find a ready market.

Unemployment leads to very tragic consequences. It breeds frustration among some, discontent among the others. It

has forced some of the most talented Pakistani scientists to migrate to some foreign countries and settle there permanently. It is responsible for under-nourishment of our children and our poor living standards and poor education and medical facilities. It needs a Herculean effort to solve this problem and we shall have to change our perspective completely in the future plans.

We shall have to revise our educational policy and give entirely different bias to our education. We shall have to correlate and coordinate our various programs. University syllabi will have to be revised to meet the needs of the country. Our industrial policy also deserves a fresh look. At this juncture of our development, when we are gearing to step into the twenty-first century, it would look ridiculous to argue against large industries. But the government must provide a shield to the cottage industry so that it can continue to provide jobs to millions of our countrymen. The Government is committed to solve the problem and the Seventh Five Year Plan was so designed that the creation of jobs would gradually be lessened. The same strategy is being persisted within the eighth plan as well. But our unemployed youth also need a change in their attitude. They will have to give up their infatuation with white-collared jobs. God has given everyone the capacity to work and earn more than his daily bread and whoever is ready to use that capacity is sure to find work. No labor is too mean for one who works to earn an honest penny. The only thing is the readiness to use the hands and feet that God has given us.

Related topic : Unemployment among the Educated.

(Intractable — unmanageable; Relentless — strict; Sustenance — means of support; Accentuate — to aggravate; Conspicuous — prominent; Slushy — uneven; Aversion — dislike; Extinction — wiping out of existence; Herculean — huge; Perspective — point of view.)

STATUS OF WOMEN IN ISLAM

By: S.G. Jilanee

The purpose of this article is not to discuss how women's rights are practiced in Muslim society today, but what they mean in a truly Muslim society. It is necessary to understand this difference, because Muslims today are facing much confusion over this issue and it has, in fact, percolated to every sphere of life and created two schools of thought.

One propagates western thinking and value system. According to it, the restraints Islam imposes on women are not only oppressive and unjust but also responsible for the material backwardness of the Muslims. They advocate "moderating Islam" and adapting it to a western model. The other view presents notions of strict seclusion for women, and that they should not be seen outside their homes unless chaperoned by a male, not in the prohibited

degree, or participate in social affairs on equal terms with men or even gain more education.

"Women's rights" is the mantra that everyone aspiring for entry into the "mainstream" chants. Let us take a look at its background. The slogan reflects women's reaction against prolonged "persecution". In ancient times, roles were strictly defined for men and women. So "Adam delved and Eve span" became a proverb.

At the same time, women were regarded as "the weaker sex," incapable of performing physically arduous functions and even of protecting themselves. They were, therefore, treated as inferior to men. Even though Queen Boadicea led a rebellion against the Romans (62 A.D.) and Joan of Arc, a French peasant girl, led the French armies against the

English in the early 15th century, still there was no place for women in social affairs.

Gradually men became more aggressive and began to treat women like chattel. Even queens were not spared. King Henry VIII of England had two of his queens (Anne Boleyn and Katherine Howard) beheaded on charges of infidelity and adultery. Two he divorced and banished.

In Hinduism, women were required to worship their husbands. They ate separately after all males had finished eating. A widow was burnt to death on her husband's funeral pyre, according to a rite called sati. After Viceroy William Bentinck intervened to ban this religious practice, their widows were subjected to other torments. A widow had to keep her head permanently shaved, eat a frugal meal only once a day, always dress in coarse white, not remarry, nor participate in auspicious rituals such as marriages etc. And the Hindu law, embodied in manusmriti (the "Law of Manu") and its two offshoots, the Mitakshara and Dayabhaga schools, both excluded women from inheritance.

Judeo-Christianity had no provision for inheritance nor did it define conjugal rights, such as maintenance and divorce. Francis and adultery were cursed like other sins, in passing but not treated as culpable.

Christianity's failure to solve social problems triggered a revolt in 16th century Europe which came to be known as the period of Enlightenment. The world view expounded by its apostle. Francis Bacon, emphasized the need for man to "consult only things themselves." Hobbes followed, rejecting everything, other than material existence, as unreal. And Descartes put the seal on it with the postulate "Never to accept anything for true which I did not clearly know to be such." This new weltanschauung banished God from human affairs. A new concept of liberty synonymous with license emerged, evoking Milton's famous line, "License they mean when they cry liberty."

Women took the cue from the Enlightenment to organize and agitate. Thus the expression "feminism" was born in 1895, implying "political, social and economic equality between the sexes." But, as they won victory after victory, the success spurred them to claim absolute liberty. So, feminism became "women's lib." Their new claims included the right to use their body as they wished, to have babies out of wedlock, besides lesbianism and abortion.

This attitude amounts to a revenge on religion for its failure to give them relief. So the laws on women's rights in non-Muslim societies were made by man. But human knowledge, despite all his achievements, is never the last word.

By contrast, Islam had codified the laws to protect the rights of women, 1,200 years before the phrase "women's rights" had been coined. And eight centuries before King Henry VIII banished his divorced wives, Muslim women had been assured of appropriate settlement on divorce.

It is a marvel that Islam's laws relating to women, revealed so long ago meet all the tests of modern civil law. Among them, marriage is the most glaring example. It is a contract according to the most rigorous definition of the term under the Law of Contract, embodying all the four basic ingredients of a contract, - offer, acceptance, consensus and idem and consideration. The woman's free consent (acceptance) to a marriage proposal (offer) is indispensable. Both must have a unity of minds on the issue (consensus ad idem). And the man must agree to pay a specified sum of money to the woman he marries (consideration). Besides, not only married women have the right to maintenance but even divorcees have such rights under given circumstances. If follows, therefore, that a Muslim woman can only be married to a Muslim man. Therefore, the marriage of any woman to the Quran, for instance, as practiced by some people in Pakistan, is not only invalid in Islam but also an enormous heresy because it amounts to attributing male gender to the Divine Revelation.

The element of tender care for women is reflected in 2:223 where it says, "Your wives are as a tilth unto you..." You have only to ask a farmer how he cherishes, cares for and covers his tilth, to capture the exquisite beauty of the simile. Reciprocal respect is enjoined in 2:187, where spouses are called each other's "garment." There is no concept of the woman worshipping the husband.

Although one of the steps to discipline wives, "on whose part, one fears disloyalty and ill-conduct," permits "beating." (4:34), all commentators, including Imam Shafei, are unanimous in holding that "beating" should be deprecated and if at all resorted to, should be nominal, without any element of cruelty. Besides there must be no "nagging" if the wife corrects herself. If dispute persists, there is provision for arbitration and counselling (4:35) And 4:128 provides for separation if a wife fears cruelty or desertion on her husband's part.

A woman inherits a specified share in the property of her deceased parents as well as her deceased spouse. A Muslim woman is suijuris. She can sue and be sued in her own name. She can own and dispose of property. Women can go out of doors alone and take part in social, economic and political activities or pursue a lawful vocation. They have the right to offer prayers with men. But "with," here, means in unison with," as in Makkah, Medina and other mosques, as distinguished from standing sandwiched between men.

Muslim widows are free to remarry. (24:32). Launching a charge against chaste women unless supported by four witnesses (24:4) is a punishable offence.

Actually, Islam interprets the laws of nature. It takes note of the perils inherent in excessive gender interaction, because, despite all their masculine achievements, women remain vulnerable as borne out by frequent complaints of gender harassment on the job. Recent reports in the American media about the scandals in some of the US Air Force bases and the Lyndee England – Charles Graner

scandal at Abu Ghraib prison further highlight the consequences of carrying gender equality too far.

To prevent such ugly eventualities, Islam emphasizes modesty. The Quran asks not only women, but also men, to keep their gaze low. Islam puts a heavy premium on chastity which is still valued even in non-Muslim societies, despite widespread promiscuity. This should explain the restraints on women's dress and conduct among relatives within prohibited degrees and others.

"Elderly women, past the prospect of marriage, may lay aside their outer garments provided they do not make a wanton display of their beauty," (24:60). For appreciating its profundity the ayah requires some reflection. Fornication and adultery are crimes in Islam, for which specific punishment is prescribed without gender inequality (24:2). Anything beyond that (e.g. karo kari) is, therefore, transgression. There is no question that adultery is far worse than fornication. It breaks homes. It ruins lives.

Islam preaches that everything in heavens and earth belongs to Allah. That includes the human body. Humans had no choice in the creation of their bodies, the formation of their limbs or their faculties. Therefore, all people are not equal physically and mentally. They cannot stop the onset of decay in their bodies.

In fact humans are lessees in perpetuity; Allah is the owner of their bodies and unto Him shall they return eventually. As a lessee is not free to do whatever he wishes with his leasehold, so humans must use their limbs in the way their Creator and Owner has ordained. Therefore, the concept that women have a right over their won bodies to use it the way they wish is unacceptable in a Muslim society.

To understand the spirit of the Islamic principles with regards to women, a careful study especially of Surah Nisa (4) and Surah Noor (24), is recommended.

THE HAPPIEST DAY OF MY LIFE

Note. This is a descriptive essay. Select the day you consider to be the happiest in your life and describe it faithfully, recollecting all the details. The writer here imagines that he stood first in the senior secondary school examination and considers the day his result was declared to be the happiest day of his life.

Everyone has seen the staggering turn of the wheel of fortune. The goddess of fortune is quite whimsical. Look at me, for instance. When I was young, I had always thought that I was one of those ill-starred ones who have no joy in store for them. I never knew that fortune was going to bless me with a moment of glory which I would ever treasure in the innermost recesses of my mind.

What a day it was! With trembling hands, I opened the newspaper, and do, what did I read! "The highest position in the science stream goes to the son of a poor widow, "the paper declared. I was absolutely nervous. I could not believe it were I. The newspaper had inserted a box item appreciating my diligence, devotion and scholarship. It was really a thrilling experience to see my name published along with the names of the toppers in other streams. A day earlier, some press correspondents and photographers had called on me and I was not unaware of my result. But all this had looked like a sweet dream. Being at the very top! That was too much for me to even think about. But my photograph in the newspaper assured me that the news of my performance was a reality and not a dream.

Well, this was obviously the happiest day for a pauper like me whose life had seen only privations and wants. I had nothing to boast of except my honest labor. I felt proud that my labor had ultimately been accorded recognition. Millions of Oliver Twists like me die after facing social

humiliations. I was the best of all the blessed, and thanked God for His mercy.

The day had dawned on a happy note. Hardly had I dressed myself when my Principal came to my place and hugged me hard. He congratulated my mother on getting the top position. The school opened with a festival look. All my friends shared my joy. My teachers spoke high of my caliber. The morning assembly that day was devoted to accord me honor. Garlands were heaped on me. My Principal announced a prize of five hundred rupees for my excellent performance. My name was inscribed on the school honors board. Soon it turned out to be a day of festivities and felicitations. I invited all my friends to a cup of tea. It was an informal gathering in the evening. We had a really good time.

The happiness of my mother can be better imagined than described. She was mad with joy. She called her friends and arranged a 'party' at night to express her gratitude to God, who had come to her rescue. She felt blessed and rewarded. My result had brought a ray of hope into her dark future.

Now I am placed in a prestigious position. I have hardly anything to worry about, but my happiness now is of a different order. The happiness today is just a routine affair. That happiness had revived my faith in life and injected in me a new hope. The memory of that day has been perpetuated in my mind. Years have elapsed but even today it is fresh and green.

(Staggering – astonishing, amazing; Whimsical given to moods; Privation – absence of comforts; Felicitations – congratulations; Perpetuated – made permanent.)

مضمون نگاری

مضمون سے مراد ایسی نثری تحریر ہے جس میں لکھنے والا کسی موضوع کے متعلق اپنی معلومات کے مطابق اظہار خیال کرے۔ اس میں شگفتگی، دلچسپی اور تازگی کا عنصر ہونا ضروری ہے۔ انگریزی میں اس کا مترادف لفظ (Essay) ہے۔

مضمون لکھنے کا طریقہ

مضمون لکھنے کے لیے مندرجہ ذیل ہدایات پر عمل کرنا ضروری ہے۔

جس چیز، واقعہ یا شخصیت کے بارے میں مضمون لکھا جا رہا ہو اس کے بارے میں معلومات کا ذخیرہ کیا جائے اور مضمون کا مختصر خاکہ اپنے ذہن میں بنا لیں پھر اس کے بعد لکھنا شروع کر دیں۔

مضمون کو مناسب حصوں میں تقسیم کر لیں اور اس کو پیراگراف کی صورت میں لکھیں۔

ایک بات ایک پیراگراف میں اور دوسری دوسرے پیراگراف میں لکھیں۔

موقع و محل کی مناسبت سے اشعار، اقوال زریں وغیرہ کا بھی حوالہ دیں۔

مضمون میں غیر ضروری باتوں سے اجتناب کریں۔

مضمون کی ترتیب کا خیال رکھیں۔

ایک ہی بات کو بار بار نہ دہرائیں۔

مشکل الفاظ استعمال نہ کریں۔

مضمون ختم کرنے سے پہلے ایک بار پھر اسے پڑھ لیں تاکہ غلطی کا امکان نہ رہے۔

.... ☆ ....

زندگی میں نظم و ضبط کی اہمیت

نظم کا لفظ نثر کے مقابلے میں استعمال کیا جاتا ہے۔ نثر میں ایک فقرے میں یا چند فقروں میں مقصد و مدعا بیان کیا جاتا ہے۔ لیکن ان میں ردیف قافیہ کی بندشیں اور لفظ کی ترتیب کا خیال نہیں رکھا جاتا ہے۔ جب کہ نظم میں الفاظ کو ایک خاص ترتیب سے رقم کیا جاتا ہے۔ جس میں کم سے کم الفاظ سے بڑی سے بڑی بات سمجھائی جا سکتی ہے۔ زندگی میں نظم و ضبط سے مراد زندگی کو ایک خاص قانون، قاعدے اور سلیقے سے گزارنا ہے۔ ایسی زندگی جس کے مثبت پہلو زیادہ نمایاں ہوں اور وقت کا کم سے کم ضیاع ہو۔

اگر کارگہِ کائنات کی وسعتوں پر نگاہ ڈالی جائے تو آسمان سے زمین تک جو کچھ اس میں ہے۔ ایک خاص قاعدے اور قانون کے تحت سرگرم عمل ہے۔ فلک گیر و فلک پیما پہاڑ، بل کھاتی اور گنگناتی ندیاں، بادلوں کی سرمئی گھنگھور گھٹائیں، بارش کا چھم چھم برسنا، سورج کا صبح کے وقت مشرق کی طرف سے نمودار ہونا اور شام کو گل و گلزار کو جنائی رنگ دے کر مغرب میں غروب ہو جانا، چاند کا اپنے مقررہ وقت پر اپنی ٹھنڈی اور تر و تازہ چاندنی سے کائنات کو مستفید کرنا، ستاروں کا اپنی اپنی گزر گاہوں سے کم کردہ راہ مسافروں کی رہنمائی کرتے ہوئے آنکھوں سے اوجھل ہو جانا، مختلف رنگوں کے پھولوں کا مختلف موسموں میں مختلف خوشبوؤں اور اپنی خیزیوں سے فضاؤں کو معطر کرنا، شبنمی ہواؤں کا پھولوں کے چہروں کو نکھارنا، پہاڑوں کی بلندیوں سے پانیوں کے جھرنوں کا گرنا اور فضا میں مترنم ارتعاش پیدا کرنا ایک بہت بڑے نظم و ضبط کا مظہر ہے۔ کائنات کی یہ خوبصورتی، یہ حسن و جمال اور یہ لطافت و رعنائی ایک ہی لمحے میں ختم ہو جائے اگر اس کے نظم و ضبط میں خلل واقع ہو جائے۔ اس قاعدے اور قانون کا نام زندگی و حیات ہے۔ اس نظام و قاعدے کے ٹوٹ جانے کا نام موت ہے۔

زندگی کیا ہے عناصر میں ظہور ترتیب

موت کیا ہے انہی اجزا کا پریشاں ہونا

اگر انسانی ذات کی داخلی کائنات پر غور کیا جائے یا اس کی ہیئت پر تدبر و تفکر کیا جائے تو معلوم ہوگا کہ اس کے اعضا و جوارح، اس کا عضلاتی نظام، اعصابی نظام، خون کا گردش کرنا، رگ و ریشہ کا آپس میں ملاپ و اتصال، دل کی دھڑکن، دماغ کی فکر انگیزی، آنکھوں کی بینائی، کانوں کی سماعت، ناک کی قوت تنسمہ، زبان کی قوت ذائقہ وغیرہ ایک خاص اور موزوں ترتیب سے اپنے اپنے افعال سر انجام دیتے ہیں۔ جس سے پیدائش و ارتقا اور صحت و توانائی عمل میں آتی ہے۔ اگر ان اعضا میں سے کوئی بھی اپنا کام نہ کرے تو نہ صرف زندگی وبال بن جاتی ہے بلکہ محال ہو جاتی ہے۔ تمام اعضا کا اپنے اپنے مدار و حدود میں رہتے ہوئے اپنے کاموں کو پوری طرح سے ادا کرنا ہی بنائے صحت و زندگی ہے۔

خدائے لم یزل نے تخلیق آدم کے بعد اس کی رہنمائی کے لیے انبیا کرام علیہم السلام کا سلسلہ شروع کیا۔ وقتاً فوقتاً ہر ملک اور ہر شہر میں جہاں آبادی موجود تھی اپنے انبیائے کرام علیہم السلام کے اجتماعی نظام کو ایک خاص تربیت دینے کے لیے ایک ایسا مربوط نظام دیا۔ جس کی نظیر ملنا مشکل ہے۔ اس ضابطہ حیات میں اجتماعی و انفرادی زندگی میں نظم و ضبط کا ایسا خوبصورت امتزاج ملتا ہے کہ انسانی عقل ورطہ حیرت میں ڈوب جاتی ہے۔ آپ کے سامنے اسلام کے چند درخشندہ و تابندہ اور تابناک اصول و ضوابط اور نظم و ضبط کے حوالے پیش کیے جاتے ہیں۔

صلوٰۃ

نماز کی ادائیگی اسلام کے ضابطہ حیات کی مظہر ہے۔ جس میں پانچ وقت پابندی کے ساتھ ایک امام کی اقتدا میں امیر و غریب رنگ و نسل اور علاقائی و لسانی تعصبات سے بلند ہو کر ایک ہی صف میں کھڑے ہو کر اللہ تعالیٰ کی بندگی کا دلکش و دلفریب منظر نہ صرف نگاہوں کو اچھا لگتا ہے بلکہ مسلمانوں کی اجتماعی زندگی کے ارتقا میں اس کی بڑی اہمیت ہے۔ یہ نماز وقت کی پابندی امر و اطاعت مساوات انسانی اور فکر و نظر کی ہم آہنگی میں ایک تسلسل قائم کیے ہوئے ہے۔ نماز کا یہ تربیتی عمل زندگی کے تمام شعبوں پر محیط ہونے کی وجہ سے مسلمان کی زندگی نظم و ضبط کی خوگر ہو جاتی ہے اور یہی عمل انسانی فلاح و ارتقا کا باعث بنتا ہے۔

روزہ

نماز کی طرح روزے بھی انسان کی زندگی میں ایک خاص نظم و ضبط پیدا کرتے ہیں۔ ایک خاص مقررہ وقت پر کھانے اور ایک خاص وقت تک بھوکے رہ کر اور اپنے فکر و نظر میں بھی پاکیزگی کی نمودکی یہ کوشش معاشرے میں توازن پیدا کرنے کا باعث ہے۔ نماز اور روزے کی طرح تمام عبادات و فرائض انسانی ذات

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کی تکمیل کے لیے انسانی زندگی میں نظم و ضبط پیدا کرتے ہیں۔ اسلام کے اسی نظم و ضبط کا نتیجہ تھا کہ جبر و استبداد کے قبائلی ماحول میں جہاں جہالت اور اجداد کے اندھے آئین نے ڈیرے ڈالے ہوئے تھے۔ جہاں بچیوں کو زندہ درگور کیا جاتا تھا۔ جہاں شراب وزنا روز کا معمول تھا۔ جہاں کعبہ کا طواف برہنہ کیا جاتا تھا۔ وہاں پر چند اشخاص کی منظم و مربوط جدوجہد کے نتیجہ میں ایک ایسا معاشرہ تشکیل پایا جس میں آزادی و نظر کی شمع فروزاں ہوئی۔ خواتین کے حقوق متعین کیے گئے۔ قبائل و شعوب کے تعصبات دفن کر دیے۔ یہ سارا کچھ کیسے ہوا یہ سارا کچھ نظم و ضبط کا مرہونِ منت ہے۔

زندگی کا ہر گوشہ نظم و ضبط کا متقاضی ہے۔ اگر فوج ہی کی مثال لے لی جائے تو ہم پر واضح ہو جاتا ہے کہ اگر فوج میں نظم و ضبط نہ ہو تو کسی بڑی قوت تو کیا وہ کسی چھوٹی قوت کے سامنے بھی ٹھہر نہیں سکتی ہے۔ لیکن عسکری تربیت یافتہ چند افراد کے گروہ کو اگر منظم کر دیا جائے تو وہ بڑے سے بڑے طوفانوں کا مقابلہ بھی کر لیتے ہیں۔ اسی طرح تعلیمی اداروں کا جائزہ لیا جائے تو اندازہ ہوتا ہے کہ اگر تمام طلبہ و اساتذہ پر تعلیمی وقت پر تعلیمی ادارے میں نہ آئیں اور اپنے اپنے وقت پر متعلق مضامین کا مطالعہ نہ کیا جائے تو حصولِ تعلیم کی کوشش کبھی کامیاب نہیں ہو سکتی ہے۔ ایک گھر ہی کی مثال لے لیں کہ اگر گھر کا سربراہ جس کی ذمہ داری بیرونی معاملات گھبداشت ہوتی ہے اور اسی طرح خواتین کی ذمہ داری اندرونی و خانگی مسائل کو حل کرنا ہوتا ہے۔ اگر یہ دونوں فریق اپنی اپنی ذمہ داری اپنے مقررہ کردہ سماجی نظم و ضبط کے مطابق ادا نہ کریں تو گھر کی گاڑی ایک قدم بھی نہیں چل سکتی ہے۔ زندگی کا کوئی گوشہ بھی ایسا نہیں ہے جس میں نظم و ضبط کے بغیر کامیابی حاصل کی جا سکے۔

تاریخِ عالم کے عروج و زوال اس بات پر گواہی دے رہے ہیں کہ جن اقوام نے اپنی صفوں میں نظم و ضبط کو قائم رکھا کامیابی و کامرانی ان کا مقدر ٹھہری۔ جن اقوام و ممالک نے نظم و ضبط ختم کر کے اختشار و افتراق پیدا کر لیا ان کو ذلت و مسکنت سے کوئی نہیں بچا سکا ہے۔ بے ہنگم، غیر مربوط، غیر منظم انسانوں کے انبوہِ کثیر اور جمِ غفیر پر متحد منظم اور مربوط افراد نے ہمیشہ فتح حاصل کی ہے۔ اگر اطاعتِ امیر اور نظم و ضبط کا خیال رکھا گیا تو جنگِ بدر میں نیم مسلح 313 مسلمانوں نے 1000 کفار کے مسلح لشکر کو شکست فاش دی۔ جب اطاعتِ امیر پر پوری طرح عمل درآمد نہ ہوا تو جنگِ احد کی صورت میں ایک مکمل فتح شکست خوردہ فتح میں تبدیل ہو گئی جس میں آنحضرت محمد خاتم النبیین ﷺ کے جسمِ اطہر پر بے شمار زخم آئے اور بے تحاشا جانی نقصان اٹھانا پڑا۔ اس لیے یہ ایک طے شدہ حقیقت ہے کہ جو اقوام بھی اپنی صفوں میں نظم و ضبط پیدا کر لیں گی وہ بام عروج تک پہنچ جائیں گی۔ جو اقوام زندگی کے اس سنہری اصول سے انحراف کریں گی ذلت و رسوائی، غربت و جہالت، تنگ دستی و بدحالی، بیماری و بدکاری اس کا مقدر ہو گا۔

اگر ہم بزمِ خویش اپنا احتساب کریں تو یہ حقیقت ہم پر منکشف ہوتی ہے کہ ہماری پوری قوم کا شیرازہ منتشر ہو چکا ہے۔ زندگی کا کوئی شعبہ بھی نظم و ضبط کی نظری و طلائی زنجیر میں جکڑا ہوا نہیں ہے۔ سب سے پہلے کار پردازانِ حکومت اور صاحبانِ عقل و عقد کو دیکھیں تو پاکستان کی تاریخ بتاتی ہے کہ حکومتی لوٹ کھسوٹ نے معاشی طبقات کی لوٹ کو اور وسیع کر دیا ہے۔ نظامِ عدل ایک کھیل تماشے سے بلند کوئی چیز نہیں رہی۔ پولیس اور انتظامیہ کاروبارِ ریاست کو اپنی منفعت کے لیے استعمال کرتی ہے۔ مقتدر طبقہ زکوٰۃ کے فنڈ سے حج کے لیے طائفے بھیجنا اور جانے خدا اپنی ذات پر فخر محسوس کرتے ہیں۔ جنابِ مقتدر طبقہ ہی کا رونا نہیں۔ تمام سیاستدان جمہوریت کے نام پر اپنی اپنی دکان کھولے بیٹھے ہیں۔ اقرباء پروری، حکومتوں کو گرانا، دوسرے کو زچ کرنا، اپنے مفادات کا تحفظ کرنا، لچھے دار تقریریں کرنا اور لفظوں کے گورکھ دھندوں میں سادہ عوام کو پھنسا لینا ان کا فرضِ جمہوریت ہے۔

علماء و مشائخ کا ذکر نہ کرنا انصاف سے صرفِ نظر ہو گا۔ یہ بلند و بالا منزہ و مطاہر، پاکیزہ و مقدس گروہ ہے۔ جن کے جنبشِ ابرو پر لوگ نقشِ تقدس کے حوالے سے جانوں کے نذرانے پیش کرتے رہے ہیں۔ لیکن اب عوام ان کی ملمع سازی، وضعداری اور بناوٹ سے پوری طرح آگاہ ہو گئے ہیں۔ یہ صرف اپنی جاہ طلبی و منصب طلبی کے علاوہ مفادات کے تحفظ کے لیے منبرِ رسول خاتم النبیین ﷺ پر براجمان ہیں جو کوئی ولایت کے چکر میں عوام کے دل و دماغ پر اپنی اجارہ داری سمجھتے ہوئے قابض ہے۔ فکر و نظر پر پابندی ہے۔ فتوٰی گری عام ہے۔ قول و فعل میں تضاد ہے۔ پوری قوم کو منظم و منضبط کرنے والا نام نہاد بزرگوں کا یہ گروہ عوام میں اختشار و افتراق کا باعث ہے۔ فرقہ واریت کو ہوا دی جا رہی ہے۔ قتل و غارت گری کا بازار گرم ہے۔ تحقیق سے دوری ہے۔ سطحی علم پر نازاں ہیں۔ ان حالات میں اگر کوئی عروج کا خواب دیکھے تو اس کو خود فریبی کے سوا کچھ نہیں کہا جا سکتا ہے۔

حالات کی سنگینی اس قدر شدت اختیار کر گئی ہے کہ اب ہر کس و ناکس و حکومتی، سیاسی مذہبی اور معاشی معاملات پر نگاہ رکھے ہوئے ہے۔ تمام طبقات کی منحوس، مکروہ اور انسانیت سوز کارروائیاں اب عوام کے سامنے ہیں۔ عوام کے اندر ایک لاوا پگھل رہا ہے۔ جو ایک طوفان کی طرح پھٹے گا اور ان بدکردار رویوں اور شخصیات کو بہا کر لے جائے گا اور پھر سے اس قوم کا شیرازہ بندی ہو گی۔ اس میں فکر و نظر کی آزادی کے ساتھ ساتھ ہم آہنگی بھی پیدا کی جائے گی۔ حقوق و فرائض کا توازن

بحال کیا جائے گا۔ نظام عدل، نظام تعلیم اور نظام صحت کو منظم و مربوط بنایا جائے گا۔ اس کے بعد ہم ترقی یافتہ قوموں میں شمار ہونے کے قابل ہو سکیں گے۔ جو اقوام اس وقت ہم پر حکمرانی کر رہی ہیں۔ ان میں یہی جوہر نایاب موجود ہے کہ پوری قوم ایک تسبیح کے دانوں کی طرح منظم ہے۔ جس کے طفیل وہ بالا دست قوم ہے اور ہم منتشر ہونے کے باعث زیردست قوم ہیں۔ بالادست ہونے کے لیے ہمیں بھی زندگی کے ہر شعبے میں نظم و ضبط کو قائم کرنا ہوگا۔

..... ☆ .....

بے محنت پیہم کوئی جوہر نہیں کھلتا

میدان زندگی میں نہیں بیٹھنے سے کام

گر پاؤں ٹوٹ جائیں یہاں سر کے بل چلو

زندگی کے بارے میں ہر شخص کا نقطہ نظر جداگانہ اور مختلف ہے۔ کچھ لوگ زندگی کا مقصد اولین عیش و عشرت اور فرحت و انبساط ہی سمجھتے ہیں جب کہ کچھ لوگوں کا موقف ہے کہ زندگی بے معنی چیز کا نام ہے۔ ایک ایسا گروہ بھی موجود ہے۔ جو کہتا ہے کہ چوں کہ پوری کائنات قوانین فطرت میں جکڑی ہوئی ہے۔ جبر کے آہنی قانون کے تحت چل رہی ہے۔ اسی طرح انسان بھی اس کائنات کے ایک جز کی حیثیت سے جبر کے شکنجے میں کسا ہوا ہے۔ یہ اپنی پیدائش اور موت پر قدرت نہیں رکھتا ہے۔ اسی طرح یہ زندگی کے تمام گوشوں میں مجبور و مقہور ہے۔ اگر یہ زندگی جبر پر موقوف ہے۔ اس لیے یہ زندگی کے حقائق کو بنظر محقق دیکھا جائے تو حقیقت خود منکشف ہو جاتی ہے کہ زندگی جہد مسلسل، سعی پیہم اور عمل متواترہ کا نام ہے۔ یعنی زندگی مشکل، دقیق اور کٹھن راستوں کا نام ہے۔ جو افراد ان پر خار اور پر پیچ راستوں پر مسلسل چلتے رہتے ہیں اور آبلہ پائی سے بے نیاز عزم سفر پر قائم رہتے ہیں تو منزلیں خود ان کا بڑھ کر استقبال کرتی ہیں اور ان افراد کو حیات جاوداں نصیب ہوتی ہے۔ ایسے جرأت مند اور عزم و ہمت کے پیکروں کے نام نامی تا دم بقائے حیات قائم رہتے ہیں۔ بقول شاعر۔

میدان زندگی میں نہیں بیٹھنے سے کام

گر پاؤں ٹوٹ جائیں یہاں سر کے بل چلو

زندگی نشیب و فراز، مد و جزر اور عروج و زوال کے مرقع کا نام ہے۔ اس کائنات میں ہر مزاج اور فکر کے افراد اپنے اپنے نقطہ سے عمل پیرا ہیں۔ کبھی یہ زندگی اور کائنات جنت بداماں اور کبھی جہنم نظیر بن جاتی ہے۔ کبھی یہ کائنات بقعہ نور بن جاتی ہے تو کبھی تاریکیوں اور اندھیروں میں ڈوب جاتی ہے۔ اس طرح قنوطیت و رجائیت، امید و نا امیدی ساتھ ساتھ چلتی ہیں۔ کچھ لوگ ظلم کے اس تیرہ و تار ماحول سے گھبرا جاتے ہیں لیکن احمد فراز انھیں عمل کی طرف مائل ہوتے ہوئے کہتے ہیں۔

شکوہ ظلمتِ شب سے تو کہیں بہتر تھا

اپنے حصے کی کوئی شمع جلاتے جاتے

ہر شخص کے اندر ایک مخفی خزانہ چھپا ہوا ہوتا ہے۔ اس کے اندر بے شمار جواہر لا زوال پنہاں ہوتے ہیں۔ جن کی نمود کو مسلسل جدوجہد کرنا امر لازمی ہے۔ اندرونی و بیرونی مزاحمت، پیکر عزم و ہمت کے لیے صیقل کا کام کرتی ہے اور اس کشمکش، کشاکش اور ٹکراؤ سے جوہر قابل کی رنگینیوں میں اضافہ ہوتا ہے۔

نامی کوئی بغیر مشقت نہیں ہوا

سو بار جب عقیق کٹا تب نگیں ہوا

اس شاہراہِ حیات میں ایسے افراد بھی ہوتے ہیں جن میں صلاحیتوں کا فقدان ہوتا ہے۔ لیکن ایسے چنگے بھلے صحت مند ہونے کے باوصف دوسروں کی بیساکھیوں پر چلنے کے خواہش مند ہوتے ہیں۔ دوسروں سے مدد اور تعاون کے لیے ہمیشہ ملتجی اور للچائی ہوئی نظروں سے دیکھتے ہیں اور اپنے آگے بڑھنے کا حوصلہ اندر نہیں پاتے ہیں۔ اپنے لیے جنت بداماں اور جنت نظیر زندگی کے لیے اوروں سے بھیک مانگتے ہیں۔

ہمت ہو تو پیدا کر فردوس بریں اپنی

مانگی ہوئی جنت سے دوزخ کا عذاب اچھا ہے

حیات حرکت وحرارت سے مرصع ہے۔ اگر حرکت رک جائے تو زندگی زندگی نہیں رہتی موت بن جاتی ہے۔ اس کی مثال ایسے ہی ہے کہ اگر حیات آور اور حیات بخش پانی کو کسی تالاب میں ٹھہرا دیا جائے تو چند یوم کے بعد یہی پانی حیات آفریں ہونے کے بجائے موت آور اور آب ہلاکت انگیز بن جاتا ہے۔ اسی طرح جو افراد یا اقوام اپنے قوائے عمل میں جمود طاری کر لیتے ہیں تو ان کے اندر قوت عمل مفقود ہو جاتی ہے اور ان کے قوائے عمل میں اضمحلال پیدا ہو جاتا ہے۔

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زندگانی کی حقیقت کوہ کن کے دل سے پوچھ

جوئے شیر و تیشہ و سنگ گراں ہے زندگی

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اگر دینی زاویہ نگاہ سے بھی دیکھا جائے تو اسلامی تعلیمات نے محنت کرنے والے کو بہت قدر کی نگاہ سے دیکھا ہے۔ آنحضور خاتم النبیین ﷺ جب کسی مزدور و محنت کش کو دیکھتے یا ملتے تو اسے انتہائی احترام دیتے تھے۔ ایک دفعہ ایک محنت کش آپ کی خدمت میں حاضر ہوا۔ اس کے ہاتھوں پر سیاہ نشان پڑے ہوئے تھے۔ آپ خاتم النبیین ﷺ نے دریافت کیا کہ تمہارے ہاتھوں پر کیا ہوا ہے تو اس نے بتایا کہ محنت کرتے ہوئے میرے ہاتھوں پر چھالوں کے بعد نگے پڑ گئے ہیں۔ جس کی وجہ سے ہاتھوں پر کالے نشان بن گئے ہیں۔ آپ خاتم النبیین ﷺ نے آگے بڑھ کر اس کے ہاتھ چوم لیے۔ ایک محنت کش کے لیے یہ عزت و تعظیم کا انداز ایک عظیم شخصیت کا ہی مرہون منت ہو سکتا ہے۔

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ہے قوت بازو میں تیری راز سعادت

