

**SMART BRAIN**

**NATIONAL**

# **NMDCAT**

**According to the Latest PMC Syllabus 2021**

**WITH CONCEPTUAL QUESTIONS**

## **Salient Features:**

- According to 2021 MDCAT Syllabus
- Conceptual MCQs
- Explanations of Selective Questions
- Revision Notes
- Easy, Medium & Hard Difficulty Level Questions
- Including Logical Reasoning

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# LOGICAL REASONING

Logical Reasoning questions test your reasoning skills involved in making arguments, evaluating arguments, and formulating or evaluating a plan of action. These questions test your ability to read and understand the logic presented in brief passages, statements, or conversations based on materials from a variety of sources, though you will not need to be familiar with any subject matter beforehand. In MDCAT 2021, there will be 10 questions related to logical reasoning. The format of the questions as given in the official syllabus, is explained and practice exercises are included in this portion.

## Question format 1: Critical thinking

Critical thinking measures the mental ability of the reader to analyse a short paragraph. Critical thinking is self-directed, self-disciplined thinking that tries to lead the highest quality reasoning in the right way. Critically thinking people always try to live rationally, rationally and empathetically.

A short passage is given in the question statement. Readers should read it carefully and approve or disapprove of the statements following the passage. Five choices are provided to select one as described below.

**True:** Statements are true according to the information provided in the given paragraph. Universal truth, straight forward arguments and abstract are also considered as true.

**Probably true:** Statements given have derived conclusions which are approved by the content in the given paragraph.

**Insufficient data to say true or false:** Statements cannot be marked as true or false as none of the arguments is approved or disapproved by the given paragraph.

**Probably false:** Statements given have derived conclusions or assumptions which are not approved by the content in the given paragraph.

**False:** Statements contradict what is given in the paragraph.

**Example:** Read the following passage;

Coronavirus is killing people across the globe. Reported cases were rising a couple of months ago but now they are showing some decline. People are developing awareness about how to avoid getting infected. On top of that, people are now more willing to get vaccinated than a few months ago. The results are somehow heart-warming.

**Statements:**

1. Coronavirus is deadly.
2. People want to get rid of the virus as soon as possible.
3. Vaccination centres are now more crowded.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

As the virus is killing people, it is deadly. People are now more aware to take precautions and they want to get rid of it. As more people are willing to get vaccinated, vaccination centres are getting more crowds. Thus the statements are true.



## Exercise Questions

**Question 1**

A flag is a tribute to the nation and should therefore not be hung outside at night. Hoisting the flag therefore happens at sunrise, bringing it down at sunset. Only when a country flag is illuminated by spotlights on both sides, it may remain hanging after sunset.

**Statements:**

1. Flags cannot be hoisted at night.
2. Flag should be hoisted in sunshine only.
3. Flag cannot be hoisted at homes.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

**Question 2**

Overfishing is the phenomenon that too much fish is caught in a certain area, which leads to the disappearance of the fish species in that area. This trend can only be reversed by means of catch reduction measures. These must therefore be introduced and enforced.

**Statements:**

1. Overfishing is illegal.
2. Reduction measures should be imposed against overfishing.
3. Fishing is legal.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

**Question 3**

The fundamental characteristic of the world students now enter is ever-accelerating change; a world in which information is multiplying even as it is swiftly becoming obsolete and out of date; a world in which ideas are continually restructured, retested, and rethought; where one cannot survive with simply one way of thinking;

**Statements:**

1. World has become very fast.
2. Flow of information is very swift.
3. Diversified thinking is now required for the students for success.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

**Question 4**

A flea can jump seven inches, or 150 times its own length, either vertically or horizontally. An equivalent jump for a person would be more than 550 feet, the height of the Washington Monument. Fleas can jump 30,000 times in a row without stopping, and they are able to accelerate through the air at an incredibly high rate; a rate which is over ten times what humans can withstand in an airplane.

**Statements:**

1. Fleas are some of the best jumpers in the natural world.
2. A man cannot jump more than its height.
3. Flea is an insect.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

**Question 5**

e-readers are superior to books because they provide helpful reading tips and tools that printed books do not. The typical e-reader allows its user to customize letter size, font, and line spacing. It also allows highlighting and electronic bookmarking. Furthermore, it grants users the ability to get an overview of a book and then jump to a specific location based on that overview. While these are all nice features, perhaps the most helpful of all is the ability to get dictionary definitions at the touch of a finger.

**Statements:**

1. e-reader is very helpful.
2. You need not consult a dictionary while using an e-reader.
3. Printed books do not give a good customized interface to the reader.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

**Question 6**

Xandersol, a new, potentially lethal drug, is being blamed for numerous illnesses and the deaths of six Anchorstown residents. According to water and sewer authority officials, the drug has somehow found its way into the city water system, resulting in the contamination of household drinking water for thousands of local residents.

**Statements:**

1. Xandersol causes mortalities.
2. Drug found its way into the water supply due to negligence of the Water and Sewer Authority.
3. Drugs will cause more deaths in future.



The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 7

A service dog is a dog that has been trained to assist someone who has a physical problem. Sam lets Mona lean on him when she walks. He also pulls her wheelchair and turns lights on and off. When Mona drops something, Sam picks it up. He even pulls her socks off at night.

Statements:

1. Service dogs help someone to do one's routine work.
2. Mona has a wonderful service dog named Sam.
3. Service dogs are very faithful to their owners.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 8

The global impact of Covid-19 is multifaceted and is clearly manifested in almost all sectors, particularly the health, education and economic sectors. Since the announcement of the virus as a pandemic in March 2020, there have been a plethora of daily reports on its impact on the lives of millions across the world.

Statements:

1. There is no sector which is not affected by COVID-19.
2. Whole world is affected by the virus.
3. Impact of COVID on education and the economy is long lasting.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 9

The Ministry of finance claims that Pakistan has achieved a 3.97 % growth rate in GDP during FY 2020-21. It means that things are going in the right path and the country is moving towards economic sustainability and development. Agriculture, industries, commerce and foreign income are the main components of Pakistan's economy.

Statements:

1. Pakistan will achieve 4.5% growth rate in FY 2021-22.
2. Industries are the main component in GDP growth.
3. If policies remain consistent, GDP will reach 6% in the next 2 years.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 10

Many opponents of the helmet law agree that helmets save motorcyclists' lives, but insist that the decision to wear a helmet should be left to the individual rider. Perhaps this argument would be valid if motorcyclists were the only ones negatively affected by their decision, but this is not the case.

Statements:

1. It is the sole discretion of the motorcyclist to wear a helmet.
2. A motorcyclist not wearing a helmet endangers only his life.
3. A motorcycle rider should not be fined for not wearing a helmet.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 11

The theory that flossing your teeth helps to keep your heart healthy might not be true. But every doctor agrees that flossing is a great way to keep your teeth healthy. So even if flossing does not help your heart, it is sure to help your teeth. This is enough of a reason for everyone to floss their teeth every day.

Statements:

1. Flossing theory is just a myth.
2. Not everyone but some doctors think that the link between good flossing habits and good heart health is only a coincidence.
3. Flossing is a good habit.

The statements given are:

- A. True
- B. Probably true
- C. Insufficient data to say true or false
- D. Probably false
- E. False

### Question 12

In order for an area to be considered a desert, it must receive very little rainfall. More specifically, it must receive an average of less than ten inches of precipitation- which can be rain, sleet, hail, or snow on the ground every year. Antarctica, the coldest place on earth, has an average temperature that usually falls below the freezing point. And because cold air holds less moisture than warm air, the air in Antarctica does not hold much moisture at all.

Statements:

1. Antarctica is a desert.



2. It is possible that a desert area has minus temperature and ice covered.
  3. Almost no rainfall occurs in a desert.
- The statements given are:
- A. True
  - B. Probably true
  - C. Insufficient data to say true or false
  - D. Probably false
  - E. False

### Question 13

Like many people acting on the desire to eat healthy and local, Acropolis resident Eduardo Jimenez decided to plant a garden in his backyard. He tilled the soil, he planted the seeds, and he even erected a fence to keep out the deer. Eduardo did everything right. Harvest time has come, and he has not one tomato, bean, or leaf of lettuce to show for his hard work.

#### Statements:

1. People grow plants at their homes to earn money.
  2. Food available in the market is not healthy.
  3. Gardening is Eduardo's hobby.
- The statements given are:
- A. True
  - B. Probably true
  - C. Insufficient data to say true or false
  - D. Probably false
  - E. False

### Question 14

The average computer user has between 5 and 15 username/password combinations to log in to different accounts. It is virtually impossible to remember a unique password for each of these accounts, many people leave handwritten lists of usernames and passwords on or next to their computers. Others solve this problem by using the same password for every account or using extremely simple passwords. While these practices make it easier to remember login information, they also make it exponentially easier for thieves to hack into accounts.

#### Statements:

1. Having to remember so many different passwords is irritating.
  2. Handwritten lists of usernames and passwords are extremely dangerous.
  3. Beside memorizing, two methods are used to save usernames and passwords.
- The statements given are:
- A. True
  - B. Probably true
  - C. Insufficient data to say true or false
  - D. Probably false
  - E. False

### Question 15

When we are young, we learn that tigers and sharks are dangerous animals. We might be scared of them because they are big and powerful. As we get older, however, we learn that sometimes the most dangerous animals are also the smallest animals. In fact, the animal that kills the most people every year is one that you have probably killed yourself many times: the mosquito.