تو ڈھونڈتا پھرتا ہے اسے بال و پہا میں

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آنحضور خاتم النبیین ﷺ قرآن مجید کی چلتی پھرتی تفسیر و تعبیر تھے۔ قرآن مجید کی وہ آیت ہمہ وقت پیش نظر رہتی تھی کہ انسان کے لیے وہی کچھ ہے کہ جو کچھ وہ کرتا ہے۔ آنحضور خاتم النبیین ﷺ نے زندگی کے ہر مرحلہ پر اپنے رفقا کار کے شانہ بشانہ جدوجہد اور عمل کر کاوش میں بھر پور کردار ادا کیا۔ مسجد نبوی کی تعمیر ہو رہی ہے۔ امام الانبیاء فخر موجودات اور نبی آخر الزمان ﷺ اپنے ہاتھوں سے پتھر اٹھا اٹھا کر لاتے اور تعمیر مسجد کے لیے اپنا کردار ادا کر رہے تھے۔ اسی طرح جنگ خندق کے موقع پر کدال سے خندق کھودنے میں اپنے ساتھیوں کے ساتھ مصروف کار تھے۔ بھوک پیاس کی شدت سے ساتھی نڈھال تھے۔ سخت چٹانیں سد راہ تھیں جنہیں حضور خاتم النبیین ﷺ اپنی ضرب کاری سے پاش پاش کر دیتے تھے۔ آپ خاتم النبیین ﷺ کا یہ عمل مسعود رہتی دنیا تک محنت کشوں کی عظمت کو چار چاند لگا گیا کہ محنت میں عظمت ہے۔ عظمت کردار کی یہ رفعتیں اور عظمت و اجلال کی یہ کرنیں دیگر انبیائے کرام وصحابہ کرام رضی اللہ تعالیٰ عنہم کے کردار سے بھی ملتی ہیں۔ جن کے توسط سے یہ جہان رنگ و بو محنت کشوں کو ایک خاص مقام دینے پر مجبور ہے۔ اخروی زندگی کا دار و مدار بھی عمل اور جدوجہد پر ہے۔

<div dir="rtl">

عمل سے زندگی بنتی ہے جنت بھی جہنم بھی

یہ خاکی اپنی فطرت میں نہ نوری ہے نہ ناری ہے

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اگر ماضی کے دریچوں سے جھانک کر دیکھیں یا تاریخ انسانی کے اوراق کی ورق گردانی کریں۔ یہ بات اظہر من الشمس ہو گی کہ جن اقوام و ممالک نے جدوجہد محنت و کاوش اور مسلسل تگ و دو کی ہے۔ وہ قعر ذلت سے بام عروج تک پہنچ گئی ہیں اور جنہوں نے سستی، تساہل اور غفلت شعاری کا مظاہرہ کیا ذلت و رسوائی ان کا مقدر ٹھہری۔ اگر تاریخ اسلام کا ہی غیر جانبدارانہ مطالعہ کیا جائے تو معلوم ہوتا ہے کہ مسلمان جب تک دلچسپی اور دل لگی کے ساتھ تسخیر کائنات کے علاوہ دیگر زندگی بخش علوم و فنون میں سرگرم عمل رہے تو تخت و تاج، دولت و ثروت، عزت و منزلت، جاہ و حشمت ان کے گھر کی باندی رہی۔ جب غفلت شعاری، تعصبات، انا پسندی اور تساہل انگیزی نے ان پر تسلط حاصل کر لیا تو زوال کا راستہ کون روک سکتا تھا۔ تنگ دستی، مسکنت، غلامی، بیماری کے علاوہ عزت و ناموس تک روبہ زوال ہوا۔

اگر کوئی قوم اپنا کھویا ہوا مقام دوبارہ بحال کرنا چاہے تو اسے محنت کے راستے سے ہی عروج تک پہنچنا ہو گا۔ دنیا میں جتنے عظیم لوگ بھی گزرے ہیں۔ ان کے ماضی میں جھانکنے سے معلوم ہوتا ہے کہ ان کا یہ عروج ان کی مسلسل کوشش، شبانہ روز محنت اور محنت شاقہ کا مرہون منت ہے۔ وہ زندگی کی سنگلاخ چٹانوں پر آبلہ پا چلتے رہے۔ ہمیشہ فرہاد نے دودھ کی نہریں جاری کر دیں۔ انہوں نے اپنے عزم و ہمت سے ناممکنات کو ممکنات میں تبدیل کر دیا اور اس طرح عزم و ہمت کی یہ کوہ گراں شخصیات کے نام نامی کمزور دل اور مایوس و ناامید لوگوں کے لیے مشعل راہ کا کام کرتے رہیں گے۔

<div dir="rtl">

ہے محنت پیہم کوئی جوہر نہیں کھلتا

روشن شر و تیشہ سے ہے خانہ فرہاد

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ادب اور صحافت

صحافت اور ادب کا آپس میں جسم و جاں کا رشتہ ہے کہ کسی کو کسی سے جدا نہیں کیا جا سکتا ہے۔ صحافت نے جہاں اردو زبان کی ترویج و ترقی میں بہت اہم کردار ادا کیا۔ وہاں ادب نے بھی صحافت کو حسن، خوبصورتی اور دلکشی عطا کی۔ اس لیے ادب اور صحافت کو الگ الگ اور جدا نہیں کیا جا سکتا ہے۔ یہ دونوں ایک دوسرے کے لیے لازم و ملزوم ہیں۔

تحقیق سے ثابت ہو چکا ہے کہ اردو زبان میں سب سے پہلا اخبار جام جہاں نما ہی تھا۔ جو ابتدا میں اردو میں شائع کیا گیا لیکن اس وقت تک اردو زبان خواص کی زبان نہیں بنی تھی اس لیے اخبار کی مانگ بھی کم تھی۔ اس بنا پر اخبار جام جہاں نما فارسی میں نکلنا شروع ہو گیا۔ اس کی پہلی اشاعت 27 مارچ 1882 ء کو کلکتہ سے ہوئی اور 1883 ء میں فارسی اخبار نکلنے کی وجہ سے اردو میں ضمیمہ نکلنا شروع ہوا۔ اس ضمیمہ کا مواد فارسی اخبار سے مختلف تھا اور یہ اخبار 1838 ء تک جاری رہ سکا۔ جام جہاں نما کے بعد دوسرا اخبار 1836 ء میں مولانا محمد حسین کے والد مولوی محمد باقر کی زیر ادارت دلی سے اردو اخبار شائع ہوا۔ یہ اخبار 1857 ء کے انقلاب کی نذر ہو گیا اور مولوی باقر گولی لگنے سے شہید ہو گئے۔ مولوی باقر نے ہی 1843 ء میں "مظہر الحق" کے نام سے ایک اخبار جاری کیا۔ جو معاشی مجبوریوں کی بنا پر 1848 ء کو بند کر دیا گیا۔ 1837 ء کو سر سید احمد خان کے بڑے بھائی سید محمد نے "سید الاخبار" کے نام سے ایک اخبار شائع کیا جس کی ادارت مولوی عبدالغفور کے پاس تھی۔ "سید الاخبار" کو مرزا غالب سمیت بڑے بڑے ادب نواز بڑے اہتمام سے پڑھتے تھے جو کہ مالی مشکلات کی وجہ سے 1850 ء میں بند ہو گیا۔

1844 ء میں "صادق الاخبار" کے نام سے فارسی میں ایک اخبار نکالا گیا۔ دو سال بعد اس کی زبان اردو کر دی گئی۔ یہ اخبار 1850 ء میں بند ہو گیا۔ اسی نام سے 1853 ء میں مصطفیٰ احمد خان نے اخبار نکالا جو 1854 ء میں بند ہو گیا۔ پھر سید جمیل الدین خان نے بھی 1854 ء میں "صادق الاخبار" ہی کے نام سے اخبار شائع کیا۔ اس اخبار نے 1857 ء کی جنگ آزادی کے حوالے سے ایک خاص مقام حاصل کیا۔..... 1845 ء میں ایک بلند پایہ ادیب مولوی کریم الدین نے "کریم الاخبار" کے نام سے اخبار جاری کیا جو 1848 ء کو بند ہو گیا۔ لاہور سے شائع ہونے والا پہلا "اخبار کوہ نور" کے نام سے 1850 ء میں جاری ہوا۔ جس کے مالک منشی ہر سکھ رائے تھے۔ یہ اخبار 1904 ء کو بند ہو گیا۔ اس کی ادارت کی ذمہ داری سورج بھان، منشی جمنا داس اور غلام محمد سرتی کے پاس رہی۔

ادب اور صحافت کے امتزاج کے حوالے سے 1858 ء میں لکھنؤ سے زیر ادارت منشی نول کشور نے "اودھ" کے نام سے ایک اخبار جاری کیا۔ جس نے 1857ھ کی جنگ آزادی کے بعد ادب کو پھر سے صحافت سے منسلک کر دیا۔ اس اخبار میں مولوی غلام محمد جان، پنڈت رتن ناتھ سرشار، مولوی احمد شوکت اور مولوی عبدالحلیم شرر جیسے عظیم ادبا کے مضامین شائع ہوتے تھے۔ جس سے اردو صحافت کو بہت فروغ ملا۔ جنگ آزادی کے جور و ستم اور ناروا پابندیوں کے فوراً بعد مولانا ظفر علی خان، مولانا محمد علی جوہر، ابوالکلام آزاد اور سر سید احمد خان جیسی شخصیات کے تند و تیز قلم نے تہلکہ مچا دیا اور ان کے اخبار و رسائل ہندوستان کے مسلمانوں کے تحفظ و بقا کے لیے تلوار بے نیام بن گئے۔ ان اخبارات میں "کشمیر میگزین"، "مسلم گزٹ"، لکھنؤ اور دکن کے اخبار "مدینہ بجنور"، "ہمدم"، "زمیندار" اور "اردوئے معلیٰ" سرفہرست تھے۔

مولانا محمد علی جوہر کے اخبار "ہمدرد" مولانا ظفر علی خان کے اخبار "زمیندار" اور مولانا ابوالکلام آزاد کے رسالہ "الہلال" کو ادب کے حوالے سے ایک بلند مقام حاصل تھا۔ شبلی نعمانی، حسرت موہانی، اقبال، ظفر علی خان اور ان کی طرح کے دیگر بلند پایہ ادبا کے علمی اردو ادبی مضامین ان اخبار و رسائل کی زینت بنتے تھے۔ جس سے مسلمانوں میں تحریک بیداری کے ساتھ ساتھ اردو ادب کی ترویج بھی مقصود تھی۔ سر سید احمد خان اور مولوی عبدالحق کے صحافت میں قدم رکھتے سے پہلے دقیق قسم کی پر تکلف اردو لکھی جاتی تھی۔ خبر بھی کہانی کی صورت میں بیان ہوتی تھی لیکن درج بالا اصحاب کے صحافت میں آنے سے جدت پیدا ہوئی اور اخبار کے ادارتی صفحات کے ساتھ خبروں کی بناوٹ تبصروں اور کالم نگاری تک سادگی، بے تکلفی اور عوامی پن آیا۔ جس میں معقولیت کے دامن کو ہاتھ سے نہ جانے دیا گیا۔ اگر بنظر تحقیق دیکھا جائے تو سر سید، حالی، مولوی عبدالحق جیسے لوگ جدید و قدیم صحافت کا خوبصورت سنگم نظر آتے ہیں۔

دور جدید میں اردو کی وہ پہلے والی ثقالت تو نہیں رہی لیکن سیاسی و معاشرتی و معاشی شعور تیزی سے بیدار ہوا ہے۔ جس کی وجہ غیر پیشہ ور لکھاری بھی اپنے خیالات کا برملا اظہار کرتے ہیں۔ جو اخبارات کی زینت بنتے ہیں۔ اگرچہ وہ صحافت کے فنی رموز سے تو اچھی طرح واقف نہ بھی ہوں تو بھی ان کی تحریروں میں ادبیت ضرور جھلک رہی ہوتی ہے۔ اسلاف ماضی کے وہ چراغ ہوتے ہیں جن کی روشنی میں مستقبل کے راستے متعین کیے جاتے ہیں۔ اگرچہ مولانا ظفر علی خان،

مولوی عبدالحق، چراغ حسن حسرت، حسرت موہانی، مولانا شبلی نعمانی، مولانا ابوالکلام آزاد اور سرسید جیسی قدآور شخصیات نے صحافت کی خدمت کی اور اردو کی ترویج و ترقی میں کوئی دقیقہ فروگزاشت نہ کیا۔ خوشی کی بات یہ ہے کہ جو میراث ان بزرگوں سے ہمیں ملی ہے وہ اب بھی محفوظ ہاتھوں میں ہے۔ خواجہ محمد جمیل، منو بھائی، نصر اللہ خاں عزیز، امجد اسلام امجد، جمیل الدین عالی، جاوید چودھری، سیف الرحمان رانا، حسن نثار، ڈاکٹر انعام الحق اور جمیل عدیل جیسے لوگ اس مشن کو آگے بڑھانے میں مصروف عمل ہیں۔ ان لوگوں کے قلم ادب کی ترویج و ترقی کے لیے وقف ہیں۔

ایک اچھا صحافی یا قلم کار وہی ہوتا ہے۔ جس کی تحریریں صاحبان علم و دانش کے لیے بھی دلچسپی کا باعث ہوں اور ان سے ایک چھابڑی والا بھی اسی انداز سے استفادہ کرے اور محفوظ ہو۔ چوں کہ اخبار ایک ہی ذہنی سطح کے لوگوں نے نہیں پڑھنا ہوتا ہے اس لیے تمام عوامل کو مدنظر رکھ کر ہی تحریر منصہ شہود پر آنی چاہیے۔ تحریر میں ادب کی چاشنی، معاشرتی مسائل، حقیقت پسندی اور زبان کی شگفتگی بدرجہ اتم موجود ہونی چاہیے۔ اخبار کو ادب کا نمائندہ ہونا چاہیے اور ادب کو اخبار کا نمائندہ ہونا چاہیے۔ نہ اخبار اپنے سے ادب سے مرعوب ہو اور نہ ادب صحافتی خشکی کی نذر ہو جائے۔ ادب اور صحافت کا خوبصورت سنگم ہی دونوں کے عروج کا باعث بن سکتا ہے۔

..... ☆ .....

اُمتِ مسلمہ کا منصب اور مقصد

اسلام ہر حیثیت سے کامل اور آخری دین ہے۔ یہ ساری نوع انسانی کے لیے ہے۔ نجات کے لیے ضروری ہے کہ اسی دین کو اختیار کیا جائے ان مخصوص حیثیات کی وجہ سے اس کی دعوت و تبلیغ کے لیے غیر معمولی اقدام کی ضرورت ہے۔ امت مسلمہ کو یہ ذمہ داری سونپی گئی ہے کہ وہ دین اسلام کی گواہی اپنے قول و فعل سے سارے عالم پر واضح کر دے۔ امت مسلمہ کے اسی منصب کے بارے میں ارشاد الٰہی ہے:

"اور اسی طرح ہم نے تم (مسلمانوں) کو ایک بہتر امت بنایا ہے تا کہ تم دوسرے تمام لوگوں کے لیے گواہ بن جاؤ اور ہمارا رسول تمہارے لیے گواہ بنے۔"

پہلی امتوں پر یہ ذمہ داری نہیں تھی کہ وہ تمام دنیا کی قوموں کو دعوت و تبلیغ کریں۔ یہ صرف امت مسلمہ کی ذمہ داری ہے۔ نبوت کا دروازہ بند ہونے کے بعد یہ وہ پیغبرانہ کام ہے جو امت کو سپرد کیا گیا ہے اور اسے بھی اس مقصد کے لیے چن لیا گیا ہے۔ جیسا کہ قرآن مجید میں ہے:

"اس نے تمہیں منتخب کیا ہے اور تمہارے لیے دین میں کوئی تنگی نہیں رکھی ہے اپنے باپ ابراہیم کے طریقے کی پیروی کرو، اس نے پہلے ہی تمہارا نام مسلم رکھا ہے اور اس لیے تا کہ رسول تمہارے لیے (دین کا) گواہ بنے اور تم دوسرے تمام لوگوں کے لیے (دین کے) گواہ بنو۔" (الحج:78)

دین حق کی شہادت اس امت کا وہ بنیادی فریضہ ہے جو اسے ہر حال میں ادا کرنا چاہیے یہ شہادت قولی بھی ہے اور عملی بھی۔ اس کے لیے زبان و تحریر اور جہاد فی سبیل اللہ کے ذریعے دعوت و تبلیغ اور اشاعت دین کا فرض ادا کرنا ضروری ہے۔ نیکی کو پھیلانا ہے اور برائی کو مٹانا ہے۔

دوسرے مقام پر فرمایا گیا:

"تم ایک بہترین امت ہو جو سارے انسانوں کے لیے پیدا کی گئی ہے، تم نیکی کا حکم دیتے اور برائی سے روکتے ہو اور اللہ پر یقین رکھتے ہو۔" (آل عمران:11)

امت مسلمہ کے لیے شہادت حق کا فریضہ ادا کرنے کی تفصیلات درج ذیل ہیں۔

قولی شہادت

شہادت کے لغوی معنی گواہی کے ہیں۔ عرف عام میں شہادت اس بات کو کہتے ہیں کہ آدمی کسی چیز یا واقعہ کے بارے میں جو کچھ یقین سے جانتا ہے دو سروں کو صحیح طور پر بتا دے۔ دین اسلام کی قولی شہادت کا مفہوم یہ ہے کہ غیر مسلموں کے سامنے اہل ایمان کی طرف سے اسلام کے بنیادی عقائد سمیت اس کے تمام تفصیلی احکامات بہتر طور پر پہنچائے جائیں۔ تقریر و تحریر کے ذریعے دین حق کی دعوت دی جائے۔ انسانی فطرت، انسانی عقل، نفس و آفاق کے دلائل اور مسلمات

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کے حوالے سے دین کا حق پر استدلال کیا جائے ۔دوسرے مذاہب پر سنجیدہ اور مدلل طریقے سے تنقید کرکے ان کا برسر باطل ہونا ثابت کیا جائے۔ قرآن مجید میں دعوت وتبلیغ کے بارے میں یہ ہدایات موجود ہیں:

''(اے نبی ﷺ) اپنے رب کی راہ کی طرف حکمت کے ساتھ اور بہترین نصیحت کے ساتھ دعوت دیں اور عمدہ طریقے سے ان سے بحث و مباحثہ کریں۔''(النحل:125)

گویا دعوت وتبلیغ کے تین بنیادی اصول حکمت،نصیحت اور عمدہ مباحثہ ہیں ۔ان کو کسی حال میں بھی نظر انداز نہیں کرنا چاہیے ۔خاص نکتہ یہ ہے کہ دعوت رب کی راہ میں ہو۔ قومی غرور، قبائلی تعصب اور رنگ ونسل کے تفاوت کے ساتھ کوئی جانبداری نہ ہو بلکہ خالصتاً بوجہ اللہ ہو اور مخلصانہ ہو۔

عملی شہادت

دین اسلام کی عملی شہادت یہ ہے کہ امت اپنی اجتماعی حیثیت میں اسلام کی عملی ترجمان ہو۔ یعنی وہ چلتا پھرتا اسلام ہو۔عقائد واعمال میں مجسم اسلام ہو۔ زندگی کے ہر شعبے میں اسلامی تعلیمات پر عمل ہو اور جہاد کے ذریعے باطل کی شکل اور قسم کا خاتمہ ہو۔ دراصل یہ عملی شہادت قولی سے زیادہ موثر ہوتی ہے۔ عام لوگ علم وفکر سے زیادہ عمل سے متاثر ہوتے ہیں۔ اس سلسلے میں نبی خاتم النبیین ﷺ کا اسوۂ حسنہ امت کے لیے رہنما اور بلند معیار بھی ہے۔ صرف اسی کو اپنانے سے امت اپنے فریضے سے سبکدوش ہوسکتی ہے۔ اسی پر عمل کرنے سے وہ دنیا وآخرت میں کامیابی و کامرانی حاصل کرسکتی ہے۔

..... ☆ .....

خود انحصاری.......ایک بامعنی اسلوب

حقیقتاً خود انحصاری ....ایک بامعنی اسلوب حیات ہے۔ یہ طرزِعمل کسی ملک یا کسی گھر یا کسی فرد کے لیے انتہائی ضروری ہوتا ہے۔اس مقصد کے حصول کے لیے انسان اپنے قوائے علمیہ اور ذرائع آمدن کو متحرک کرتا ہے۔اگر وہ ایسا نہیں کرتا ہے تو اسے بیساکھیوں کی ضرورت پڑتی ہے اور وہ دوسروں کا محتاج بن جاتا ہے۔جس طرح پاکستان اس وقت امریکہ،ورلڈ بینک اور آئی ایم ایف کے قرضوں کے بوجھ تلے دب چکا ہے۔ ہم قرضہ لیتے وقت اپنا اقتدار اعلیٰ درج بالا اداروں کے پاس گروی رکھ دیتے ہیں ۔ یہ ادارے بین الاقوامی مہاجن ہیں اور ہم بین الاقوامی بھکاری۔

پاکستان کی موجودہ صورتِ حال کی وجوہات جب تک دریافت نہ کی جائیں اس وقت تک اس کی خود انحصاری کا خواب شرمندہ تعبیر نہ ہوگا۔ پاکستان پیدائش کے ساتھ ہی مقروض ہونا شروع ہونا نہیں ہوگیا تھا۔ بلکہ جب پاکستان وجود میں آیا تھا اس وقت برطانیہ پاکستان کا 40 ملین پونڈز کا مقروض تھا۔ لیکن ہمارے ناتجربہ کار،نااہل اور خودغرض حکمرانوں نے ملک کے اندرونی ڈھانچے کو مضبوط بنانے کے بجائے اپنی بقا قرضوں میں سمجھی۔

پاکستان کا پہلا بجٹ 1948-49ء،89 کروڑ 57 لاکھ روپے کا تھا۔اس میں آمدنی کا تخمینہ 79 کروڑ 57 لاکھ اور خسارہ 10 کروڑ تھا۔ یہ درست ہے کہ یہ دور مشکلات کا دور تھا۔ پاکستان کا دوسرا بجٹ 1949-50ء ایک ارب گیارہ کروڑ روپے کا پیش کیا گیا اور خدا کے فضل سے کوئی خسارہ نہ تھا۔ 1954-55ء تک کے مالی بجٹ تقریباً بغیر نفع ونقصان کے متوازی بنتے رہے۔ یحییٰ خان کے دور تک بجٹ اکثر متوازن بل کہ زرمبادلہ بل کہ زرمبادلہ کے ذخائر میں بڑھوتری کے موجب بنے۔ 1972-73ء کے مالی سال کا بھٹو حکومت کا پہلا بجٹ 8 ارب 95 کروڑ روپے کا متوازن بجٹ تھا۔اس میں خسارہ نہیں تھا۔ بھٹو حکومت کا آخری 1977-78ء کا بجٹ 37 ارب 18 کروڑ روپے کا تھا۔اس میں بجٹ خسارہ 2 ارب 36 کروڑ روپے کا تھا۔

قائداعظم محمد علی جناح کی وفات کے بعد بل کہ تشکیل پاکستان ہی کے وقت پاکستان کے لیے بہت ہی زیادہ مسائل تھے۔جس میں مہاجرین کی آبادکاری، بینکوں کا قیام،صنعتکاری، بے روزگاری کے اثر ڈھام کو کام پر لگانے کے علاوہ تنازع کشمیر ایسے مسائل تھے جن کے لیے بہت تشویش ناک صورتِ حال تھی۔ لیاقت علی خان کے بعد ایوب خان کے طویل دور میں ملک ترقی کی طرف گامزن ہوا۔ اسے پاکستان کی تاریخ میں سنہری دور کہا جاتا ہے۔ ان دوران بڑے بڑے ہیڈ اور ڈیم بنائے گئے اور صنعت کاری کی طرف خاص توجہ دی گئی۔جس میں انھوں نے صنعتوں کو قومی تحویل میں لے لیا۔جس سے مزدور کامل اور سستی کا شکار ہوگئے۔ ایوب خان کے بعد ذوالفقار علی بھٹو کا انقلابی دور شروع ہوتا ہے۔ جس میں انھوں نے صنعتوں کو قومی تحویل میں لے لیا۔جس سے مزدور کامل اور سستی کا شکار ہوگئے۔ لیبر یونینوں نے صرف اپنے حقوق کی جنگ کا نعرہ لگایا جب کہ فرائض سے صرف نظر کیا۔ جس کے نتیجے میں ملکی صنعت کو بہت نقصان پہنچا۔ ذوالفقار علی بھٹو کے دور میں پاکستان میں ایٹمی پلانٹ کی بنیاد رکھی گئی۔ روس کے اشتراک سے اسٹیل مل بنائی گئی۔ بین الاقوامی

سطح پر اسلامی سربراہی کانفرنس لاہور میں منعقد کی گئی۔

ذوالفقار علی بھٹو کے دور کے بعد جزل محمد ضیاء الحق نے عنان حکومت سنبھال لی۔ اس وقت ملک ایک بحران کا شکار تھا۔ روسی افواج افغانستان میں داخل ہو چکی تھیں۔ پاکستان اپنے دفاع کی جنگ افغانستان کی سنگلاخ چٹانوں میں لڑ رہا تھا۔ جس سے ملکی معیشت پر بہت بوجھ پڑا۔ علاوہ ازیں لاکھوں کی تعداد میں افغان مہاجرین ہجرت کر کے پاکستان میں آئے تو ملکی معیشت کو شدید دھچکا لگا۔ محمد خان جونیجو کی حکومت سنبھلنے بھی نہ پائی تھی کہ ضیاء الحق نے ان کی حکومت کو سبکدوش کر دیا۔ اس کے بعد محترمہ بے نظیر بھٹو کا دور شروع ہوا۔ یہ بھی اپوزیشن کی وجہ سے شدید مشکلات کا دور تھا۔ پاکستان ابھی ترقی کی منازل طے کرنے کو تھا کہ صدر اسحاق خان نے بے نظیر حکومت کو ختم کر دیا۔ جناب نواز شریف کا دور بھی اسی طرح کی خلفشار میں بلتا رہا۔ بے نظیر اور محمد نواز شریف کی حکومتیں اپنی مدت پوری نہ کر سکیں اور ملک کا بتدریج خسارہ بڑھتا رہا۔

ایسے وقت میں پرویز مشرف نے ملکی معیشت کی گرتی ہوئی دیواروں کو سہارا دیا۔ ملکی معیشت کے زوال کی طرف بہتے ہوئے بہاؤ کا رخ نہ صرف روک دیا ہے بلکہ اس کا رخ موڑ دیا ہے۔ ملک کے زرمبادلہ کے ذخائر بڑھے۔ یہ دور پاکستان کی تاریخ میں سب سے مشکل، کٹھن اور دقیق تھا۔ ان دنوں حکومت چلانا کسی بھی صورت پر خار راستے پر چلنے سے کم نہ تھا۔ کیوں کہ دنیا کی سپر طاقت امریکہ نے پاکستان کے پڑوسی ملک پر بلا جواز حملہ کر کے جارحیت کا اور دہشت گردی کی ملکی بلکہ بین الاقوامی سطح پر بنیاد رکھی۔ افغان امریکہ جنگ کے دوران پاکستان شدید دباؤ اور مالی بحران کا شکار رہا ہے۔ یہ جنگ پاکستان کے لیے کسی بھی طرح انگاروں پر چلنے سے کم نہ تھی۔ ملکی معیشت کو شدید دھچکا لگا۔ لیکن جزل پرویز مشرف حکومت نے ٹیکسز کے نظام کو بہتر بنانے اور صنعتکاری کے علاوہ پورے ملک میں سڑکوں کا جال پھیلانے پر اپنی توجہ مرکوز کر رکھی کہ ملک ترقی کی طرف گامزن نظر آتا ہے۔ ملکی معیشت اپنے استحکام کی مظہر ثابت ہونے لگی۔

یہ بات درست ہے کہ جب تک ملکی خارجہ پالیسی صحیح انداز سے نہیں بنائی جاتی۔ اس وقت تک کسی بھی ملک کا ترقی کرنا ممکن نہیں ہے۔ دہشت گردی کے خاتمے کے حوالے سے پاکستان بین الاقوامی سطح پر نمایاں ہوا۔ لیکن خود انحصاری کی خواہش پوری نہ ہو سکی۔ نواز شریف کے حالیہ دور میں پاک بھارت تنازع کشمیر حل کر لیا جائے تو دونوں ملکوں کے عوام خوشحالی کی زندگی بسر کر سکیں گے۔ دونوں ملکوں کے بجٹ کا کثیر حصہ فوج اور دفاعی اخراجات پر خرچ ہو جانے سے عوام کے مسائل جوں کے توں رہتے ہیں۔ وہ قوم کبھی بھی بین الاقوامی سطح پر اپنی حیثیت نہیں منوا سکتی جو اپنے عوام کو صنعتی اعتبار سے منظم نہیں کرتی ہے۔ اوپر سے مزید ظلم یہ کہ پاکستان توانائی کے بحران کا شکار ہے۔ اس وقت جتنے بھی ترقی یافتہ ممالک ہیں ان کی حکومتوں نے اپنے عوام کو منظم کیا ہے۔ دنیا کے سب سے بڑا ملک چین اور جاپان، جرمنی، تائیوان اور سنگاپور جیسے ملکوں نے اپنے عوام میں صنعتی شعور اور مراعات دی ہیں۔ جن سے وہاں کا خام مال اور جامد و ساکت صلاحیتیں بروئے کار لائی گئیں اور ملکوں نے ترقی کی ہے۔

ہمیں خود انحصاری.....ایک بامعنی اسلوب حیات کے لیے اپنی بیساکھیاں توڑنا ہوں گی۔ اپنے اندر کی قوت کو بیدار و منظم کرنا ہوگا۔ اپنے اخراجات اپنے وسائل کے مطابق کرنا ہوں گے تو پاکستان یقیناً ایک باوقار اور خود انحصار ملک کی صورت میں دنیا کے نقشے پر ابھرے گا۔ انشاء اللہ

.... ☆ ....

اُمّتِ مسلمہ کو درپیش مسائل

آغاز اسلام کے تھوڑے عرصہ بعد ہی اسلام کا آفتاب دور دور تک چمکنے لگا اور عربوں کی حکومت کی حدود یورپ کی سرحدوں سے ملنے لگیں۔ ایران، شام، عراق، مصر، افریقہ، اسپین اور سسلی وغیرہ کی سلطنتیں اسلامی سلطنت کا جزو بن گئیں۔ لیکن وہی مسلمان جن کا قدم جس طرف اٹھتا تھا کامیابی و کامرانی ہمرکاب ہوتی تھی۔ آخر وہی فاتح قوم عروج و ترقی کے اصول کو پس پشت ڈالنے کی وجہ سے ذلت میں گر گئی۔ خلفائے راشدین کے بعد دنیا کی رہنمائی کرنے والے مسلمان حکمران کا دینی، روحانی اور اخلاقی معیار بلند نہ تھا جو اسلامی حکمرانوں کے شایان شان ہونا چاہیے۔ ان میں روح جہاد تھی نہ قوت اجتہاد، جو دنیا کی پیشوائی اور عالم گیر قیادت کے لیے ضروری ہے۔ سیاسی انتشار کی بنیاد تو حضرت عثمان رضی اللہ عنہ کے شہید ہونے سے ہی پڑ گئی تھی۔ حضرت علی کرم اللہ وجہ کے عہد میں اسلامی سلطنت مختلف سیاسی دھڑوں میں بٹ گئی۔ بعد ازاں حضرت امام حسین رضی اللہ عنہ کی شہادت سے اسلامی سلطنت کی فضا بالکل تاریک ہوگئی۔ حضرت امام حسینؓ کی شہادت سے کئی سیاسی اور مذہبی تحریکوں نے جنم لیا۔ اہل ایران نے سیاسی امنگوں کے حصول کے لیے واقعہ کربلا کا سہارا لیا۔ عباسی تحریک کی اساس بھی واقعہ کربلا تھی۔ غرض یہ ایک ایسا سلسلہ شروع ہوا جس سے ملت اسلامیہ مختلف دھڑوں اور مختلف ریاستوں میں تقسیم ہوگئی۔

خلافت راشدہ کے دور خلافت میں خلیفہ کے انتخاب کا معیار تقویٰ اور قابلیت تھا۔ لیکن اموی اور عباسی عہد میں خلافت ملوکیت کی شکل اختیار کر گئی اس کے نتیجہ میں دین و سیاست میں عملی تفریق پیدا ہوگئی اور سیاست دین کی نگرانی سے علیحدہ ہوگئی۔ حکمران حکومت و سیاست کو تنہا اپنے ہاتھ میں رکھتے۔ علماء اور اہل دین یا تو حکومت کے خلاف رہتے یا سیاسی زندگی سے کنارہ کشی اختیار کرتے۔ اس طرح اہل دین اور اہل دنیا کے دو علیحدہ علیحدہ گروہ بن گئے اور ان کے درمیان اختلاف کی خلیج وسیع ہوتی گئی اور بعض اوقات بیگانگی سے بڑھ کر مخالفت کی نوبت آ گئی۔ حکمران اور حکمران طبقہ چوں کہ دین و اخلاق کا کامل نمونہ نہیں تھا اور لوگ عموماً انہی کے اخلاق و عادات و رجحانات کی تقلید کرتے تھے۔ ان کی روح اور نفسیات کا قومی زندگی پر پڑنا عین قدرتی تھا۔ اس وجہ سے اسلامی ممالک کے اندر سانس لینے کا موقع ملا۔ مسلمان شجاعت، صبر و استقلال اور ضبط نفس جیسے اخلاق سے عاری ہو گئے۔ لذت پرستی، شہوت پرستی، مادہ پرستی کے دلدادہ بن گئے۔ بادشاہ امراء و زراء حسین و جمیل عورتوں کی صحبتوں میں زیادہ وقت گزارنا پسند کرتے تھے۔ معاشرتی زندگی شرم و حیا اور عصمت و عفت سے عاری ہوگئی۔ عیش پرستی میں پڑ کر خلفاء نے امور سلطنت سے بے اعتنائی برتی۔ رویہ اور ارکان سلطنت خود سر ہو گئے اور بغاوتوں کا سلسلہ چل نکلا۔ چوں کہ مسلمان حکمران اپنے اخلاق و اعمال اور معاملات میں اسلامی شریعت اور دیگر قوانین اسلام کی نمائندگی نہیں کرتے تھے اس لیے غیر مسلموں پر برا اثر پڑا اور ان کے دلوں سے اسلام کے پیغام کا اثر جاتا رہا اور ان کا اعتماد نا اہل حکمرانوں نے زائل کر دیا۔ اسی دور انحطاط میں مسلمانوں میں بے شمار شرک و بدعات نے جنم لیا۔ آہستہ آہستہ مسلمانوں میں قدیم جاہل قوموں کے عقائد و خیالات اور دینی گمراہی جیسے خطرناک مرض بھی پیدا ہو گئے۔ اسی دور میں مسلمان علماء و مفکرین نے ان علوم و تجربوں کی طرف توجہ نہ دی جو ان کے لیے کائنات کی طبعی قوتیں مسخر کر دیتے اور پھر وہ ان کو اسلام کے مقاصد کے عین مطابق بنا کر عالم پر اسلام کے روحانی اور مادی تسلط کا باعث بنتے۔ اس کی بجائے مسلمان علماء اور مفکرین علوم مابعد الطبیعیات اور یونانیوں کے فلسفہ الہٰیات میں صدیوں تک دیدہ ریزی کرتے رہے۔ جس کا کوئی فائدہ حاصل نہ ہوا۔

اسی اثناء میں عیسائی یورپ جو صدیوں سے اسلام سے خار کھائے بیٹھا تھا، نے شام، فلسطین پر دھاوا بول دیا اور یروشلم (بیت المقدس) پر غاصبانہ قبضہ کر لیا۔ عین اس کش مکش کے دور میں عالم اسلام کے افق پر ایک نیا ستارہ طلوع ہوا۔ یہ موصل کا زنگی خاندان تھا۔ جس کے دو افراد عماد الدین زنگی اور اس کے فرزند نور الدین زنگی نے صلیبیوں کے قبضے سے آزاد کرایا۔ صلاح الدین کی مجاہدانہ کوششوں اور ان کی بروقت قیادت نے عالم اسلام کو صلیبیوں کی غلامی کے خطرے سے عرصے تک کے لیے محفوظ کر دیا۔ لیکن عالم اسلام پر پھر غفلت طاری ہو گئی اور باہمی اختلافات اور خانہ جنگیوں نے سر اٹھایا اور عالم اسلام پر ایک سرے سے دوسرے سرے تک انحطاط اور تنزل چھا گیا۔ اس نازک دور میں ایک فتنہ تاتاری نمودار ہوا۔ انھوں نے یہ تاتاری دارالخلافہ بغداد میں فاتحانہ انداز میں داخل ہوئے اور اس کی اینٹ سے اینٹ بجا دی۔ اس کے بعد انھوں نے مصر کا رخ کیا مگر شکست کھائی۔ تاتاری حملہ سے عالم اسلام کو زبردست دھچکا لگا۔ علوم دینیہ، ادب و شاعری تصنیف و تالیف اور اخلاق و معاشرت سب پر اثر پڑا۔ بہت سارا علمی خزانہ تباہ و برباد ہو گیا اور جو کچھ بچ گیا اس کی حفاظت کا مسئلہ پیدا ہو گیا۔ کچھ عرصہ بعد عثمانی ترک تاریخ کے منظر عام پر آئے۔ مسلمان ترک ایک بلند حوصلہ و پر جوش اور زندہ قوم تھی۔ ان میں جہاد کا جذبہ بدرجہ اتم موجود تھا۔ وہ اپنی جنگی طاقت سے اسلام کے مادی اور روحانی تسلط کو دنیا میں پھیلا سکتے تھے۔ اسی لیے ایک وقت تھا جب عثمانی سلاطین یورپ، ایشیاء اور افریقہ پر بیک وقت حکومت کرتے تھے۔ ترکوں کی جغرافیائی حیثیت بھی ان کے لیے ممد و معاون تھی لیکن بالآخر ترک بھی تمام تر صلاحیتوں کے باوجود زوال پذیر ہوئے۔ ان کے زوال کا سبب وہ جمود تھا جو ترکوں کی علم و تعلیم فنون جنگ اور عسکری تنظیم و ترقی میں واقع ہو چکا تھا۔ اس جمود کی لپیٹ میں صرف ترک ہی نہیں بلکہ پورا عالم اسلام مشرق سے لے کر مغرب تک آیا ہوا تھا۔

جب سارا عالم اسلام سو رہا تھا تو یورپ اپنی لمبی نیند سے بیدار ہوا اور اس نے ہر شعبے میں ترقی کی۔ قوموں کی تاریخ اس دور میں نئے سرے سے ڈھل رہی تھی۔ 1774ء میں یورپ کی قوموں نے عثمانی افواج کو شکست دی۔ اس طرح اٹھارہویں اور انیسویں صدی میں مراکش، الجزائر، مصر، ہندوستان اور ترکستان میں مشرق کی مسلمان اقوام اور مغربی قوموں اور طاقتوں کے درمیان جو معرکے پیش آئے ان کا فیصلہ دراصل سولہویں اور سترہویں صدی میں ہو گیا تھا۔ اس کے علاوہ غداری، اختلافات اور اقتصادی تنزل بھی مسلمان کے زوال میں اہم عنصر کی حیثیت رکھتے ہیں۔

اسلامی تہذیب کی بحالی

آج سے چودہ صدی پیشتر اسلام نے جب ظہور کیا تو اس وقت دنیا میں بڑی بڑی سلطنتیں قائم تھیں۔ جن کے ناموں کے ساتھ آج بھی عظمتوں کے پرچم لہرا رہے ہیں۔ روما کا نیرو، ایران کا کسریٰ اور چین کا خاقان دنیائے آدم کے شاہان بے امان تھے لیکن ان کی شوکت ہمیشہ کے لیے حرف غلط کی طرح مٹ گئی۔ سبب یہ تھا کہ ان کے نظاموں کی بنیاد حق پر نہ تھی۔ اس کے برعکس اسلام حق کا دوست اور باطل کا دشمن ہے اس لیے مسلمانوں نے بارہ سو سال تک سربلندی کی مثال

قائم کی روح نکالنے کی کوشش کی لیکن اس کو سراسر ناکامی کا منہ دیکھنا پڑا۔اسلام نے اپنی ابدیت کا ثبوت دے رہ کر دیا اور فرزندان توحید نے دیکھتے ہی یورپی تسلط کا جنازہ نکال دیا۔ آج یورپی تہذیب نے اسلامی دنیا کے ایک طبقہ پر گہرا اثر ڈال رکھا ہے لیکن غالب اکثریت اس اثر کو زائل کرنے کے لیے کوشاں ہے۔ پندرہویں صدی ہجری نے جب پہلے روز عالم اسلام پر نظر ڈالی تو دیکھا کہ جس تیزی اور خاموشی سے یورپی رذائل زندگی نے اسلامی صفوں میں نفوذ کیا تھا۔ اسی تیزی اور خاموشی سے اپنی صفوں کو ان رذائل سے پاک کرنے میں کوشاں ہے۔ بہت جلد مسلم نوجوان یورپ کے تیزی سے بگڑتے ہوئے معاشرتی ڈھانچے سے عبرت اندوز ہوکر نمائش اور عریانی کے دباؤ کے خلاف جہاد شروع کر دیں گے۔

اسلامی ممالک میں ذہنی قوت

اقوام کو اپنی معدنیات سے مستفید ہونے کے لیے ذہنی استعداد کی بھی ضرورت ہوتی ہے۔ اللہ تعالیٰ نے اسلامی ممالک کے باشندوں کو ذہنی استعداد سے بھی مالا مال کیا ہے۔ ہمارے اہل علم کی لیاقت کا لوہا اہل یورپ نے بھی مان لیا ہے۔ ہمارے تعلیم یافتہ اشخاص سے یورپ اور امریکہ فائدہ اٹھا رہے ہیں۔ کوئی وجہ نہیں کہ یہی افراد اپنی لیاقت کو خیر الامم کے صحیح مقام سے آشنا نہ کر دیں۔ وہ دن دور نہیں کہ مسلم نوجوان جن کو اللہ تعالیٰ نے علمی، سائنسی اور انتظامی خوبیوں کا مایہ دار کیا ہے۔ اپنے ملکوں کے قدرتی ذخائر کو زمین سے باہر لاکر صنعتی ترقی کو چار چاند لگا دیں۔ گزشتہ زمانے میں علمائے اسلام نے سائنسی ایجادات میں دنیا کی رہبری کی تھی۔ یوں نظر آتا ہے کہ تاریخ اپنے آپ کو دہرانے والی ہے اور مسلمان سائنس دان ایک بار پھر ایجادات کے باب میں قیادت کا مقام سنبھالیں گے۔ فطرت کے اصول ازل اور ناقابل تغیر ہیں۔ فطرت جو ہر قابل سے زیادہ دیر تک بے اعتنائی کبھی نہیں کرتی۔ فطرت امتحان ضرور لیتی ہے۔ جائز تمناؤں کا خون نہیں کرتی۔ وہ حقدار کو اپنے حق سے ہمیشہ کے لیے محروم نہیں رکھتی۔ ملت اسلامیہ کا امتحان بہت ہو گیا اور اس کی محرومی پر کتنی ہی خزائیں فغاں سر کر چکیں۔ اب اگلی صبح سرخروئی اور کامرانی کی صبح ہے۔ پاکستان بنا تو ہمارے اونی اور سوتی کپڑوں نے برطانوی کارخانوں کو مات دے دی تھی۔ سیالکوٹ کا جراحی کا سامان یورپ تک جاتا تھا لیکن افسوس یہاں بھی ہمیں آزمائش کی کٹھن منزل سے گزرنا پڑا۔ ہم غیروں کی سازشیں اور اپنوں کی کوتاہ نظری کا شکار ہو گئے لیکن یہ آزمائشیں بھی اب اپنے منطقی انجام کے قریب آ گئی ہیں۔ ہمارے نوجوانوں کی ذہنی استعداد تازہ قوت کے ذخیرہ کے ساتھ میدان عمل میں اتر رہی ہے کسی ملک میں ذہنی قوت کا ذخیرہ جب وافر ہو جاتا ہے تو وہ مجبوری کے ہر حصار کو توڑ کر نکلتا ہے اور اپنے لیے عمل کے میدان خود تیار کر لیتا ہے۔ جدید دنیا میں جرمنی اور جاپان کی مثال ہمارے سامنے ہے۔ فطرت کے اس قانون کو باطل کی کوئی طاقت تغیر آشنا نہیں کر سکتی ہے۔

دفاعی ضروریات کی بہم رسانی

اسلامی ممالک میں نہ صرف تیل کے عوض دولت کے انبار جمع ہو رہے ہیں۔ بلکہ وہاں سونے کی کانیں سونا اگلنے کے لیے بے تاب ہیں لیکن یاد رہے کہ دشمن کا مقابلہ اسلحہ سے ہوتا ہے۔ دشمن کا سر سونے اور چاندی کے سکوں سے پھوڑا نہیں جا سکتا ہے۔ مسلمان اس وقت تک صحیح معنوں میں اپنے پاؤں پر کھڑا نہیں ہو سکتا جب تک وہ اسلحہ کے کارخانوں میں خودکفیل نہیں ہو جاتا ہے۔ امت اسلامیہ کو تاریخ میں کبھی اتنے کثیر اور خونخوار دشمنوں سے کبھی سابقہ نہیں پڑا تھا۔ پاکستان سے لے کر مراکش تک مسلمانوں کا ایک ہی سلسلہ آباد ہے۔ یہ خطہ پوری مسلم دنیا کا دل ہے۔ مسلمانوں کی آبادی بھی دنیا کی پوری آبادی کے نصف سے زیادہ ہے۔ لیکن اسلامی دنیا ہر طرف سے دشمن کے گھیرے میں ہے۔ بھیڑیے سرحدوں پر دانت نکالے کھڑے ہیں اور سازشوں کے سرطان اپنی جڑیں مضبوط کر رہے ہیں۔ اس ساری مصیبت کا سبب یہ ہے کہ مسلمان اسلحہ میں خودکفیل نہیں ہیں۔ عرب ممالک دنیا کے امیر ترین ممالک سہی لیکن اسلحہ میں اغیار کے محتاج ہیں۔ آج عید قربان کے روز اخبارات کہہ رہے ہیں کہ امریکی کانگریس کی متعلقہ کمیٹی نے سعودی عرب کو ایک خاص قسم کے جدید طیارے فروخت کرنے کی تجویز مسترد کر دی ہے۔ سوال پیدا ہوتا ہے کہ ہم کب تک ہتھیاروں کے لیے دوسروں کے رحم و کرم پر رہیں گے۔ آج ملت اسلامیہ کی انفرادی طاقت کو دنیا کی کوئی سلطنت پہنچ نہیں سکتی ہے۔ ہمارے نوجوان بہادر ترین اور زیرک ترین مرد ہیں۔ مرد و گرم جنگیں بہادری ہی سے نہیں زیرکی سے بھی لڑی جاتی ہیں۔ امریکہ نے ایک ایٹم بم پھینک کر جاپانی شجاعت کو ٹھکانے لگا دیا تھا۔ جب یورپی اقوام نے دنیائے اسلام پر قبضہ جمایا تو اس کی ایک وجہ یہ بھی تھی کہ وہ اسلحہ میں برتر تھے۔ انگریز برصغیر سے اس لیے بھاگنے پر مجبور ہوا تھا کہ مسلمان سپاہ کو جدید ترین فوجی ٹریننگ مل گئی تھی اور انگریز اس سے خائف تھا۔ آج ہمیں حال کی تاریخ بھی اسی حقیقت کا پتا دے رہی ہے کہ دفاعی اسلحہ کی تیاری کے بغیر ہمیں زندہ رہنے کا کوئی حق حاصل نہیں۔ پیغمبر اسلام خاتم النبیین ﷺ نے وصال فرمایا تو متاع دنیا کا کوئی ورثہ چھوڑ نہ کر گئے تھے لیکن گھر میں دفاعی سامان یعنی تلواروں اور برچھیوں وغیرہ کا لازمی ذخیرہ موجود تھا۔

صنعتی اور زرعی ترقی

دفاعی سامان کے بعد ہماری دوسری ضرورت دانے، چنے کی دال، قمیص کے بٹن اور بوٹ کے تسمے سے لے کر ایٹم بم تک کے لیے اپنے قدموں پر کھڑا ہونا ہے۔

اسلامی ممالک میں معدنی ذخائر

آج اسلامی حکومتیں اپنی سرزمین اور قسمت کی خود مالک ہیں۔ اسلامی سرزمینوں میں عطیات قدرت کے بے بہا اور بے پایاں ذخیرے پوشیدہ پڑے ہیں اور اپنی نمود کے لیے میٹھے فرہاد کے منتظر ہیں۔ وہ کون سی معدنیات ہیں جن کا سراغ اسلامی ممالک کی سرزمینوں میں نہیں ملتا ہے۔ تیل کے چشمے بحر و بر کی گہرائیوں سے ابل رہے ہیں اور پوری دنیا ان کی ایک ایک بوند کے لیے بے لگائے بیٹھی ہے۔ عرب دنیا اگر آج اپنے روغنی چشموں کا فیض یورپ سے روک لے تو یورپ کی پوری زندگی آنا فانا معطل ہو کر رہ جائے اور ان کی صنعتوں کا چکا چوند کا نشان تک نہ رہے۔

یہودیت

پہلی عالمگیر جنگ میں عربوں نے ترکیہ کے خلاف انگریزوں کا ساتھ دیا تھا۔ اس کا صلہ انگریز نے انھیں یہ دیا کہ ان کے وطن کا ایک حصہ یہود کے حوالے کر دیا۔ برطانوی وزیراعظم نے 1922ء میں اعلان کیا کہ فلسطین یہود کا آبائی وطن ہے۔ اس لیے ان کو دوبارہ یہاں آباد کیا جائے گا۔ فلسطین کے عرب باشندے بے گھر ہو گئے اور وہاں یہودی ریاست قائم ہوگئی۔ اس ریاست نے آہستہ آہستہ اتنی قوت پیدا کر لی ہے کہ ساری ملت اسلامیہ کو للکار رہی ہے۔ یہود کے ارادے یہ ہیں کہ وہ اپنے بازو پھیلا کر پوری عرب دنیا پر پنجے گاڑے یہودی پھیلاؤ اب ایک تحریک کی صورت اختیار کر گیا ہے۔ صیہونی تحریک کا نشانہ عرب دنیا ہے۔ اس تحریک کی مرشت بھی اس راز کی غمازی کر رہی ہے کہ یہود اپنی ہی طاقت کے نشہ میں مخمور ہو کر سر کے بل گرا چاہتے ہیں۔ قرآن حکیم کے اس اعلان کی تعبیر کے دن قریب آ گئے ہیں کہ یہود جہاں کہیں بھی ہوں ان پر ذلت چسپاں کر دی گئی ہے۔ اس کے لیے اہل اسلام کو نہ صرف تدبر کا جو ہر دکھانا ہے۔ بل کہ آگ اور خون کا کھیل بھی کھیلنا ہے۔

..... ☆ .....

پولیس اور رشوت کا خاتمہ

کرپشن کا ناسور سارے معاشرے کی رگ و پے میں خطرناک حد تک سرائیت کر چکا ہے۔ جس کی سب سے گھناؤنی صورت رشوت ہے۔ نقدی کی صورت میں ہو یا تحفہ کی صورت میں جائز ناجائز کردانے کے لیے رشوت دینے والا اور لینے والا دونوں ہمہ وقت تیار ملتے ہیں۔ اسلام کی نظر میں رشوت لینا اور دینا دونوں قبیح ترین افعال ہیں۔ قرآن پاک میں رشوت کے ناسور کے متعلق ارشاد ہے:

ترجمہ:

"اور آپس میں ایک دوسرے کا مال ناحق نہ کھاؤ اور نہ مال حاکموں کے پاس (رشوت) پہنچاؤ کہ لوگوں کے مال میں تھوڑا بہت (جو کچھ ہاتھ لگے) اسی کو جان بوجھ کر ناجائز طور پر کھا جاؤ" (سورۃ البقرہ: 188)

جب کہ نبی آخر الزماں سرور کائنات حضرت محمد ﷺ کا ارشاد پاک ہے:

الراشی والمرتشی کلاھما فی النار۔

ترجمہ:

"رشوت لینے اور دینے والا دونوں جہنمی ہیں۔"

اس طرح قرآن پاک اور احادیث میں متعدد مقامات پر رشوت خوری جیسی لعنت کی سختی سے مذمت کی گئی ہے۔ بل کہ اسلام تو رشوت ستانی کی لعنت کے خاتمہ کے لیے ضروری قرار دیتا ہے کہ راشی و مرتشی اور ان کے درمیان واسطہ بننے والے افراد کے خلاف بھی سخت تادیبی کارروائی کی جائے۔ اس سلسلہ میں ارشاد نبوی

خاتم النبیین ﷺ ہے:

ترجمہ:

"جس شخص نے کسی قوم کی زمین میں ان کی اجازت سے کوئی عمارت بنائی اسے اس زمین کی قیمت دینا ہوگی اور جس نے بغیر اجازت کے کوئی تعمیر کی اسے عمارت توڑ لینی چاہیے"۔

مندرجہ بالا احکامات کی روشنی میں رشوت کے خاتمے کے لیے تمام پاکستانی حکومتوں نے حتی المقدور کوشش کی لیکن بدقسمتی سے اس لعنت کا خاتمہ نہ ہوسکا۔ بلکہ اس میں ظالمانہ حد تک اضافہ ہوتا چلا گیا ہے۔ جس نے پاکستانی معاشرت کی بنیادیں کھوکھلی کرکے رکھ دیں۔ بدقسمتی سے اس لعنت کا سب سے زیادہ شکار پولیس کا محکمہ ہوا۔ مختلف شماریاتی و تجزیاتی سروے رپورٹس کے مطابق وطن عزیز میں انصاف کا حصول صرف پیسوں کی مدد سے ممکن ہے۔ یعنی مظلوم کو بھی انصاف حاصل کرنے کے لیے رشوت کا سہارا لینا پڑتا ہے۔ یہ رشوت کا ہی کمال ہے کہ پاکستانی شہری قانون شکنی کو اپنے لیے باعث فخر تصور کرتے ہیں۔ اگر اس صورتِ حال کو بنظر غائز ملاحظہ کریں تو پتا چلتا ہے کہ رشوت کی وجہ سے پورے کا پورا آوا ہی بگڑ چکا ہے۔ اگر صورتِ حال یہ رخ اختیار کر چکی ہے تو پھر سوال یہ پیدا ہوتا ہے کہ رشوت کا خاتمہ کیسے ممکن ہے؟

حیرت کی بات یہ ہے کہ پولیس کا نام ذہن میں آتے ہی رشوت ستانی کا لفظ یاد آتا ہے تو وہیں پر چند پولیس والے ایسے بھی ہیں جو رشوت نہیں لیتے ہیں۔ اس کی بنیادی وجہ کیا ہے۔ ایک طالب علم کا اسے جاننا انتہائی ضروری ہے۔ رشوت خوری کی لعنت میں ملوث سرکاری اہلکاروں کا کہنا ہے کہ حکومت انہیں زندگی بسر کرنے کے لیے جو مشاہرہ دیتی ہے وہ انتہائی کم ہوتا ہے۔ اس میں ایک ماہ تو دور کی بات چند ایام گزارنا بھی محال ہے۔ ضرورت کو پورا کرنے کے لیے رشوت خوری کا عمل شروع ہوا۔ آج یہ وقت کے ساتھ ساتھ ترقی کرتے ہوئے معاشرتی فیشن بن گیا۔ اب ہم رشوت کا تقاضا کریں یا نہ کریں۔ کام کے لیے آنے والا شہری از خود رشوت پیش کرتا ہے تاکہ اس کا کام جلد از جلد ہو سکے۔ اسی طرح اگر کوئی شہری سڑک پر گاڑی چلاتے ہوئے ٹریفک قوانین کی خلاف ورزی کا مرتکب ہوتو جوں ہی پولیس اہلکار اسے روکتا ہے تو وہ فوراً جیب میں سے پیسے نکال اس کے حوالے کرتا ہے تاکہ اسے بھاری جرمانہ اور عدالتی چکروں میں گرفتار نہ ہونا پڑے۔ ایسی صورتِ حال میں پولیس ملازم یا کسی دوسرے محکمہ کے ملازمین کا کیا قصور ہے؟ جب کہ ان کے ڈیوٹی کے اوقات کار بھی انتہائی ظالمانہ ہیں۔ جس کی مہذب معاشرے میں قطعاً گنجائش نہیں ہے۔

زن، زر، زمین انسانی فطرت کا بنیادی تقاضا ہے۔ ان اشیاء کے حصول کے لیے انسان ہمہ وقت جائز ناجائز ذرائع سے دولت اکٹھی کرنے میں مصروف رہتا ہے۔ جن لوگوں کے پاس دولت فالتو ہو جائے تو وہ جس قسم کے افعال سر عام کرتے پھرتے ہیں انہیں دیکھ کر دولت سے محروم افراد کے اندر بھی دولت جمع کرکے ان اشغال سے لطف اندوز ہونے کی تحریک جنم لیتی ہے۔ در حقیقت یہی پہلو انسان کو رشوت لینے پر اکساتا اور مجبور کرتا ہے۔ اسی طرح طاقتور اور بارسوخ افراد قانون شکنی کا باعث بنتے ہیں۔ ان لوگوں کا رویہ عام شہری کو بری طرح متاثر کرتا ہے۔ نتیجتاً وہ بھی بارسوخ اور طاقتور افراد کا نام استعمال کرکے قانون شکنی کرتے پھرتے ہیں۔ معاشرے میں قانون شکنی کے عام رجحان نے پوری قوم کو عذاب سے دوچار کرکے رکھ دیا ہے۔ جرائم آئے روز کا معمول بن چکے ہیں۔ جرائم کے اسباب پر غور کیا جائے تو پتا چلتا ہے کہ سب کیا دھرا رشوت خوری کی لعنت کا ہے۔

پولیس کے اندر رشوت خوری کی لعنت کے خاتمے کے لیے ضروری ہے کہ دینی و اخلاقی معیارات کو مدِنظر رکھتے ہوئے اہلکاروں کی ذہنی و نفسیاتی تربیت کی جائے اور اگر پولیس ملازمین درج ذیل بنیادی امور کا خیال رکھیں تو رشوت خوری کا خاتمہ ممکن ہے۔

☆ پولیس آفیسر کی بنیادی خوبی اس کا حسن اخلاق ہے۔

☆ پولیس آفیسر کو ایمانداری اور دیانتداری کے اوصاف سے مالا مال ہونا چاہیے اور فرائض کی ادائیگی کے دوران وہ کبھی بھی حق کا دامن ہاتھ سے نہ چھوڑے۔

☆ اسے دوسرے افراد کے ساتھ گفتگو کرنے کا سلیقہ آتا ہو، تاکہ وہ انہیں مطمئن کر سکے۔

☆ اسے ذاتی طور پر بردباری اور تحمل کی پالیسی پر عمل کرنا چاہیے۔

☆ اس کے اندر استقلال اور نرم گوئی کا پہلو موجود ہوتا کہ دوسرے لوگ اس سے بات کرتے ہوئے نہ گھبرائیں۔

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☆ اسے کسی بھی صورت میں غصے اور جبر کی طرف راغب نہیں ہونا چاہیے۔

☆ اس کے دل میں قانون کا احترام موجود ہونا چاہیے اور ساتھ ہی ساتھ دل میں جرم سے نفرت بھی پائی جاتی ہو۔

☆ جذبہ خدمت خلق سے سرشار ہو اور سائل یا متاثرہ افراد کے ساتھ ہمدردی سے پیش آئے۔

☆ وہ میانہ روی کی خصوصیت پر عمل کرے۔

☆ دنیا کو امتحان گاہ تصور کرتے ہوئے آخرت میں کامیابی کے لیے ہر وقت کوشاں رہے۔

☆ ایفائے عہد اور انصاف جیسے اصولوں کی پیروی کو لازم جانے۔

☆ پولیس آفیسر وقت کا پابند ہو۔

☆ قناعت پسندی کی عادت کو اپنائے۔

☆ کسب حلال کے حصول کے لیے ہر وقت کوشاں رہے۔

جن افراد کے اندر مندرجہ بالا خوبیاں پیدا ہو جائیں وہ کبھی بھی حق و صداقت کا دامن ہاتھ سے نہیں چھوڑتے ہیں۔ ویسے بھی یہ اوصاف پولیس کو دوسرے اداروں سے ممتاز بنانے کا باعث ہیں۔ گو چند حلقوں کا کہنا ہے کہ پولیس کی تنخواہ دیگر محکموں کی نسبت کہیں زیادہ ہیں جن میں با آسانی گذر بسر ہو سکتی ہے۔ اگر یہ بات درست ہے تو پھر ہمیں جائزہ لینا ہو گا کہ اگر نیشنل ہائی ویز موٹروے پولیس کے اہل کار با آسانی اپنا اور اپنے بچوں کا پیٹ پال سکتا ہے تو پھر اس سے کہیں زیادہ تنخواہ لینے والے محکموں کے اہلکار اور افسران رشوت خوری کی لعنت میں کیوں ملوث ہیں؟

معاملہ کم یا زیادہ تنخواہ کا نہیں بلکہ ذہنی نفسیاتی تربیت کا ہے۔ اگر نیشنل ہائی ویز اینڈ موٹروے پولیس کے حکام تعلیم و تربیت کے ہتھیار کا فائدہ اٹھاتے ہوئے اپنے اہلکاران کی حالت بدل سکتے ہیں تو پھر یہ تجربہ دوسری جگہوں پر کیوں نہیں کیا جاتا ہے۔ حالاں کہ اس پولیس میں کام کرنے والے افراد کی اکثریت دوسری پولیس سے تبادلہ کروا کر یہاں آئی ہے۔ جو اپنے گھر بار سے دور نوکری کرنے کے باوجود اپنی زندگی سے مطمئن ہیں۔ حالاں کہ وہ تھانوں میں ڈیوٹی کرتے ہوئے یہاں کی نسبت کہیں زیادہ کمائی کر لیتے تھے۔ اگر اس صورت حال کا بغور جائزہ لیا جائے تو ہمیں یہ کہنے میں قطعاً کوئی عار محسوس نہیں ہونا چاہیے کہ اعلیٰ تربیتی معیار ملک و قوم کے اندر سے کرپشن بالخصوص رشوت خوری کے ناسور کا خاتمہ یقینی بنا سکتا ہے۔

.... ☆ ....

زندگی اور ادب

ادب کیا ہے؟ اس کے بارے میں مختلف ادوار میں مختلف نظریات پیش کیے گئے ہیں۔ مشترک خیال یہ ہے کہ ادب زندگی کی عکاسی کا نام ہے اور حسن اور سلیقے سے مؤثر پیرائے میں خیالات کا اظہار ادب ہے۔ ادب اور زندگی کا آپس میں گہرا تعلق ہے۔ دونوں اس طرح مربوط ہیں کہ ایک کے بغیر دوسرے کا تصور ممکن نہیں۔ مختصر یہ کہ ادب کا تعلق زندگی سے بہت گہرا ہے۔ آپ نے کبھی ایسا شعر یا جملہ نہیں سنا ہو گا جو زندگی کے کسی نہ کسی پہلو سے متعلق نہ ہو۔ ادیب آخر سماج کا ہی ایک فرد ہوتا ہے اور اس کی داخلی کیفیات کا اظہار خارجی محرکات کا مرہون منت ہے۔

زندگی ارتقا کا مسلسل ارتقا کا نام ہے، جس میں انفرادی اور اجتماعی دونوں پہلو شانہ بشانہ چلتے ہیں۔ زندگی کے چند بنیادی مطالبات ہیں جن کی تکمیل ادبی تخلیقات کی صورت میں رونما ہوتی ہے اور یہ تقاضے فطری صلاحیتوں کے سرچشمے سے نکلتے ہیں، جو قدرت کی طرف سے انسان کو ودیعت کی گئی ہیں مثلاً انسان فطرتاً داخلی واردات کو دوسرے انسانوں پر ظاہر کرنے پر مجبور ہے اور پھر انسان معاشی حیوان ہونے کی حیثیت سے دوسرے انسانوں کے افعال اور اعمال سے گہرا لگاؤ رکھتا ہے اور اس کا اظہار الفاظ کے ذریعے کرتا ہے۔ اس طرح یہ تخلیقات عمل میں آتی ہیں، لیکن ان تخلیقات میں رنگ ثبات و دوام اس وقت پیدا ہوتا ہے جب زندگی کی دائمی قدروں کے ساتھ ساتھ فنی اور جمالیاتی اقتدار کا بھی رنگ موجود ہو۔ رومی، سعدی، مرزا غالب اور اقبال رحمۃ اللہ علیہ وغیرہ کی بقا اس حقیقت کی شاہد ہے کہ جہاں انھوں نے زندگی کی بنیادی قدروں اور مسائل کو اپنے ادب میں سمو دیا، وہاں رنگ آمیزی بھی کی ہے اور یہی امتزاج ان کی عظمت کا باعث ہے، غالب نے اس حقیقت کو یوں بیان کیا ہے۔

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اسد ہے دور شمع حسن فروغ

کوئی کرے پیدا گداختہ دل پہلے

اور اقبال رحمۃ اللہ علیہ نے بھی اسی خیال کو ظاہر کیا ہے۔

نقش ہیں سب ناتمام خون جگر کے بغیر

ہر دور کا ادب اور فن اس دور کی زندگی کے لیے پیدا ہوا ہے اور اس کی نمائندگی بھی کرتا ہے اور پھر آنے والے دور کا نقیب بن جاتا ہے، اسی لیے جہاں وہ اپنے ماحول کی عکاسی کرتا ہے، وہاں وہ نئے ماحول کا خالق بھی ہوتا ہے۔ بعض نقادوں ادیبوں اور شاعروں نے ادب اور زندگی کے رشتے کو سمجھنے میں غلطی کی اور ادب برائے ادب کا نعرہ لگایا۔ ادبی تحریکیں چلیں۔ بعض نے کہا ادب کی دو حیثیتیں سماجی اور فنی ہیں۔ اگر ادب میں زندگی کے سنگین مسائل وحقائق کیے پیش کیے جائیں تو فنی معیار گر جاتا رہے گا۔ سب سے پہلے ایک ایسی تحریک کے علم برداروں کے نزدیک ادب کا سب سے بڑا مقصد تخلیقی حسن ہے۔ ادب میں افادیت کا تصور ان کے نزدیک کفر ہے، ان کے نزدیک وہ فنکار جو فن کی بجائے کسی اور مقصد کا متلاشی ہو، فنکار ہی نہیں۔ ان کے نزدیک جواد با موضوع اور مواد محض بلند کرتے رہے مگر ان کی تخلیقات زندگی کی حقیقتوں کو نظر انداز کرنے میں کامیاب نہ ہو سکیں۔ اس جمالیاتی نظریے کو پیش کرنے والے ایسے ادب سے نفرت کرتے تھے، جس میں کوئی مخصوص مقصدیت ہو جیسا کہ کیٹس (Keats) نے کہا ہے:

"حسین چیز بجائے خود ایک ابدی مسرت ہے"

سب سے پہلے جس نے ادب کی معقول تعریف کی اور ادب وزندگی میں مطابقت پیدا کرنے کی کوشش کی وہ میتھیو آرلڈ تھا۔ اس نے ادب کو زندگی کی تنقید قرار دیا۔ ادب زندگی کی عکاسی اور ترجمانی ہی نہیں کرتا، بل کہ زندگی کو تنقیدی نظر سے دیکھتا بھی ہے۔ ایک اچھا ادیب صرف یہی نہیں جانتا کہ وہ کیا کہہ رہا ہے بل کہ اس کے نزدیک یہ بھی ایک سوچی سمجھی بات ہوتی ہے کہ وہ کیوں کہہ رہا ہے اور اس کا اثر معاشرے پر کیا ہو سکتا ہے، کیوں کہ ادب کا مقصد انسانی زندگی کو بہتر بنانا ہے۔ حقیقت ہے کہ دنیا کا کوئی ادیب بھی اپنے گرد پیش زندگی کی زندگی سے کبھی دامن نہیں بچا سکا۔ اردو غزل ہی کو لیجیے جسے محض گل و بلبل کے افسانوں تک محدود سمجھا جاتا ہے۔ وہاں کے ہاں معاشرتی زندگی کے حقائق ملتے ہیں، میر کی غزلوں میں اٹھارہویں صدی کے سیاسی مزاج اور انتشار کا عکس موجود ہے اسی طرح میر درد کی غزلوں میں دنیا کی بے ثباتی اور زندگی کے طوفان میں جینے کے ہاتھوں مر چلنے کی شکایت اس دور کی سماجی بد حالی کی پیداوار ہے۔ ہمارے افسانوی ادب میں بھی ہر دور کی زندگی کے نقشے ملتے ہیں۔ 1857ء کے بعد ہمارے ادب میں انقلاب بر پا ہوا۔ سرسید اور ان کے رفقا نے نئے ادب کے مکتب کی بنیاد ڈالی۔ حب وطن اور قومی شاعری کا رواج ہوا اور انھیں احساس ہوا کہ قدیم علم و ادب کے دفتر بے معنی ہیں۔ اب لوگوں کے سامنے ادب و شعر کا وہ نمونہ تھا جو سرسید اور ان کے رفقا نے پیش کیا تھا۔ اقبال رحمۃ اللہ علیہ اور اس کے معاصرین نے ادب سے قومی اصلاح کا کام لیا۔

1935-36ء میں ترقی پسند تحریک چلی اور ادب برائے ادب اور ادب برائے زندگی پر بحث شروع ہوئی۔ ادب برائے ادب کے مخالفین بھی حد سے زیادہ تجاوز کر گئے۔ کچھ لوگ حقیقت پسندی کے جنون میں فن اور جمالیاتی پہلو کو نظر انداز کر گئے۔ ایک گروہ ایسا بھی ہے جو جادہ اعتدال پر رہا۔ وہ جہاں ادب کے لیے زندگی کی ترجمانی ضروری قرار دیتا ہے وہاں اس کے جمالیاتی پہلو کو بھی ناگزیر گردانتا ہے، یعنی ادب کا مقصد حظ آفرینی کے ساتھ ساتھ معاشرتی اصلاح بھی ہے۔ فن میں مقصدیت کا بابا دراصل افلاطون ہے جس نے ادب کے لیے اخلاقی ہونا ضروری قرار دیا ہے۔ اس کے نزدیک ادب کا ایک مقصد اچھے شہری پیدا کرنا ہے۔ اقبال رحمۃ اللہ علیہ بھی ادب کی افادیت کے قائل ہیں، ان کے نزدیک اچھا شاعر یا ادیب وہ ہے جس کے دل میں قوم کا درد ہے:

شاعر رنگین نوا ہے دیدہ بینائے قوم

جدید دور میں بھی ہمارے شاعروں اور ادیبوں نے ہماری زندگی اور اس کے بدلتے ہوئے تقاضوں کی ترجمانی کی ہے۔ تقسیم ہند کا واقعہ ہو یا 1965ء کی جنگ یا سقوط مشرقی پاکستان، ہمارے ادیب زندگی کے ان تقاضوں سے بے نیاز نہیں رہے۔

الغرض ادب کا موضوع زندگی ہے اور اس کے کئی پہلو ہیں۔ معاشرتی، سماجی، تعلیمی اور اخلاقی۔ زندگی گوناگوں پیغامات کی حامل ہے اور یہی تنوع ادب کا موضوع ہے۔ مذہب و اخلاق اور ادب میں چولی دامن کا ساتھ رہا ہے۔ خود تصوف نے ہماری فارسی اور اردو شاعری میں عجیب و غریب رنگ بھرے ہیں۔ اقبال رحمۃ اللہ علیہ کی شاعری اس لحاظ سے پیش کی جا سکتی ہے۔ لیکن یہ یاد رکھنا چاہیے کہ ادیب اور شاعر کا نقطہ نظر زندگی اور اس کے حقائق کے بارے میں عامیانہ نہیں

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ہوتا، بل کہ وہ اپنے احساسات ومشاہدات کے لیے منفرد انداز اختیار کرتا ہے۔ یہی وجہ ہے کہ معیاری ادب اخلاقی اقدار اور زندگی کے اجتماعی مسائل کا حامل ہوتے ہوئے بھی محض تبلیغ اور پند و نصائح کا دفتر نہیں ہوتا۔ ادبی تخلیقات کو تین حصوں میں تقسیم کیا جا سکتا ہے۔ اول وہ تحریریں ہیں جن میں زندگی سنوارنے کی کوششیں بھی ہیں اور جمالیاتی پہلو بھی ہے۔ اقبال رحمۃ اللہ علیہ کا بیشتر کلام اسی ضمن میں آتا ہے۔ دوم وہ تحریریں ہیں جن میں زندگی سنوارنے کی کوششیں نہیں کاری حسن کاری موجود ہے، مثلاً درد کا یہ شعر ہے۔

زندگی ہے یا کوئی طوفان ہے

ہم تو اس جینے کے ہاتھوں مر چلے

ایسی تحریروں میں چاہے احساس شکست ہو یا زندگی سے بیزاری، لیکن چوں کہ ان کا تعلق انسان کے بنیادی تقاضوں سے ہوتا ہے اس لیے ایسی تحریریں بھی تر و تازہ رہتی ہیں۔ تیسری قسم ان تخلیقات کی ہے، جن میں زندگی تو ہوتی ہے، مگر وہ شعریت سے عاری ہوتی ہے، مثلاً حالی کا یہ شعر

کب کیا، کیوں کر کیا، یہ پوچھتا کوئی نہیں

بل کہ یہ دیکھتے ہیں جو کچھ کیا کیسا کیا

ایسی باتیں زندگی آمیز تو ہیں لیکن خود ان میں زندگی نہیں اس لحاظ سے پہلی دو قسم کی تحریریں زیادہ پائیدار ہوتی ہیں۔

.... ☆ ....