#### Statements:

1. Tiger and shark do not harm humans.
  2. All the big animals are harmful.
  3. Mosquitoes are the most dangerous animal on the earth.
- The statements given are:
- A. True
  - B. Probably true
  - C. Insufficient data to say true or false
  - D. Probably false
  - E. False

### Question 16

Most importantly, though, the highway bypass would have disastrous effects on the area's homeowners. As planned, the new road would cut directly through the middle of the New City subdivision. Not only would this send more cars through the neighbourhood, but these cars would be traveling at much higher speeds, putting children at risk.

#### Statements:

1. Homeowners would have to deal with the increased noise and pollution that would result from a heavily trafficked road.
  2. Probably the new road would cause residential properties to depreciate.
  3. It is possible that homeowners will sell their home and go to other places.
- The statements given are:
- A. True
  - B. Probably true
  - C. Insufficient data to say true or false
  - D. Probably false
  - E. False

### Question 17

In recent years in the United States, there have been numerous cases of active euthanasia in the news. They usually involve the deliberate killing of ill or incapacitated persons by relatives or friends who plead that they can no longer bear to see their loved ones suffer. Although such killings are a crime, the perpetrators are often dealt with leniently by our legal system, and the media usually portrays them as compassionate heroes who take personal risks to save another from unbearable suffering.

#### Statements:

1. Perpetrators of deliberate killing are heroes.
  2. Deliberate killing of ill or incapacitated persons by relatives or friends is justifiable.
  3. Euthanasia is the act of killing a person painlessly for reasons of mercy.
- The statements given are:

- A. True  
 B. Probably true  
 C. Insufficient data to say true or false  
 D. Probably false  
 E. False

### Question 18

More than 20 years ago, a New Jersey artist named Jane Golden started a program pairing troubled youth with artists to paint murals on a few buildings around the city. From this small project, something magical happened. The young people learned to collaborate and get along with many different kinds of people during the various steps required to paint and design a mural.

#### Statements:

1. Program helped young people to get some relief by getting employed.
2. Painting murals on buildings is prohibited and this program started after special permission.
3. Young people are the asset of a nation.

The statements given are:

- A. True  
 B. Probably true  
 C. Insufficient data to say true or false  
 D. Probably false  
 E. False

### Question 19

The living room does not look good. It looks bad without a carpet. Mary and Dan want to buy a carpet. They want to buy a carpet for their living room.

#### Statements:

1. Mary and Dan are siblings.
2. Room has a marble floor which does not look pretty.
3. They planned to buy the carpet through online shopping.

The statements given are:

- A. True  
 B. Probably true  
 C. Insufficient data to say true or false  
 D. Probably false  
 E. False

### Question 20

In the early 1920's, settlers came to Alaska looking for gold. They travelled by boat to the coastal towns of Seward, and from there by land into the gold fields. The trail they used to travel inland is known today as the Iditarod Trail, one of the National Historic Trails designated by the Congress of the United States. The Iditarod Trail quickly became a major passage in Alaska, as the mail and supplies were carried across this trail.

#### Statements:

1. The Iditarod Trail led to gold fields.
2. Alaska is situated in the United States.
3. Iditarod Trail is a National Historic Trails.

The statements given are:

- A. True  
 B. Probably true  
 C. Insufficient data to say true or false  
 D. Probably false  
 E. False



## Answers and Explanations

1	E	According to the paragraph, flags can be hoisted in sunshine and also at night in the spotlight. Also, flags can be hoisted on any building.
2	B	First two statements are true. It is probable that the fishing is legal and overfishing is illegal.
3	A	All the statements are true.
4	B	These two statements; 2. A man cannot jump more than its height. 3. Flea is an insect. are most likely to be true and are not in contradiction with the paragraph. It is approved by critical thinking.
5	A	Given statements are true.
6	B	Critical thinking approves that 1. The Water and Sewer Authority is responsible for the safe and clean delivery of water to the city. 2. If this happens, it will cause more deaths.
7	A	All the statements are true.
8	A	All the statements are true.
9	C	According to the given passage, we cannot predict that Pakistan will achieve 4.5% growth rate in FY 2021-22, and GDP will reach 6% in the next 2 years
10	E	Statements contradict with the information given in the passage.
11	B	According to the paragraph, many doctors still don't confirm the flossing, so it can be a myth. Reading all statements our critical thinking approves it as probably true.
12	A	All The statements given are approved by the paragraph and are true.
13	C	We can say "People grow plants at their homes to earn money." as true or false no information is given in paragraph. People grow plants at home both for earning and hobby. Foods available in the market may or may be healthy.
14	A	All The statements given are approved by the paragraph and are true.
15	E	Statements contradict with the information given in the passage.
16	C	"Homeowners would have to deal with the increased noise and pollution that would result from a heavily trafficked road" and "It is possible that homeowners will sell their home and go to other places" this may happen or may we cannot be sure about it.
17	A	All The statements given are approved by the paragraph and are true.
18	C	We cannot approve or disapprove any statement in accordance with the given passage.
19	D	"Mary and Dan are siblings" it may or may not be possible. Room does not look good but we are not sure whether it has a marble floor. Also, we can't confirm the carpet buying method.
20	A	All The statements given are approved by the paragraph and are true.

## Question Format 2 : Letters and Symbol Series

Letter and Symbol Series are a sequential order of letters, numbers or both arranged such a way that each term in the series is obtained according to some specific rules. These rules can be based on mathematical operations, place of letters in alphabetical order etc.

### Exercise Questions

1. If ~~A~~RISTOTLE is coded as BSJTUPUMF, then GALILEO would be coded as:
 

A. HBMHMF	B. HBMAMFP
C. HBMJMFP	D. HBMJMFQ
2. If BOY is coded as ACNPXZ. What will be the code for LIFE?
 

A. KMHJEGDF	B. LMGHEGDF
C. LMHJGEFD	D. None of the above.
3. What will come next? P R T V X ?
 

A. W	B. Y
C. Q	D. S
E. Z	
4. What will come next in the series? XVSO?
 

A. K	B. J
C. L	D. M
E. P	
5. What will come next in the given series? P Q L M H I D ?
 

A. F	B. G
C. K	D. E
E. C	
6. What will come next? A D G J M ?
 

A. O	B. P
C. Q	D. R
E. S	
7. 2, 4, 7, 24, what comes next in the series:
 

A. 79	B. 105
C. 87	D. 96
8. 4, 8, 13, 17, what comes next in the series:
 


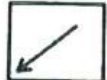
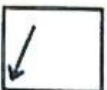

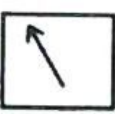
A. 22	B. 25
C. 21	D. None of the above
9. What comes next in the series; 33, 47, 73, 119,
 

A. 129	B. 187
C. 193	D. 210
10. What comes next in series; -2, 0, -4, 2, -6,
 

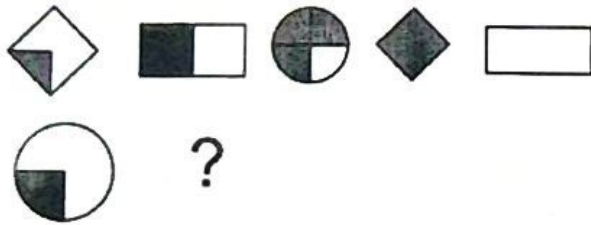
A. 1	B. 0
C. 4	D. -2
11. 11, 33, 55, 77,
 


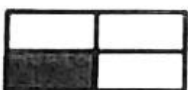


A. 99	B. 88
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12. Choose the correct option to complete the series
 
  - a.
  - b.
  - c.
  - d.
  - e.
13. Choose the correct option to complete the series
 
  - a.
  - b.
  - c.
  - d.
14. Choose the correct option to complete the pattern



- a. 
- b. 
- c. 
- d. 
- e. 




15. Choose the correct option to complete the series

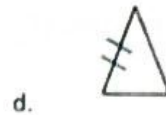


- a. 
- b. 
- c. 
- d. 

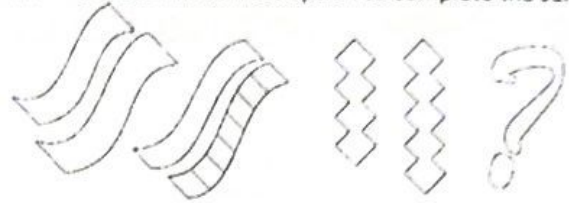
16. Choose the correct option to complete the series

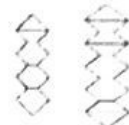
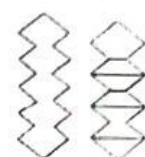
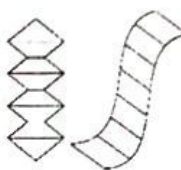


- a. 
- b. 
- c. 