فوجی تربیت کیوں ضروری ہے؟

تاریخِ عالم کا مطالعہ کیا جائے تو پتا چلتا ہے کہ ہمیشہ طاقت ور اقوام کمزور قوموں پر دنداں حرص تیز کرتے ہوئے اپنی ہوس اپنی ہوس اقتدار کا نشانہ بناتی آئی ہیں۔ جاہ پرست بادشاہوں، طالع آز ما جرنیلوں اور مہم جو سالاروں کے ہاتھوں بندگانِ خدا پر ملکوں ملکوں قیامتیں ٹوٹتی رہتی ہیں۔ سکندرِ اعظم اور اس کے گھڑ سواروں نے یونان سے پنجاب تک کے علاقوں کو اپنے گھوڑوں کے سموں تلے روند ڈالا تھا۔ چنگیز خاں اور ہلاکو خاں جیسے خون آشام تا تاریوں نے اسلامی دنیا کی اینٹ سے اینٹ بجاتے ہوئے اس وقت کی ساری مہذب آبادیوں کو خون میں نہلا کے رکھ دیا تھا۔ ہن قوم کے وحشی لشکر نے پولینڈ تک مار کے راکھ کے ڈھیر میں تبدیل کر دیا تھا۔ خود برصغیر پاک و ہند کی قدیم و جدید تاریخ کے اوراق چھوٹی بڑی کتنی ہی جنگوں کے چھینٹوں سے خون آلود ہیں۔

بڑے ممالک ہی چھوٹے ممالک پر لالچائی ہوئی نظروں سے دیکھتے آئے ہیں۔ چھوٹی قوموں پر بڑی قوموں کی رال ہمیشہ ہی ٹپکتی رہی ہے اور یہ بزعم خود بڑی قومیں اپنے سیاسی اور مادی مفادات کی خاطر مختلف حیلوں بہانوں کی آڑ لیتے ہوئے چھوٹی قوموں کی آزادی ختم کرنے کے بہانے درپے رہی ہیں۔ جس طرح انگریز ہندوستان کی سرزمین پر محض تاجر کی حیثیت سے وارد ہوئے تھے لیکن مقامی حکمرانوں کے انتشار سے فائدہ اٹھا کر جوڑ توڑ کر کے اور ریشہ دوانیوں سے کام لیتے ہوئے سیاسی طاقت حاصل کر کے ملک کے فرماں رواں بن بیٹھے تھے، اسی طرح آج کی طاقت ور اقوام کمزور اقوام کو ہڑپ کرنے پر تلی ہوئی ہیں۔ چناں چہ دنیا کے کمزور اور چھوٹے ملکوں کے لیے ضروری ہو جاتا ہے کہ وہ اپنی آزادی و سالمیت کی حفاظت کے لیے ہر ممکن تدابیر اختیار کریں اور ملکی سرحدوں کے دفاع کے لیے تمام وسائل بروئے کار لائیں۔

موجودہ دور میں مہلک ہتھیاروں کی نئی نئی ایجادات کی وجہ سے جنگیں پرانے دور کی جنگوں سے بالکل مختلف ہو گئی ہیں اور جنگ کا روایتی تصور بالکل تبدیل بل کہ ختم ہو گیا ہے۔ ماضی میں کھلے میدانوں میں افواج کا آمنا سامنا ہوتا تھا۔ تیر بگوار اور نیزے جیسے ہتھیار کام میں لائے جاتے تھے۔ شہری آبادیاں نہ ان جنگوں میں شامل ہوتی تھی اور نہ ان سے متاثر ہوتی تھیں مگر دورِ حاضر کی جنگوں میں صرف فریقین کی فوجیں ہی نہیں لڑتیں بل کہ اکثر و بیشتر فریقین کی شہری آبادی کو بھی لڑائی میں شریک ہونا پڑتا ہے۔ اب جنگ نہ تو کسی ملک کی سرحدوں پر لڑی جاتی ہے اور نہ سرحدوں تک محدود رہتی ہے بل کہ دشمن پچھلی جانب سے وار کرنے اور اپنے حریف ملک کی فوجی صفیں درہم برہم کرنے کے لیے طیاروں اور ہیلی کاپٹروں کے ذریعے میدان جنگ کے عقب میں اپنی چھاونی بردار فوجیں اتار دیتا ہے۔ اب گولے اور بم صرف فوجی ٹھکانوں پر ہی نہیں گرائے جاتے بل کہ شہری آبادیوں، کارخانوں اور صنعتی مراکز کو بھی ان کا نشانہ بنایا جاتا ہے۔

چناں چہ آج کے دور میں اگر کوئی ملک اپنی سلامتی اور بقا چاہتا ہے تو اس کے لیے ضروری ہے کہ وہ اپنی فوجی ہی نہیں بل کہ اپنی قوم کے ایک ایک فرد کو

پوری اور باقاعدہ فوجی تربیت دے تاکہ دشمن اگر اس کے کسی ایک علاقے پر بھی قبضہ کر لے تو ملک کے عام شہری گلی گلی اور کوچے کوچے میں جنگ جاری رکھ کر اسے ملکی سرحدوں سے باہر دھکیل دیں۔ اگر دشمن شہری آبادیوں پر قابض ہو جائے تو جنگلوں، پہاڑوں اور صحراؤں کو مرکز بنا کر اس کے خلاف چھاپہ مار جنگ جاری رکھیں اور اس طرح گوریلا جنگ سے دشمن کا ناطقہ بند کر دیں۔ الجزائر نے فرانس کے خلاف، ویت نام نے امریکہ کے خلاف اور افغانستان نے روس کے خلاف چھاپہ مار جنگ کر کے ہی اپنے سے کئی گنا بڑی اور عالمی وسائل رکھنے والی طاقتوں کو نیچا دکھایا ہے۔

پاکستان ایک چھوٹا سا ملک ہے اور اسے روز اول ہی سے اپنی آزادی برقرار رکھنے کا مسئلہ پیش رہا ہے۔ اتنے برس گزر جانے کے باوجود پاکستان کی سلامیت کو لاحق خطرے میں کوئی کمی نہیں ہوئی اور اس کی بڑی وجہ یہ ہے کہ اسے بھارت جیسے عیار، مکار و عہد خلاف اور کینہ تو ز دشمن سے واسطہ پڑا ہے جس نے پاکستان کے قیام کو ایک لمحے کے لیے بھی صدق دل سے قبول نہیں کیا۔ رقبے کے لحاظ سے پاکستان بھارت کا 1/6 حصہ ہے اور اس کی افواج اور دیگر جنگی وسائل بھی بھارت کے مقابلے میں بہت کم ہیں۔ کشمیر کے مسئلے پر پاکستان کی بھارت سے تین جنگیں ہو چکی ہیں اور تیسری جنگ میں تو پاکستان اپنے مشرقی بازو سے بھی محروم ہو چکا ہے مگر اس کے باوجود بھارت کے معاندانہ رویے میں کمی نہیں آئی۔ اس سلسلے میں بڑی طاقتوں کا رویہ بھی پاکستان کے حق میں نہیں بل کہ اس کے خلاف جاتا ہے کیوں کہ یہ طاقتیں حق اور انصاف کا ساتھ دینے کے بجائے صرف اپنے مفادات سامنے رکھتی ہیں۔ کشمیری عوام بھارت کے چنگل سے آزادی حاصل کرنے کے لیے سر دھڑ کی بازی لگائے ہوئے ہیں اور اس سلسلے میں انھیں پاکستان کی پوری تائید اور اخلاقی امداد حاصل ہے۔ اس کے باوجود بھارت کشمیر سے دست بردار ہونے پر آمادہ نظر نہیں آتا۔ اس کے سامراجی عزائم میں کوئی کمی نہیں آئی اور وہ کسی وقت بھی جھلا ہٹ کے عالم میں یا کوئی عذر لنگ تراش کر پاکستان پر حملہ آور ہو سکتا ہے۔

اس قسم کے نازک حالات میں بھارت کی فوجی قوت اور اس کے جارحانہ عزائم کا مقابلہ کرنے کے لیے ضروری ہو جاتا ہے کہ پاکستان کے دفاعی انتظامات کو زیادہ سے زیادہ مضبوط بنایا جائے، لیکن بھارت کے مقابلے میں ہمارے وسائل اس کے وسائل کے لحاظ سے بہت تھوڑے ہیں۔ تعداد کے لحاظ سے ہماری فوج ہمیشہ اس کے مقابلے میں کم رہے گی۔ چناں چہ بھارت کے سامراجی عزائم کا مقابلہ کرنے اور اپنی آزادی کی حفاظت کرنے کے لیے صرف ایک ہی صورت باقی رہ جاتی ہے اور وہ یہ ہے کہ ہم اپنے ملک میں لازمی فوجی تربیت کا نظام رائج کریں جس کے تحت یہ ضروری ہو کہ ملک کے نوجوان ہی نہیں بل کہ تمام صحت مند افراد فوجی تربیت حاصل کریں۔ اس سلسلے میں سکولوں اور کالجوں کے طلبہ اور طالبات کو فوجی تربیت لازمی طور پر دینے کا قانون بطور خاص بنانا اور نافذ کرنا ضروری ہے۔ اس وقت تعلیمی اداروں میں رضا کارانہ طور پر فوجی تربیت حاصل کرنے کے جو انتظامات موجود ہیں ضرورت ہے کہ انھیں اس طور سے وسعت دی جائے کہ ہر تعلیمی ادارے کا ایک ایک طالب علم لازماً فوجی تربیت حاصل کر سکے۔ اس طرح ملت کے نونہال تعلیم کے ساتھ ساتھ شہری دفاع، نشانہ بازی اور مختلف جنگی ہتھیاروں کے استعمال کی تربیت حاصل کر کے قوم کی دفاعی طاقت میں اضافہ ثابت ہوں گے اور وقت آنے پر دشمن کے ہر چیلنج کا منہ توڑ جواب دے کر اس کے جارحانہ عزائم کو نا کام بنا سکیں گے۔

.... ☆ ....

تعمیر وطن میں طلبہ کا مقام

تاریخ عالم کے اوراق شاہد ہیں کہ ہر ملک اور ہر قوم کے اندر جب بھی کوئی انقلابی تبدیلی رونما ہوئی ہے اس میں نوجوانوں اور طالب علموں نے بنیادی کردار ادا کیا ہے۔ کسی قوم پر جب بھی کوئی مشکل وقت آتا ہے تو سب سے پہلے نوجوان اور طلبہ ہی قوم کی کشتی کو اس مشکل کے کڑے وقت سے نکالنے کے لیے آگے آگے بڑھتے ہیں۔ خود پاکستان کی تاریخ اس بات کی گواہی دیتی ہے کہ طلبہ نے منظم ہو کر ہر آڑے وقت میں قوم کو سہارا دیا ہے۔ طلبہ تحریک پاکستان کا ہراول دستہ تھے۔ انھوں نے قیام پاکستان کی جدوجہد میں بڑھ چڑھ کر اور نہایت جوش و خروش سے حصہ لیا۔ انھوں نے قائد اعظم محمد علی جناح کی آواز پر لبیک کہتے ہوئے ان تھک محنت، جانفشانی اور شبانہ روز مساعی سے قائد اعظم محمد علی جناح کے مشن کو قریب قریب بستی بستی اور گھر گھر پہنچایا۔ انھوں نے دور دراز قصبوں اور دیہات میں جا جا کر لوگوں کو نہ صرف پاکستان کا مطلب سمجھایا بل کہ مطالبۂ پاکستان کے حق میں فضا بھی ہموار کی۔ ان طلبہ میں کام کی بڑی لگن تھی۔ وہ غضب کے جوش عمل سے سرشار تھے۔ پاکستان کے حصول کی خاطر اپنی تعلیم اور عیش و آرام کو چھوڑ کر برصغیر کے گوشے گوشے میں تحریک پاکستان کے کارکن بن کر پھیل گئے اور اس طرح قوم کو پاکستان کی منزل تک پہنچانے میں ایک اہم اور فیصلہ کن کردار ادا کیا۔

اسی طرح جب صوبہ خیبر پختونخواہ میں ریفرنڈم کا مرحلہ آیا تو طلبہ نے آگے بڑھ کر عوام کی رہنمائی کی جس کے نتیجے میں اس صوبے کے غیر مسلمانوں نے قائداعظم محمد علی جناح کی قیادت پر اعتماد کا اظہار کرتے ہوئے پاکستان کے حق میں رائے دی۔ پھر پاکستان کے قیام کے فوراً بعد برباد خانماں و بے گھر قافلے پاکستان پہنچے تو ان کی آباد کاری کے سلسلے میں طلبہ نے ناقابل فراموش مہاجرین کی ہر ممکن دل جوئی کی۔ ان کے لیے راشن، طبی امداد اور دیگر ضروریات کی فراہمی کا بندوبست کیا۔ انھوں نے کمال بے لوثی اور بے غرضی سے مہاجرین کی شب و روز خدمت کر کے ان کی ڈھارس بندھائی اور ان کے زخموں پر اپنے حسن عمل کا مرہم رکھا۔ اسی طرح پاکستان میں وقتاً فوقتاً آنے والے سیلابوں سے برباد ہونے والے ہم وطنوں کی چارہ گری میں بھی طلبہ بڑھ چڑھ کر حصہ لیتے رہے ہیں۔

ستمبر 1965ء اور پھر دسمبر 1971ء کی جنگ میں جب ہماری قومی سالمیت داؤ پر لگی ہوئی تھی، طلبہ نے آگے بڑھ کر ہر طرح کی خدمات انجام دیں۔ انھوں نے زخمی فوجیوں کے لیے بڑھ چڑھ کر خون کا عطیہ دیا محاذ جنگ پر سامان رسد لے جانے کے لیے اپنی خدمات پیش کیں۔ انھوں نے خود محاذ جنگ پر بھی خدمات انجام دیں۔ شہروں سے سامانِ رسد اور فوجیوں کے لیے دیگر ضروریات کی فراہمی میں بھرپور تعاون کیا۔ گھر گھر جا کر جہاد فنڈ اکٹھا کیا اور شہری دفاع کے سلسلے میں بھی حتی المقدور اپنا فرض ادا کیا۔

طلبہ کی ان گراں قدر خدمات سے یہ بات روز روشن کی طرح عیاں ہو جاتی ہے کہ طلبہ نے پاکستان کے ہر سیاسی، معاشرتی اور معاشی بحران کے وقت قوم اور حکومت کی آواز پر لبیک کہا ہے۔ قوم نے جب جب طلبہ کو آواز دی ہے طلبہ نے آگے بڑھ کر ایثار و قربانی اور خدمت و جانفشانی کا فریضہ ادا کرتے ہوئے قوم اور وطن کی تعمیر میں حصہ لیا ہے۔ یہ اس بات کا زندہ ثبوت ہے کہ اگر طلبہ کو صحیح رہنمائی میسر آئے اور ان کے جوش جوانی کو تعمیر وطن کے مثبت راستے پر لگایا جائے تو وہ بہت کچھ کر سکتے ہیں اور بہت کچھ کر کے دکھا سکتے ہیں۔

قومی سالمیت، ملکی ترقی اور تعمیر وطن میں نوجوان اور بالخصوص طلبہ جو بنیادی کردار ادا کرتے ہیں وہ کسی سے پوشیدہ نہیں مگر یہ کردار بیک وقت ظہور میں نہیں آ جاتا ہے بلکہ اس کے پس منظر میں وہ تعلیم اور تربیت اور تربیت فیصلہ کن کردار ادا کرتی ہے جو طلبہ اپنی درس گاہوں میں حاصل کرتے ہیں۔ جس نہج پر ان کی تربیت ہوتی ہے ویسا ہی ان کا ذہن بنتا ہے اور وہ تکمیل تعلیم کے بعد زندگی کے جس شعبے میں بھی جاتے ہیں وہاں اپنے دائرہ کار میں انھی افعال و اطوار کا مظاہرہ کرتے ہیں جو انھوں نے اپنے زمانہ تعلیم کے دور میں اخذ کیے ہوتے ہیں چنانچہ تعمیر وطن میں مثبت کردار ادا کرنے کے لیے ضروری ہو جاتا ہے کہ دوران تعلیم طلبہ کی تعلیم و تربیت مثبت خطوط پر ہو۔

تعلیم کا زمانہ طلبہ کے لیے صرف تعلیم ہی نہیں ذہنی پختگی حاصل کرنے کا زمانہ بھی ہوتا ہے۔ یہ وہ دور ہوتا ہے جس میں وہ زندگی کے حقائق کا نظری حیثیت سے مطالعہ کرتے ہیں اور یہی نظری مطالعہ آگے چل کر انھیں زندگی کے حقائق کے بارے میں عملی رویہ اختیار کرنے کے بارے میں مدد اور رہنمائی فراہم کرتا ہے۔ یہ بات اس امر کا تقاضا کرتی ہے کہ طلبہ کا زمانہ تعلیم پرسکون ہو ہر قسم کی تعلیم کا ہنگامہ آرائی سے پاک ہو اور اس میں کسی بھی طرف سے اور کسی بہانے کی آڑ میں کوئی رخنہ یا رکاوٹ نہ پڑنے پائے۔ اساتذہ کے لیے ضروری ہے کہ وہ طلبہ کو مستقبل کے کردار کے لیے تیار کریں اور طلبہ پر لازم آتا ہے کہ وہ ہر قسم کی شورش، ہنگامہ آرائی، توڑ پھوڑ اور تخریبی سرگرمیوں سے دامن بچاتے ہوئے تعلیم حاصل کریں۔ اپنی درس گاہوں کے اندر اور باہر ان کا طرزِ عمل مثبت، خوش گوار اور تعمیری ہونا چاہیے۔ اپنے کسی تعلیمی مفاد کی خاطر یا اپنا کوئی جائز مطالبہ پیش کرنے اور اسے منوانے کے لیے انھیں کبھی قانونی، آئینی اور اخلاقی حدود سے تجاوز نہیں کرنا چاہیے۔

نوجوانوں بالخصوص طلبہ میں قدرے بے صبری اور جلد بازی کا مادہ ہوتا ہے۔ ان کی سوچ بھی بے لاگ ہوتی ہے اور وہ بڑے بوڑھوں کی طرح مصلحتوں کا شکار ہونے کی بجائے بلا خوف و خطر اپنے دل کی بات زبان پر لے آتے ہیں۔ سچی بات کا اظہار کرتے ہوئے وہ نہ تو ندامت کا شکار ہوتے ہیں اور نہ اپنے اس اقدام کو نفع نقصان کے ترازو میں تولتے ہیں۔ یہی وجہ ہے کہ جب وطن عزیز کی سلامتی کا مسئلہ پیش ہوتا ہے یا بڑی طاقتوں کے کسی سامراجی اقدام کی خدمت اور اس کے خلاف احتجاج کی نوبت آتی ہے تو بڑے بوڑھے تو سوچتے رہ جاتے ہیں مگر طلبہ کی جوانی کچھ نہ کچھ کر گزرتی ہے۔ وہ کلمہ حق بھی بلند کرتے ہیں اور جلوسوں یا جلسوں کی صورت میں اپنے شدید ردِ عمل کا اظہار بھی کرتے ہیں ان کی ان ہی سرگرمیوں کی بنیاد پر ان کے کردار کی عمارت قائم ہوتی ہے اور انھی کی بدولت وہ وقت پڑنے پر طلبہ کی حیثیت سے یا مستقبل میں قوم کے ذمہ دار افراد کی حیثیت سے ملکی ترقی، قومی سالمیت اور تعمیر وطن کے ضمن میں اپنا کردار صحیح طور پر ادا کرنے کے قابل ہوتے ہیں۔

اس سلسلے میں تیسری بات یہ ہے کہ طلبہ کو اپنے فطری رجحان کے مطابق درس گاہوں میں مختلف مواقع کی مناسبت سے ہونے والی غیر نصابی سرگرمیوں اور

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تقریبات میں بھرپور حصہ لینا چاہیے۔ کھیلوں کے مقابلے، تقریری اور تحریری مقابلے، مباحثے، کوئز پروگرام، مطالعاتی سفر اور اسی قسم کی دیگر تقریبات اور سرگرمیوں سے نہ صرف طلبہ کی معلومات میں اضافہ ہوتا ہے بلکہ ان کی مختلف صلاحیتیں بھی پروان چڑھتی ہیں۔ ان سرگرمیوں میں حصہ لینے سے ان کا ذہنی افق وسیع ہوتا ہے۔ مختلف جسمانی و عقلی مہارتیں حاصل ہوتی ہیں، شخصیت میں خود اعتمادی کا جوہر پیدا ہوتا ہے اپنی بات کہنے کا سلیقہ اور دوسروں کی بات سننے کا حوصلہ پیدا ہوتا ہے، صحت مندانہ مسابقت کا جذبہ ابھرتا ہے اور اس مسابقت کے حوالے سے دوسروں کی جیت اور اپنی ہار کو خوش دلی سے قبول کرنے کی صلاحیت پیدا ہوتی ہے۔ غرض ان سرگرمیوں کی بدولت طلبہ کے بہت سے ایسے جوہر ابھر کر سامنے آتے ہیں جن کا پہلے خود انہیں احساس تک نہیں ہوتا اور یہی جوہر نکھر کر سنور کر انہیں قوم اور ملک کا جوہر قابل بنانے میں مدد دیتے ہیں۔

اس سلسلے میں چوتھی بات یہ ہے کہ طلبہ کو اپنی تعلیم کے دوران براہ راست سیاسی سرگرمیوں میں حصہ لینے سے اجتناب کرنا چاہیے۔ وہ عملی اور نظری حیثیت سے سیاسیات اور ملکی سیاسی مسائل کا مطالعہ تو کریں لیکن اگر وہ عملی سیاست کے میدان میں کودنے کی کوشش کریں گے تو اپنی ناتجربہ کاری اور بے تدبیری کے باعث قوم کو فائدے کی بجائے نقصان پہنچانے کا موجب بنیں گے۔ اس امر کا مشاہدہ اکثر اس وقت ہوتا ہے جب طلبہ بعض مواقع پر غیض و غضب سے مغلوب ہو کر جوش کے سیلاب میں بہہ جاتے ہیں۔ ایسے میں وہ نیک و بد کی تمیز بھی نہیں کر سکتے اور بعض وطن دشمن عناصر کے بہکاوے میں آ کر اپنے ہی ملک کی قیمتی املاک کو تباہ کرنے لگتے ہیں۔ چنانچہ تعلیم کے حصول کے دوران انہیں عملی سیاست یا کسی دیگر ایسی سرگرمیوں میں حصہ لینا نہیں چاہیے جو ان کو تعلیم حاصل کرنے کے اصل مقصد سے دور لے جائے۔ اس کی بجائے اگر وہ قومی فلاح و بہبود کی خاطر ملک کی رفاہی اور فلاحی تنظیموں کے کاموں میں حصہ لیں، ملک سے جہالت اور ناخواندگی ختم کرنے کے لیے تعلیم بالغاں قسم کے پروگراموں میں حصہ لے کر ملک کے گوشے گوشے میں علم کی روشنی پھیلائیں تو اس سے ان کو گوناگوں تجربات بھی حاصل ہوں گے ان کے ذوق و شوق کی تسکین بھی ہوگی اور ان پر قومی فلاح و بہبود کے جذبے کے ایسے رنگ آشکار ہوں گے جن سے مستفید ہوتے ہوئے وہ مستقبل میں عملی سیاست میں حصہ لینے کے شوق کو ایک طرح سے پورا کر سکتے ہیں۔

المختصر طلبہ کے لیے لازم ہے کہ حکومت اور معاشرے نے طلبہ کو حصول تعلیم کی خاطر جو جو سہولتیں مہیا کی ہیں اور جو جو مواقع بہم پہنچائے ہیں ان سے وہ پورا پورا فائدہ اٹھائیں دوران تعلیم نہایت دیانت داری، کمال محنت اور کمال یکسوئی سے حصول علم کی کوششوں میں مصروف رہیں۔ دوران تعلیم مختلف تعمیری سرگرمیوں میں حصہ لے کر اپنی ذہنی و جسمانی صلاحیتوں کو پروان چڑھائیں۔ ہر ایسی سرگرمی سے دور رہیں جو انہیں حصول علم کی منزل سے بھٹکاتی یا دور کرتی ہو اور اس طرح ان امنگوں اور آرزوؤں کی تکمیل کریں جو قوم نے ان سے وابستہ کر رکھی ہیں۔ ایسے ہی طلبہ سے بجا طور پر یہ توقع کی جاسکتی ہے کہ وہ نہ صرف دوران تعلیم بلکہ حصول تعلیم کے بعد ملکی ترقی، قومی سالمیت اور تعمیر وطن کے سلسلے میں ہر نازک مرحلے پر اپنی ذمہ داریوں کا احساس کرتے ہوئے اپنا کردار بھرپور اور مؤثر طور پر ادا کریں گے اور اس طرح اپنے بعد آنے والی نسلوں کے لیے اپنے حسن عمل کی روشن روشن مثالیں قائم کریں گے۔

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محلوط تعلیم

محلوط تعلیم سے لڑکوں اور لڑکیوں کا ایک ہی درس گاہ میں اکٹھے تعلیم حاصل کرنا مراد ہے۔ اصلاً محلوط تعلیم کا تصور مغربی تہذیب کا تصور ہے جہاں کا معاشرہ ایک ایسا معاشرہ ہے جس سے مردوں اور عورتوں کے آزادانہ میل جول پر کسی قسم کی کوئی مذہبی، اخلاقی یا قانونی تَدَغُن عائد نہیں، جہاں عورتیں ہر شعبہ زندگی میں مردوں کے شانہ بشانہ کام کر رہی ہیں، جہاں پردے کا کوئی تصور موجود نہیں، جہاں عورت کے لیے محرم اور نامحرم کا سوال ہی خارج از بحث ہے اور جہاں کسی لڑکی یا عورت کا کسی غیر مرد کے ساتھ گھومنا، پھرنا، کھانا پینا یا ناچ رنگ کی محفلوں میں باہم رقص کرنا معیوب نہیں بلکہ عین تقاضائے تہذیب سمجھا جاتا ہے۔ ایسے کھلے معاشرے میں اگر لڑکے اور لڑکیاں ایک ہی درس گاہ میں اکٹھے تعلیم حاصل کریں تو اس میں تعجب اور حیرانی کی کوئی بات نہیں رہ جاتی۔ تعجب اور حیرانی کا مقام اس وقت آتا ہے جب تہذیب مغرب کے اس تصور کو مشرقی معاشرے پر مسلط کرنے کی کوشش کی جاتی ہے اور اس کے لیے ترقی کے نام پر اور دیگر مختلف حوالوں سے ایسے ایسے دلائل دیے جاتے ہیں کہ اچھے خاصے اذہان ان سے متاثر ہو کر زہر ہلاہل کو قند سمجھنے اور محلوط تعلیم کو گوناگوں فوائد کا حامل تسلیم کرنے لگتے ہیں۔

مخلوط تعلیم کے حق میں یہ دلیل اکثر بڑے مدت سے دی جاتی ہے کہ ہمارا ملک ایک غریب اور پس ماندہ ملک ہے جو ابھی ترقی کے ابتدائی مراحل میں ہے۔ اس غریب ملک کے وسائل اس بات کی اجازت نہیں دیتے کہ وہ تعلیم کی نچلی سطح سے لے کر انتہائی تعلیم کی سطح تک لڑکوں اور لڑکیوں کے لیے الگ الگ تعلیمی ادارے قائم کر سکے۔ اس کی بجائے اگر مخلوط تعلیم کو اپنا لیا جائے تو اخراجات بھی کم ہوں گے اور لڑکوں اور لڑکیوں کے مل جل کر پڑھنے سے ان کا معیار تعلیم بھی اونچا ہو گا کہ ان کے اندر مقابلہ و مسابقت کے خیال سے زیادہ محنت کا جذبہ پیدا ہو گا۔ لڑکیاں لڑکوں سے آگے نکل جانے کی دھن میں شب و روز محنت کریں گی اور لڑکے لڑکیوں سے بہتر کارکردگی دکھانے کے لیے ایک دن رات ایک کر دیں گے۔

مخلوط تعلیم کے حق میں ایک دلیل یہ بھی دی جاتی ہے کہ لڑکوں اور لڑکیوں کے آزادانہ میل جول سے صنفی جذبات کی ہیجانی کیفیت ختم ہو کر رہ جاتی ہے اور وہ پرسکون جذباتی فضا میں اپنا تعلیمی سفر بڑی دل جمعی اور اطمینان سے جاری رکھ سکتے ہیں۔ آزادانہ میل جول سے ان کی باہمی جھجک دور ہو جاتی ہے، انہیں زندگی کے بارے میں ایک دوسرے کے نظریات کو سمجھنے کا موقع ملتا ہے۔ آپس کی گفتگو اور بحث و تمحیص سے ایک دوسرے کے بارے میں بہت سی غلط فہمیاں رفع ہو جاتی ہیں اور ذہنی فاصلے کم ہو جاتے ہیں۔ طلبہ کے دوش بدوش کام کرنے سے طالبات میں رفاقت کا احساس پیدا ہوتا ہے چنانچہ ایسی لڑکیاں آئندہ زندگی میں نہ صرف معیاری رفیق زندگی ثابت ہوتی ہیں بلکہ وہ زندگی کے ہر میدان میں کامیابی کے ساتھ مرد کی معاونت کرنے اور بڑی بڑی ذمہ داریاں سنبھالنے کے قابل ہو جاتی ہیں۔

مخلوط تعلیم کے حق میں ایک دلیل یہ بھی دی جاتی ہے کہ کوئی معاشرہ ترقی پذیری کے اس دور میں اس امر کا متحمل نہیں ہو سکتا کہ وہ عورتوں کو زندگی کی دوڑ سے الگ تھلگ کر دے۔ چنانچہ زندگی کے ہر شعبے میں عورتوں کو مردوں کے شانہ بشانہ کام کرنے کے مواقع فراہم کرنا ہر جدید معاشرے کا فرض ہے۔ عورت اور مرد زندگی کی گاڑی کے دو پہیے ہیں۔ دونوں میں سے کسی ایک کے بغیر زندگی کی گاڑی کا چلنا سراسر محال ہے۔ لہٰذا جب یہ بات طے شدہ ہے کہ عورت اور مرد کو زندگی کے تمام شعبوں میں مل کر کام کرنا ہے تو کیوں نہ انہیں شروع ہی سے مل کر کام کرنے کی تربیت دی جائے اور اس تربیت کے لیے درس گاہوں سے زیادہ موزوں جگہ اور کوئی نہیں ہو سکتی کیوں کہ درس گاہوں میں ہی ان کی تعلیم اور زندگی کے مختلف شعبوں میں تربیت کے ساتھ ساتھ انہیں باہم مل کر رہنے کا ہنر سکھایا جا سکتا ہے۔

مخلوط تعلیم کے حق میں یہ دلائل بظاہر بڑے خوبصورت اور زور دار ہیں۔ انہیں پڑھ کر ایک بار تو یوں محسوس ہونے لگتا ہے جیسے مخلوط تعلیم ہی ہمارے معاشرے کی ترقی کی کلید ہے۔ جیسے ہی ہم اسے اپنائیں گے ہماری قومی ترقی کی گاڑی فراٹے بھرتی ہوئی کہیں سے کہیں پہنچ جائے گی اور اس کی عنایات کی بدولت ہمارا معاشرہ دنیا کا مہذب ترین، جدید ترین اور انتہائی ترقی یافتہ معاشرہ بن جائے گا۔ لیکن آئیے ذرا تصورات کی دنیا سے نکل کر حقیقت کی دنیا میں آئیں اور دیکھیں کہ مخلوط تعلیم نے ان مغربی ممالک کو کیا کچھ دیا ہے جہاں سے چل کر مخلوط تعلیم کا تصور ہماری دنیا تک آیا ہے وہاں درس گاہوں میں کیا ہوتا ہے؟ کہا تو یہ جاتا ہے کہ لڑکوں اور لڑکیوں کے ایک جا تعلیم حاصل کرنے سے ان میں مقابلہ اور مسابقت کا جذبہ پیدا ہوتا ہے؟ مگر حقیقتاً جو بات وقوع میں آتی ہے وہ یہ ہے کہ طلبہ اور طالبات منفی قسم کے جنسی ہیجانات اور میلانات سر اٹھانے لگتے ہیں اور وہ تعلیم کی بجائے ایک دوسرے میں دلچسپی لینا شروع کر دیتے ہیں۔ اس طرح درس گاہیں تعلیم کی بجائے جنسی جذبات کے اشتعال و اظہار کی تجربہ گاہیں بن جاتی ہیں اور ان تجربہ گاہوں سے معاشرے کو ہزاروں کی تعداد میں کنواری ماؤں کے تحفے عطا ہوتے ہیں۔

دراصل مخلوط تعلیم کے حق میں مقابلہ اور مسابقت پیدا کرنے کی یہ دلیل سخت مغالطہ انگیز ہے اور انسانی فطرت سے سراسر صرف نظر یا ناواقفیت پر مبنی ہے۔ انسان کے جسم کی ساخت، رنگ روپ اور رفتار و گفتار میں جنسی کشش کے غیر محدود اسباب موجود ہیں۔ جوانی میں جب انسان میں شعور کی چٹکی بہت کم ہوتی ہے، اگر اسے صنف مخالف سے میل ملاقات کے مسلسل مواقع ملیں (خواہ یہ مواقع تعلیم ہی کے نام پر کیوں نہ ہوں) تو اس کا اپنے صنفی جذبات پر قابو رکھنا اور اپنے جذبات کو بے لگام ہونے سے بچا لینا بڑا مشکل کام ہے۔ چنانچہ لڑکے اور لڑکیاں اکٹھے تو تعلیم کے نام پر ہوتے ہیں مگر ایک دوسرے سے قربت کے لاتعداد مواقع ان کے ذہن کو سکون اور اطمینان بخشنے کی بجائے انہیں ہر وقت ایک جوش اور ہیجان کی کیفیت سے دوچار رکھتے ہیں۔ ایسے میں وہ انہیں دل جمعی اور ذہنی سکون کیسے حاصل ہو سکتا ہے جو معیاری تعلیم کے لیے ضروری ہے؟

اس امر میں کوئی کلام نہیں کہ مرد اور عورت زندگی کی گاڑی کے دو پہیے ہیں اور دونوں میں سے کسی ایک کے بغیر زندگی کی گاڑی کا چلنا سراسر محال ہے مگر اس سے مخلوط تعلیم کا جواز نکالنا صریحاً غلط ہے۔ گاڑی کے دو پہیے اپنی اپنی جگہ لگے ہوں تو تب ہی گاڑی رواں رہ سکتی ہے۔ اگر دونوں پہیے ایک ہی جگہ لگا دیے جائیں تو

گاڑی کے رواں رہنے یا رواں رہنے کا سوال ہی پیدا نہیں ہوتا۔ مرد زندگی کی گاڑی کا ایک پہیہ ہے اس کے اپنے فرائض ہیں۔ عورت زندگی کی گاڑی کا دوسرا پہیہ ہے اس کے اپنے فرائض ہیں۔ عورت کا مرد کے شانہ بشانہ کام کرنے کا یہ مطلب نہیں لیا جانا چاہیے کہ اسے زندگی میں ان کاموں کی انجام دہی کے لیے تیار کیا جائے جو مرد کو تفویض ہوئے ہیں۔ استثنائی صورتوں کی بات دوسری ہے مگر ماہرین حیاتیات کی تحقیقات کی روشنی میں مرد اور عورت دونوں کے جسمانی نظام اور ذہنی کیفیات ایک دوسرے سے مختلف ہیں۔ عورت کا جسمانی نظام اس طرز کا ہے کہ وہ بچہ جنے اور اس کی پرورش کا بار اٹھانے کے قابل ہو۔ اس کے برعکس مرد کو کسب معاش اور گھر سے باہر کی زندگی کی کٹھن ذمہ داریاں سنبھالنا پڑتی ہیں، اس لیے اس کا جسمانی نظام عورت کی نسبت زیادہ مضبوط اور توانا ہے۔ چوں کہ عورت اور مرد دونوں کی فطری صلاحیتیں ایک دوسرے سے مختلف ہیں اس لیے ان کی ذمہ داریوں کی نوعیت بھی مختلف ہے اور تہذیب مخلوط تعلیم یا کسی اور حوالے سے دونوں پر زندگی کے تمام شعبوں کی ذمہ داریاں یکساں طور پر عائد کرنا فطرت کے منشا کے خلاف ہے۔ جب مرد اور عورت کے فرائض ہی الگ الگ ہیں تو ایک ہی درس گاہ میں مخلوط تعلیم کے ذریعے ان الگ الگ فرائض کی تعلیم اور تربیت کا اہتمام کیسے ہوسکتا ہے؟

حقیقت یہ ہے کہ مخلوط تعلیم کا نظریہ مغربی تہذیب کی طرف سے عورت کے ساتھ ایک بہت بڑے فریب کی حیثیت رکھتا ہے اور اس کا مقصد تہذیب اور آزادی نسواں کے نام پر عورت کے استحصال کے سوا کچھ نہیں۔ عورت چراغ خانہ ہو یا شمع انجمن بن جائے، ایک شریف اور خانہ دار عورت ہو یا بادہ ہر جام ہو کر رہے بہرحال عورت رہتی ہے اور مردوں کے ساتھ تہذیب کے نام پر آزادانہ اختلاط کے باوجود اس کی فطری ذمہ داریاں مردوں سے مختلف ہوتی ہیں اور ان ذمہ داریوں کی تربیت اسے مخلوط تعلیم کے اداروں سے نہیں مل سکتی۔ مخلوط تعلیم کے اداروں میں تعلیم سے مرد تو بہرحال مرد ہی رہتا ہے مگر عورت، عورت نہیں رہتی۔ بقول اقبال رحمۃ اللہ علیہ

جس علم کی تاثیر سے زن ہوتی ہے نازن

کہتے ہیں اسی علم کو ارباب نظر موت

یہ کہنا کہ عورت مرد کے برابر ہے اور ہر دہ کام کر سکتی ہے جو مرد کر سکتا ہے لہٰذا اسے زندگی کے ہر شعبے میں مرد کے شانہ بشانہ کام کرنا چاہیے۔ ایک زبردست دھوکا ہے۔ اس خوبصورت نعرے کے ذریعے مرد نے عورت کے فطری فرائض کے علاوہ کسب معاش کا بار گراں بھی عورت کے نازک کندھوں پر ڈال دیا ہے اور فریب خوردہ عورت آزادی کے تصور سے نہال اس بوجھ کو گراں باری کے باوجود خوش خوش اٹھائے پھر رہی ہے۔

اسلامی نقطہ نظر سے دیکھا جائے تو ہمیں مخلوط تعلیم کا کوئی جواز نظر نہیں آتا۔ مخلوط تعلیم مردوں اور عورتوں کے اختلاط اور آزادانہ میل جول کو پروان چڑھاتی ہے جب کہ اسلام اس کو روکتا ہے۔ مخلوط تعلیم مردوں اور عورتوں کے درمیان بے حجابانہ راہ و رسم اور بے تکلفانہ تعلقات پیدا کرتی ہے جب کہ اسلام اس کا قطعاً روادار نہیں۔ اسلام تو حیا سکھاتا ہے۔ غض بصر کی تعلیم دیتا ہے اور نامحرم سے دور رہنے کا حکم دیتا ہے۔ مرد و زن کے آزادانہ اختلاط کی اجازت دینا یا اس کو روا رکھنا اسلام کی رو سے ممکن نہیں۔ اسلام میں تو اس بارے میں یہاں تک کہا گیا ہے کہ جب ایک مرد ایک عورت اکیلے میں ہوتے ہیں تو ان کے پاس تیسرا شیطان ہوتا ہے۔ اسی حقیقت کا اظہار جناب اکبر الہ آبادی نے اپنے مخصوص مزاحیہ رنگ میں یوں کیا ہے۔

میں بھی گریجویٹ ہوں، تو بھی گریجویٹ

ذرا پاس آ کے لیٹ ہوں، علمی مباحثے ہوں

بولیں یہ سچ ہے، علم بڑھا، جہل گھٹ گیا

لیکن یہ یقین کیا کہ شیطان ہٹ گیا؟

اب ذرا مخلوط تعلیم کے حق میں اس دلیل پر بھی بات ہو جائے جو وسائل کی کمی کا عذر تراشتے ہوئے پیش کی جاتی ہے کہ ہمارے غریب ملک کے معاشی حالات اس بات کی اجازت نہیں دیتے کہ ہر سطح پر لڑکوں اور لڑکیوں کے لیے الگ الگ ادارے قائم کیے جاسکیں اس لیے اخراجات کی بچت کی خاطر مخلوط تعلیم کو اپنا لینا چاہیے۔ مخلوط تعلیم کے حامیوں کی یہ دلیل مغالطہ انگیز ہونے کے ساتھ ساتھ انتہائی بودی بھی ہے۔ اگر ایک قوم ہر معاملے کو نفع و نقصان کے ترازو میں تولنے لگے تو پھر اس قوم کی اخلاقی اقدار کا کیا جواز رہ جاتا ہے؟ پھر تو چور کو چوری کی اجازت ہونی چاہیے کہ اس طرح اس کے مال میں اضافہ ہوتا ہے۔ زانی کو زنا کی اجازت ہونی چاہیے کہ اس طرح وہ اپنی جنسی جلت کی تسکین کرتا ہے۔ طوائف کو پیشہ کرنے کی اجازت ہونی چاہیے کہ اس طرح وہ امیروں کی تجوریوں میں پڑی رقم کو گردش میں لاتی ہے۔ اگر ان سب باتوں کی اجازت نہیں دی جاسکتی تو محض اخراجات کی بچت کے نام پر ہزاروں مفاسد سے پر مخلوط تعلیم کو اپنا لینے کا مشورہ آخر

کیوں؟

تاہم افراط و تفریط سے بچے ہوئے ماہرین تعلیم ایک درمیانی راہ یہ تجویز کرتے ہیں کہ پانچویں جماعت کے سطح تک اگر مخلوط تعلیم ہو تو وہ کسی اخلاقی بگاڑ کا موجب نہیں بن سکتی مگر اس کے بعد بی اے تک لڑکوں اور لڑکیوں کے لیے تعلیمی اداروں کا الگ الگ ہونا بہرحال ضروری ہے تا کہ طلبہ اور طالبات اپنی اپنی تعلیمی ضروریات بھی پوری کر سکیں اور مخلوط تعلیم کے مضر اثرات سے بھی محفوظ رہیں۔ ہماری مساجد میں آج بھی بچے اور بچیاں اکٹھے ابتدائی دینی تعلیم حاصل کرتی ہیں لیکن یہ نہیں کہ وہ گڈمڈ مل کر بیٹھتے ہیں بلکہ بچوں کی قطار الگ ہوتی ہے اور بچیوں کی الگ۔ عہد نبوی ﷺ میں تعلیم و تربیت کا سارا کام رسول اکرم خاتم النبیین ﷺ کی مجلس میں ہوتا تھا۔ خواتین ایک طرف اور مرد دوسری طرف بیٹھتے تھے جب کہ ہفتے میں ایک خاص دن خواتین کے لیے مخصوص ہوتا تھا۔ یہی طریق کار اعلیٰ تعلیم کے اداروں میں اختیار کیا جا سکتا ہے کہ آزادانہ اختلاط سے گریز کرتے ہوئے اور حیا و حجاب کے اسلامی تقاضوں کی پاسداری کرتے ہوئے طالبات بھی طلبہ کی طرح ان اداروں سے اپنی تعلیمی ضروریات پوری کر سکیں۔ مگر اسے صرف ایک وقتی یا عارضی تدبیر ہی کہا جا سکتا ہے۔ اگر وطن عزیز میں ایک صحیح اسلامی معاشرے کی تشکیل مطلوب ہے تو پھر اس کے لیے مخلوط تعلیم کو خیر باد کہنا اور لڑکوں اور لڑکیوں کے لیے ہر سطح پر الگ الگ درس گاہیں قائم کرنا ضروری ہے۔

.... ☆ ....

تعلیمِ نسواں

مرد و زن کا علم کی دولت سے بہرہ ور ہونا بہت ضروری ہے۔ علم کے بغیر دنیا اندھیر ہے۔ وہی قوم ترقی کرتی ہے جس کے افراد زیورِ علم سے آراستہ ہوتے ہیں۔ ترقی یافتہ ملکوں کی مثال ہمارے سامنے ہے۔ کسی ملک میں جس قدر علم زیادہ ہو گا، اسی قدر وہ ملک ترقی یافتہ ہو گا۔ جو ملک پسماندہ ہیں۔ ان میں علم کا فقدان ہوتا ہے۔ وہاں کے لوگ جاہل، اور غیر مہذب ہوتے ہیں اور سچ تو یہ ہے کہ بغیر علم کے انسان خدا کو بھی نہیں پہچان سکتا اور نہ دنیا کا کوئی کام ہی صحیح طریقے سے انجام دیا جا سکتا ہے۔

اسلامی نقطہ نگاہ سے بھی حصول علم لازمی ہے۔ مرد کے لیے بھی اور عورت کے لیے بھی۔ علم حاصل کرنے کے لیے تاکید ہے اس کے لیے چاہے اس کے لیے دور دراز بھی جانا پڑے۔ زیورِ علم سے آراستہ ہونا اشد ضروری ہے۔ علم اندھیرے میں اجالا کرتا ہے۔ زندگی کی اقدار میں نکھار اور وقار علم سے ہی آ سکتا ہے۔

مرد اور عورت زندگی کی گاڑی کے دو پہیے ہیں۔ گاڑی کبھی ایک پہیے سے نہیں چل سکتی اس کے لیے دونوں پہیوں کا ہونا اور صحیح حالت میں ہونا لازمی ہے۔ اگر کسی وجہ سے ایک پہیہ ٹوٹ جائے یا خراب ہو یا سرے سے ہو ہی نہ تو گاڑی کھڑی رہ جاتی ہے۔ اس کا چلنا ممکن نہیں ہے۔ یہی حال ہمارے معاشرے کا ہے۔ اس میں مرد اور عورت دونوں کی اہمیت یکساں ہے۔ جب تک دونوں علم سے بہرہ ور نہیں ہوں گے، ہم کسی صورت ترقی نہیں کر سکتے۔ ترقی کا زینہ ہمیشہ سے علم ہی رہا ہے اسی کے ذریعے کامیابی اور کامرانی کی منزل تک پہنچا جا سکتا ہے۔

عورت کا دائرہ کار مرد سے قطعاً مختلف ہے۔ مرد کا علم و ہنر زندگی کی کٹھن منزلوں کو آسان کرتا ہے اور عورت کا علم و عمل اس کو عظیم ذمہ داری کے لیے تیار کرتا ہے۔ عورت کے لیے تعلیم حاصل کرنے کا یہ مطلب ہرگز نہیں کہ عورت مرد کی طرح دفتروں میں کام کرے، فیکٹریوں اور بینکوں میں ملازمت کرے اور پھر ایک غیر فطری بنیاد پر مرد کے مقابلے پر مساوی حقوق کا مطالبہ کرے۔ مغربی ملکوں کے بعض دانشوروں نے عورت کی اس ترقی معکوس کو شک و شبہ کی نظر سے دیکھا ہے۔ ان کا یہ کہنا ہے کہ عورت کے اس غیر فطری طریقے سے باعلم ہونے سے خاندانی نظام ختم ہو کر رہ گیا ہے، جس سے آئندہ نسلوں کا مستقبل مخدوش ہو گیا ہے۔ اس کا صحیح اور اصل کام مردوں سے تعاون کرنا اور ان کے بچوں کی تربیت کرنا ہے۔

اس سلسلے میں ہمیں یہ دیکھنا ہے کہ وہ کون سے علوم ہیں جن کا حصول عورت کے لیے مفید ثابت ہو سکتا ہے۔ سب سے پہلے عورت کے لیے یہ ضروری ہے کہ وہ اپنے ملک اور مذہب کے بارے میں پوری واقفیت بہم پہنچائے۔ اس کے لیے سکول کی تعلیم میں ان تمام باتوں کا اہتمام ہو سکتا ہے۔ اس تعلیم کے دوران اس کو اپنی ذمہ داریوں سے پوری طرح واقف ہونے کا موقع دیا جائے تا کہ اگر ان کو زیادہ تعلیم حاصل کرنے کا موقع ملے تو سکول ہی اس کی رہنما بن سکے۔ اعلیٰ تعلیم کے لیے نرسنگ اور ڈاکٹری کا پیشہ ان کے لیے بہت مفید رہ سکتا ہے۔ اس پیشے کے لیے جس شفقت اور محبت کی ضرورت ہوتی ہے وہ قدرتی طور پر عورت میں پائی جاتی ہے۔ خاص طور پر عورتوں پر عورتوں کے علاج معالجے کے لیے عورت کی ذات زیادہ بہتر ثابت ہو سکتی ہے۔ اس پیشے کے لیے عورتوں کی تدریس اور تربیت کے لیے

اس بات کا اہتمام ضروری ہے کہ حتی الامکان عورتیں عورتوں سے تعلق رکھیں اور مرد مردوں سے۔ عورتوں کا دائرہ کار عورتوں تک محدود ہو اور مردوں کا مردوں تک، یعنی یہ نہیں ہونا چاہیے کہ عورتیں مردوں کے ہسپتالوں میں کام کریں اور مرد عورتوں کے ہسپتالوں میں۔ ان دونوں صنفوں کو آزادانہ میل جول دونوں کے لیے مفید ہے۔ اس پیشے کے بعد تدریس کا پیشہ عورت کی فطرت سے بہت مناسبت رکھتا ہے۔ اس میں سکول اور کالج دونوں کی تدریس شامل ہے۔ اس مقصد کے لیے بھی عورتوں کی تربیت کے لیے علیحدہ ادارے کی ضرورت ہے۔ ایسا کرنے کا فائدہ یہ ہوگا کہ وہ قوم کے بچوں کی تربیت کرنے سے پہلے اپنے اندر وہ صفات پیدا کریں گی جو تمام قوم کے لیے باعث فخر ہوں۔

ہر قوم اپنے ملکی اور تہذیبی تقاضوں کو پیش نظر رکھ کر تعلیم نسواں کو فروغ دیتی ہے۔ ہمارے ملک میں تعلیم نسواں کا یہ مطلب ہرگز نہیں ہونا چاہیے کہ ہم اپنے ایک قوم ہونے کا تصور پس پشت ڈال کر دوسروں کی نقالی کا مقصد قرار دیں اور رفتہ رفتہ اپنی انفرادیت کو خاک میں ملا دیں۔ کسی علم کی ڈگری حاصل کرنے سے عورت کی تعلیم کا مقصد پورا نہیں ہوتا۔ اگر کوئی علم عورت میں نسوانی کردار کے استحکام کا باعث نہ بنے تو اس کے لیے فائدہ مند ہونے کے بجائے الٹا نقصان دہ ثابت ہوگا۔ علم کے حصول سے پہلے اس کی نسوانیت کا تحفظ ضروری ہے۔

آج کل اس موضوع پر سوچنے والے دو گروہوں میں تقسیم ہیں۔ ایک وہ لوگ ہیں جو مغربی طرز پر سوچتے ہیں اور تعلیم نسواں کے لیے بھی وہی طریقے سوچتے ہیں جن پر آج مغرب میں عمل ہوتا ہے۔ دوسرے وہ لوگ ہیں جو علم و فن کے بارے میں مغربی علوم سے فائدہ تو اٹھانا چاہتے ہیں مگر وہ ان علوم پر اپنی مشرقیت کو قربان کرنے کے لیے تیار نہیں۔ کسی مقصد کو حاصل کرنے کے راستے میں بہت سی دشواریاں درپیش ہوتی ہیں۔ دوسرے مسائل کی طرح اس اہم قومی مسئلے کے لیے بھی اعتدال اور معقولیت کی راہ اختیار کرنی چاہیے۔

قدرت نے جو فرائض عورت کو سونپے ہیں ان میں سب سے اہم فریضہ بچے کی پرورش کا ہے۔ ماں کی گود ہی بچے کی اولین درسگاہ ہوتی ہے۔ وہاں سے جو درس بچے کو ملے گا وہی سیکھے گا۔ اگر ماں تعلیم یافتہ اور سلیقہ شعار ہے تو اولاد بھی صاحب علم اور مہذب ہوگی کیوں کہ بچے کا زیادہ وقت ماں کے پاس ہی گزرتا ہے۔ بچے پر ماں کی طبیعت کا پرتو زیادہ ہوتا ہے۔ بچے ماں کے طور طریقوں اور عادات و اطوار سے زیادہ متاثر ہوتا ہے۔ جاہل و ناخواندہ ماں بچے کے اخلاق و عادات نہیں سنوار سکتی لیکن پڑھی لکھی اور سمجھدار ماں اپنے بچے کی تربیت میں بہت مددگار ثابت ہوتی ہے اور اس کی نگہداشت صحیح طور کر سکتی ہے۔ وہ اس کے خیالات و کردار کو نکھار سکتی ہے۔ وہ اس کے دل و دماغ کی اقدار کو صیقل کرتی ہے اور اس میں اخلاق، ہمدردی اور ایثار پیدا کر کے جذبہ حب وطن بیدار کر دیتی ہے۔ اس میں کوئی شک نہیں کہ باپ کا بھی بچے کی پرورش میں بہت حصہ ہوتا ہے مگر اس سے انکار نہیں کیا جا سکتا کہ ابتدائی تعلیم ماں کی گود ہی میں ملتی ہے۔ باپ کو تو فکر معاش ہی چین نہیں لینے دیتی۔ بڑی بڑی شخصیتوں نے ماں سے ہی تربیت پائی۔ اسی چھوٹے مدرسے سے بچے کی تعلیم کا آغاز ہوتا ہے۔ سب سے پہلے ماں ہی بچے کے منہ میں الفاظ ڈالتی ہے۔ اسے ابتدائی تہذیب وہیں سے ملتی ہے اور یہی تعلیم بڑے ہو کر اس کی فطرت میں راسخ ہو جاتی ہے۔

جو لوگ عورتوں کو تعلیم دلوانے کے حق میں نہیں ہیں وہ ان کی تعلیم کو صرف ناظرہ قرآن مجید تک محدود رکھتے ہیں۔ انھیں دیگر علوم نہیں پڑھاتے۔ ان کا یہ خیال ہے کہ تعلیم یافتہ عورتیں فیشن پرست ہوتی ہیں، فضول خرچ ہوتی ہیں اور گھر کے کام کاج نہیں کرتیں گھر کے فرائض صحیح طور پر سرانجام نہیں دیتی ہیں۔ وہ گھر کی زینت بننے کے بجائے نمائش محفل بن جاتی ہیں۔ ہمہ وقت سیر و تفریح کے لیے تیار رہتی ہیں۔ خاوند کے لیے سامان دلجوئی نہیں پیدا کرتیں بل کہ تکلیف و تنازعہ کا سبب بن جاتی ہیں۔ تو اس میں قصور لڑکیوں کا نہیں ہے جن کو ہم تعلیم دیتے ہیں۔ اول تو تعلیم روشن خیال بناتی ہے اور ذمہ داری سکھاتی ہے۔ اس کے برعکس کچھ نہیں سکھاتی۔ جو لوگ بگڑے ہوئے ہیں وہ تعلیم حاصل کیے بغیر ہی بگڑے ہوئے ہیں چاہے وہ مرد ہوں یا عورت۔ دوسرے اس تعلیم کا بھی کچھ قصور ہو سکتا ہے جو ہم دیتے ہیں۔ جو تعلیم ہم ان کو دیں گے وہ وہی سیکھیں گی۔ یہ قصور اس غلط تربیت اور غیر موزوں نصاب و ماحول کا ہے۔ شروع سے ہی اگر ایسے انتظامات ہوں کہ لڑکیوں کی تربیت صحیح خطوط پر ہو اور انھیں پاکیزہ اور برائیوں سے پاک ماحول ملے تو کوئی وجہ نہیں کہ تعلیم نسواں معاشرے میں کسی بگاڑ کا باعث بنے۔ اچھی تعلیم کے نتائج حوصلہ افزا برآمد ہوں گے۔ لہٰذا جو فطری صلاحیتیں قدرت نے عورت کو دی ہیں ان کو بروئے کار لانے کے لیے ضروری ہے کہ ان کی صلاحیتوں کو اجاگر کیا جائے اور ان میں مطلوبہ صفات تبھی پیدا ہو سکتی ہیں جب انھیں زیور تعلیم سے آراستہ کیا جائے۔

.... ☆ ....

طلبہ اور سیاست

جب بھی طلبہ اور سیاست کی بات چلتی ہے تو حکومت کے ارباب بست و کشاد اور محکمہ تعلیم کے بڑے بڑے دانشور طلبہ کو فہمائش و نصیحت کرتے ہیں کہ طلبہ عہد تحصیل علم میں ''سیاست'' کو شجر ممنوعہ سمجھیں اور اپنی تمام تر توانائیاں تعلیمی امور پر مرکوز رکھیں۔ بعض دانشور یہ کہتے ہیں کہ تعلیم حاصل کرنے کے بعد ایک طالب علم روزگار کے چکر میں پڑ جاتا ہے اور وہ سیاست میں حصہ لینے کی خواہش کے باوجود حصہ لینے سے قاصر رہتا ہے۔ جب کہ کالجوں میں سٹوڈنٹس یونین کے انتخابات ان کے لیے ابتدائی تربیت ہوتے ہیں کہ وہ اپنی حکومت اور حکمرانوں کے خد و خال سمجھیں۔ اپنے نمائندوں کی حیثیت جان سکیں۔ ان کے دائرہ اقتدار و اختیار کے تانے بانے سمجھ سکیں۔ کیوں کہ بیشتر سیاستدان اس بات کا اعتراف کرتے ہیں کہ ان کی کامیابی میں تقریباً تیس فیصد طلبہ کی کاوشیں کام آتی ہیں اور اگر انہیں اپنے عہد اقتدار میں کچھ ڈر محسوس ہوتا ہے تو وہ طلبہ سے ڈرتے ہیں۔

عجیب حیرت کی بات ہے کہ پاکستان میں بیشتر سیاستدان طلبہ سیاست کے بل بوتے پر اقتدار کی کرسی تک پہنچے ہیں اور انہوں نے ہی طلبہ پر قدغن لگائی ہے کہ طلبہ سیاست میں ملوث نہ ہوں اور بسا اوقات ان پر وحشیانہ طور پر تشدد کیا گیا ہے جسے دیکھ کر تاریخ بھی شرماتی ہے۔

طلبہ کے سیاست میں ملوث ہونے کی وجوہات

طلبہ جب سیاست میں ملوث ہوتے ہیں اس کی کئی وجوہات ہیں جن کا ذکر اس مختصر مضمون میں مشکل ہے تاہم چند ایک وجوہات مندرجہ ذیل ہیں.

جب کسی ملک میں آمریت اور ڈکٹیٹرشپ قائم ہوتی ہے تو بیوروکریسی آمریت کا جزو لاینفک بن جاتی ہے تاجر طبقہ اپنی تجوریوں کے لیے جی حضوری کا درد کرتا ہے عوام خوف زدہ رہتے ہیں اور خواص اپنی عزت بچاتے ہیں۔ جب آمر طبقہ عوام پر کوئی زیادتی کرتا ہے یا حقوق غصب کیے جاتے ہیں اور حزب اختلاف خاموش رہ جاتی ہے تو طلبہ سمجھتے ہیں کہ اس زیادتی کے تدارک کی تمام تر ذمہ داری ہم پر عائد ہوتی ہے تو وہ سڑکوں پر نکل آتے ہیں، ہم اس احتجاج کو سیاست نہیں کہہ سکتے۔

بعض غیر ملک کی حکومتیں ہمارے ملک سے دشمنی کرتی ہیں حکومت کسی عہدہ دار کی کسی مصلحت کے تحت خاموشی اختیار کرتے ہیں جس کی خبر طلبہ کو نہیں ہوتی۔ وہ جذبات میں آ کر سڑکوں پر مظاہرہ کرتے ہیں۔

ہمارا تعلیمی ڈھانچہ اس قسم کا ہے کہ بیشتر طلبہ گنجلک اور زیادہ مضامین ہونے کی وجہ سے اپنے آپ کو جوہر نہیں دکھا سکتے۔ ردعمل کے طور پر احساس محرومی انہیں اس وقت سیاست میں ملوث کر دیتی ہے جب تھوڑی سی ناگوار تبدیلی ملک میں رونما ہوتی ہے۔

بعض چالاک سیاستدان خباثت آمیز دور اندیشی سے کام لے کر طلبہ کو مخالف حکومت کے خلاف بڑی چابکدستی سے مظاہروں پر اکساتے ہیں جو اس قدر توڑ پھوڑ سے کام لیتے ہیں کہ حکومت کو سیاستدانوں کے سامنے جھکنا پڑتا ہے۔

بعض غیر ملکی طاقتیں اس وقت طلبہ کو سیاست میں ملوث کر لیتی ہیں جب حکمرانوں کو مسند اقتدار سے ہٹانا چاہتے ہوں وہ اپنی خفیہ تنظیموں سے ہر قسم کے ہتھکنڈے استعمال کرواتی ہیں اور سارے ملک میں افراتفری پھیل جاتی ہے۔ تاہم سیاست کے ماہرین کا خیال ہے کہ ان ملکوں میں طلبہ بہت کم سیاست میں حصہ لیتے ہیں، جن ملکوں میں عوامی نمائندے کامیاب ہو کر منصب اقتدار تک پہنچتے ہیں۔

بعض لوگ صریحاً طلبہ کے حق میں ہیں کہ انہیں سیاست میں حصہ لینا چاہیے۔ وہ یہ دلیل دیتے ہیں کہ تحریک پاکستان کو قوت دینے والے طلبہ تھے جس نے انگریزوں کے دور میں حضرت حیات ٹوانہ کی حکومت میں وزارت عظمیٰ کی رہائش گاہ پر پاکستان کا جھنڈا لہرایا تھا۔ قائداعظم محمد علی جناح کئی بار علی گڑھ گئے اور انہوں نے طلبہ کو اپنا ہمنوا بنایا اور طلبہ نے سیاست میں قدم رکھ کر وہ کارنامے سرانجام دیے جو تاریخ پاک و ہند میں سنہری حروف سے لکھے جائیں گے۔ اس کو پیش نظر رکھ کر دانشمند طلبہ کو تلقین کرتے ہیں کہ وہ سیاست میں حصہ لیتے وقت ہوش کا دامن ہاتھ سے نہ چھوڑیں کیوں کہ اس پاک سرزمین کی ہر چیز ان کی اپنی دولت ہے۔ بسوں کو جلانا، دہشتگری کے دوسرے کارنامے، ہوٹل میں اسلحہ اکٹھا کرنا، درسگاہوں کو نقصان پہنچانا پاگلوں کا شیوہ ہے، فرزانوں کا کارنامہ نہیں کیوں کہ جو اپنی دولت و ملکیت کی حفاظت نہیں کر سکتا دشمن ملک بھی ان سے محبت نہیں کرتے۔ بل کہ بیرونی ممالک کے پریس ان کی جس انداز سے تشہیر کرتے ہیں سوائے ندامت کے اور کچھ حاصل نہیں ہوتا۔ کیوں کہ سیاستدان ان وقت پڑنے پر ان کی ہر حالت میں ہمدردیاں حاصل کرتے ہیں عجیب و غریب وعدے کرتے ہیں۔ بقول شخصے ''اگر وہ ورڈز

آدم خور ہوتے تو سیاستدان انتخاب کے دنوں میں انہیں انسانوں کا گوشت بھی فراہم کرتے'' لیکن جب یہ سیاستدان کامیاب ہوتے ہیں تو پھر ان کی درگاہوں کے در بند ہو جاتے ہیں انہیں عوام کی ضرورت نہیں رہتی جیسے چیل بلندیوں تک پہنچنے کے لیے اپنے بال و پر محنت کے ساتھ ہلا کر بلندیوں پر پہنچ کر اسے بازو ہلانے کی ضرورت نہیں پڑتی خود بخود تیرتی رہتی ہے۔ اسی طرح اقتدار حاصل ہونے کے بعد انہیں عوام کی مدد کی ضرورت نہیں پڑتی۔

ہم اس خیال کو بھی مسترد نہیں کر سکتے کہ طلبہ کو زیادہ وقت تحصیل علم میں یکسوئی کے ساتھ خرچ کرنا چاہیے کیوں کہ سیاست آسان کھیل نہیں۔ اس سے مستقبل داؤ پر لگانا پڑتا ہے۔ پھر اس نوزائیدہ مملکت کو جسے ہم نے لاکھوں قربانیاں دے کر حاصل کیا ہے اسے توڑ پھوڑ سے کمزور نہیں بنانا چاہیے۔ ہماری سیاست زیادہ تر سٹوڈنٹس یونین کے انتخابات تک محدود ہونی چاہیے اس حقیقت سے بھی انکار نہیں کیا جا سکتا کہ اس ابتدائی تربیت میں ہی کئی نوجوانوں کا خون بہایا جاتا ہے۔ طلبہ میں بے وجہ دشمنی پیدا ہو جاتی ہے مذہبی جماعتیں اپنا اثر و رسوخ پیدا کر کے بہت سی مشکلات پیدا کر دیتی ہیں پھر کامیاب ہونے والے عہدہ دار بسا اوقات عجیب و غریب حرکات کے مرتکب ہوتے ہیں۔ بعض عہدہ دار استاد بن جاتے ہیں اور استادانہ ادارے کے سربراہ کو ناجائز مطالبات کے بوجھ تلے دبا کر درس گاہوں کا سکون تباہ کر دیتے ہیں۔ احترام کی حدود پھلانگ کر طلبہ ایسی مثال قائم کرتے ہیں کہ استاد شاگرد کا مقدس رشتہ ایک گالی بن کر رہ جاتا ہے۔ استاد کے احترام کی یہ حالت ہے کہ اللہ تعالیٰ آنحضرت صلی اللہ علیہ وسلم کو ''امی'' رکھا۔ تا کہ انہیں کسی استاد کے سامنے جھکنا نہ پڑے بل کہ سب اس استاد کامل کے سامنے زانوے ادب تہہ کریں۔ یہ استاد کی عظمت کی علامت ہے جب کہ سیاست احترام کے تمام آداب عضب کر لیتی ہے اور ہوس انگیزی کی طرف مائل کرتی ہے۔ طلبہ میں لالچ پیدا ہو جاتا ہے اور وہ دوران تحصیل علم اپنی تمام تر توانائیاں اسی طرف مبذول رکھتے ہیں اور درس گاہ چھوڑنے کے بعد ناکام ہو کر زندگی کے میدان میں داخل ہوتے ہیں۔ جہاں وہ اچھے شہری ثابت نہیں ہوتے ہیں۔

ڈاکٹر باقر نے درست کہا تھا ''طلبہ سے نیک کاموں کی تکمیل میں مدد لے سکتے ہیں تو انہیں سیاست میں شریک کیجئے۔ اگر آپ اپنی کرسی کے لرزتے ہوئے پایوں کو سنبھالا دینا چاہتے ہیں یا حریف کو بلا مقصد اس کی کرسی سے اتارنا چاہتے ہیں تو خدارا اس قوم کی متاع عزیز کا ضیاع نہ کریں۔''

ماہرین تعلیم یا دانش وروں کی یہ سوچ کہ طلبہ کو سیاست میں حصہ لینا چاہیے یا نہیں؟ یہ ایک مسئلہ ہے جس کے لیے نہ اجازت دی جا سکتی ہے نہ مکمل طور پر روکا جا سکتا ہے۔ اگر ہم یورپ کے ممالک کا جائزہ لیں امریکہ اور کینیڈا کے ترقی یافتہ ممالک کو بنظر (عمیق) دیکھیں تو یہ بات واضح ہے کہ ان ممالک میں شاذ و نادر طلبہ سڑکوں پر نکلتے ہیں تو توڑ پھوڑ یا دہشت گردی کا مظاہرہ کرتے ہیں۔ اس کا سبب یہ ہے کہ وہاں کی حکومتیں منتظم ہیں۔ شہری آزادیاں حاصل ہیں۔ عوام کی رائے کو عزت کی نگاہ سے دیکھا جاتا ہے اور طلبہ کے لیے جو تعلیمی نصاب مقرر ہوتے ہیں وہ ان کی پسند، مزاج اور افتاد طبع کے مطابق ہوتے ہیں اور تحصیل علم کے بعد انہیں علم ہوتا ہے کہ وہ معاشرے میں بیکار یا بے روزگار ہو کر ٹامک ٹوئیاں نہیں ماریں گے۔ جن کو اپنی منزل کی خبر ہوتی ہے وہ حزب اختلاف کی سردردی اپنے سر نہیں لیتے۔ ان کی زندگی میں قواعد و ضوابط کا خاص خیال رکھا جاتا ہے۔ اس لیے ان ممالک میں یہ سوال ہی پیدا نہیں ہوتا کہ طلبہ سیاست میں حصہ لیں یا نہ لیں یا اس کو شجر ممنوعہ سمجھیں، مگر اہل مشرق کا یہ المیہ ہے کہ بیشتر طلبہ کو اپنی منزل کی خبر نہیں ہوتی۔ پسند ناپسند کے مضامین پڑھنا پڑتے ہیں۔ ہمارے رہنما 1947ء سے تعلیمی امور میں نت نئے تجربوں میں مصروف ہیں۔ ان کی منصوبہ بندی ناقابل عمل ہوتی ہے۔ تعلیمی اداروں کے بیشتر اختیارات بیوروکریسی کو حاصل ہیں کہ ایک نمبر کم گریڈ کا بیوروکریٹ انیسویں گریڈ کے تعلیمی ادارے کے سربراہ کو میٹنگ میں حاکمانہ انداز میں طلب کرتا ہے۔ تعلیمی اداروں کا وقار بیوروکریسی پولیس کے ہاتھوں پامال کرائی ہے۔ جب تک یہ معاملات اور حالات باقی رہیں گے کوئی فیصلہ نہیں کر سکتا کہ طلبہ سیاست میں حصہ لیں یا نہ لیں۔

.... ☆ ....