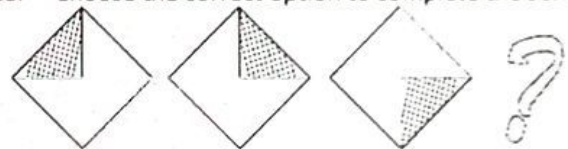


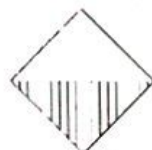



17. Choose the correct option to complete the series



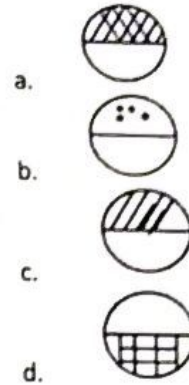
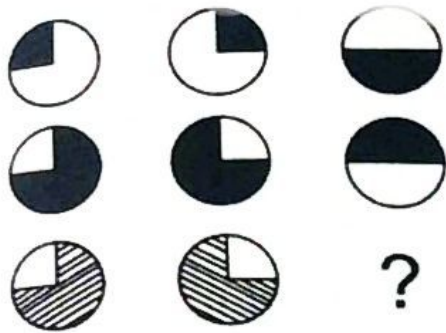
- a. 
- b. 
- c. 

18. Choose the correct option to complete the series



- a. 
- b. 
- c. 
- d. 

19. Choose the correct option to complete the series



## Answers and Explanations

Question Number: 1

Correct Option: C

**Explanation:** Breakdown the word given as:

ARISTOTLE = B S J T U P U M F

From it we can tell that every letter is coded one letter ahead of it, as: A is coded as B, T is coded as U and so on. In the same manner GALILEO will be coded as HBMJMF.

Question Number: 2

Correct Option: A

**Explanation:** B = AC, O = NP, Y = XZ

It means original letters can be inserted in between the two coded letters. So, L = KM, I = HJ, F = EG, and E = DF.

Question Number: 3

Correct Option: E

**Explanation:** The answer is "Z" because the pattern shows that there is only one letter between each letter in the list.

Question Number: 4

Correct Option: B

**Explanation:** The answer is "J" because there is 1 letter between "X" and "V," 2 letters between "V" and "S," 3 letters between "S" and "O," and finally "4 letters between "O" and "J."

Question Number: 5

Correct Option: D

**Explanation:** The answer is "E" because the second letter is one more than the first, the fourth is one more than the third, the sixth is one more than the fifth, and finally, the mystery letter is one more than the seventh, and "E" follows "D."

Question Number: 6

Correct Option: B

**Explanation:** The answer is "p" because there is a 2-letter difference between each letter in the series.

Series is as follow;

- A, B, C, D
- D, E, F, G
- G, H, I, J
- J, K, L, M

- M, N, O, P

Question Number: 7

Correct Option: C

**Explanation:** Preceding number in series is added to increasing squares, i.e: 1, 2, 4, 8 onwards, followed by alternate addition and subtraction of 1 from it.

$$2 + 1 \times 1 + 1 = 4,$$

$$4 + 2 \times 2 - 1 = 7,$$

$$7 + 4 \times 4 + 1 = 24,$$

$$24 + 8 \times 8 - 1 = 87$$

Question Number: 8

Correct Option: A

**Explanation:** Series is addition of 5 to previous number with alternate subtraction of 1 from the numbers as:

$$4 + 5 - 1 = 8,$$

$$8 + 5 = 13,$$

$$13 + 5 - 1 = 17,$$

$$17 + 5 = 22$$

Question Number: 9

Correct Option: C

**Explanation:** Series is sequence of addition of 10 to previous number followed by addition of multiples of 2's squares as:

$$33 + 10 + 2 \times 2 = 47,$$

$$47 + 10 + 4 \times 4 = 73,$$

$$73 + 10 + 6 \times 6 = 119,$$

$$119 + 10 + 8 \times 8 = 193$$

Question Number: 10

Correct Option: c

**Explanation:** The series is alternate addition and subtraction of successive multiples of 2 to previous number:

$$-2 + 2 = 0,$$

$$0 - 4 = -4,$$

$$-4 + 6 = 2$$

$$2 - 8 = -6$$

$$-6 + 10 = 4$$



Question Number: 11

Correct Option: a

**Explanation:** Every number is divisible by 11 and every number is 22 more than the previous one. As:  $11 + 22 = 33$ ,  $33 + 22 = 55$  and so on.

Question Number: 12

Correct Option: a

**Explanation:** According to pattern,



- A chord line on top of circle (chord line is horizontal)
- Circle revolve anticlockwise by  $90^\circ$  (chord line is vertical)
- Circle revolve anticlockwise by  $90^\circ$  further (chord line is horizontal)
- Circle revolve anticlockwise by  $90^\circ$  further (chord line is vertical)
- Circle revolve anticlockwise by additional  $90^\circ$  (chord line is horizontal) so we have



Question Number: 13

Correct Option: e

**Explanation:** The pattern in the questionshows,

- Triangle enclosed by circle which is enclosed by square
- Square enclosed by triangle which is enclosed by circle (outer geometry moves to inside)
- Circle enclosed by hexagon which is enclosed by triangle
- So triangle enclosed by circle which is enclosed by hexagon (outer geometry moves to inside)



Question Number: 14

Correct Option: b

**Explanation:** The answer is B. When you look at the image sequences, you see that the arrows are in diagonal angles within the squares presented. This rules out the answers of C,D, and E. Furthermore, when looking at the last row of the images, you see that the arrow is pointing in the bottom right, this means that A is also ruled out as none of the sequences show

consecutive repetition of the arrow positions. This means that B can be the only answer.

Question Number: 15

Correct Option: c

**Explanation:** The solution is C. When looking at the sequence of images you see the dark coloured sections of the shapes showcasing the pattern of the first row. The circle shows the same dark colored section of the square above it, therefore the next image will show the same dark section as the rectangle in the second column of the first row. This points to solution C.

Question Number: 16

Correct Option: b

**Explanation:** According to pattern,

- A triangle with 2 dash line from right side
- A triangle with 2 dash line from left side
- A triangle with 2 dash line from bottom side
- If we start the cycle again, possible choice is



Question Number: 17

Correct Option: b

**Explanation:** In first scheme, plane strip changed into segmented keeping one strip intact. So (B) is best choice.

Question Number: 18

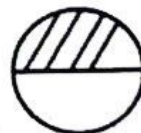
Correct Option: c

**Explanation:** First two shapes are mirror to each other. Same for second pair.

Question Number: 19

Correct Option: c

**Explanation:** In first column,  $\frac{1}{4}$  of circle is white, black and hatched from top to bottom. In second column, same trend but in different orientation. In third column, upper half is black, white and should be



hatched in next pattern i.e.



## Question Format 3 : Logical Deductions

**Logical deduction questions** are designed to measure your ability to figure out and understand a structure of relationships and to draw logical conclusions about the structure. You are asked to make deductions or conclusions from a set of statements, conditions, or rules that describe the relationships among given entities such as persons, places, things, or events. They simulate the kinds of detailed analyses of relationships that a student must perform in solving research oriented problems they will have to interact during higher studies.

For example, seven airplane passengers sitting in Business class, follow certain rules as to who can sit where. You must answer questions about the deductions from the given information, like,  
Who is sitting with passenger A?

No formal training in logic is required to answer these questions correctly. Analytical reasoning questions are intended to be answered using knowledge, skills, and reasoning ability generally expected of college students and graduates.

### General Types of Questions

The passage used for each group of questions in the test generally, describes a common relationship such as the following:

#### Tasks and Performance:

Two sales persons K and M, visit their territories T1 and T2 in four days, Monday through Thursday.

#### Grouping:

A commander forms a troop from four soldiers – A, B, C, and D. Each soldier has a particular strength.

#### Sequencing:

Bus-2 arrives after Bus-3 but before Bus-1.

#### Topologies:

A city has four towns and each town is connected to at least one other town by roads, some of which are connected by intercity railway track.

Careful reading and analysis are necessary to determine the exact nature of the relationships involved.

### Most Frequent Relationships

#### Fixed Relations:

Some relationships among the entities are fixed and cannot be changed unless stated in any other Question about the same set of conditions.  
e.g., R and I always sit next to each other. Or R stays at Jahania and I at Multan.

Such relations are easily manageable by fixing the entities in the diagram of the Question.

#### Variable Relations:

Some relations are variable. The test taker is actually, asked to adjust the variables correctly for the right answer.  
Candidate must be assigned to either window 1 or window 3.

The Questions base on the adjustment of such type of relations.

#### Implied Relations:

Some relationships that are not stated in the conditions are implied by and can be deduced from the stated set.

e.g., If one condition about boxes on a shelf specifies that Box 1 is to the left of Box 2, and another specifies that Box 4 is to the left of Box 1, then it can be deduced that Box 2 is to the left of Box 4.

#### Strategies

##### 1. Work in Sequence:

Some people prefer to answer first those questions about a passage that seem less difficult and then those that seem more difficult. It is not good to start another passage before finishing one begun earlier, because it is time consuming to return to a passage and to reestablish familiarity with its relationships.

##### 2. Avoid Wrong Judgment:

Do not assume that because the conditions for a set of questions look long or complicated, the questions based on those conditions will necessarily be difficult. Avoid the wrong judgment, work in sequence, and try all questions.

##### 3. Avoid your own Assumptions:

Do not introduce unwarranted assumptions in the given conditions. Always base on the given conditions and facts only. For example, don't assume that if A is taller than B then A has more weight than that of B.