عالم اسلام کا اتحاد

دنیا کا کوئی شخص یا محقق نہیں بتا سکتا کہ انسان کی پیدائش کو کتنا عرصہ گزر رہا ہے۔ محض تخمینے ہی ہیں جن سے حتمی فیصلہ نکالنا مشکل کام ہے۔ ابتدا میں انسان غاروں میں درختوں یا دشوار گزار جگہوں پر زندگی بسر کرتا تھا اور یہ مدنی زندگی سے ناواقف تھا، رفتہ رفتہ انسان گروہوں کی صورت میں رہنے لگا کیوں کہ تحفظ اجتماعیت میں ہوتا ہے رفتہ رفتہ گاؤں اور شہر وجود میں آئے جن میں مختلف نسلوں کے لوگ رہنے لگے نسلی تفاخر یا قبیلے اپنی زیادہ تعداد کے سبب سے چھوٹے قبیلوں کو مطیع کر کے ان پر حکومت کرتے۔ ایک وسیع تر اجتماعیت کا پیدا ہونا مشکل کام تھا پھر پیغمبروں علیہم السلام نے الہامی احکامات کے مطابق مختلف قوموں کو یکجا کر دیا۔ لیکن کچھ عرصہ بعد

جغرافیائی حدود، لسانی برتری اور اپنی تعداد پر کسی نازک امت کو مختلف حصوں میں تقسیم کر دیتا ہے اور جغرافیائی حدود کے ناتے سے اپنا تشخص مختلف انداز میں ظہور پذیر ہوتا ہے۔ قومیت اور وطن کے بتوں کی پوجا کی جاتی ہے۔ قومیت دراصل انسانوں کی غیر انسانی تقسیم و تفریق کا نام ہے کیوں کہ قومیت دوسروں سے نفرت کرنے کا درس دیتی ہے۔ دوسروں کے لیے محبت پیدا ہی نہیں ہو سکتی۔

پروفیسر کوہین لکھتا ہے:

"قومیت پرستی کے شجر کی جڑیں نفرت کی زمین سے نکلتی ہیں اور عداوت میں پروان چڑھتی ہیں۔"

ہم ان الفاظ کی روشنی میں جب تاریخ عالم کا جائزہ لیتے ہیں تو ہمیں متعدد واقعات نظر آتے ہیں۔ ہٹلر نے قومیت و نسل کا سہارا لے کر تباہی پھیلائی تھی اور ان کے مد مقابل بھی قومیت کے پرستار تھے۔ وطنیت کا جذبہ اتحاد انسانی کے لیے انتہائی مہلک ہے۔ چالاک سیاستدان قومیت کو مذہب کی شکل دے دیتے ہیں تا کہ اس کے ساتھ جذباتی وابستگی رکھیں۔ جس طرح عہد قدیم میں مذہب کا سہارا لے کر انسانوں کا خون بہایا جاتا تھا۔ اسی طرح اس عہد میں قومیت اور وطنیت کو سب کچھ سمجھ کر اس کی خاطر انسانوں کو ہلاک کیا جاتا ہے اور پھر مرنے والوں کو شہید کا رتبہ دیتے ہیں۔ دراصل معاملہ یہ ہے کہ جب انسان کے دل سے خدا کا عقیدہ ہجرت کر جاتا ہے تو اس خالی جگہ میں نیشلزم کا شیطان اپنا قبضہ جما لیتا ہے۔

اسلام اور رسالت مآب خاتم النبیین ﷺ کا دین متین اس سب برائیوں کا سد باب کرنے کے لیے آیا۔ قرآن حکیم کا سرچشمہ خدا ہے جو انسان کو شعور ذات سے ہی آشنا نہیں کرتا بل کہ ارد گرد پھیلی ہوئی دنیا اور انسانوں کے اعمال و اخلاق کا ادراک بھی عطا کرتا ہے۔ وہ کائناتی شعور حاصل کر کے عظیم انسان بن جاتا ہے۔ قرآن نے مسلمانوں کے لیے ماضی کے تجربات کو مستقبل کے فیصلوں کے لیے دلیل بنایا ہے۔ اسلام نے اپنے پیروکاروں کو بل کہ اہل جہان کو بہترین زندگی گزارنے کا لائحہ عمل عطا کیا۔ آنحضرت کا آخری خطبہ قرآن حکیم کا نچوڑ ہے اور آپ کی تعلیمات کی روح ہے کہ گورے کو کالے پر، کالے کو گورے پر، عربی کو عجمی پر اور عجمی کو عربی پر فوقیت حاصل نہیں۔ مسلمان سب آپس میں بھائی بھائی ہیں۔ سب سے افضل ہے وہی جس کے اعمال اچھے ہیں کہ حضرت سلمان فارسی رضی اللہ تعالیٰ عنہ سے کسی نے حسب و نسب کے بارے میں سوال کیا تھا تو آپ رضی اللہ تعالیٰ عنہ نے فرمایا مسلمان ابن اسلام ہوں۔ یہ ایک شخص کا جواب نہیں مل کہ ایک تہذیب کا جواب ہے۔ غرض اسلام نے تمام مسلمانوں کو خواہ وہ دنیا کے کسی خطے کے رہنے والے ہوں ایک رشتے میں پرو دیا ہے۔ جمعیت پر خدا کا ہاتھ ہوتا ہے۔ (الحدیث)

اسی عالمگیر اخوت کے سبب ہی مسلمانوں کا وجود قائم ہے کیوں کہ ملت سے بیگانگی ہمارے لیے فنا کا سبب بنتی ہے۔

ملت کے ساتھ رابطہ استوار رکھ
پوستہ رہ شجر سے امید بہار رکھ

جماعتی زندگی سے اسلامی اخوت کے بل بوتے پر ہم عالمگیر مقاصد حاصل کرنے کے قابل ہو جاتے ہیں۔ فرد کی بقا "ربط ملت" سے ہے۔ مدینے کے انصار اور مہاجرین کا ایک ہی کنبے میں تبدیل ہو جانا اسلامی اخوت کی روشن مثال ہے۔ مشرقی پنجاب کے مسلمانوں کو 1947ء کی عظیم ہجرت میں پاکستانیوں کا انہیں سینے سے لگانا اسی کا نام اسلام ہے۔ مسلمان کا خون مسلمان پر حرام ہے۔ وہ تین دن سے زیادہ اپنے بھائی سے ناراض نہیں رہ سکتا۔

عہد حاضر میں دنیائے اسلام کی حالت

بڑی طاقتیں ہمیشہ سے اپنی ذاتی منفعت کے لیے چھوٹے ممالک کا استحصال کرتی آ رہی ہیں۔ ان کی خارجہ پالیسی کا زیادہ تر دار و مدار اسی پر ہے کہ وہ چھوٹے ملکوں کو آپس میں لڑاتے رہیں اور اپنے فوائد حاصل کرتے رہیں۔ جمال عبدالناصر سے پہلے مشرق وسطیٰ اور دوسرے اسلامی ممالک یا تو آزاد نہ تھے یا اپنی حالت میں ممکن نہ تھے بیشتر میں شہنشاہیت تھی یا ان کی حکومتیں دکھاوے کی تھیں اور ان کے پیچھے کوئی نہ کوئی بڑی طاقت ہوا کرتی تھی۔

جمال عبدالناصر نے مسلمان و ملت کے چکر سے نکل کر قومیت کی بنیاد عربی بولنے والوں پر رکھی۔ اس کی نظر میں عرب اور پھر مسلمان وہ اپنی تقریر شروع کرنے سے پہلے بسم اللہ کے بجائے "بسم اتحاد العربیہ" کہا کرتے تھے۔ انہوں نے خواہ مخواہ دوسرے مسلمان ممالک سے مخاصمت مول لے لی اور جذباتی انداز سے ملک کا انتظام و انصرام قائم کیا۔ یہ فطری امر ہے کہ ہر پر جوش سربراہ یہی کوشش کرتا ہے کہ وہ جلدی جلدی ایسا کوئی کارنامہ سر انجام دے جس سے وہ پوری قوم کا ہیرو بن

جائے۔ چنانچہ یہ جذبات میں آکر وقت سے پہلے ہی اسرائیل سے جنگیں لڑ کر اپنے بہت سے علاقوں سے ہاتھ دھو بیٹھا۔

اس وقت بھی بیشتر مسلمان ممالک ایسے ہیں جو ایک دوسرے کے خلاف اپنی تمام تر توانائیاں ضائع کر رہے ہیں۔ ایران اور عراق کی جنگ لے لیں چوں کہ یہ زیادہ تیل پیدا کرنے والے ممالک تھے اور ایران فوجی لحاظ سے اہل مغرب کے لیے ایک خطرہ بنا ہوا تھا۔ بڑی طاقتوں نے دونوں ممالک کو ایسی جنگ میں الجھایا ہے کہ اپنے ملک کے تمام وسائل اور آمدنی وغیرہ اسلحہ پر خرچ کر رہے ہیں اور اہل عالم کے لیے تماشا بنے ہوئے ہیں جس نے اسلامی اخوت کے قلعہ کی دیواروں میں ہر طرف شگاف پیدا کر دیے ہیں۔ یہی سبب ہے کہ امریکہ کی پولیس چوکی جو اسرائیل کی شکل میں مشرق وسطیٰ میں ایک ناجائز بیٹے کی طرح پیدا ہوئی ہے اس نے پورے مشرق وسطیٰ کا امن تباہ کر کے رکھ دیا ہے۔ لبنان میں جس طرح مسلمانوں کا خون بہایا جا رہا ہے تمام عالم اسلام ایک تماشائی کی صورت میں اسے دیکھ رہا ہے۔ زیادہ سے زیادہ ایک دو بیان داغ دیتے ہیں اس کے خلاف اور اس کا کچھ نہیں کر پاتے۔ حالانکہ آج سے چند سال پہلے جب چند اسلامی ممالک نے یورپ کو تیل کی فراہمی بند کر دی تھی تو پورا یورپ تاریک ہو گیا تھا اور سردی سے ٹھٹھرنے لگا تھا۔ کسی نے کیا خوب کہا ہے کہ اگر مشرق وسطیٰ کے تمام مسلمان صرف پیشاب کر دیں تو اسرائیل ڈوب جائے لیکن وہ بڑی طاقتوں پر سوار ہو کر دراز قد عربوں کے کندھوں کے منہ پر طمانچے مار رہا ہے اور اسلامی ممالک اس کا کچھ نہیں بگاڑ سکتے کیوں کہ نہ توان میں اتفاق ہے نہ اخوت اسلامی کا وصف موجود ہے اور نہ عسکری صلاحیتیں موجود ہیں۔ جس قوم کا سپاہی ایئر کنڈیشنڈ کمرے کے بغیر نہ سو سکے وہ صحراؤں میں کیسے لڑ سکتا ہے جب کہ اسرائیل کے کالجوں اور سکول کے طلبہ کو لازم ہے کہ وہ فوجی تعلیم بھی حاصل کریں۔ فوج کے افسران جو انھیں تربیت دیتے ہیں وہ انھیں صحرا میں 5 میل سے لے کر 10 میل تک پیدل چلاتے ہیں اور انھیں ناپختہ عمر میں ہی مصائب جھیلنے کا عادی بنا دیتے ہیں لیکن ہمارے بیشتر عرب ممالک اپنے طلبہ کو اس قدر وافر مقدار میں فنڈز مہیا کرتے ہیں کہ وہ تعلیم حاصل کرتے کرتے عیاش بھی بن جاتے ہیں۔ بہت سے اسلامی ممالک اکثر مارشل لاء کی زد میں رہتے ہیں۔ جس سے ان ملکوں کی ترقی معکوس انداز اختیار کر لیتی ہے۔ دراصل یہ بیرونی ممالک کی پوشیدہ طاقتیں انقلاب وغیرہ بر پا کرواتی ہیں۔ افغانستان کی مثال ہمارے سامنے ہے۔

اخوت اسلامی

علامہ اقبال رحمۃ اللہ علیہ رحمۃ اللہ علیہ نے کہا تھا کہ افراد جلد مٹ جاتے ہیں لیکن قومیں اپنی آئندہ زندگی کو دائمی بنا لیتی ہیں۔ اقبال رحمۃ اللہ علیہ کے نزدیک دنیائے اسلام کے تمام مسلمان اپنے فروعی اختلافات رکھنے کے باوجود ایک ملت ہماری خدا ایک رسول خاتم النبیین صلی اللہ علیہ وسلم ایک، قرآن پاک ایک تو پھر ہم سب کیوں ایک نہ ہو جائیں ایک اس اس باہم کے سبب سے ہی مسلمان دنیا میں انقلاب لا سکتے ہیں ملت بیضا اپنے اندر ربط و تنظیم ایک مرکز سے وفاداری کی بنیاد قائم کر سکتی ہے۔ کیوں کہ مسلمان عالم کا مذہبی اعتبار سے ایک مخصوص تکنیک اور طریق فکر و عمل ہے۔ جو انھیں دوسری قوموں سے ممتاز کرتا ہے۔ غرض مسلمانوں کی یہ وحدت ایک ناقابل تسخیر چیز بن جائے جو بھی اس سے ٹکرائے وہ پاش پاش ہو جائے۔

تجاویز اور لائحہ عمل

مسلمانوں کو اپنی جغرافیائی اور نسلی تفاخر کو بھول جانا چاہیے اور خطبہ حجۃ الوداع کی روشنی میں گورے کو کالے پر یا کالے کو گورے پر عربی کو عجمی پر یا عجمی کو عربی پر فوقیت حاصل نہیں ہونی چاہیے بلکہ ایک ملت کا حصہ بن جانا چاہیے۔

بتان رنگ و خوں کو توڑ کر ملت میں گم ہو جا

نہ تورانی رہے باقی نہ ایرانی، نہ افغانی

یہ جغرافیائی حدود یا علاقائی حدود و بندیاں محض علاقے کے تعین کے لیے استعمال ہوں۔ "السلام علیکم" ہمارا ویزا اور کلمہ طیبہ ہمارا پاسپورٹ ہونا چاہیے۔ تمام اسلامی ممالک میں اجتماعی طور پر ایک کمانڈر انچیف یا فیلڈ مارشل ہونا چاہیے جب بھی کوئی مسلمان ملک بیرونی جارحیت کا شکار ہو تو تمام اسلامی ممالک کی افواج اس کی تحویل میں ہوں۔

باہمی اشتراک سے بڑی بڑی صنعتی فیکٹریاں اور کارخانے قائم کرنے چاہئیں۔ ہماری اپنی اسلحہ ساز فیکٹریاں ہوں تا کہ ہمیں مشرق و مغرب کی طرف نہ دیکھنا پڑے نہ تو امریکہ کے آگے ہاتھ پھیلانا پڑے نہ روس کے سامنے۔ ہمارا اپنا ایک اسلامی بلاک ہو جو ترقی پذیر ممالک کی ترقی و تعمیر میں بھرپور کردار ادا

کرے۔

یواین اوکی طرح ہماری اپنی تنظیم ہونی چاہیے جس میں مختلف شعبے ہوں۔ جو روابط اسلامی سے لے کر ہر قسم کے باہمی مسائل طے کرانے میں ممد و معاون ثابت ہو۔ یہی ادارہ اسلامی تعلیمات اور نفاذ اسلام کے لیے ہمہ وقت مصروف کار ہے کیوں کہ قوموں کی بقا اعمال صالح کے باعث ہوتی ہے۔ اعمال صالح ہی تمدن آفرین ہوتے ہیں۔ ہم سب میں بھائی بھائی ہونے کا جذبہ ہو، خواہ انڈونیشیا اور ملائشیا کے مسلمان ہوں یا مالی اور چاڈ کے، ہم حرم کے پاسبان بن جائیں گے تو ہمیں کوئی شکست نہیں دے سکے گا۔

ایک ہوں مسلم حرم کی پاسبانی کے لیے
نیل کے ساحل سے لے کر تا بخاک کاشغر

.... ☆ ....

ضرورت ایجاد کی ماں ہے

چھولے نہ بندگی کہیں دامن خدا کا
معراج ارتقائے بشر دیکھتا ہوں میں

انسانی فطرت

انسان کی فطرت ہے کہ جب تک اسے کوئی مسئلہ یا دشواری پیش نہ آئے وہ اس کے حل کی طرف نہ تو توجہ دیتا ہے اور نہ ہی اس کے سلجھانے کی تدبیر سوچتا ہے۔ مگر جب اس کے سامنے کوئی دشواری آتی ہے تو وہ اس تکلیف کو دور کرنے کی کوشش کرتا ہے اور آخر حتی الامکان اسے دور کر لیتا ہے۔ اس لیے کہا جاتا ہے کہ ہر ایجاد اس وقت ہوتی ہے جب کوئی ضرورت پیش آتی ہے۔

رہائش کا بندوبست

ابتدائی زمانے میں انسان وحشت کی زندگی بسر کرتا تھا۔ دن سیر و شکار میں بسر کرتا اور رات کو کسی پہاڑ کی غار یا درخت کی کھو میں چھپ جاتا۔ اسے ہر وقت درندوں سے خطرہ محسوس ہوتا تھا۔ رات کی سردی اور دن کی چلچلاتی دھوپ سے اسے تکلیف ہوتی تھی۔ آندھی اور بارش اسے الگ ستاتی۔ آخر کار اس نے شروع شروع میں دھوپ اور بارش سے بچنے کے لیے گھاس پھوس کی جھونپڑی بنا لیں۔ یہ ایک چھوٹی سی ایجاد تھی جو ترقی کر کے عالی شان محلات فلک بوس عمارات اور کوہ پیکر قلعوں کی شکل اختیار کر گئی۔

ذرائع آمد و رفت

جب انسان کو دور دراز مقامات تک سفر کرنے میں تکلیف ہوئی تو اس نے سواری کے لیے گدھوں، گھوڑوں اور اونٹوں کو سدھایا مگر منزل پر جلد پہنچنے کی خواہش میں کوئی کمی نہ آئی تو ریل موٹریں اور ہوائی جہاز ایجاد کر لیے اور اب اس نے ایسے طیارے ایجاد کر لیے جن کی رفتار آواز سے بھی تیز ہے۔

پیغام رسانی

پیغام رسانی کی ضرورت نے شروع میں قاصد دریافت کیے پھر محکمہ ڈاک وجود میں آیا۔ آج تار برقی، لاسلکی، ریڈیو اور ٹیلی ویژن سب اسی ضرورت کو پورا کرتے ہیں اور آئندہ نہ جانے کیا کچھ ہو جائے گا۔

گھڑی کی ایجاد

ابتدائی زمانے میں انسان کے پاس کام کم اور وقت زیادہ تھا۔ شکار کے بعد وہ نہ جانتا تھا کہ کیا کرے مگر جب اس نے مدنی زندگی اختیار کی اور کاشت کاری میں مشغول ہوا تو متعدد تمدنی ادارے وجود میں آئے۔ اب وقت کم اور کام زیادہ ہو گیا ہے تو اسے تقسیم اوقات کے لیے گھڑی کی ضرورت پیش آئی۔ اول دھوپ گھڑی ایجاد ہوئی پھر ریت اور پانی کی گھڑیاں بنا لیں۔ آخر کار مشین سے وقت بتانے والی گھڑیاں ایجاد کر لیں۔

لذت کام و دہن

شکار کی کمی اور مردم شماری کے اضافے نے اسے کاشت کاری کی طرف متوجہ کیا۔ سردی کے احساس نے لباس بنوایا، بھوک اور لذت کام و دہن نے اول اشیائے خوردنی کو بلوایا اور تھکین بنوایا۔ یہاں تک کہ پلاؤ، قورمہ، فرنی اور اسی قبیل کے سینکڑوں کھانے ایجاد کیے۔

تفریحات

تفریح کی ضرورت نے اول کبڈی، آنکھ مچولی جیسے کھیل ایجاد کرائے یہاں تک کہ اب ہم اس شوق کو فٹ بال، ہاکی اور کرکٹ سے پورا کرتے ہیں۔ تھیٹر اور سینما سے اپنا دل خوش کرتے ہیں۔

سینما اور فلم بینی

جوں جوں انسان مہذب ہوتا جاتا ہے اس کی ضروریات بھی بڑھتی جاتی ہیں اور معاشرے کا نظام پیچیدہ ہوتا جاتا ہے۔ ایک ضرورت دوسری ضرورت کو پیدا کرتی ہے۔ مثلاً شروع میں ایک سائنسدان نے ایچ لینٹرن (جادو کی لالٹین) سے تصویریں دکھانا شروع کیں تو دوسرے نے سوچا اسے متحرک بنانا چاہیے۔ اس ضرورت کے تحت فلم بنائی گئی۔ پھر ایسی ضرورت پیدا ہو گئی کہ ایسا کیمرہ ہونا چاہیے جو متحرک تصویریں لے سکے۔ پھر ایسی مشین بنائی پڑی جو فلم کو ایک خاص رفتار سے حرکت دے۔ پھر ایسی عمارت کی ضرورت پڑی جس میں فلم دکھائی جائے۔ اس عمارت میں ایک مجمع بیٹھتا ہے تو سانس سے ہوا مسموم ہو جاتی ہے لہٰذا ایسے پنکھوں کی ضرورت ہوئی جو ہوا کو باہر خارج کرے۔ غرض ایک ضرورت دوسری ضرورت کی تولید کرتی ہے۔

ایجادات ...... ایک مسلسل عمل

ایجاد کا عمل حالت امن اور جنگ دونوں میں جاری رہتا ہے۔ پہلی صورت میں عیش و آرام اور زندگی کے لیے راحت بخش چیزیں ایجاد ہوتی ہیں۔ بیماریوں کے علاج اور انسانی مصائب کا خاتمہ کرنے کی تدابیر سوچی جاتی ہیں مگر حالت جنگ میں جنگی آلات ایجاد ہوتے ہیں حملے اور دفاع کی تدابیر سوچی جاتی ہیں اور انسان اپنے ہم نوع کو تباہ و برباد کرنے پر تل جاتا ہے۔ اس کے چہرے سے تہذیب کا نقاب ہٹ جاتا ہے اور دہشت و بربریت کی خوفناک شکل نظر آنے لگتی ہے۔

سوال: جہیز ایک لعنت ہے۔ جامع مضمون تحریر کریں۔

جواب: جہیز ایک لعنت

جہیز عربی زبان کے لفظ "جہاز" کی بگڑی ہوئی شکل ہے جس کے معنی ساز و سامان تیار کرنا یا مہیا کرنا ہے۔ لیکن شادی کے موقع پر لڑکی کو اس کے والدین کی جانب سے دی جانے والی اشیا کو جہیز کہتے ہیں۔ جہیز کی یہ رسم مختلف صورتوں میں تقریباً تمام قوموں میں رائج ہے۔

ہمارے رسول پاک خاتم النبیین ﷺ نے جہیز کے بارے میں مسلمانوں کے لیے ایک روشن مثال چھوڑی ہے۔ حضور خاتم النبیین ﷺ چاہتے تو اپنی دختر حضرت فاطمہ رضی اللہ تعالیٰ عنہا کو دونوں جہان کی دولت بھی پیش کر سکتے تھے۔ لیکن آپ خاتم النبیین ﷺ نے ایسا نہیں کیا بل کہ مسلمانوں کے لیے ایک مثالی نمونہ قائم کیا اور آپ خاتم النبیین ﷺ نے صرف ایک چکی، ایک مشکیزہ، جانماز اور کجور کی چھال کی چار پائی اپنی بیٹی کو جہیز میں دی۔

ہمارا ایک اسلامی ملک ہے اور اس میں اسلامی قوانین بھی نافذ ہیں۔ لہٰذا اہل ایمان کا فرض ہے کہ شفقت رسول کو مشعل راہ بناتے ہوئے جہیز کی رسم کو بھی اسلامی طریقے سے اپنانا چاہیے۔

آج کل حقیقت اس کے بالکل برعکس ہے۔ جہیز غریب اور متوسط طبقے کے لیے لعنت بن گیا ہے جس کی وجہ یہ ہے کہ اونچے طبقے کے لوگوں نے جہیز سے متعلق اسلام کے زرین اصولوں کو ترک کر دیا ہے وہ لوگ بیٹیوں کو بڑھ چڑھ کر جہیز دیتے ہیں اور لڑکے والے اس کوشش میں رہتے ہیں کہ انھیں زیادہ سے زیادہ جہیز ملے۔ اب تو نوبت یہاں تک پہنچ گئی ہے کہ جہیز کے معاملے میں باقاعدہ سودے بازی کی جاتی ہے۔ لڑکے والے شادی سے پہلے صاف طور پر مطالبہ کرتے ہیں کہ انھیں کار، بنگلہ، ٹی وی، ایئر کنڈیشنر، ریفریجریٹر اور جنریٹر وغیرہ چاہیے۔

ہمارے معاشرے میں جہیز کی رسم کا چلن عام ہو گیا ہے۔ اب جہیز کی نمائش بھی کی جاتی ہے اور اگر چیزیں لڑکے والوں کی خواہش سے کچھ کم ہوں تو لڑکی

والوں کی بے عزتی کی جاتی ہے۔لڑکیوں کو طعنہ دیا جاتا ہے اور جہیز پر تلخ کلامی سے نوبت طلاق تک پہنچ جاتی ہے کہ غریب اور متوسط طبقے کی لڑکیاں شادی کی عمر سے آگے پہنچ کر بھی کنواری رہتی ہیں کیوں کہ اس طبقے کے والدین اپنی لڑکیوں کو بھاری جہیز مہیا نہیں کر سکتے اور بغیر جہیز کے ان لڑکیوں کو کوئی نہیں قبول کرتا۔

اس صورت حال نے معاشرے پر بہت برے اثرات نقش کیے ہیں ۔ان مجبوریوں اور برائیوں کو پیش نظر رکھتے ہوئے حکومت پاکستان نے جہیز کے لیے قانون بنایا ہے جس پر عمل غریب اور متوسط طبقہ تو ضرور کرتا ہے مگر امراء نے اس کا ابھی تک کوئی عملی ثبوت نہیں دیا۔

جہیز معاشرے میں اور بھی بہت سی برائیوں کا موجب بنتا ہے۔ جب غریب والدین اپنی لڑکیوں کے لیے جہیز مہیا نہیں کر سکتے اور ان کی لڑکیاں کنواری رہ جاتی ہیں تو یہ طبقہ روپے پیسے کے حصول کے لیے غلط ذرائع اپناتا ہے۔اگر وہ ملازم ہے تو رشوت لینا شروع کر دیتا ہے اور اگر وہ کاروباری ہے تو وہ اس میں خیانت کرتا ہے اس طرح معاشرہ گندا ہونا شروع ہو جاتا ہے۔اس کا انسداد معاشرے میں سرطان کے مرض کو روکنے کے مترادف ہے۔

موجودہ دور میں جب کہ معاشی پریشانی اور بدحالی نے غریب عوام کی دو وقت کی روٹی مشکل کردی ہے اور اب جب کسی غریب کے گھر بیٹی جنم لیتی ہے تو اس غریب کی سوچ کا مرکز اسی دن سے بیٹی کا جہیز ہوتا ہے وہ اسی دن سے اس کی فکر میں لگ جاتا ہے کیوں کہ موجودہ دور میں لڑکی کا ذاتی کردار اور شکل و صورت کم دیکھی جاتی ہے مل کہ دیکھا جاتا ہے کہ اس کے والدین ان کے مطلوبہ جہیز کے معیار کے مطابق جہیز بھی ہیں یعنی وہ جہیز کے علاوہ لڑکے اور لڑکی کی شادی کے بعد سیر و سیاحت کے لیے بیرون ملک بھیج سکتے ہیں یا کسی کارخانے میں ان کے لڑکے کا حصہ مخصوص کر سکتے ہیں؟ اور جو مطلوبہ یا مذکورہ شرائط پوری نہیں کرتے ان لوگوں کی بلند کردار اور خوبصورت لڑکیاں بغیر جہیز کے گھر میں بیٹھی رہتی ہیں۔

پس جہیز کی لعنت کا خاتمہ کرنا بے حد ضروری ہے۔سب سے پہلے باحیثیت اور صاحب اقتدار لوگ نمونہ قائم کریں اور یہ مسئلہ برادریوں کی سطح پر حل کرنے کی کوشش کریں تو کوئی وجہ نہیں کہ عوام بھی ان کے نقش قدم پر نہ چلیں۔ برادریوں اور پنچایتوں کے فیصلے حکومتی قانون سے بھی زیادہ مؤثر ثابت ہوتے ہیں۔ چناں چہ بعض برادریوں نے شادی بیاہ کی تقریبات میں پرتکلف کھانوں کی بجائے باراتیوں کی تواضع چائے اور مشروبات سے کرنا شروع کر دی ہے۔اسی طرح جہیز کے سلسلے میں برادریوں کی سطح پر پابندیاں عائد کی جاسکتی ہیں جس سے یہ مسئلہ حل ہونے کے ساتھ ساتھ معاشرے کی بعض برائیاں بھی از خود ختم ہو جاتی ہیں۔

.... ☆ ....

منشیات اور معاشرہ

کہتے ہیں:''ایک شخص شیطان کے چنگل میں پھنس گیا اور جان بچانے کے لیے شیطان نے دو شرائط پیش کیں ۔شراب کا ایک پیالہ پی لو یا تلوار لو اور اپنی ماں کو قتل کر دو ورنہ تم ہلاک کر دیے جاؤ گے۔اس شخص نے فرط قدس سے ماں کو قتل کرنے کی بجائے شراب کا پیالہ پینا منظور کرلیا۔ جب وہ شراب کے نشے میں دھت ہوا تو میان سے تلوار نکالی اور ماں کو بھی قتل کر دیا۔''

اس حکایت سے واضح ہے کہ نشہ کی حالت میں انسان اچھے برے کی تمیز کھو بیٹھتا ہے۔اسی لیے وہ تمام چیزیں جن سے نشہ پیدا ہوتا ہے اسلام میں حرام قرار دی گئی ہیں۔حضور اکرم خاتم النبیین ﷺ کی بعثت کے وقت عرب معاشرہ نشے کی زد میں تھا اور عرب شراب کے بہت رسیا تھے۔اس لیے اللہ پاک نے قرآن میں ارشاد فرمایا:

ترجمہ: ''بے شک شراب، جوا، استھان اور تیروں سے فال نکالنے کے عمل ناپاک ہیں اور شیطانی اعمال ہیں۔ان سے بچو تا کہ تم کامیاب ہو جاؤ''
اور اس حکم کے ساتھ ہی شراب کو حرام قرار دیا گیا۔

فقہائے اسلام نے تصریح کی ہے کہ کل مسکر حرام یعنی ہر نشہ آور چیز حرام ہے۔ یہی وجہ ہے کہ شراب کو ام الخبائث کہا گیا ہے۔ شراب کی ہر قسم میں جو نقطہ اشتراک رہا ہے وہ کسی چیز کو جوش دینا ہے یہ گڑ سک یا پھلوں کے خمیر سے تیار ہوتی ہے۔یہ اعصابی نظام میں ہیجان پیدا کر کے طبیعت میں مسرت پیدا کرتی ہے

لیکن شراب کا بے حد استعمال ضعف قلب اور فالج کا راستہ ہموار کرتا ہے۔

دوسری بڑی چیز جس نے انسانوں سے قوت عمل چھین رکھی ہے افیون ہے۔ یہ پوست کے پودے سے حاصل کی جاتی ہے۔ جب پودا جوان ہوتا ہے تو اس کے پھل سے شگاف سے آئی مواد نکال لیا جاتا ہے اور پھر اسے منجمد کر لیا جاتا ہے اور یہی افیون کہلاتی ہے۔ یہ سن کر دینے والی انتہائی مہلک چیز ہے۔ اس کا عادی شخص اسے اعلیٰ علاج کے بغیر نہیں چھوڑ سکتا۔ اگر زبردستی اس سے کسی شخص کو چھکارا دلوایا جائے تو نشئی ہلاک ہو جاتا ہے۔ افیون غریب بھی کھاتے ہیں اور امرا بھی۔ اس میں پائروٹین کی نسبت نکوٹین کے اجزا زیادہ ہوتے ہیں اور نکوٹین انتہائی زور اثر ہوتی ہے۔ اس کے پینے والے عموماً ہوا دار محل میں تیار کرتے ہیں اور اپنا پرکار شباب اس کی بھینٹ چڑھا دیتے ہیں۔ ہمایوں بادشاہ کی شیر شاہ سوری کے مقابلے میں شکست کی سب سے بڑی وجہ افیون کی عادت تھی کیوں کہ جب اسے میدان جنگ میں ہونا چاہیے تھا اس وقت وہ افیون کے نشے میں مست ہوتا تھا۔

افیون سے مارفین بھی حاصل ہوتی ہے اور اس سے آج کی بدترین نشہ آور شے ہیروئن بھی تیار کی جاتی ہے۔ یہ سفید یا بھورے رنگ کا پاؤڈر ہوتا ہے جو ذائقے میں کڑوا دہا ہوتا ہے۔ اسے جوہر افیون بھی کہا جاتا ہے۔ یہ ایک ایسا زہریلا نشہ ہے جسے ایک یا دو بار پینے سے آدمی اس کا عادی ہو جاتا ہے۔ اگر اسے ہیروئن نہ ملے تو اس کی ہڈیاں چٹخنا شروع ہو جاتی ہیں اور ہیجانی کیفیت میں مبتلا ہو کر پاگلوں جیسی حرکت کرنے لگتا ہے۔ نہ جاننے والے اس کو پاگل سمجھتے ہیں اور وہ ایڑیاں رگڑ رگڑ کر مرتا ہے۔ کسی نے سچ کہا ہے۔

It burns in flames and ends in ashes.