##### 4. Exploit Given Information:

Each passage provides full information required to solve the question. The conditions are designed to be as clear as possible; do not interpret them as if they were intended to trick you. For example, if a question asks how many women could be eligible to get admission, consider only those women named in the passage unless directed otherwise. When you feel doubt, read the conditions in their most obvious sense. Remember, however, that the language in the conditions is intended to be read for precise meaning.

##### 5. Key Words:

It is essential to pay special attention to words that describe or limit relationships, such as "only," "similarly," "as," "exactly," "never," "always," "must be," "can be," "cannot be," and the like.

##### 6. Treat every Question Independently:

Test taker must treat each question separately from the other questions in its set; no information, except what is given in the original conditions, should be carried over from one question to another.

##### 7. Draw diagrams of the conditions:

It is very useful to draw a diagram to assist you in finding the solution. On the other hand, many people find it useful to underline key points in the passage and in each question. In addition, some people like to use symbols, for example; the condition that A and B sit together can be represented by  $A \leftrightarrow B$ , and for "A and B are not to sit together" the symbol might be  $A \nleftrightarrow B$ . Visualization of conditions by symbol is a quicker



reference in the application of the conditions than to read conditions repeatedly. You can devise your own symbols for most often used conditions. Always use a fixed symbol for a particular condition.

**8. Attacking with Diagrams:**

In preparing for the test, you may use different types of diagrams for different types of questions. There is by no means universal agreement on which kind of diagram is best for which problem or in which cases a diagram is most useful. Do not be concerned if a particular problem in the test seems to be best approached without the use of a diagram.

**9. Scheduling Question:**

In scheduling problem, a tabular diagram may be helpful.

**10. Topological Question:**

For a topological relationship problem, an arrow diagram or a simple map can be a useful device.

**Example:**

**Passage**

Country Kabana has seven major cities —A, B, C, D, E, F, and G. Three flights labeled 1, 2, and 3 are available to connect the cities following the rules:

Flight 1 has its ends at A and C, and passes through B only.

Flight 2 has its ends at B and C, and passes through D only.

Flight 3 has its ends at E and G, and passes through F only.

Directly connected cities are those cities between which there is no other city to land any flight.

**Question:**

Which one of the following city is directly connected to the most other cities?

- |    |   |    |   |
|----|---|----|---|
| A. | B | B. | C |
| C. | D | D. | E |
| E. | F |    |   |

**Explanation for Question**

This question can be solved with the aid of Topological diagram.

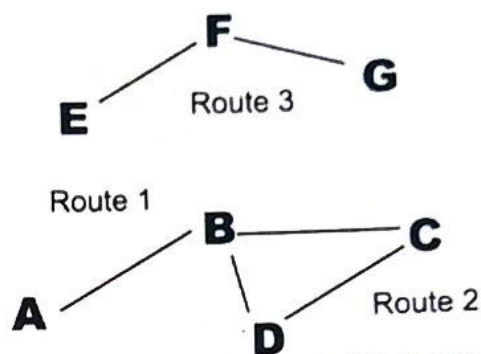


Diagram clearly shows that city B is directly connected with most other cities. The right choice is A.

## Exercise Questions

**Directions:** The following questions are based on a passage or set of conditions. To answer the question, choose the answer you think is most appropriate among the given options.

Answers to each question have been given at the end of the exercise.

### Questions 1-3

Three men (Tahir, Pervaiz, and Javed) and three women (Elena, Ayesha, and Kiran) are spending a few months at Abbottabad. They are to stay in a row of nine cottages, each one living in his or her own cottage. There are no others staying in the same row of houses.

Ayesha, Tahir, and Javed do not want to stay in any cottage, which is at the end of the row.

Elena and Ayesha are unwilling to stay besides any occupied cottage.

Kiran is next to Pervaiz and Javed.

Between Ayesha and Javed's cottage there is just one vacant house.

None of the girls occupies adjacent cottages.

The house occupied by Tahir is next to an end cottage.

1. Which of the above statements can be said to have been derived from two other statements?

A. Statement 1      B. Statement 2  
C. Statement 3      D. Statement 5  
E. Statement 6

2. How many of them occupy cottages next to a vacant cottage?

A. 2      B. 3  
C. 4      D. 5  
E. 6

3. Which among these statement(s) are true?

A. Ayesha is between Elena and Javed.  
B. At the most four persons can have occupied cottages on either side of them.  
C. Tahir stays besides Pervaiz.

A. I only  
B. II only  
C. I and III only  
D. II and III only  
E. I, II and III

### Questions 4-6

An Internal Services Manager at a large corporation has been assigned the task of allotting offices to six of the staff members. The offices are titled A through F.

Mrs. Ruby needs to use the telephone quite often throughout the day. Mr. Mujahid and Mr. Zahid need adjacent offices as they need to consult each other often while working. Mrs.

Fauzia is a senior employee and has to be allotted the office marked E, having the biggest window.

Mr. Abid requires silence in the offices next to his. Mr. Shahid, Mr. Mujahid, and Mr. Abid are all smokers. Mrs. Fauzia requires non-smoker neighbors.

Unless specifically stated all the employees maintain an atmosphere of silence during office hours.

4. The ideal candidate to occupy the office farthest from Mr. Zahid would be

A. Mrs. Fauzia      B. Mr. Mujahid  
C. Mr. Shahid      D. Mr. Abid  
E. Mrs. Ruby

5. The three employees who are smokers should be seated in the offices.

A. A, B and D      B. B, C and F  
C. A, B and E      D. A, B and C  
E. A, B and F

6. The ideal office for Mr. Mujahid would be.

A.      B.      C.      D.      E.      F  
A.      B.      C.      D.      E.      F  
C.      A.      D.      C  
E.      D

### Questions 7-11

Two or more tealeaves out of five varieties-- Livana, Mathia, Novajana, Oxia, and Piask are used in making all branded blends by a marketer following the rules given below.

A brand containing Livana, should also contain Novajana twice that of Livana.

A brand containing Mathia, must also have equal quantity of Oxia.

A single brand never contains Novajana as well as Oxia. Oxia and Piask should not be used together.

A blend containing Piask should contain it in such a proportion that the total amount of Piask present should be greater than the total amount of the other tealeaves

7. Among the following which is an acceptable brand in accordance with the rules?

A. One part Livana, one part Piask  
B. Two parts Mathia, two parts Livana  
C. Three parts Novajana, three parts Livana  
D. Four parts Oxia, four parts Mathia  
E. Five parts Piask, five parts Mathia

8. Adding more amount of Novajana will make which of the following brands conformable with the conditions?



- A. One part Livana, one part Novajana, five parts Piask  
 B. Two parts Mathia, two parts Novajana, two parts Piask  
 C. One part Mathia, one part Novajana, one part Piask  
 D. Two parts Mathia, one part Novajana, four parts Piask  
 E. Two parts Novajana, one part Oxia, three parts Piask
9. Among the following, the addition of which combination would make a brand containing two parts Novajana and one part Piask conformable with the conditions?  
 A. One part Livana  
 B. One part Mathia  
 C. Two parts Novajana  
 D. One part Oxia  
 E. Two parts Piask
10. Among the following, which combination cannot be used together in an agreeable brand containing two or more types of tea leaves?  
 A. Livana and Mathia  
 B. Livana and Novajana  
 C. Livana and Piask  
 D. Mathia and Oxia  
 E. Piask and Novajana
11. Among the below mentioned brands, which can be made agreeable by eliminating some or all of one type of tealeaves?  
 A. One part Livana, one part Mathia, one part Novajana, four parts Piask  
 B. One part Livana, two parts Novajana, one part Oxia, four parts Piask  
 C. One part Livana, one part Mathia, one part Oxia, one part Piask  
 D. Two parts Livana, two parts Novajana, one part Oxia, two parts Piask  
 E. Two parts Mathia, one part Novajana, two parts Oxia, three parts Piask

#### Questions 12 - 17

Nine individuals - Z, Y, X, W, V, U, T, S and R - are the only candidates, who can serve on three committees labeled A, B and C.

Each candidate should serve on exactly one of the committees. Committee A should consist of exactly one member more than that of committee B.

It is possible that there are no members of committee C.

Among Z, Y and X none can serve on committee A. Among W, V and U none can serve on committee C. Among T, S and R none can serve on committee C.

12. In case T and Z are the individuals serving on committee B, how many of the nine individuals should serve on committee C?  
 A. 3                      B. 4  
 C. 5                      D. 6

E. 7

13. Of the nine individuals, the largest number that can serve together on committee C is  
 A. 9                      B. 8  
 C. 7                      D. 6  
 E. 5
14. In case R is the only individual serving on committee B, which among the following should serve on committee A?  
 A. W and S              B. V and U  
 C. V and T              D. U and S  
 E. T and S
15. In case, any of the nine individuals serves on committee C, which among the following could not be the candidate to serve on committee A?  
 A. R                      B. Y  
 C. W                      D. T  
 E. S
16. In case T, S and X are the only individuals serving on committee B, the total membership of committee C should be:  
 A. Z and Y              B. Z and W  
 C. Y and V              D. Y and U  
 E. X and V
17. Among the following combinations which could constitute the membership of committee C?  
 A. Y and T              B. X and U  
 C. Y, X and W              D. W, V and U  
 E. Z, X, U and R

#### questions 18 - 23

Four captains and the first mates of three of them were called to attend the annual meeting at head quarters. The captains were Luqman, Manzoor, Nauman and Osaf; the first mates were Ayesha, Durya and Gia. Each person in turn delivered a report to the chairperson as follows:

Each of the first mates delivered their report exactly after her captain. The first captain to speak was Manzoor, and captain Nauman spoke after him.