یعنی ہیروئن پینے والے کا یہی انجام ہے کہ وہ نشے میں سلگتا رہتا ہے اور را کھ ہو جاتا ہے۔

کوکین بھی سفید رنگ کا پاؤڈر ہے جو کوکا نامی پودے کی پتیوں سے حاصل کیا جاتا ہے۔ سگریٹ میں پیا جاتا ہے اور اس کے ٹیکے بھی لگائے جاتے ہیں۔ یہ نہایت طاقتور نشہ اعصابی نظام کو بیکار بنا دیتا ہے۔ اگر انسان کو ایک دفعہ لگ جائے تو اس کا چھوڑنا مشکل ہو جاتا ہے۔ اس کے استعمال سے آنکھوں کی پتلیاں پھیل جاتی ہیں۔ دل کی دھڑکن تیز ہو جاتی ہے۔ اعصابی کشیدگی اور بے خوابی سے وزن میں کمی آ جاتی ہے۔

بھنگ اور چرس بھی مشہور نشہ آور چیزیں ہیں۔ بھنگ ایک خود رو جنگلی پودا ہے جسے غریب نشئی گھوٹ کر پیتے ہیں۔ یہ ملکوں کی زبان میں سبز پری کے نام سے مشہور ہے۔ اس میں نکوٹین کی مقدار کم ہوتی ہے۔ یہ آہستہ آہستہ انسان کے اعصاب کو مفلوج کر کے اسے موت کی وادی میں لے جاتی ہے۔ اس کے متعلق مشہور ہے کہ یہ انسان کا لہو پیتی ہے۔ بھگی میں کبھی مستعدی نہیں آ سکتی ہے۔ وہ یہ نہیں جانتا کہ زندگی کی سچی آب و تاب کیا ہے۔

اسی بھنگ سے چرس بھی تیار ہوتی ہے۔ یہ انسان کو سن کر دیتی ہے نکوٹین کا اثر براہ راست جسمانی اعضا پر ہوتا ہے۔ دل و دماغ ماؤف ہو کر رہ جاتے ہیں۔ انسان حقائق کی دنیا سے فرار حاصل کر کے تخیل اور الف لیلوی عالم میں کھو جاتا ہے۔ طبی لحاظ سے یہ خشونت، خشکی اور دماغ کے لیے خطرناک قسم کی نازک مزاجی پیدا کرتی ہے۔ چرسی غصے میں آ کر ہر قسم کی تمیز کھو بیٹھتا ہے۔ اکثر چرسی لڑاکے ہوتے ہیں اور بڑے شہروں میں بیشتر اوباش لوگوں میں ستر فیصد قاتل چرسی ہوتے ہیں کیوں کہ چرسی ذرا سی بات بھی برداشت نہیں کر سکتا ہے۔

نشہ بازی کی مختلف عادات بد میں سے ایک عادت تمبا کو نوشی کی بھی ہے۔ یہ ایک ایسی لعنت ہے جس نے ایک دنیا کو اپنی لپیٹ میں لے رکھا ہے۔ تمبا کو کئی طرح سے استعمال کیا جاتا ہے۔ یہ جتے، سگریٹ، سگار، بیڑی وغیرہ میں دھوئیں کی راہ پیا جاتا ہے۔ چبایا، کھایا اور نسوار بھی لی جاتی ہے۔ تمبا کو میں نشہ اور الکلائڈ نکوٹین ہوتی ہے یہ اس قدر زہریلی ہوتی ہے کہ اس سے کیڑے مار دوائیں بنائی جاتی ہیں۔ اس سے سرطان کا عارضہ لاحق ہو جاتا ہے۔ تمبا کو کا مسلسل استعمال منشیات کا عادی بنا تا ہے۔ دمہ، ٹی بی، قلت خون، نظام تنفس کے نقائص، تمبا کو نوشی کا نتیجہ ہیں۔ تمبا کو نوشی کے عادی غیر صحت مند بچوں کو جنم دیتے ہیں۔ طبی نقصانات اور جسمانی بیماریوں کے ساتھ نفسیاتی اور اخلاقی بیماریاں بھی تمبا کو نوشی کا ادنیٰ کرشمہ ہیں۔ تمبا کو نوش شخص کی طبیعت میں جلد بازی، چڑ چڑا پن اور خود غرضی کے جذبات جنم لینے لگتے ہیں وہ کبھی خود کو تنہا محسوس کرنے لگتا ہے اور اعصابی تشنج کا شکار ہو کر تمبا کو نوشی کی فضاؤں میں پناہ لینے پر مجبور ہو جاتا ہے۔

بہت کم لوگوں کو معلوم ہے کہ کافی اور چائے کے حد سے زیادہ استعمال بھی صحت کو نقصان پہنچاتا ہے کیوں کہ یہ دونوں چیزیں اعصابی نظام اور ہیجانی اثر کرتی ہیں۔ اس لیے ان کا زیادہ استعمال خطرے کا باعث بن سکتا ہے۔

پاکستان ایک اسلامی ملک ہے اور یہاں پر نشہ آور مادوں اور مشروبات کی ممانعت ہے تو سوال یہ پیدا ہوتا ہے کہ اس ملک میں ہیروئن کی وبائی تیزی سے کیسے پھیلی؟ اس بارے میں ایک تصور تو یہ ہے کہ روایتی طرز زندگی کے مکمل انتشار نے منشیات کے دروازے کھول دیے ہیں جب خاندانی بزرگوں کا اثر و اختیار مستحکم تھا زندگی پرسکون تھی تو منشیات کا استعمال بھی کم تھا لیکن اس تصور کے علاوہ اور بھی بہت سی ممکنہ وجوہات ہیں اولاً بے روزگاری، ثانیاً متعلقہ انتظامیہ کی کمزوری اور رشوت خوری، ثالثاً ملکی دولت کی غلط تقسیم، رابعاً مہنگائی اور راتوں رات لاکھ پتی اور کروڑ پتی بننے کے خواب خاصا حکومت کی بیرون ملک برآمد کرنے میں روک تھام اور سمگلروں کا قلع قمع جس کے سبب یہ بیل بلا بار جانے کے بجائے اپنے ہی خطے میں پھیل رہا ہے۔

سگریٹ نوشی کا تو ہر کوئی عادی ہے لیکن ہیروئن تو اب کالجوں میں کھلے عام پی جاتی ہے۔ صرف بات یہاں تک ختم نہیں ہو جاتی بلکہ یہ طالبات میں بھی یہ بیماری پھیل گئی ہے۔ بعض افراد دوسروں کو بلیک میل کرنے کے لیے، اپنے ہاں زبردستی ملازم رکھنے کے لیے، کسی کو اپنا محتاج بنانے کے لیے یا اپنی ہوس منانے کے لیے ہیروئن کے نشے کا عادی بنا دیتے ہیں بدھوکے سے سگریٹ پلا دیا جاتا ہے جس کی بو باس کی بھی خبر نہیں ہوتی اور اس وقت احساس ہوتا ہے جب انسان عالم خیال میں ورق کی طرح اڑنے لگتا ہے۔ منشیات نے ہمارے نوجوانوں کی قوت استقامت، ہنر مندی اور دماغی صلاحیتیں نشاط شباب اور رنگ و روپ سب کچھ چھین لیا ہے۔ وہ اس وقتی سکون کو کسی مغل بادشاہ کی عشرت پسندی سمجھتے ہیں۔ وہ سگریٹ کے دھوئیں میں غم غلط کرتے ہیں۔ شراب کے کیف و سرور میں ابدی طمانیت تلاش کرتے ہیں۔ ہیروئن کے نشے میں بے تاج بادشاہ بنے پھرتے ہیں اور اپنے آپ کو انتہائی زدر آور سمجھ کر معاشرے میں اس قسم کے گھناؤنے جرائم کا ارتکاب کرتے ہیں کہ جنہیں دیکھ کر شیطان بھی شرما جاتا ہے اور پکار اٹھتا ہے۔

کیا ہنسی آتی ہے مجھ کو حضرت انسان پر
کار بد تو خود کرے، لعنت کرے شیطان پر

ہیروئن، افیون اور چرس ایران کے جنوب مشرقی علاقے افغانستان پاکستان اور تھائی لینڈ وغیرہ کے علاقوں میں تیار ہوتی ہے کیوں کہ ان کے پودوں کی کاشت یا خود رو پودے انہی علاقوں میں پیدا ہوتے ہیں اور یہی علاقے منشیات کے کاروبار کرنے میں بدنام ہیں۔ گو مغرب نے اہل مشرق کے لیے نئی مہلک تہذیب اور شراب و شباب کے وسائل پیدا کیے ہیں لیکن اب اہل مغرب ہی اس بنیا تک کاروبار کے خلاف چیختے نظر آتے ہیں یہ درست ہے کہ ان منشیات کے سمگلر چند ماہ میں کروڑ پتی بن جاتے ہیں۔ ہیروئن اور چرس جس کی قیمت اگر یہاں ایک ڈالر ہے تو مغرب میں وہی چیز سو ڈالر میں بکتی ہے۔ اس کی روک تھام کے لیے حکومت نے متعدد اقدامات کیے ہیں۔ سخت سزاؤں کے قوانین پاس کیے ہیں۔ خصوصی فورس تیار کی گئی ہے۔ گو یہ بات مشہور ہے کہ بسا اوقات سمگلر سیکورٹی فورس سے مل کر خود ہی ناقص منشیات کا مال پکڑوا دیتے ہیں تا کہ سمگلنگ کی روک تھام کرنے والوں کا نام روشن رہے۔ اب حکومت نے خفیہ فورس بھی مقرر کر دی ہے جس کے تمام اخراجات امریکہ ادا دیتا ہے۔ امریکی حکومت نے منشیات کی پیداوار ختم کرنے اور اس کی سمگلنگ کی روک تھام کرنے کے لیے خصوصی فنڈ مقرر کر رکھے ہیں۔ پاکستان کے قبائلی علاقوں میں جہاں پوست وغیرہ کی کاشت ہوتی تھی امریکی حکومت نے ان کے لیے خصوصی گرانٹس چھوٹے ٹریکٹر اور زرعی آلات وغیرہ فراہم کیے ہیں تا کہ وہ پوست کے بجائے کوئی اور فصل کاشت کریں۔ مگر مقام حیرت ہے کہ جس قدر اس کی روک تھام ہو رہی ہے پاکستان میں ان مہلک نشہ آور چیزوں کے استعمال کرنے والوں کی تعداد بڑھتی جا رہی ہے۔

معاشرتی برائیاں

معاشرہ افراد کے مجموعے کا نام ہے جو آپس میں چند اصولوں کے تحت مل جل کر رہتے ہیں۔ کسی معاشرے کا اپنا کوئی مقصد نہیں ہوتا بلکہ اس کا مقصد وہی قرار پاتا ہے جو لوگ اسے دیتے ہیں۔ لہذا افراد اور معاشرے کے آپس میں گہرے رشتے کی بنا پر معاشرہ چند فرائض ہر فرد پر عائد کر دیتا ہے اور چند حقوق ہر فرد کو دیتا ہے۔ پس معاشرتی برائیاں ان فرائض اور حقوق یا معاشرتی قواعد و ضوابط کے ترک کر دینے سے پیدا ہوتی ہیں۔

کہا جاتا ہے کہ غربت اور جہالت جب اکٹھی ہو جاتی ہیں تو ان میں فساد پیدا ہوتا ہے۔ جس سے شیطان بھی پناہ مانگتا ہے۔ بدقسمتی سے غربت اور جہالت بڑی وافر مقدار میں ہمارے حصے میں آئی ہیں۔ چناں چہ ہمارے گاؤں اور شہروں میں قتل ڈاکا زنی، چوری چکاری، اغواء، مقدمے بازی، سازشیں، چھوٹے بڑے تنازعات رشوت ستانی گدا گری جیسے تمام جرائم اور لعنتوں کی جڑیں غربت اور جہالت کی زرخیز زمین ہی میں پھیلی ہوئی ہیں۔

جیسا کہ پہلے لکھا جا چکا ہے کہ ہمارا ملک ایک امیر ملک نہیں ہے لوگوں کی اکثریت غریب ہے۔ زیادہ تر بچے تعلیم، سماجی اور اخلاقی رہنمائی سے

محروم رہتے ہیں۔ لہٰذا وہ بڑے ہو کر ذمہ دار شہری نہیں ثابت ہوتے۔ ان میں سے اکثر پیشہ ور بھکاری بن جاتے ہیں وہ سوچتے ہیں کہ روزی کمانے کا یہ ایک آسان ذریعہ ہے۔ ہمارے شہروں کی گلیاں ایسے گداگروں سے بھری رہتی ہیں۔ اگرچہ ہمارا مذہب گداگری کی اجازت نہیں دیتا پھر بھی ہم میں سے زیادہ لوگ یہ خیال کرتے ہیں کہ گداگروں کو خیرات دینا ان کا مذہبی فریضہ ہے۔ ہمیں صرف ان لوگوں کو خیرات دینی چاہیے جن کے بارے میں ہم جانتے ہوں کہ وہ خیرات کے مستحق ہیں۔ ہمیں پیشہ ور گداگروں کی حوصلہ شکنی کرنی چاہیے۔

خوش و خرم زندگی کا انحصار کچھ دو اور کچھ لو کے اصول پر ہے اس اصول کا اطلاق ان سب کاموں پر ہوتا ہے جو ہمیں ایک دوسرے سے پڑتے ہیں مثلاً لوگ اپنی ضروریات کی اشیاء دکانداروں سے خریدتے ہیں اور بدلے میں اس کو پیسے دیتے ہیں۔ کئی دفعہ دکان دار غیر معقول منافع کمانے کے لیے کئی طریقے استعمال کرتے ہیں۔ مثلاً وہ کھلی مارکیٹ سے چیزیں غائب کر دیتے ہیں اور مصنوعی قلت پیدا کر کے صارفین کی کھال ادھیڑ کر خود عیاشی کی زندگی گزارتے ہیں۔ اگر ہم صرف وہی چیزیں خریدیں جن کی ہمیں ضرورت ہوتی ہے تو اس طرح ہم بلیک مارکیٹ کو روک سکتے ہیں جن اشیاء کی خریداری معقول حد تک ہونی چاہیے جب بلیک مارکیٹ میں خریداری نہ ہو گی تو اشیاء واپس دکانوں میں آ جائیں گی اور قیمتیں گر کر عام سطح پر آ جائیں گی۔

ایک اور سماجی برائی رشوت ہے جس کی وجہ سے ملک کو اتنا نقصان ہوتا ہے جس کا اندازہ عام طور پر نہیں لگایا جاتا۔ رشوت کے ذریعے ایسے کام نکالے جاتے ہیں جو ایمانداری سے نہیں ہو سکتے ہیں۔ اگر کسی ملک میں رشوت ستانی عام ہو جائے تو ملکی حالات ناپسندیدہ اور بے ایمان لوگوں کے ہاتھ میں چلے جاتے ہیں قدرتی طور پر رفتار ترقی رک جاتی ہے۔ قومی سرمایہ ضائع ہو جاتا ہے۔ یہ معاشرتی برائی قانون ہی نہیں بل کہ اخلاقی اور قومی ذمہ داری کے جذبے سے دور ہو سکتی ہے۔

سمگلنگ ایک اور معاشرتی برائی ہے جو ملک کی اقتصادی حالت کو خراب کر دیتی ہے۔ یہ قوم کو نقصان پہنچا کر دولت کماتے ہیں جن چیزوں کی ملک میں ضرورت ہوتی ہے وہ اسے ملک سے باہر سمگل کر دیتے ہیں جو چیزیں ملکی صنعت کے لیے نقصان دہ ہوتی ہیں انہیں وہ ملک میں سمگل کرا لاتے ہیں۔ اسی طرح جب لوگ حکومت کو انکم ٹیکس ادا نہیں کرتے تو اس کا نقصان پورے ملک کو ہوتا ہے۔ روپے پیسے کے بغیر ملک کی ترقی کے تمام منصوبے ناممکل رہ جاتے ہیں۔

کچھ سماجی رسومات جن میں قیمتی جہیز کا دینا اتنی اہمیت اختیار کر چکا ہے کہ بے شمار نوجوان بچیاں والدین کے گھروں میں بیٹھی بیٹھی بڑھاپے کی دہلیز پر پہنچ جاتی ہیں کیوں کہ ان کے ہاتھ پیلے کرنے کی والدین میں استطاعت نہیں ہوتی۔ اب چوں کہ حکومت وقت نے جہیز کی کم از کم حد مقرر کر دی ہے اس لیے امید کی جاتی ہے کہ یہ سماجی برائی ختم ہو جائے گی لیکن قانون کی عزت اور احترام کا انحصار لوگوں پر ہے۔

اقربا پروری اور سفارش نے بھی ہمارے معاشرے میں بڑی ناہمواری پیدا کر رکھی ہے جو لوگ جیسے تیسے اعلیٰ مناصب تک پہنچ جاتے ہیں ۔ وہ اپنے عزیزوں اور رشتہ داروں کو ان کی اہلیت کو نظر انداز کرتے ہوئے مختلف عہدوں پر فائز کر کے اہل افراد کو محرومی کا شکار بنا دیتے ہیں اور یوں قومی ترقی رک جاتی ہے۔

ایک اور روگ جو معاشرے کو اندر ہی اندر سے کھا جاتا ہے وہ ہے منشیات کا استعمال۔ نشہ آور اشیاء بالخصوص ہیروئن کے استعمال نے تباہی مچا رکھی ہے۔ جعلی دوائیں تیار کرنے والے ادارے اور اشخاص معاشرے کے قاتل ہیں۔ بیماری کے خلاف جنگ کرنے کی بجائے وہ بیماروں کو موت کے منہ میں دھکیل دیتے ہیں۔ ہر روز اخبارات میں جعل سازی، چوری، ڈکیتی، اغوا، قتل وغیرہ کی وارداتوں کی خبریں چھپتی رہتی ہیں۔ بچوں کو اغوا کرنے والے اس دکھ کو بھول جاتے ہیں جو وہ بچوں کے والدین کو پہنچاتے ہیں۔ بچوں کو یا تو غلام کے طور پر بیچ دیا جاتا ہے یا پھر انہیں بھکاری بنا دیا جاتا ہے۔

ہماری قومی زندگی کا ایک بڑا المیہ یہ بھی ہے کہ ہم منافقت سے کام لیتے ہیں ہمارے قول و فعل میں تضاد ہے ہم میں یہ بھی نقص ہے کہ ہم باتیں تو بہت کرتے ہیں لیکن عملی طور پر بالکل صفر ہوتے ہیں دوسروں کو نصیحت کرتے ہیں مگر کبھی اپنا احتساب نہیں کرتے ہیں۔

یہ سماجی برائیاں ایک بیمار معاشرے کی نشان دہی کرتی ہیں۔ معاشرے کو ان برائیوں سے پاک کرنے کے لیے ضروری ہے کہ ہم ان سماجی، اخلاقی اور مذہبی اقدار کو اپنائیں جو دوسروں کی جان اور مال کی عزت کرتی ہیں۔ صرف سزائیں ہی جرائم اور برائیوں کا قلع قمع نہیں کر سکتی ہیں بل کہ ہمارے اندر یہ احساس پیدا ہونا چاہیے کہ صحیح کیا ہے اور غلط کیا ہے؟

اسی طرح اگر ہم خلوصِ دل سے اسلام کی تعلیمات پر عمل کریں تو ہم ان تمام سماجی برائیوں کو جڑ سے اکھاڑ پھینک سکتے ہیں۔ اسلام نے ہمیں سادہ اور قابلِ عمل ضابطہ حیات دیا ہے۔ اگر ہم سب اس ضابطے کو اپنالیں تو معاشرہ خود بخود اپنی اصلاح کر لے گا۔

.... ☆ ....

ماحولیاتی آلودگی

انسان نے جہاں اپنی سائنسی ترقی سے ماحول کو سنوارا ہے وہاں ماحول کو خراب بھی کیا ہے جس سے انسانی صحت پر تباہ کن اثرات مرتب ہوئے ہیں۔ انسانی سرگرمیوں کے باعث ماحول پر جو منفی اثرات ظاہر ہوئے ہیں انہیں ماحولیاتی آلودگی کا نام دیا جاتا ہے۔

ہوا اور پانی انسانی زندگی کے لیے قدرت کا بہترین عطیہ اور بہت بڑا انعام ہیں۔ ہوا مختلف گیسوں کا مرکب ہے۔ ہوا میں آکسیجن، نائٹروجن اور ہائیڈروجن، کاربن ڈائی آکسائیڈ وغیرہ ایک خاص تناسب سے شامل ہیں۔ ہوا کے بغیر انسانی زندگی کا تصور بھی نہیں کیا جا سکتا۔ لیکن اگر یہ تناسب برقرار نہ رہ سکے اور ایک خاص مقدار سے کم یا زیادہ ہو جائے تو انسان کے لیے زندہ رہنا ممکن نہ رہے گا۔ گاڑیوں سے نکلتے ہوئے کاربن مونو آکسائیڈ گیس کی مثال ہی لے لیجیے اگر یہ ہوا میں خاص مقدار سے بڑھ جائے تو انسان کی موت فوری طور پر واقع ہو جاتی ہے۔ آج کل سڑکوں پر ہونے والی اکثر اموات اسی کا شاخسانہ ہیں۔

اسی طرح آلودہ پانی پینے سے پیٹ کی بہت سی بیماریاں تیزی سے جنم لے رہی ہیں۔ فیکٹریوں، کارخانوں، گاڑیوں اور مشینوں کے شور نے بلڈ پریشر ڈپریشن اور ذہنی بے سکونی جیسے امراض کو جنم دیا ہے۔

جہاں تک ہوا میں آلودگی کا تعلق ہے تو اس میں سب سے بڑا اور اہم کردار شہروں میں موجود کارخانوں اور فیکٹریوں نے ادا کیا ہے جن کی چمنیوں سے نکلنے والا مضرِ صحت دھواں، جن میں انتہائی خطرناک کیمیائی اجزا کی موجودگی ہماری صحت پر براہ راست اثر انداز ہو رہی ہے۔ گاڑیوں سے نکلنے والا دھواں، زراعت کے شعبہ میں لگی آگ، سڑکوں سے اٹھنے والے گرد و غبار نے تو صاف و شفاف ہوا کا قدرتی تناسب تباہ و برباد کر کے رکھ دیا ہے۔ جس سے ہماری روز مرہ زندگی متاثر ہو رہی ہے۔ ہوا میں آلودگی کی وجہ سے ہمارے شہروں میں خصوصاً پھیپھڑوں کی تمام بیماریاں ناک اور گلے کی تکالیف، دمہ، سر درد آنکھوں کی جلن، سانس پھولنا، متلی، جلدی بیماریاں وغیرہ روز بروز بڑھتی جا رہی ہیں۔

ہوا میں آلودگی نے جہاں ہماری صحت پر گہرے اثرات مرتب کیے ہیں وہاں قدرتی ماحول بھی اس سے بری طرح متاثر ہوا ہے۔ روز بروز بڑھتی ہوئی گرمی نے جہاں انسان کا جینا دو بھر کیا ہوا ہے وہاں پانی کے ٹمپریچر نے، موسموں میں تبدیلی نے ضرورت سے کم یا زیادہ بے موسمی بارشیں سیلاب اور زمینوں کے بنجر پن جیسے مسائل سے بھی دو چار کیا ہے۔

پانی میں آلودگی کا مسئلہ بھی شدت اختیار کرتا جا رہا ہے۔ پانی جو کہ آکسیجن اور ہائیڈروجن کا مرکب ہے۔ جس میں کچھ مزید نمکیات بھی ایک خاص مقدار میں موجود ہوتے ہیں جن میں سوڈیم، پوٹاشیم، کیلشیم وغیرہ شامل ہیں اور جو انسانی جسم کی نشو و نما میں اہم کردار ادا کرتے ہیں۔ پانی میں اللہ تعالیٰ نے ایک خصوصیت رکھی ہے کہ یہ تقریباً تمام کیمیائی اجزا کو اپنے اندر حل کرنے کی صلاحیت رکھتا ہے۔ یہی وجہ ہے کہ پانی میں اگر ضروری نمکیات قدرتی تناسب میں موجود ہیں تو قدرت کا بہترین عطیہ ہیں۔ لیکن اگر ان نمکیات کی مقدار ایک خاص تناسب سے بڑھ جائے یا کم یا مضرِ صحت کیمیائی اجزا پانی میں شامل ہو جائیں تو یہ بیماریوں کا بہت بڑا ذریعہ ہے۔ بچوں اور بڑوں میں اسی فیصد بیماریاں پانی کے ذریعے ہی پیدا ہوتی ہیں اور دوسروں میں منتقل ہوتی ہیں۔ آلودہ پانی کے ذریعے مختلف بیماریوں کے جراثیم انسانی جسم میں داخل ہو جاتے ہیں۔ جن میں ہیضہ، یرقان، ٹائیفائیڈ، پیچش اور جگر کی بیماریاں شامل ہیں۔

پانی آلودہ کیوں اور کیسے ہو جاتا ہے۔ ہم دیکھتے ہیں کہ ہمارے شہروں میں یا شہروں سے باہر بہت سے ایسے کارخانے ہیں جن سے خارج ہونے والے پانی میں نہایت مضرِ صحت کیمیائی مادے شامل ہوتے ہیں۔ ان میں چمڑے کو صاف کرنے اور رنگنے کے کارخانے، ٹیکسٹائل کی فیکٹریاں، مختلف کیمیکلز تیار کرنے کے کارخانے، کھاد، فرٹیلائزر کیڑے مار ادویات اور شہروں سے سیوریج کا گندہ پانی شامل ہیں۔ اس پانی کا کچھ حصہ تو براہ راست ہمارے زیرِ زمین آبی ذخائر میں پہنچ جاتا ہے اور کچھ حصہ ندی نالوں نہر کے ذریعے ہمارے دریاؤں کے پانی میں شامل ہو جاتا ہے اور پھر جب ہم زیرِ زمین پانی کو ٹیوب ویلوں کے ذریعے یا دریاؤں کے پانی کو پینے کے استعمال میں لاتے ہیں تو یہی کیمیائی اجزا مضرِ صحت ہو کر ہماری بربادی کا سبب بنتے ہیں۔ اسی پانی کا کچھ حصہ ہم شکاری

کے لیے بھی استعمال کرتے ہیں جو پھر مختلف اجناس، سبزیوں وغیرہ پر بھی اثر انداز ہوتا ہے اور ہماری صحت پر برے اثرات چھوڑتا ہے اور مختلف بیماریوں کا سبب بنتا ہے۔ آلودہ پانی ہمارے دریاؤں میں موجود آبی جانوروں کے لیے بھی زبردست خطرے کا باعث ہے۔

ایک اور اہم مسئلہ بہت زیادہ تیز آواز اور شور کا ہے یہ بھی ماحولیاتی آلودگی ہی کا حصہ ہے۔ اس میں گاڑیوں اور ان میں لگے پریشر ہارن وغیرہ کی تیز اور ناگوار آوازیں رہائشی علاقوں میں لگی ہوئی فیکٹریاں اور کارخانے ریل گاڑیوں کا شور وغیرہ شامل ہیں۔ ان تیز ناگوار قسم کی آوازوں اور شور کی وجہ سے ذہنی بے سکونی بلڈ پریشر ڈپریشن، نیند کا کم یا نہ آنا، چڑچڑاپن، غصے کا جلدی آنا، کام میں جلدی کا اظہار اور طبیعت کی بے چینی جیسے امراض جنم لے رہے ہیں۔

ضرورت اس امر کی ہے کہ رکشوں سمیت تمام شور دینے والی گاڑیوں کا ماہانہ چیک اپ کروایا جائے اور بہت پرانی یا بہت زیادہ شور دینے والی گاڑیوں کا شہروں میں داخلہ ممنوع قرار دیا جائے۔ رکشوں کے سائلنسر ٹھیک کردانے تک انہیں تھانے میں بند کیا جائے بہت زیادہ دھواں یا شور کرنے والی گاڑیوں کے مالکان کے خلاف قانون کے تحت کارروائی کی جائے اور سخت سے سخت سزائیں تجویز کی جائیں۔

آلودگی کے خلاف قومی سطح پر مہم چلائی جائے۔ کانفرنسیں منعقد کی جائیں اور لوگوں کے ذہنوں میں یہ بات لائی جائے کہ آلودگی دور حاضر کا سب سے بڑا انسانیت کش مسئلہ ہے اس مقصد کے لیے ابلاغ عامہ، ریڈیو، اخبار، ٹی وی اور جرائد وغیرہ سے بھرپور فائدہ اٹھایا جا سکتا ہے۔

تعلیمی اداروں میں ماحولیاتی (Ecology) کو بطور مضمون متعارف کرایا جائے تا کہ آئندہ نسلیں اس خطرناک انجام سے بچ سکیں۔ بھل صفائی مہم کی طرز پر جنگی بنیادوں پر ماہرین کی زیر نگرانی Anti Pollution Movement چلائی جائے اور ہر طبقے کو خاص طور پر طلبہ کو شریک کار کر لیا جائے تو آلودگی کے مسئلے پر آسانی کے ساتھ قابو پایا جا سکتا ہے۔

معیار تعلیم کی پستی کے اسباب

تاریخ شاہد ہے کہ ہمارے اسلاف نے علمی میدان میں بڑی بڑی کامیابیاں حاصل کیں اور شعبہ علم میں چاہے وہ تاریخ و سیرت ہو یا جغرافیہ و ہیئت چاہے وہ ریاضی ہو یا نباتیات، فلسفہ ہو یا منطق، ادب ہو یا لسانیات، طب ہو یا عمرانیات، تعمیرات ہو یا فنون لطیفہ انھوں نے اپنی انتہائی کوششوں اور تحقیق کے ذریعے وہ مقام حاصل کیا کہ مغرب نے اس کی تقلید کرتے ہوئے فخر محسوس کیا لیکن آج ہم اپنے اسلاف کے کارناموں سے خود کنارہ کش ہو گئے ہیں اور مغرب کی تقلید میں سرگرداں ہیں۔ ہمارے اسلاف کے کارناموں سے اہل مغرب نے بہت کچھ حاصل کر لیا اور دور حاضر میں وہ میر کارواں کہلاتے ہیں۔ اور ہم پسماندہ ہو کر رہ گئے ہیں علمی مہارت تو کجا تعلیمی میدان میں بھی ہمارا معیار پست سے پست تر ہوتا جا رہا ہے۔

وارث سرہندی نے '' پاکستان میں معیار تعلیم کا انحطاط'' کے اسباب کا جائزہ لیتے ہوئے مجلہ علم و آگہی میں یہ تحریر کیا ہے:

'' میری نظر میں تمام خرابیوں کی اصل یہ ہے کہ ہم صحیح نصب العین سے ہٹ گئے ہیں۔ ظاہر ہے جب تک نصب العین صحیح نہ ہو منزل نہیں مل سکتی صحیح نصب العین کی روشنی ہی میں منزل کا تعین ہو سکتا ہے۔''

ڈاکٹر عبدالسلام خورشید نے اسی مجلہ میں اپنے مضمون '' پاکستان میں اعلیٰ تعلیم کا انحطاط'' میں لکھا ہے کہ

'' انگریز سے ورثے میں پایا ہوا نظام تعلیم کسی اعلیٰ مقصد کا حامل نہیں تھا بلکہ وہ اجنبی راج کی مخصوص روایات کا عکاس تھا۔ اس پر ہمارے یہاں کی رائے عامہ کے رہنماؤں نے تسلسل اور تواتر کے ساتھ نکتہ چینی کی اور سمت، مقصد اور ڈھانچہ بدلنے کا مطالبہ کیا۔ لیکن المیہ یہ تھا کہ مثبت اور واضح تجاویز پیش نہیں کی گئیں اس لیے یہ مفید بحث نعرہ زنی کا شکار بن گئی اور ظاہر ہے نعروں سے کوئی انقلابی نظام تعلیم نہیں بن سکتا۔''

لہٰذا ہوا یہ کہ متعدد تعلیمی کمیشن قائم ہوئے۔ انھوں نے سفارشات بھی پیش کیں لیکن ان سفارشات کے نتیجے میں کچھ ترامیم ہوئیں کچھ الٹ پلٹ ہوئی اور نظام تعلیم پھر بھی وہی کا وہی رہا اور اس طرح وہ قوم کی امنگوں کا آئینہ دار نہیں اور ان تقاضوں کو پورا کرنے سے قاصر ہے جس کی قوم اس سے توقع کرتی ہے۔

ابتدائی جماعتوں سے اعلیٰ جماعتوں تک کے لیے جو نصاب تعلیم مرتب کیا گیا ہے وہ وزنی زیادہ ہے لیکن فائدہ مند کم۔ کبھی مضامین کی افراط کر دی گئی کبھی ان میں کمی کر دی گئی کبھی کورس دو سال کا کر دیا گیا کبھی تین سال کا کبھی انگریزی طرز تعلیم کی تقلید کو ملحوظ رکھا گیا کبھی امریکی طرز تعلیم کی پیروی کی گئی۔ اس کے

مطابق نصاب اور کتابیں تیار کی گئیں جو پاکستانی طلبہ کے لیے زیادہ مفید ثابت نہیں ہوئیں نصاب اور نصابی کتابوں کی تیاری کا پورا کام حکومت نے خود سنبھال لیا۔ لہٰذا طالب علموں کے لیے وہی کتابیں پسند کیں کہ جو حکومت کے قائم کردہ نصابی بورڈ شائع کریں۔ طالب علم اب اچھی سے اچھی کتابیں نہیں پڑھ سکتے۔ اس لیے کہ امتحان کا پرچہ نصابی کتاب ہی سے بنتا ہے۔ طالب علموں کی نگاہیں بجائے تعلیم حاصل کرنے کے نصابی کتب رٹنے پر مرکوز ہوگئیں۔ اساتذہ کرام کا کام بھی کورس مکمل کرنا اور نصابی کتب ختم کرانا زیادہ ہوگیا نہ کہ زیادہ تعلیم فراہم کرنا۔ اس سے من جملہ طالب علموں کو نقصان پہنچا۔

معیارِ تعلیم کی پستی کے سلسلے میں ایک الزام یہ بھی لگایا جاتا ہے کہ اساتذہ جو کہ متعلموں کے معیار ہیں ان کا انتخاب ہی صحیح طریقوں پر نہیں ہوتا۔ لہٰذا جب صحیح اساتذہ نہ ہوں تو متعلموں کا خدا ہی حافظ ہے۔ اساتذہ انجمنوں کا مؤقف یہ ہے کہ اساتذہ کے لیے حکومت نے اس قدر مسائل پیدا کر رکھے ہیں کہ ان کو تدریس پر توجہ دینے کا موقع ہی نہیں ملتا۔ والدین کا کہنا ہے کہ اساتذہ اپنے فرائض کو بہ احسن انجام نہیں دے رہے ہیں۔ اس سب کا نتیجہ یہ ہے کہ طالب علم اپنے سکول بستے تو وزنی لے کر جاتے ہیں لیکن وہاں سے واپس خالی الذہن آتے ہیں اور پھر ٹیوشن اور کوچنگ سنٹر کا سہارا تلاش کرتے ہیں۔

نظام تعلیم کی خامیوں میں سے ایک یہ بھی ہے کہ تعلیمی سال مختصر سے مختصر ہوتا جا رہا ہے یعنی یہ 120 تا 150 دن کا ہے جب کہ سال میں 365 دن ہوتے ہیں۔ ہر سال میں طالب علم مزید 100 دن تعلیم حاصل کرسکتا ہے۔ زیادہ تر وقت امتحان اور امتحان کے نظام الاوقات برقرار رکھنے پر دیا جاتا ہے تعلیمی نصاب کی تکمیل اور تعلیمی سیشن کی تکمیل پر نہیں۔

نظام امتحانات بھی نظام تعلیم کا حصہ ہے۔ نظام امتحانات وہی ہے جو انگریزوں نے رائج کیا تھا۔ سال کے آخر میں امتحان ہوتا ہے چند سوالات ہوتے ہیں۔ ان مخصوص سوالات کے جو بھی جس طرح بھی اچھے جواب دے دے وہ ذہین اور اعلیٰ درجہ کا طالب علم ٹھہرتا ہے ان امتحانات کو پاس کرنے کے لیے طلبہ غیر قانونی ذرائع یعنی نقل وغیرہ کا سہارا بھی لیتے ہیں اور بعض اوقات نقل کرنے کے لیے دھونس دھمکیاں بھی استعمال کرتے ہیں۔ بعض اساتذہ پر الزام ہے کہ وہ پیسے لے کر نقل کراتے ہیں۔ بعض مراکز پر اساتذہ ڈیوٹی ہی نہیں دیتے۔ مرکز کا نگران، نگران عملہ باہر سے بھرتی کرتے ہیں اور یہ نگران من مانی کرتے ہیں۔

زبان کا مسئلہ بھی معیارِ تعلیم کے انحطاط میں اہم کردار ادا کر رہا ہے۔ انگریزی ہمارے نظام تعلیم پر آ کاس نیل کی طرح چھائی ہوئی ہے اور ہمارے نوجوان طلبہ کی صلاحیتوں کا خون چوس رہی ہے۔ پڑھائی تو درجہ ششم سے بی اے تک جاتی ہے۔ لیکن طالب علم اپنا مافی الضمیر انگریزی زبان میں لکھ کر اور نہ ہی زبانی ادا کر پا رہا ہے جب کہ اسے ایسا کرنے کے لائق میٹرک کی سطح پر ہی ہو جانا چاہیے۔

کچھ عرصہ سے سیاسی جماعتوں نے اپنی شاخیں تعلیمی اداروں میں بھی کھول دی ہیں۔ لہٰذا یہ جماعتیں نوجوان طالب علموں کو متاثر کرتی رہتی ہیں اور ان کی پوری توجہ تعلیم پر مرکوز نہیں ہو پاتی۔

تعلیمی اداروں کا معاینہ تو یکسر ختم ہوگیا ہے لہٰذا طالب علم اور اساتذہ دونوں اپنی قسمت کے مالک ہیں۔ جو چاہیں کریں محکمہ تعلیم کے افسران دفتروں میں بیٹھ کر تعلیم کا قبلہ درست کرتے رہتے ہیں۔ تعلیمی بورڈ اور یونیورسٹیاں بھی زیادہ تر دلچسپی امتحانات کے انعقاد میں لیتی ہیں۔ انھیں اس بات سے کوئی سروکار نہیں کہ نصاب بھی مکمل ہوا یا نہیں۔

پاکستان میں فروغ تعلیم کے لیے تدابیر

حکومت نے فروغ تعلیم کے لیے مدرسے، سکول اور کالج کھول رکھے ہیں لیکن تعلیمی اعداد و شمار پر نظر ڈالیں تو معلوم ہوتا ہے کہ تعلیم یافتہ مردوں کی تعداد بمشکل دس فیصد ہے اور عورتوں کی تو ایک فیصد بھی نہیں۔ جس ملک کے نوے فیصد مرد اور ننانوے فیصد عورتیں ان پڑھ ہوں اس ملک کے باشندوں کو تعلیم یافتہ کیسے کہہ سکتے ہیں۔

تعلیم کی اس قابل افسوس کمی کی وجہ یہ ہے کہ پاکستان کی پچانوے فیصد آبادی دیہات میں زندگی بسر کرتی ہے دیہاتی لوگوں میں اکثریت کسانوں کی ہے جو زراعت کرتے ہیں اور باقی لوگ کسی نہ کسی طریقے سے کسانوں کی مدد کرتے ہیں اور وہ بھی اسی زمین کی پیداوار سے حصہ لیتے ہیں جسے کسان بوتا ہے۔ ہل جوتنے، سہاگہ پھیر کر زمین کو ہموار کرنے اور بیج بونے میں تعلیم کی خاص ضرورت محسوس نہیں کی جاتی۔ کسان کا بچہ جس ماحول میں آنکھ کھولتا ہے اس میں یہ باتیں از خود سیکھ جاتا ہے۔ اس لیے اگر کسی کسان کو کہا جائے کہ چودھری! اپنے بیٹوں کو مدرسے کیوں نہیں بھیجتے تو وہ عام طور پر یہ جواب دیتا ہے، بابو جی! ہم نے کونسی نوکری

کرنی ہے جو بچوں کو مدرسے بھیج کران کی عمر ضائع کریں۔

جب اس قسم کے حالات پر غور کرتے ہیں تو اس نتیجہ پر پہنچتے ہیں کہ حکومت کے کھولے ہوئے مدرسے تعلیم نہیں پھیلا سکتے۔ اس کے لیے کسی اور محرک کی بھی ضرورت ہے۔ اس لیے ہم سمجھتے ہیں کہ پاکستان میں تعلیمی ترقی کے لیے مندرجہ ذیل تدابیر اختیار کرنا از بس ضروری ہے۔