(Represent the person with first letter of his name)

18. Which of the following order of delivering report is not conformable with the conditions?  
 A. M, A, N, G, O, L, D  
 B. M, D, N, G, L, O, A  
 C. M, N, A, L, D, O, G  
 D. M, N, A, O, D, L, G  
 E. M, N, G, D, O, L, A
19. In case A is the third of the first mates to speak, and L is the captain whose first mate is not present, which among the following statements must be true?



- A. A spoke sometime before L.  
 B. D spoke sometime before O.  
 C. L spoke sometime before O.  
 D. O spoke sometime before L.  
 E. O spoke sometime before N.

20. Among the following statements, which statement must be true?

- A. In case the second speaker was a captain, the seventh speaker was a first mate.  
 B. In case the second speaker was a first mate, the seventh speaker was a captain.  
 C. In case the third speaker was a first mate, the seventh speaker was a captain.  
 D. In case the third speaker was a captain, the seventh speaker was a first mate.  
 E. In case the seventh speaker was a first mate, the first & third speakers were captains.

21. In case A spoke immediately after L and immediately before O, and O was not the last speaker, L spoke

- A. second                      B. third  
 C. fourth                      D. fifth  
 E. sixth

22. In case L speaks after A, and A is the third of the first mates to speak, then among the following statements which would be untrue?

- A. O spoke immediately after G  
 B. The order of the first four speakers was M, G, N, D  
 C. O's first mate was present  
 D. A was the fourth speaker after M  
 E. The captains spoke in the order M, N, O, L

23. Among the following statements, which would make M, D, N, G, L, O, A the only possible sequence of speakers?

- A. D is M's first mate; G is N's first mate; A is O's first mate.  
 B. D is M's first mate; G is N's first mate; A was the second to speak after L.  
 C. The order of the first four speakers was M, D, N, G.  
 D. The order of the last three speakers was L, O, A.  
 E. The order in which the captains spoke was M, N, L, O.

## Answers

1	D	2	C	3	C	4	D	5	D
6	D	7	D	8	A	9	E	10	A
11	B	12	B	13	D	14	E	15	C
16	A	17	B	18	E	19	B	20	A
21	C	22	D	23	B				

## Explanations:

1. Statement 5 is the one that is derived from statement 2 and statement 3. because in these two statements girls are not surrounded by boys.

2. We can see that Eleena, Aleena, Ayesha, Javed and Tahir live next to vacant rooms.  
 3. We can see that Ayesha is in between Eleena & Javed, Moreover Tahir and pervaiz live side by side. So, statements I and III are true.  
 4. Abid will be the farthest person from Mr. Zahid. Abid (A), Shahid (B), Mujahid (C), Zahid (D), Fauzia (E), Ruby (F). Abid will live in A, because he could get silence atleast at one side of his room.  
 5. Abid, Shahid & Mujahid are smokers and live in A, B & C because any one of them can't live at D & F because Fauzia in office E wants non-smoker at her adjacent offices.  
 6. According to the diagram, Mr. Mujahid would live in office C, because Zahid and Mujahid live next to each other. Moreover, Mujahid is a smoker and can't live next to Miss Fauzia.  
 7. Four parts Oxia & four parts Mattia would be an ideal mixture because it doesn't violate any condition & satisfies all of them. The one which is concerned with this mixture is that there must be an equal proportion of Oxia & Mathia.  
 8. If we add 1 more part of Novajama, mixture would become  
 2 parts novajama  
 1 part divana  
 parts piast.  
 9. If we add two more parts of piask, it would dominate the amount of Novajana in the mixture. All conditions satisfied.  
 10. If Livana is included, two parts of Novajana must be included. Mathia comes with Oxia and now this becomes a combination of 4 i.e. Livana, Novajana, Mathia & Oxia which Oxia & Novajana can't come together. Hence A is the one that is not possible.  
 11. If we remove the only part of Oxia, the combination becomes 1 Livana, 2 Navajana & 4 piask. This combination satisfies all the conditions.  
 12. If two persons serve in committee B, then three would work in A. This total 6 in A & B. The rest 4 of the persons would serve in C.  
 13. If one works in committee B. now two persons have to work in A. the rest 6 will serve in C. Moreover, the persons serving in committee A & B are RST because they can't serve in committee C.  
 14. S and T can't serve in committee C. therefore, these two will have to serve in committee A. Moreover, one person in B means two persons in A.  
 15. Now we are left with two condition i.e.  
 A can't have X, Y and Z &  
 B can't have U, V and W  
 Therefore, A can have U, V, W, R, S and T. the only available option is W which can serve on committee A.  
 16. If S, T & X are living in B, then four persons must be in A. Four persons serving in A would be R, U, B and W. Y & Z



can't serve in committee. A as per conditions. Therefore, only Y & Z are possible candidates to serve in C.

17.

A	B	C
2	1	6
3	2	4
4	3	2
5	4	0

From this, it becomes evident that even number of candidates would serve in C. and those would not include R, S & T. The only option that contains even number of candidates and the option that do not include R, S & T is option B i.e. X & U.

18. Option E says.

Manzoor - Nauman - Gia - Duria - Osaf - Luqman - Ayesha  
From this condition, it is sure that two mates can never be together. Moreover, please note that two captains can come consecutively because one captain has no mate.

19. Manzoor (1), Nauman (2), Luqman, Osaf, Ayesha

Manzoor (1) Nauman (2), Osaf, Ayesha, Luqman

At position 1 and 2 any of the two mates D & G can be accommodated. We can see that in both these situations D is going to speak before Osaf.

20. If the second speaker was captain, then the first captain without a mate. The sequence become

C	C	M	C	M	C	M
1	2	3	4	5	6	7

Hence, 7th speaker would be a first mate.

21. The condition given shows that L, A, & O speak consecutively. Now before L, M & N must also speak and at least one of M & N, has his mate. Therefore, M, N and one mate occupies the first 3 positions and L would be at the 4th position.

23. If D is first mate of M and G is N's first mate & A is the second to speak after L, then N D N G L O A.

## Question format 4: Logical problems

Reasoning between different statements on the basis of true or false conditions is called logic. A logical statement can be either true or false but not both. In logical problems, we deduce some results from the given statement. We start with a few statements that the hypothesis is true and then determine which statements must be true if the initial statement is true. We consider the possible cases which are obtained from the given statement. Reader's knowledge, previous observations and comprehension cannot be applied to these statements while deriving the results. One must focus on what is mentioned in the given statement.

It must be noted that information given in the question statement may be based on the hypothesis, and may or may not be true in actual sense. So, the reader must be careful while deriving the result without correcting any statement or its previous knowledge. For example, the statement says; "Wolf is a king of the Jungle. All the animals eating meat are frightened by the wolf". Here we cannot impose our own knowledge that the Lion is the king of the jungle. Readers are discouraged to make any argument if the information provided is insufficient; thus the right option must be chosen accordingly. If something is assumed to be true and something else is related to the first assumption, then the original truth must apply to the second thing as well.

**Example:** A Pakistani is an Asian. No Asian is American. Some Americans are black.

- I. Some black are Asian
- II. Some Americans are Pakistani
- III. Some Asians are Pakistani

Which of the following statements is most appropriate in the case above?

- A. Only II
- B. Only III
- C. All are inappropriate

If we analyze those three deduced statements, some Asian cannot be black as they are American and no Asian is American. Thus statement I is wrong. Second statement is also wrong because Asian cannot be American and Pakistanis are Asian. So no American is Pakistani. Thus statement II is wrong. Some Asians are Pakistani as per the condition that a Pakistani is Asian. This argument is appropriate. Although logical reasoning is supposed to be a dependable form of judging the candidate's ability, sometimes, it may lead to false conclusions. This usually happens when one of the first hypothetical statements is false. Also, in some cases, even if one or two given statements are wrong, it is possible to draw precise conclusions.

## Exercise Questions

1. **The soccer player wearing a red jersey was in the team that won the Final.**

- I. The soccer player on the losing side wore purple.
- II. Winning team in the Final wore a red jersey.
- III. John and his team were runners up in the Final.

Which of the following statements is most appropriate in the case above?

- A. Only II
- B. Only III
- C. Both I & II
- D. All are inappropriate

2. **Jamey attends acrobatic classes daily from morning to evening at the training center.**

- I. Jamey's school teaches gymnastics and acrobatics.
- II. Luran has acrobatic lessons with Remy.
- III. Jamey and her mother eat lunch at their home.

Which of the following statements is most appropriate in the case above?

- A. Both I & II
- B. Both I & III
- C. Only III
- D. All are inappropriate

3. **All beggars are hungry. The poor are hungry.**

- I. Some poor are beggars.
- II. No poor is a beggar.
- III. All the beggars and poor are hungry.

Which of the following statements is most appropriate in the case above?

- A. Only I
- B. Both I & II
- C. Both I & III
- D. All are inappropriate

4. **Smith is successful. All successful people have good habits.**

- I. Smith is hard working, cooperative and punctual.
- II. Good habits make a person successful.
- III. Smith and his friends are successful.

Which of the following statements is most appropriate in the case above?

- A. Only I
- B. Both I & II
- C. Both I & III
- D. All are inappropriate



5. **All the living things are mortal. All the non-living things may be mortal or immortal.**

I. All my friends and I are mortal.  
 II. Living things can live for many years.  
 III. Mountains are mortal.

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Both I & II  
 C. Both I & III  
 D. All are appropriate

6. **A computer cannot be operated without electricity. A Mouse cannot operate without a computer. Every house does not have electricity.**

I. Computer can be used in every house.  
 II. A Mouse cannot operate without electricity  
 III. A computer cannot be operated without a Mouse.

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Only II  
 C. Both II & III  
 D. All are inappropriate

7. **Babar Azam is a match-winning player. Most match winning players are batsmen who have a good scoring average above 50.**

I. Babar Azam scores above 50 in every match inning.  
 II. Babar Azam is the only match-winning player.  
 III. No bowler is a match-winning player.

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Both I & II  
 C. Both II & III  
 D. All are inappropriate

8. **Hajj is an obligation to every Muslim who is monetarily sound. Many Pakistanis perform Hajj every year. All the Muslims living in the United Kingdom are rich.**

I. All Pakistanis are rich.  
 II. Hajj is obligatory to the Muslims Living in the United Kingdom.

III. Poor people are not allowed to perform Hajj

Which of the following statements is most appropriate in the case above?

- Only I  
 Only II  
 Both II & III  
 All are inappropriate

**Artificial Intelligence is about making a machine intelligent. Intelligent machines can perform more quickly by helping humans. Human capabilities are not matchable in any way.**

I. Intelligent machines are better than human  
 II. Human performance is very slow.  
 III. Intelligent machines make human work easier

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Only II  
 C. Only III  
 D. All are inappropriate

10. **COVID Vaccine can be administered to people above 18. Sum of Jack and Strew age is 34.**

I. Vaccine can be administered to Jack only  
 II. Vaccine can be administered to Strew only  
 III. Vaccine can be administered to both Jack and Strew  
 Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Only II  
 C. Either I or II  
 D. Both I & II

11. **All Nepalis speak Hindi. All Hindi speakers ride bicycles.**

I. All bicycle riders are Nepalis.  
 II. All Hindustanis speak Nepali.  
 III. All Nepalis ride bicycles.

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Both I & II  
 C. Only III  
 D. All are inappropriate

12. **All owls have night vision ability. The birds having night vision ability are not white.**

I. All owls are not white.  
 II. Birds which are white do not have night vision  
 III. White ravens do not have night vision.

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Both I & III  
 C. Only II  
 D. All are appropriate

13. **Girls like cooking. Many boys do not like households. All the people work at jobs outside the house.**

I. All the boys do not like cooking.  
 II. Girls do not like households.  
 III. Jobs outside the house are difficult

Which of the following statements is most appropriate in the case above?

- A. Only I  
 B. Both I & II  
 C. Both II & III  
 D. All are inappropriate

Kids like mangoes. Those who like mangos do not like apricots. Apricots are the favorite of kids in Africa.

- I. African kids do not like mangos
  - II. Mangos are not available in Africa
  - III. Apricots are not the favorite of kids other than Africa.
- Which of the following statements is most appropriate in the case above?

- A. Only I
- B. Only II
- C. All are appropriate
- D. All are inappropriate

15. The House of Ilyas is smaller than Mehdi. The House of Mehdi is greater than Hassan. Usama's house is big.

- I. House of Ilyas is smaller than Hassan.
- II. Mehdi's house is the biggest.
- III. Mehdi's house is bigger than Usama.

Which of the following statements is most appropriate in the case above?

- A. Only II
- B. Both II & III
- C. Only III
- D. All are inappropriate

16. Flowers bloom in spring. Sweden has three seasons; winter, summer and autumn. Sweden is situated in Europe.

- I. All the Europe has no flowers.
- II. Flowers do not bloom in Sweden.
- III. Flowers bloom in all seasons.

Which of the following statements is most appropriate in the case above?

- A. Only II
- B. Both II & III
- C. Only II
- D. All are inappropriate

17. Farid Express stops at every station. Green Line stops at Rohri, Bahawalpur, Khaniwal and Lahore stations. Millat Express stops at Faisalabad station.

- I. Farid Express stops at every station where the Green Line stops.
- II. Millat Express and Green Line have a common stop.

III. Green Line moves faster than Millat Express.

Which of the following statements is most appropriate in the case above?

- A. Only I
- B. Only II
- C. Either I, II or III
- D. All are inappropriate

18. Asif and Ibrahim are brothers. Difference of their ages is 3 years.

- I. Asif is older.
- II. Ibrahim is older.
- III. Asif is 3 years older than Ibrahim.

Which of the following statements is true in the case above?

- A. Both I & II
- B. Only III
- C. Either I, II or III
- D. All are true

19. In World War I German attacked France. The USA, Italy and Britain helped France. Austria supported the Germans. Turkey and Hungary were against Britain.

- I. German, Turkey and Hungary fought against France.
- II. The USA fought Austria.
- III. Italy and Britain fought against the Germans.

Which of the following statements is most appropriate in the case above?

- A. Only I
- B. Only II
- C. Both I & II
- D. All are appropriate

20. In a school, 75% of students can read English and 50% can read Urdu. Each student can read at least one language.

- I. 10 students can read both languages.
- II. 25 students can read both languages.
- III. 50 students can read both languages.

Which of the following statements is true in the case above?

- A. Only I
- B. Only II
- C. Only III
- D. All are false



## Answers and Explanations

1	A	For the question statement; i. Jersey color of the losing team cannot be determined. ii. Jersey color of the winning team can be determined. iii. Name of no player is nominated. So A is the right option.
2	D	We cannot predict whether Jamey's school teaches gymnastics or not. We don't confirm any name except Jamey. Jamey cannot eat lunch at home as she attends Acrobat classes.
3	C	"All beggars are hungry" and "The poor are hungry" give the argument that hungry is either beggar or poor and a poor can also be a beggar. Thus C is a right option.
4	B	Hard working, cooperative and punctual are good habits possessed by Smith. We cannot predict about the friends of Smith.
5	D	All my friends and I are human and thus mortal. Living things can live for many years but are still mortal. Mountains are non-living thus can be either mortal or immortal.
6	B	As per given statement, computers cannot be used in every house as every house may not have electricity. A Mouse cannot operate without a computer and a computer cannot operate without electricity, so ultimately a Mouse cannot operate without electricity.
7	D	Average score of Babar Azam is above 50 and he may have less than 50 in any inning. From the statement; we cannot argue that Babar Azam is the only match-winning player. Most match winning players are batsmen but not all. A bowler can also be a match winning player.
8	B	Hajj is obligatory to rich people. The Muslims of the United Kingdom are rich. So Hajj is obligatory to the Muslims Living in the United Kingdom.
9	C	Human capabilities are unmatched in any way. So, Intelligent machines are not better than humans. From the statement; we cannot argue that Human performance is very slow.
10	C	The Sum of Jack and Strew's age is 34. Vaccines cannot be administered to anyone if they are 17 each. If one is 18 or above, the other would be less than 18. So, vaccines can be administered to only one or no one.
11	C	It is clearly evident that all Nepalis ride bicycles.
12	D	All the three statements are elaborations of the given statement. So D is the right option.
13	D	Cooking is a household. Many boys do not like cooking but few may like it. If girls like cooking, they would like a household. We cannot predict whether an outside job is difficult.
14	A	African kids' favorite is Apricot so they do not like mangos. From the statement we cannot argue that mangos are not available in Africa. From the statement we cannot argue that apricots are not the favorite of kids other than Africa.
15	D	The Houses of Ilyas and Hassan are smaller than Mehdi. But both cannot be compared. We cannot compare Mehdi's and Osama's house, so we cannot say that Mehdi's house is the biggest. We cannot compare Mehdi's and Osama's house, so we cannot say that Mehdi's house is bigger than Usama.

16	C	From the statement we cannot argue that all of Europe has no flowers. It may have flowers which may bloom in other seasons. Only the statement which is appropriate is that flowers do not bloom in Sweden.
17	A	As Farid Express stops at every station so Farid Express stops at every station where the Green Line stops. "Millat Express and Green Line have a common stop" is not true in the sense of the given statement. We cannot predict the speed of any train.
18	C	It is evident that any statement can be true at a time.
19	D	Statement showed that during World War I German, Austria, Turkey and Hungary were in the same group. Statement also showed that during World War I France, the USA, Italy and Britain were in the same group. So D is the right option.
20	B	$75\% + 50\% = 125\%$ It means that 25% of students read both English and Urdu.



## Question format 5: Course of action

In this type of Question, a statement mentioning any issue or matter is given followed by two statements providing solutions or strategies, called course of action. A course of action is a plan or an administrative step or decision for development, which follows the further action to be adopted in response to policies and issues. These decisions are based on the information provided in the given statement. One has to assume that everything mentioned in the statement is true. Then decide which of the two suggested lines of action to follow logically. In such types of questions we think about the immediate solution or strategy to the problem. Reader must be fair and unbiased to give the correct solution without incorporating its own thoughts. Normally, these questions are about the public interest and this aspect must be kept in mind while giving the exact solution. Nature of the questions is relevant to real life issues. Issues raised may be temporary or permanent.