تعلیم بالغاں:

بڑی عمر کے مردوں اور عورتوں کی تعلیم کا انتظام کیا جائے۔ ہر شہری، قصبہ یا گاؤں میں رات کے مدرسے یا نائٹ سکول کھولے جائیں۔ ان میں کام کرنے والے مدرسین کو الاؤنس دیا جائے اور ان سے مفت کام نہ لیا جائے۔ بڑی عمر کے لوگوں کو رات ایک دو گھنٹے تعلیم دی جائے۔

طالبات کے سکولوں کا قیام:

لڑکیوں کے سکول تو پاکستان میں بہت ہی تھوڑے ہیں۔ دیہاتی آبادی کا چکر لگائیں تو لڑکوں کے لیے پرائمری سکول ہر تین چار گاؤں کے بعد کہیں نہ کہیں نظر آ جاتا ہے لیکن لڑکیوں کا مدرسہ تو دیہات میں کہیں ہی نظر نہیں آتا۔ جس طرح ابتدائی تعلیم لڑکوں کے لیے جبری اور لازمی قرار دی جائے اسی طرح ابتدائی تعلیم کو لڑکیوں کے لیے بھی لازمی قرار دیا جائے۔

پرائمری تعلیم کا لازمی قانون:

پرائمری تعلیم سب کے لیے لازمی قرار دی جائے۔ حکومت کو چاہیے کہ وہ ایسا قانون بنائے جس کی رو سے ہر بچہ پانچ سال کی عمر سے گیارہ سال کی عمر تک کسی نہ کسی مدرسے میں پڑھے اور اس قانون کی خلاف ورزی کرنے والوں کے خلاف اسی طرح سے قید و بند کی سزا دی جائے یا جرمانہ کیا جائے جس طرح سے دوسرے قوانین کی خلاف ورزی پر سزا دی جاتی ہے۔

مفت تعلیمی سہولتیں:

بعض لوگ اعتراض کرتے ہیں کہ جی! بچے کیسے پڑھائیں۔ کتابیں خریدنے اور فیس دینے کے لیے روپیہ کہاں سے لائیں۔ ہمیں تو دو وقت کا کھانا بھی مشکل سے نصیب ہوتا ہے۔ یہ اعتراض بہت حد تک بجا ہے۔ حکومت کو چاہیے کہ پرائمری سکولوں میں کوئی فیس نہ رکھی جائے بلکہ غریب طالب علموں کی کتابیں پنسلیں، قلمیں، دواتیں اور سلیٹیں وغیرہ بھی بغیر قیمت کے دی جائیں تا کہ وہ خوشی خوشی تعلیم حاصل کریں۔

وظائف میں اضافہ:

پرائمری تعلیم کے خاتمہ پر ہونہار طالب علموں کو وظائف دیے جائیں۔ ان وظائف کی تعداد زیادہ کر دی جائے کئی ہونہار اور نادار طالب علم محض مالی کمی کی وجہ سے اپنی تعلیم جاری نہیں رکھ سکتے۔ ہونہار بچوں کی کافی حوصلہ افزائی کرنا چاہیے۔ اس کام میں پاکستانی امرا کو حکومت کا ہاتھ بٹانا چاہیے اور بہت سے وظائف امرا اور تجار کی طرف سے ہونے چاہئیں۔

حق رائے دہی کی اہلیت:

جاہل آدمی کو انتخابات کے وقت ووٹ دینے کی اجازت نہ ہو۔ ایک حد مقرر کر دی جائے۔ مثلاً یہ طے کر لیا جائے کہ ووٹ صرف وہی دے سکتا ہے جو پرائمری پاس ہو۔ اس سے بھی تعلیم کی اہمیت قائم اور واضح ہو سکتی ہے۔

گاؤں کے نمبردار اور پٹواری کا فرض:

ہر گاؤں کے نمبردار اور پٹواری کو گاؤں کے مدرس کی مدد کرنی چاہیے اور اسے موقع دینا چاہیے کہ وہ وقتاً فوقتاً تعلیم کے فائدوں اور جہالت کے نقصانات سے لوگوں کو آگاہ کرتا رہے۔

ادنیٰ ملازمتیں اور ابتدائی تعلیم:

چھوٹی چھوٹی ملازمتوں کے لیے بھی پرائمری پاس ہونے کی شرط لگا دی جائے یعنی کوئی ان پڑھ آدمی چپڑاسی، مالی اور چوکیدار بھی بھرتی نہ کیا جائے۔ اس سے

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تعلیم کی طرف زیادہ رجوع ہوسکتا ہے۔

افسران کی فرض شناسی:

سب سے آخر میں یہ کہنا ضروری ہے کہ پاکستان کے ذمہ دار افسروں میں ذرا اور مستعدی کی ضرورت ہے اگر وہ مسلسل تعلیم کے لیے عوام پر زور دیں تو کوئی وجہ نظر نہیں آتی کہ پاکستان کا گوشہ گوشہ نورِ تعلیم سے منور نظر نہ آئے۔

جمہوریت کے فروغ میں اخبارات کا حصہ

اخبار عربی لفظ خبر کی جمع ہے ۔ مگر اردو میں بطور واحد استعمال ہوتا ہے اور اس سے مراد خبروں کا وہ مجموعہ ہے جو روزانہ یا ہفتہ وار شائع ہو۔ لہٰذا اخبارات خبر کی جمع الجمع نہیں ہے بلکہ اخبار کی جمع ہے۔

دنیا میں اخبار کا وجود سب سے پہلے کہاں اور کب عمل میں آیا اس سلسلہ میں حتمی طور پر تو کچھ نہیں کہا جاسکتا البتہ چین میں کم و بیش تین ہزار برس پیشتر پیکن گزٹ کا سراغ ملتا ہے جس کے بارے میں دنیا کا قدیم ترین اخبار ہونے کا دعویٰ کیا جاتا تھا۔ ہمیں یہاں اس دعویٰ کی صحت سے بحث نہیں ہے لیکن اس تاریخی حقیقت سے جو بات واضح طور پر ہمارے سامنے آتی ہے وہ یہ ہے کہ زمانہ قدیم میں بھی اخبار کی ضرورت کو محسوس کیا جاتا تھا۔ اگرچہ اس زمانہ میں اخبار کو تہذیب انسانی کے فروغ اور عام انسانوں کی زندگی میں وہ مقام حاصل نہیں تھا جو آج اسے میسر ہے کیوں کہ ان دنوں ابھی پریس معرضِ وجود میں نہیں آیا تھا اور بغیر پریس کے اخبار کا عوامی زندگی سے تعلق پیدا ہونا ناممکن العمل بات ہے۔

دراصل جدید صنعتی عہد جس کی ابتدا یورپ کے ملکوں سے ہوئی اس سے قبل عوام کو ملکی مفادات میں کچھ دخل نہیں ہوتا تھا بلکہ کہ رموزِ مملکت خویش خسرواں دانند والا معاملہ ہوتا تھا۔ پھر قومی زندگی کا کوئی واضح تصور بھی موجود نہیں تھا۔ چھوٹے سے چھوٹا ملک بھی ذرائع رسل و رسائل کی عدم موجودگی میں چھوٹی چھوٹی اکائیوں میں بٹا ہوا تھا اور یہ چھوٹے چھوٹے گاؤں اور قصبے اپنے اپنے حال میں مگن ہوتے تھے۔ کسی کو ایک دوسرے کی خبر نہیں ہوتی تھی۔ ہاں اگر کوئی سیاح یا سودا گر کبھی کسی علاقے میں پہنچ گیا تو کچھ لیجیے وہاں کے لوگوں کو چلتا پھرتا اخبار میسر آ گیا۔ علاوہ ازیں جاگیرداری یا شاہی دورِ حکومت میں جس کی کوکھ سے موجودہ صنعتی عہد نے جنم لیا ہے عوام کے حقوق کا کوئی چیز نہیں تھا اور نہ کسی آئین کے تحت ان حقوق کو تسلیم کیا جاتا تھا۔ چناں چہ یورپ کے ملکوں میں جب صنعتی زندگی نے نشوونما پانا شروع کی اور قومی زندگی کے تصورات ابھرنے لگے تو اخبارات نے بھی سر نکالنا شروع کیا اور رفتہ رفتہ اخبارات نے نئے معاشی نظام اور معاشرہ کی نئی تنظیم کے سلسلہ میں قابلِ ذکر کردار ادا کرنا شروع کر دیا اس انقلاب کے ترجمان اور علمبردار بن گئے جس نے ساری دنیا کو کم و بیش اپنی لپیٹ میں لے لیا۔

آج اکیسویں صدی کے نصف آخر میں جب کہ ہم خلاء کی تسخیر کے حیرت انگیز عہد میں داخل ہو چکے ہیں اور ایٹمی توانائی کی دریافت نے بیک وقت تہذیبِ انسانی کی ترقی اور تباہی کے لیے ایسے زبردست اور وسیع مواقع فراہم کر دیے ہیں جن کا تصور زمانہ قدیم کا انسان کیا دوصدی پیشتر کا انسان بھی نہیں کر سکتا تھا۔ اخبارات نے تہذیب انسانی کے فروغ اور بقا میں اس قدر اہم مقام حاصل کر لیا ہے کہ اس کی نظیر نہیں مل سکتی۔

بنیادی طور پر اخبار کی یہ خصوصیت کہ وہ خبروں کا مجموعہ ہوتا ہے آج بھی قائم ہے چناں چہ ہر روز جب ہم علی الصبح اخبار ہاتھ میں لیتے ہیں تو بڑی بے صبری سے اس کی شہ سرخی اور موٹی موٹی سرخیوں پر نظر ڈالتے اور اپنے اس جذبہ جس کو تسکین دیتے ہیں کہ دیکھیں آج ہمارے ملک اور دوسرے ملکوں میں کون سے اہم واقعات پیش آئے ہیں۔ لہٰذا اس اعتبار سے ایک اچھے اور ہر دلعزیز اخبار کے لیے ضروری ہوتا ہے کہ وہ ہمیں زیادہ سے زیادہ تعداد میں ملکی اور غیر ملکی خبریں اور اطلاعات مہیا کرے اور انھیں اس سلیقے سے ہمارے سامنے پیش کرے کہ ہر خبر کی اہمیت بھی ہم پر پوری طرح واضح ہو جائے اور ہم اس کے اہم پہلوؤں سے واقف بھی ہو جائیں اس کے باوجود ایک اخبار محض خبروں کا مجموعہ ہی نہیں ہوتا اس میں اور بھی بہت کچھ ہوتا ہے۔

کسی بھی اخبار کا اہم ترین حصہ اس کے ایڈیٹوریل جسے لیڈنگ آرٹیکل بھی کہا جاتا ہے اور ملکی یا غیر ملکی مسائل و معاملات پر تبصروں پر مشتمل ہوتا ہے کیوں کہ لیڈنگ آرٹیکل یا ایسے شذرات ہی کسی اخبار کی پالیسی کے آئینہ دار ہوتے ہیں اور اخبار انھی کے وسیلے سے قومی اور بین الاقوامی مسائل و معاملات کے بارے میں اپنے اپنے نقطہ نظر سے رائے عامہ کو بیدار کرتے ہیں اور اس کی تعمیر و تشکیل میں ممد و معاون ہوتے ہیں اور یہ چیز تو روز روشن کی طرح عیاں اور مسلمہ حیثیت اختیار کر چکی ہے

کہ منظم رائے عامہ کے بغیر آج کوئی قوم خواہ چھوٹی ہو یا بڑی نہ تو تعمیر و ترقی اور خوشحالی کے خواب دیکھ سکتی ہے نہ اپنی آزادی اور سلامتی کا تحفظ کر سکتی ہے اور نہ دنیا کے چھوٹے بڑے الجھے ہوئے معاملات کے سلجھنے کے کوئی امید کی جا سکتی ہے۔ یہی وجہ ہے کہ اخبار کا کوئی ہوش مند قاری اخبار کے اس حصہ کا مطالعہ کیے بغیر نہیں رہ سکتا۔

اخبارات کا ایک اور اہم حصہ خطوط کے کالم پر مشتمل ہوتا ہے ایک اچھے اخبار میں جہاں بعض ایسی شکایات سے متعلق خطوط چھپتے ہیں جن کے بارے میں مقامی حکام یا حکومت کے کسی محکمہ کی توجہ منعطف کرانا ضروری سمجھا جاتا ہے۔ وہاں اخبار کے ذہین قارئین بعض اہم معاشرتی، سماجی، سیاسی، قومی اور بین الاقوامی مسائل و معاملات کے بارے میں اپنی رائے کا اظہار کرتے ہیں یا ان کی طرف عام لوگوں کی توجہ مبذول کرانا چاہتے ہیں۔ چناں چہ جمہوری زندگی کے فروغ میں ایسے لوگوں کے افکار بھی اہم کردار ادا کرتے ہیں یوں بھی یہی ہوتا ہے کہ کسی قاری نے ایک اہم لیکن متنازع مسئلہ چھیڑ دیا اور اخبار کے مدیر نے اس خط کی اشاعت کے ساتھ اپنے قارئین کو اظہار خیال کی دعوت دے دی تاکہ اس مسئلہ پر زیادہ سے زیادہ لوگوں کی آراء کا پتا چل سکے اور اس کے بارے میں مختلف الخیال لوگوں کے نظریات سامنے آ جائیں۔

علاوہ ازیں اخبارات میں دنیا کے تجارتی اتار چڑھاؤ سے متعلق اطلاعات اور غیر ملکی منڈیوں کے تازہ ترین بھاؤ اور اسی قسم کی مفید معلومات بھی شائع کی جاتی ہیں تاکہ ملک کا تاجر پیشہ پوری طرح باخبر رہے۔ اسی طرح کھیلوں وغیرہ سے متعلق بھی اخبار کا ایک حصہ وقف ہوتا ہے جس سے اس میدان میں قومی ٹیموں اور کھلاڑیوں کے کارناموں سے عام لوگ بھی واقف ہوتے رہیں اور کھیلوں کے شائقین بالخصوص اپنے ذوق کی تسکین کر سکیں۔

پھر بعض اخبارات وقفہ وقفہ سے یا مقررہ دن پر اخبارات کے علمی ادبی ایڈیشن بھی شائع کرتے رہتے ہیں تاکہ عوام کے ادبی ذوق کی نشو و نما اور تسکین بھی ہوتی رہے اس کے علاوہ اچھے اخبارات میں ایسے کارٹون بھی شائع ہوتے رہتے ہیں جو طنزیہ اور مزاحیہ رنگ میں کسی خاص مسئلہ معاملہ یا شخصیت کو ہمارے سے پیش کرتے ہیں۔

یہ کارٹون کبھی کبھی وہ کام کر جاتے ہیں جو بڑے بڑے مقالہ یا مضمون سے نہیں ہوسکتا۔ اسی طرح ہمارے ہاں اردو اخبارات میں ایک فکاہیہ کالم بھی موجود ہوتا ہے۔ جس میں ہلکے پھلکے انداز میں بعض اوقات بڑے بڑے مسائل پر رائے زنی کی جاتی ہے۔ یہ فکاہیہ کالم جہاں قارئین کے ذہن کو جلا بخشتے ہیں وہاں اس کی طبیعت کی شگفتگی کا سامان بھی مہیا کرتے ہیں۔ قصہ کوتاہ موجودہ عہد میں اخبارات کی دنیا بھر میں بڑھتی ہوئی مقبولیت اس امر کا ثبوت مہیا کرتی ہے کہ اخبارات اور جمہوریت لازم و ملزوم ہیں۔ اخبارات کے وجود کے بغیر جمہوریت کے فروغ اور انسانی تہذیب کے ارتقا کا تصور بھی ممکن نہیں ہے۔ ہمارے اپنے ملک میں آزادی کے حصول کے بعد اخبارات کی اشاعت اور تعداد میں روز افزوں اضافہ ہو رہا ہے اور یہ ہمارے لیے نیک فال ہے۔

.... ☆ ....

جدیدیت

پچھلے چند سالوں سے ہمارے ہاں ادب میں ''جدیدیت'' کا لفظ بار بار استعمال کیا جا رہا ہے جس قدر اس کے استعمال میں اضافہ ہو رہا ہے، اسی قدر اس کے مفہوم بھی بڑھ رہے ہیں۔ کثرت تعبیر سے یہ لفظ پریشان خیالی کا ہم معنی ہو کر رہ گیا ہے۔ ایسا لگتا ہے کہ ہر شخص اپنی کمزور صلاحیت کو جدیدیت کا نام دینے کے درپے ہے۔ اس کوشش میں نہ سچی لگن ہے اور نہ ہی کوئی تخلیقی کارنامہ سامنے آتا ہے۔ چناں چہ کوئی ایسی صورت نظر نہیں آتی جس کے تحت جدیدیت کو لوگوں میں مقبول بنایا جا سکے۔ ''خیال'' کی اگرچہ بڑی اہمیت ہے لیکن جب تک تخلیقی صلاحیت ساتھ نہ ہو تب تک ادب کو زندگی دینا مشکل ہے۔ جو زندگی کے بدلتے شعور کو نظر انداز کیے بغیر ادب تخلیق کرنے کی کوشش کرتے ہیں وہ دراصل بغیر ٹانگوں کے دوڑنے کی کوشش کرتے ہیں جس طرح ہوا میں گرہ نہیں لگائی جا سکتی، اسی طرح خلا میں ادب تخلیق نہیں ہوسکتا۔

ایسے میں اپنی زبان، اپنے کلچر اور اپنے ادب سے بے تعلق ہو کر جب بھی کوئی نسل ادب تخلیق کرنے کی کوشش کرے گی، اس کا نتیجہ وہی ہوگا جو جدیدیت کے علمبرداروں کی ''تخلیقات'' میں آج ہمیں نظر آتا ہے نہ اس میں کسی مثبت احساس یا مثبت طرز فکر و عمل کا پتا چلتا ہے اور نہ ان کی تخلیقات کو کسی طرح ہم کارنامے کے ذیل میں لا سکتے ہیں۔ معلوم ہوتا ہے کہ سڑکوں اور پگھل پیڑیوں کو کھینچ کھینچ کر انسانوں کی صفوں میں کھڑا کرنے کی کوشش کی جا رہی ہے۔ دلچسپ پہلو یہ ہے کہ ناز بردارانِ جدیدیت، روایت کے نام سے بغیر اسے جانے اور سمجھے، اس طرح گھن کھاتے ہیں جیسے عام انسان جذامی (کوڑھی) سے گھن کھاتا ہے۔ وہ روایت کو صرف تکرار کا دوسرا نام سمجھ کر اس حقیقت کو بالکل فراموش کر دیتے ہیں کہ روایت کے بغیر کوئی نیا احساس، نیا لمحہ اور نیا خیال دریافت نہیں کیا جا سکتا۔ سوچنے کی بات

یہ ہے کہ آپ کس چیز کو کس وقت تک نیا کہہ سکتے ہیں۔ جب تک وہ خود کسی چیز کے مقابل نئی ثابت نہ ہو جائے اور ساتھ ساتھ اسے نیا قرار دینے کا معیار جواز اور بنیاد پہلے سے موجود نہ ہو۔ نیا تو پرانے کے مقابل تو نیا ہو سکتا ہے مگر نئے کے مقابل نیا نہیں ہو سکتا۔

اسی لیے نئے کو جنم دینے کے لیے قدیم کا شعور حاصل کرنا بنیادی اہمیت رکھتا ہے۔ واضح رہے کہ روایت جامد اور غیر متحرک اشیا کے ادراک و محسوسات کا نام نہیں ہے بلکہ وہ ہر زمانے کے جدید ترین طرزِ احساس اور رویے کے اظہار سے پیدا ہوتی ہے۔ ہمارے ادبی شعور میں وہی چیزیں زندہ اور تازہ رہ سکتی ہیں جو کسی زمانے کے مخصوص تقاضوں کا کامیاب ترین اظہار ہوتی ہیں۔ ہر دور ہزاروں ادیبوں اور شاعروں کی آوازوں سے گونجتا ہے مگر ادبی روایت میں یہ ہزاروں انسان (جو شاعر اور ادیب کہلاتے ہیں) شامل نہیں ہوتے بلکہ وہی لوگ شامل ہوتے ہیں جنہوں نے ادب کو انسانیت کی سطح پر رکھ کر تخلیق کیا ہو اور جسے لوگوں نے تخلیقی فن پارے کی صورت میں قبول کیا ہو۔

اب تک جدید کا مثبت اور صحت مند اظہار صرف لباس کی حد تک ہو سکا ہے جو نئی نسل کی لڑکیوں نے متعارف کروایا ہے۔ اس میں روایت اور جدیدیت دونوں کا شعور موجود ہے۔ جب کہ ادب میں جدیدیت اس سطح پر نہیں۔ لباس کی جس طرح ہماری معاشرتی اور اخلاقی اقدار پر گرفت بھی ہے اور احساسِ جمال بھی لیکن اس کے برخلاف ادبی سطح پر جدیدیت کے تخلیقی عمل کی حیثیت بھی ابھی اس مسخرے کی سی ہے جو لمبی سی ٹوپی پہنے، رنگ برنگے بے ہنگم سال لباس زیبِ تن کیے پچھے کو بانس پر بار بار مچان پر مار کر لوگوں کو اپنی طرف متوجہ کرنے کی کوشش کر رہا ہے۔

جدیدیت کی تعریف:

ٹی ایس ایلیٹ جدیدیت کی تعریف میں لکھتا ہے:

1۔ ''حال اور ماضی میں فرق یہ ہے کہ 'شعوری حال' ایک طرح سے اور کسی حد تک ماضی کی آگاہی کا نام ہے۔ وہ آگاہی جسے ماضی کا شعور بذاتِ خود ظاہر نہیں کر پاتا۔''

2۔ ''شاعری کی پہلی کوشش تو یہ ہونی چاہیے کہ وہ نظم خود اس پر واضح ہو اور ساتھ ساتھ اسے اس امر کا پورا یقین ہو کہ یہ نظم اس کے ذہنی عمل کا صحیح نتیجہ ہے۔ ابہام کی بدترین شکل یہ ہے کہ شاعر اپنا مطلب خود پر بھی واضح نہ کر سکے۔ اس کی سب سے گھٹیا شکل وہ ہے جہاں شاعر خود کو فریب دے کر یہ سمجھنے لگے کہ اس کے پاس کہنے کے لیے بہت کچھ ہے۔ حالاں کہ اس کے پاس کہنے کے لیے کچھ نہ ہو۔''

3۔ ''کوئی شاعر کوئی فنکار خواہ وہ کسی بھی فن سے تعلق رکھتا ہو، تنِ تنہا اپنی کوئی مکمل حیثیت نہیں رکھتا۔ اس کی اہمیت اور اس کی بڑائی اسی میں مضمر ہے کہ سابق شعرا اور فنکاروں سے اس کا کیا رشتہ ہے۔ اس کو الگ رکھ کر اس کی اہمیت متعین نہیں کی جا سکتی۔ اس کے لیے اسے مرحوم شعرا اور فن کاروں کے درمیان تقابل و تفاوت کرنا پڑے گا۔''

4۔ ''روایت کا معاملہ بہت وسیع و نصیع اہمیت کا حامل ہے۔ یہ میراث میں نہیں ملتی اور اگر کوئی اسے حاصل کرنا چاہے تو اس کے لیے بڑے ریاض کی ضرورت پڑتی ہے جو ہر اس شاعر کے لیے لازمی ہے جو پچیس سال کی عمر کے بعد بھی شعر کہتا ہے۔''

جدید اور جدیدیت میں فرق:

جدید اور جدیدیت کے بارے میں لکھتے وقت ہمارے ہاں بالعموم دونوں کو مترادف سمجھتے ہوئے ان میں امتیاز روا نہیں رکھا جاتا۔ جب کہ ان دونوں میں اساسی نوعیت کا فرق ضرور ہے۔ ہر نئی شے، تصور، خیال یا نظریہ اس وقت تک جدید رہتا ہے جب تک کہ اس کا جدید ہی کی انفرادی سطح پر ظہور ہو۔ یہ ایک فردی اختراع یا جدت ہے اور اس کا منبع اور اثرات کا مرکز صرف اس کی اپنی ذات ہے۔ یہ جگنو کی مثال ہے جو اپنے وجود سے روشنی اخذ کرتا ہے اور اپنے ہی وجود کو روشن کرتا ہے۔ اس لیے اگر کسی کی تاریکی تل بھر کے لیے دور ہو تو یہ محض اتفاق ہوگا۔

جب جدید کو قبولِ عام کا درجہ مل جائے تو وہ جدیدیت کہلاتی ہے۔ یہ بجا سہی کہ جدیدیت کے طوفان کا منبع بھی جدید کے زیرو میں کوئی فردی ہوگا۔ لیکن اس کے ''ازم'' ''Ism'' بننے میں یہ امر مضمر ہے کہ افراد اس میں دلچسپی لے رہے ہیں۔

جدیدیت دراصل روایت اور بغاوت، مسلّمات اور تجربات، قدیم و جدید اور عمل و ردِعمل کی کشمکش کا ثمر ہے اور اس لحاظ سے اسے ایک ہمہ گیر ذہنی انقلاب کا نام دیا جا سکتا ہے۔ لیکن اس ذہنی انقلاب کا باعث بننے والے اور اس سے وابستہ مختلف ذہنی اضطراب اور اس سے وابستہ عوامل و محرکات نظر انداز نہیں کرنے چاہئیں کہ ان

ہی سے اس اہم حقیقت تک رسائی ہوتی ہے کہ جدیدیت اپنے ماحول، زمانہ اور معاشرہ سے جنم لیتی ہے لیکن اس کے برعکس اپنی جدیدیت کا جائزہ لیں تو واضح ہوتا ہے کہ جدیدیت کے نام پر ادب (یا فنونِ لطیفہ) میں جو جو تجربات یا بغاوتیں ہوئیں، ان کی اساس درآمدہ نظریات پر استوار رہی ہے لیکن ایک بات تو یقیناً تسلیم شدہ ہے کہ ذرا نم ہو تو یہ مٹی بہت زرخیز ہے ساتھی!

جہاں کہیں سے بھی لا کر نظریات کے پودے بوئے گئے، وہ بار آور ہوئے، کہ خونِ جگر دے کر سینچنے والوں کی کبھی بھی کمی نہ رہی تھی۔ ہمارے ہاں جدیدیت کو بالعموم اظہار کی حدتوں اور تشکیل کے تجربات کا مترادف سمجھا جاتا ہے حالاں کہ جدیدیت کا یہ بہت سطحی سا اظہار ہے۔ جدیدیت دراصل خیالات و افکار سے عبارت ہے۔ تکنیک اور اظہار کے سانچے تو دیگر ادبیات سے مستعار لیے جا سکتے ہیں لیکن تصورات و تاثرات کے لیے دامن نہ پھیلانا چاہیے، زاویہ صرف اپنی نظر کا ہی ہونا چاہیے۔ اس کے غلط یا صحیح ہونے سے اتنا فرق نہیں پڑتا۔

جدیدیت کی مشترک علامت:

اگر ہم ان چند تحریروں کا جائزہ لیں جن پر گزشتہ چند برسوں میں اہلِ قلم نے جدیدیت کا لیبل لگایا ہے تو ہمیں مندرجہ ذیل باتیں مشترک نظر آئیں گی۔

1۔ ادب کو گھسیٹ کر اخبار کے کالم کی سطح پر لانے کی کوشش جب تک "ادب پارہ" اسی طرح نہ چیخے چلائے جیسے کہ اخبار کا ایک روزہ کالم چیختا چلاتا ہے تو "جدیدیت" کے لحاظ سے ادب پارہ نہیں ہے۔

2۔ سنسنی خیزی کی وہ خود ساختہ کوشش جس سے قاری کو چونکانا مقصود ہو، تجربے کا نام پاتی ہے۔

3۔ روایت کو روندنا اور کچلنا اور اسے شعوری طور پر رد کرنا خواہ روایت کا ادراک بھی نہ ہو، محض جدید ادب کے حوالے سے موضوع اور مفروضے کے مابین جو ایک ناگزیر اور نازک سا رشتہ ہے۔ اس پر گزشتہ کئی برسوں سے بحث چل رہی ہے۔

ہمارے ہاں اردو اور علاقائی زبانوں میں بہت سے قلم کاروں نے ایسی تحریریں رقم کی ہیں جن کا موضوع تو ترقی پسندانہ ہے مگر ان کی ہیئت پر جدیدیت کی دُھند چھائی ہوئی ہے۔ ان کی تحریروں میں موضوع کے مطابق علامتوں کے استعمال کا فقدان ہے۔

نتیجتاً ان میں سے اکثر تحریریں محض "طبقہ خواص" یعنی اعلیٰ درجے کے ادبی ذوق اور آگہی رکھنے والے طبقے کی توجہ کا مرکز تو بن گئیں لیکن انہیں عوامی سطح پر پذیرائی حاصل نہ ہو سکی۔

یہ کہانیاں ان لوگوں کی کسی بھی جذباتی سطح پر فکری یا جذباتی رشتہ استوار کرنے میں ناکام ہو گئیں جن سے متعلق یہ تحریر کی گئی تھیں۔

پاکستان میں جدیدیت کا ارتقا:

انور سجاد اپنے ناول "جنم روپ" کے فلیپ میں اس طرح لکھتے ہیں:

"میں جانتا ہوں اگر آج پریم چند کی طرح لکھوں گا تو بے معنی ہو گا۔ کسی بھی گزرے ہوئے عظیم ناول نگار کے اسلوب میں لکھنا نہ صرف میرے لیے بل کہ عمومی طور پر ادب کے لیے بے ثمر ہو گا۔ زندگی کی طرح ادب بھی متحرک اور زندہ حقیقت ہے جہاں سب طرف سب کچھ ارتقا پذیر ہو تو ناول کیسے ایک جگہ اڑ سکتا ہے، جامد ہو سکتا ہے۔ ادب ابدیت میں موجود نہیں رہتا بل کہ تاریخ میں زندہ رہتا ہے۔ مجھے فخر ہے کہ میں اس زمانے کا ادیب ہوں اور میں اپنے وقت کو قبول کرتا ہوں"۔

یہ نظریہ کہ تخلیقی ناول اپنے لیے ہیئت، قوانین اور اصول خود ایجاد کرتا ہے قطعاً متنازعہ مسئلہ نہیں ہے۔ انور سجاد نے کوئی نئی بات نہیں کہی۔ تیسرے اور چوتھے عشرے میں لکھنے والے مصنفین خاص طور پر ترقی پسند مصنفین کی یہی رائے تھی۔ یہی تجربات کرشن چندر، احمد علی اور عزیز احمد نے بھی کیے ہیں۔

بات اگر تکنیک اور ہیئت کی نہیں بل کہ بات اس مواد کی ہے جو اس نئی ہیئت میں فٹ ہو سکے۔ سب سے بڑھ کر بات تشکیل کی ہے۔ فن کی تشکیل بطور خاص، ناول کی تشکیل ایسا مرحلہ ہے جس پر آ کر ایک مصنف دوسرے مصنف سے منفرد ہوتا ہے، اور اسی مرحلے پر سجاد اپنے دوسرے ساتھیوں سے آگے پر پھر پھر اتے نظر آتے ہیں۔

جدیدیت کے حمایت یافتہ گروہ:

جدیدیت کوئی مقامی چیز نہیں بل کہ ایک درآمد شدہ چیز ہے۔ اس فن کو معاشرے کے صرف ایک مخصوص طبقے نے بطور شغل اپنا رکھا ہے۔ یہ طبقہ موجودہ

صنعتی دور کا متوسط طبقہ ہے جس نے دوسری امپورٹڈ چیزوں کی طرح (Imported Art) درآمدی فن کو بھی اختیار (Adopt) کر لیا ہے۔ اس گروہ سے تعلق رکھنے والے شعراء اور ادبا کی ذاتی کاوشیں بہت محدود ہیں۔ زیادہ تر تراجم ہی ہیں یا ان کی تخلیقات پر بھی عام طور پر نقل (Cheating) کا گمان ہوتا ہے تاہم اوریجنل یا نئی تخلیق میں ایک تازگی اور نیاپن ہوتا ہے۔ نقل کرنا بھی اگر چہ فن ہے خواہ وہ ترجمہ ہی کیوں نہ ہو تحریر اگر بار بار دہرائی جائے تو اپنا بھرم کھو دیتی ہے۔ یہی وجہ ہے کہ جدیدیت کی پیروی کرنے والوں کی اگر چہ برصغیر میں کثیر تعداد موجود ہے لیکن ان کو وہ مقام حاصل نہ ہوا، جو کرشن چندر، بیدی، پریم چند یا منٹو کو حاصل ہوا۔

جدیدیت کے قابل ذکر افسانہ نگاروں میں صرف تین بڑے نام نظر آتے ہیں جن کو عوام میں پذیرائی ملی۔ ان میں قرۃ العین حیدر، انتظار حسین اور سید عبداللہ کے نام منظر پر آتے ہیں۔

تاہم ان کی تحریریں مکمل طور پر جدیدیت کا آئینہ نہیں ملتا کہ ان میں روایات کا امتزاج بھی نظر آتا ہے۔ ان کی تحریروں میں ابلاغ کی وہ الجھنیں نظر نہیں آتیں جو جدیدیت میں قابل توصیف سمجھی جاتی ہیں۔

جدیدیت پر تنقید:

ڈاکٹر انور سدید جدیدیت پر اس طرح رائے دیتے ہیں۔

"جدیدیت کا اظہار جدید طرز احساس سے ہوتا ہے جس میں جدید طرز احساس سے ادیب کا وہ ذہنی رویہ مراد لیتا ہوں جس کے باعث اس کی سوچ اس کی تخلیل ہی نہیں ہوتی بلکہ مستقبل کے لیے اشاریہ بھی بنتی ہے۔ اس مقصد کے لیے حال کا درست تناظر میں تجزیاتی مطالعہ اساسی حیثیت رکھتا ہے لیکن یہی سب سے مشکل کام ثابت ہوتا ہے اور ہمارے ملک میں تو ناممکنات میں سے نظر آتا ہے۔ اس لیے کہ اس تجزیاتی مطالعہ کے لیے ایسی نگاہ درکار ہوتی ہے جو بیک وقت محدب شیشہ اور ایکس ریز کا کام کر سکے۔ ماضی کی مردہ روایات، سوچ کے کہنہ اسالیب اور سماجی تحریمات (Taboos) کے نام پر انحطاط پذیر اداروں کے ظلم سے آزاد ہونا کوئی آسان کام نہیں ہوتا اور پھر ان پر مستزاد مذہب کی قدغن، مصلحت کے سبز باغ اور سیاست کا جبر، جب تک تخلیق کار ہے تخلیقی وجدان کی رہنمائی میں ان سب سے آزاد نہیں ہو جاتا۔ اس وقت تک نہ تو اس کا طرز احساس جدید کہا جا سکتا ہے اور نہ ہی اس کی سوچ و افکار کسی جدیدیت کا منشور بن سکتے ہیں۔ پاکستان میں جدیدیت کا مستقبل اور بھی تاریک نظر آتا ہے کہ ہمارے ادیب منافق بھی ہیں اور مصلحت پسند بھی اور زمانے کے غلام بھی ہیں اور ابن الوقت بھی۔ جو ادیب مذہبی تنظیموں سے لے کر ناقدین بل کہ تبصرہ نگاروں تک سے لرزاں و ترساں ہو وہ افکار کے نام پر بھلا زمانے سے کیا ٹکرائے گا۔ اور اگر وہ اپنے آدرش کے لیے معمولی سی قربانی بھی نہیں دے سکتا تو جدید طرز احساس کے چراغ فروزاں کرنے اور جدیدیت کی مشعل روشن کرنے کی اہلیت کہاں سے لائے گا؟"

لیکن ہمارے جدیدیت کے تعلق سے لکھنے والے ایک ایسے فریب میں مبتلا ہیں کہ ان کی تحریریں محض ذاتی جذباتیت اور سنسنی خیزی کا شکار ہو گئی ہیں۔ اس عمل کی زد میں افسانہ، ناول، ڈراما، غزل، نظم اور تنقید وغیرہ سب کچھ آتے ہیں۔

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