### Example:

**Statement:** People in the state are living life without basic human rights.

The course of action:

- I. Government should review its policies regarding public sectors.
  - II. More budget should be invested in the defense department.
- A. If only I is most appropriate
  - B. If only II is most appropriate
  - C. If either I or II is most appropriate
  - D. If neither I nor II is most appropriate
  - E. If both I and II are most appropriate

In this example we can see that the statement emphasises on the real world problem. Thus the solution to this issue must relate to the real world. Provision of the basic human rights is the responsibility of the government. This can be done through making new regulations and policies regarding the public matters. More interest of the government in public sectors and policies, more basic rights will be enjoyed by the people. Thus action-I is considered to be appropriate. Defense department has nothing to do with basic human rights so this is not the appropriate solution to the given issue. Thus action-II is considered not to be appropriate. Hence the correct answer is option A.

## Exercise Questions

### Question 1

**Statement:** Severe COVID-19 wave hits several parts of the country in the USA.

**Courses of Action:**

- I. Government should instantly make plans for providing financial assistance to those affected.
  - II. People in the affected parts should be vaccinated.
- A. If only I is most appropriate
  - B. If only II is most appropriate
  - C. If either I or II is most appropriate
  - D. If neither I nor II is most appropriate
  - E. If both I and II are most appropriate

### Question 2

Many pre-medical hard working students from poor families can't secure admission in medical colleges in Punjab every year.

The course of action:

- I. Government should increase the numbers of seats for admission in government medical colleges.
  - II. More private medical colleges should be opened to provide admission to the students.
- A. If only I is most appropriate
  - B. If only II is most appropriate
  - C. If either I or II is most appropriate
  - D. If neither I nor II is most appropriate

- E. If both I and II are most appropriate

### Question 3

Islamic banking is Interest free and the profit earned through the investment is shared between the bank and the customers.

The course of action:

- I. As compared to conventional banking, Islamic banking provides more profit to its customers.
  - II. In Islamic banking movement of the assets is quick and easy.
- A. If only I is most appropriate
  - B. If only II is most appropriate
  - C. If either I or II is most appropriate
  - D. If neither I nor II is most appropriate
  - E. If both I and II are most appropriate

### Question 4

People more than 18 years of age are allowed in the cinema. Three family members of a total age of 49 years went to the cinema. Individually, members can be of any age but not less than 11.

The course of action:

- I. Two members can enter the cinema as the oldest is 20.
  - II. No member can enter the cinema as the oldest is 17.
- A. If only I is most appropriate
  - B. If only II is most appropriate



- C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 5

Cases of road accidents are increasing gradually, particularly in the city areas.

The course of action:

- I. City traffic police should implement stringent norms for the vehicle maintenance and save road movement.
- II. Strict punishment rules should be made for those who violate the traffic rules. Traffic police should punish the violators.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 6

Pakistan is achieving good economic growth. But despite this, there are still many areas, like Tharparkar in Sindh, where significant numbers of children have stunted growth.

Course of action:

- I. Government should focus on tax collection and spend earned revenue on the deprived class of people.
- II. Government should start free meal schemes in schools and make education compulsory for each child.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 7

A number of graduates passing out from Pakistani universities are unemployed.

Course of action:

- I. Educational institutions should create an industry-academic linkage to create skilful graduates as per industry demands.
- II. Colleges and universities should be given autonomy to draft their curriculum according to their will.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 8

Last year, just before the General Assembly election, heavy rain hit most parts of the country which damaged the crops at large scale.

Course of action:

- I. Elections should be postponed and all government bodies must focus on the remedies to save crops.
- II. Government should immediately announce the relief package for the affected people.

- A. If only I is most appropriate  
 B. If only II is most appropriate

- C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 9

Air pollution is a global problem. All the countries including Pakistan are affected by it.

Course of action:

- I. By growing more trees, Pakistan can control the global air pollution.
- II. Vehicles should be banned in the urban areas to avoid emissions.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 10

Use of mobile phones in educational institutions has become a habit.

Course of action:

- I. Use of mobile phones should be prohibited in the educational institutes, especially in class rooms.
- II. Improvements in children training, behavioural change and sense responsibility can eradicate this habit.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 11

The Federal Investigation Agency received a complaint against an on-duty officer taking bribe.

Course of action:

- I. Federal Investigation Agency should arrest him; take action and fire from the job.
- II. Agency must wait if more complaints are registered against him, and collect more evidence.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 12

For the last few years, there has been a significant drop in the number of people choosing the new telephone connection from the public sector telephone company.

Course of action:

- I. The public sector companies should introduce new offers and customer care to attract more people.
- II. Public sector companies should set up a board to investigate the issue and possible remedies.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate



- D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 13

Indira Gandhi was a famous Politician. She strived for the rights of the poor at any political conditions. She participated in State Elections.

Course of action:

I. She must start the schemes for the rehabilitation of the poor after taking the government.

II. She should continue to raise voice for the poor and play her role as opposition.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 14

Many incidents have been reported where over speeding trucks ran over the persons sleeping over the road side.

Course of action:

I. Sleeping on footpaths and road sides should be banned immediately.

II. Trucks should not be allowed to come over the road at night times.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 15

Every summer, heavy load shedding happens in the country.

Course of action:

I. Increase the price of electricity in the summer season to reduce the consumption.

II. People should use electricity generators running on CNG to produce the electricity on their own.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 16

City college administration has directed the students to strictly adhere to the dress code as mentioned in the college guide book.

Course of action:

I. Rusticate the students who violate the dress code.

II. Issue the warning to the violators before taking any action.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate

- E. If both I and II are most appropriate

### Question 17

Since December 2018, 21 prisoners have escaped from the central jail.

Course of action:

I. Change the whole administration staff of the jail.

II. Enhance the safety by fencing, high walls and strong infrastructure.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 18

Due to maintenance of the track, train operation will remain suspended for two day throughout the country.

Course of action:

I. Railway authorities should inform the public in advance so that people may arrange alternatives.

II. People should wait until the train operation resumes.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 19

A massive ship got stuck in the Suez Canal. Trade between the countries through this route was stopped.

Course of action:

I. Countries should wait for the ship to be removed and the Suez Canal route is cleared.

II. Prefer to use air planes for the goods transportation.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate

### Question 20

Many tourists were found littering at the picnic spots. It diminishes the beauty of places.

Course of action:

I. Police officials should personally notice the persons littering at the places and impose fines.

II. The government should develop a mechanism to identify and punish the littering persons.

- A. If only I is most appropriate  
 B. If only II is most appropriate  
 C. If either I or II is most appropriate  
 D. If neither I nor II is most appropriate  
 E. If both I and II are most appropriate



## Answers and Explanations

1	E	COVID-19 causes financial crises, so planning must be done to give financial assistance to the affected people. Also, vaccinating people is a good action towards the solution.
2	A	If the Government increases the numbers of seats for admission in government medical colleges, it will help to resolve the issue to some extent. Poor students can not afford medical education offered by private institutes, thus it's not the solution to the given problem.
3	D	As we have no information about conventional banking, we can not compare conventional banking with Islamic banking in terms of profit to its customers. Statement II is also not an appropriate argument.
4	C	If the youngest member is 11 and the oldest member is 20, the 3rd member would be 18. So, two members can enter the cinema. If the oldest member is 17, others are 16 each. So, no member can enter the cinema. Only one scenario can be true at a time. So, C is the right option.
5	D	"Stringent norms" looks very suppressing and cannot be adopted. Traffic police can fine, but not punish. Also making strict rules is not the solution; implementing the rules is the solution.
6	B	Government is already collecting tax. So, this argument is not appropriate. Appropriate solution is that the Government should start free meal schemes in schools and make education compulsory for each child.
7	A	Our educational system and the industry's demands are not synchronized. So, educational institutions should create an industry-academic linkage to create skilful graduates as per industry demands. Curriculum is developed at the national level and not the local levels.
8	B	Postponement of elections is the solution. Appropriate solution is that the Government should immediately announce the relief package for the affected people.
9	D	Pakistan can not control global air pollution alone. Global measures are required. Vehicles cannot be banned in the urban areas but policies to reduce the emissions should be devised.
10	B	Use of mobile phones is already prohibited in the educational institutes, but implementation is required. Statement II is appropriate.
11	D	The Federal Investigation Agency cannot arrest him and fire from the job without investigation. Agency should consider the complaint and start an investigation.
12	E	Both the solutions given are appropriate.
13	C	After the election, Indira Gandhi will either be in government or opposition. So, either statement-I or II can be appropriate at a time.
14	D	Sleeping on footpaths and roadsides cannot be banned until the alternative is provided. It is also not a solution that the trucks should not be allowed to come over the road at night times.
15	D	Increasing the price will deprive the people of electricity altogether.



		It is not feasible that people should use electricity generators running on CNG to produce the electricity on their own.
16	B	Violation of dress code is not a very serious issue which leads to rustication of the students. A warning should be given to the violators before taking any action.
17	D	Change responsible persons only and not the whole administration of the jail. Usually, prisoners escape by the negligence or even mutual consent of duty staff.
18	A	It is not feasible for everyone to wait until the train operation resumes. Statement II is an appropriate response.
19	A	Air planes for the goods transportation can cost more than the price of goods itself. So the only solution is to wait for the canal to open.
20	B	Each and every tourist cannot be noticed personally for any violation. Statement II is appropriate.

## Question format 6: Cause and Effect

In a Cause and Effect (C&E) Question, two statements are given. These statements may be linked by a cause and effect relationship but it is not necessary at all times. These statements may be the cause of the same effect; or the effect of the same cause. Also, one statement may be the cause and other be the effect, or vice versa. It may be noted that these statements may be the causes of different effects; or effects of the different causes. So, any possibility can happen. Candidate must generate a scenario of relations in his mind to solve these questions.

The aim of the cause and effect questions is to test the ability of a candidate to relate the real world problem. These relations of the statements can be scientific, economics, applied field, historical, current matters or natural phenomenon. C&E uses a technique to help you determine all possible causes of problems. It is possible that a cause may have more than one effect, but we should constrain ourselves with what is provided in the statement.

### Example

#### Statements:

- I. Government is taking action against all the corrupt officers of the country.
- II. The gross GDP of the country is improved.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both statements I and II are independent causes.
- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.

Here in the above example we see that statement-I mentioned about the action against corrupt officers and statement-II tells about GDP growth. We know that, in a broader sense, action against the corrupt officer does not have any significant impact on the GDP of the country. Action against corruption is a positive step but not a parameter to enhance the GDP. Thus, taking action against all the corrupt officers may have a different cause. Similarly, GDP growth can be the effect of many other causes. Hence, we say that both statements I and II are effects of independent causes. So D is the right option.

## Exercise Questions

### Question 1

#### Statements:

- I. Temperature of the earth is increasing.
- II. Concentration of emission gases and particulate matter has increased in the atmosphere.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both statements I and II are independent causes.
- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.

### Question 2

#### Statements:

- I. Many parents do not send their children to schools.
- II. Pandemic has caused many schools to go on vacations to avoid spread.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both statements I and II are independent causes.

- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.

### Question 3

#### Statements:

- I. John could not attend the seminar held last month.
- II. Heavy traffic on the mall road has become a problem every day.

- A. Statement I is the cause and statement II is its effect.
- B. Statement II is the cause and statement I is its effect.
- C. Both statements I and II are independent causes.
- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.



**Question 4****Statements:**

- I. Local administrations opened many schools in the rural area of the country.  
 II. Literacy rate of the country has improved drastically in the last few years.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 5****Statements:**

- I. Aslam met with an accident as an over speed car hit him hard.  
 II. Traffic police deployed a speed breaker in the middle of the road.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 6****Statements:**

- I. The President dissolved the Assembly and called for a new election.  
 II. Corruption starts at the ministerial level and it has political involvement.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 7****Statements:**

- I. Devaluation of Pakistani currency occurred.  
 II. Availability of spare parts of imported vehicles has decrease in 2020.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.

- D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 8****Statements:**

- I. At least 30 were killed and 78 injured in target killing incidents in the city.  
 II. Culpit managed to escape from the courtroom.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 9****Statements:**

- I. Retail business is obsolete throughout the world.  
 II. People now prefer to buy online from their home without going outside.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 10****Statements:**

- I. Illiteracy demolished the country's growth.  
 II. The performance of many students in the final exam of class IV in a government school was excellent.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

**Question 11****Statements:**

- I. Investigation team made the report public.  
 II. Secretary stepped down from his post, was arrested and faced a departmental enquiry.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.

- C. Both statements I and II are independent causes.
- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.

### Question 12

#### Statements:

- I. During summer, many people like to visit hilly areas of the country.
  - II. Weather of Murree is very pleasant and moderate.
- A. Statement I is the cause and statement II is its effect.
  - B. **Statement II is the cause and statement I is its effect.**
  - C. Both statements I and II are independent causes.
  - D. Both statements I and II are effects of independent causes.
  - E. Both statements I and II are effects of some common cause.

### Question 13

#### Statements:

- I. Majid bought new LED lights and a pressure horn for his motorbike which will help him to ride during night time safely.
  - II. Yesterday, Majid quarrelled with Ali and wounded himself.
- A. Statement I is the cause and statement II is its effect.
  - B. Statement II is the cause and statement I is its effect.
  - C. Both statements I and II are independent causes.
  - D. **Both statements I and II are effects of independent causes.**
  - E. Both statements I and II are effects of some common cause.

### Question 14

#### Statements:

- I. There was a huge crowd gathered at the airport.
  - II. Company decided to shift its assembly plant to another city.
- A. Statement I is the cause and statement II is its effect.
  - B. Statement II is the cause and statement I is its effect.
  - C. Both statements I and II are independent causes.
  - D. **Both statements I and II are effects of independent causes.**
  - E. Both statements I and II are effects of some common cause.

### Question 15

#### Statements:

- I. During the last 3 years, many auto manufacturing companies are attracted towards Pakistan and establishing their plants.
  - II. Pakistan announced its new tax and import policy.
- A. Statement I is the cause and statement II is its effect.

- B. **Statement II is the cause and statement I is its effect.**
- C. Both statements I and II are independent causes.
- D. Both statements I and II are effects of independent causes.
- E. Both statements I and II are effects of some common cause.

### Question 16

#### Statements:

- I. Government has decided to develop a network on roads and motorways.
  - II. Many government employees are out on strike on the road.
- A. Statement I is the cause and statement II is its effect.
  - B. Statement II is the cause and statement I is its effect.
  - C. Both statements I and II are independent causes.
  - D. **Both statements I and II are effects of independent causes.**
  - E. Both statements I and II are effects of some common cause.

### Question 17

#### Statements:

- I. Owing to recent economic growth, the bank decided to reduce the interest rate for car financing schemes.
  - II. Number of road accidents has increased during the last few years.
- A. Statement I is the cause and statement II is its effect.
  - B. Statement II is the cause and statement I is its effect.
  - C. **Both statements I and II are independent causes.**
  - D. Both statements I and II are effects of independent causes.
  - E. Both statements I and II are effects of some common cause.

### Question 18

#### Statements:

- I. Crops do not sell out at reasonable prices.
  - II. Many farmers did not grow sugar cane last year.
- A. **Statement I is the cause and statement II is its effect.**
  - B. Statement II is the cause and statement I is its effect.
  - C. Both statements I and II are independent causes.
  - D. Both statements I and II are effects of independent causes.
  - E. Both statements I and II are effects of some common cause.



## Question 19

## Statements:

- I. River water is the basis of irrigation systems in most of the parts of the country.  
 II. Ice caps melt at high temperatures.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

## Question 20

## Statements:

- I. Rahim bought a train ticket at 04:15 PM departure time and reached the station at 04:30 PM.  
 II. Rahim bought a train ticket at 05:00 PM departure time and boarded.

- A. Statement I is the cause and statement II is its effect.  
 B. Statement II is the cause and statement I is its effect.  
 C. Both statements I and II are independent causes.  
 D. Both statements I and II are effects of independent causes.  
 E. Both statements I and II are effects of some common cause.

## Answers and Explanations

1	B	When the concentration of emission gases and particulate matter increases in the atmosphere (cause), the temperature of the atmosphere is increased (effect).
2	E	Both the statements are Effect. But the cause of both effects is common which affected the schools.
3	D	Both statements are independent and have different causes.
4	A	Local administrations opened many schools in the rural area of the country (cause) as a result of which the literacy rate of the country has improved drastically in the last few years (effect).
5	D	Statement I & II are not linked. A road accident cannot be the cause of speed breakers.
6	A	When it was revealed that corruption starts at the ministerial level and it has political involvement (cause), the President dissolved the Assembly and called for a new election (effect).
7	D	Availability of spare parts of imported vehicles is concerned with import policies, customs and global trade conditions. Devaluation makes the spare parts costly but does not affect the availability.
8	E	Police cannot control the law and order situation and at least 30 were killed and 78 injured in target killing incidents in the city. Police officer was not vigilant and the culprit managed to escape from the courtroom. In both statements, the cause is police negligence.
9	E	Retail business is obsolete throughout the world due to COVID situation. People now prefer to buy online from their home without going outside due to COVID situation.
10	C	Both statements give contradicting viewpoints. Thus C is the right option.
11	A	When the investigation team made the report public (cause), the secretary stepped down from his post, was arrested and faced a departmental enquiry (effect).
12	B	Weather of Murree is very pleasant and moderate (cause) so many people like to visit hilly areas of the country (effect).
13	D	Both statements are different without any link. Thus D is the right option.
14	D	Both statements are based on different causes. Thus D is the right option.
15	B	As a result of new tax and import policy in Pakistan (cause) many auto manufacturing companies are attracted towards Pakistan and establishing their plants (effect).
16	D	Both statements are different effects of different causes.
17	C	The bank decided to reduce the interest rate for car financing schemes because of economic growth. Road accidents have increased during the last few years and it may be due to the violation of traffic rules.



18	A	Many farmers did not grow sugar cane last year (effect) as crops do not sell out at reasonable prices (cause).
19	B	Ice caps melt at high temperatures (cause) as a result river flows, and river water is the basis of irrigation systems in most of the parts of the country (effect).
20	A	<p>Rahim bought a train ticket at 04:15 PM departure time and reached the station at 04:30 PM. He has to buy a new ticket (cause).</p> <p>As he missed the train, Rahim bought a new train ticket at 05:00 PM departure time and boarded (effect). Missed train is the cause of buying a new ticket.</p>