

# LOGICAL REASONING

Each logical reasoning question in this part of the assessment starts with a reading passage containing the information to be used to choose between correct and incorrect logical conclusions. Logical reasoning questions evaluate your ability to understand, analyze, criticize, and complete a variety of arguments. The arguments are contained in short passages taken from a variety of sources, including speeches, advertisements, letters to the editor, book, newspaper articles or editorials, informal discussions and conversations, as well as articles in the humanities, the social sciences, and the natural sciences.

Each logical reasoning question requires you to read and comprehend a short passage, then answer one or two questions about it. The questions test a variety of abilities involved in reasoning logically and thinking critically.

## STRUCTURE

### Statement or Issue:

Most often, first two or more sentences describe a statement or issue. It is a common mistake that the test taker, with less practice of the question type, chooses the answer that challenges the statement or gives other parallel statement. Never, try to make the statement false.

### Assumption:

Assumption is the idea on which the conclusion base. Some times, the assumption is stated in the passage, and some times, it is hidden.

Hidden assumptions are facts or ideas, not stated in the passage that must be true if the argument is to be considered valid.

### Examples:

**Statement:** The Suzuki goes from 0 to 60 in 1.2 milliseconds.

**Assumption:** You need or want a car that can accelerate fast.

If the assumption is true, then the evidence does support the notion that the Suzuki is a good car to buy. If not, then the evidence is worthless.

**Statement:** Sports car driver Asad says, "I love the new Suzuki"

**Assumption:** You should care what Asad says. The opinion of a professional sports car driver concerning which car is best is relevant to your needs as a driver.

If you too are a sports car driver, then Asad's opinion may actually be relevant to your needs. If you spend most of your driving hours stuck in five mile per hour traffic

**Statement:** The Suzuki is fastest selling in Pakistan.

**Assumption:** If a car sells quickly, it must be right for you too.

Obviously, sheer popularity isn't proof of quality.

**Conclusion:**

This is what the author of the argument is trying to get you to believe or agree with. It will normally be stated explicitly somewhere in the passage (although not always). The conclusion may sound like a statement of fact (one third of the physician in Lahore own foreign sports car); (You should test-drive the new Suzuki today). In each case, the conclusion is what the rest of the argument is intended to support or prove.

The conclusion is often signaled by one or more clue words inserted specifically to alert the reader to the fact that the main point of the argument is coming.

**CLUE WORDS THAT SIGNAL CONCLUSION:**

Therefore, consequently, hence, thus, so, we can conclude, which shows that, it can be inferred that, it is apparent that, we must agree that.

**STRATEGIES**

- Recognize the point or issue of an argument or dispute.
- Detect the assumptions involved in an argumentation or chain of reasoning.
- Draw reasonable conclusions from given evidence or premises.
- Identify the method or structure of an argument or chain of reasoning.
- Detect reasoning errors and misinterpretations.
- Determine how additional evidence or argumentation affects an argument or conclusion.
- Identify explanations and recognize resolutions of conflicting facts or arguments.

**SUGGESTED APPROACH**

- Read each question carefully. Make sure that you understand the meaning of each part of the question.
- Read every answer choice. Make sure that you understand the meaning of each answer choice and the ways in which it may or may not relate to the question posed.
- Do not pick a response simply because it is a true statement. Although true, it may not answer the question.
- Answer each question on the basis of the information that is given, even if you do not agree with it.
- Work within the context provided by the passage.

**Direction:**

The questions in this section are based on the reasoning contained in brief statements or passages. In some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage.



**QUESTION**

A study at Institute of Public Health has shown that there are still millions of people who are unaware that they endanger their health by over eating. This is so, despite government campaigns to warn people of the dangers of over eating. Reluctantly, one has to draw the conclusion that the mandatory warnings that nutrition companies are required to print have had no effect.

Which one of the following, if true, would refute the argument in the passage?

- A. Many people who continue to eat more are aware of the dangers of over eating.
- B. Some people eat more food for legitimate reasons.
- C. Government has had to force companies to warn potential customers of the dangers of over use of their products.
- D. Some people who are aware of the dangers of over eating were made aware of them by the mandatory warnings.
- E. Over eating is clearly responsible for a substantial proportion of preventable illness in the country.

**EXPLANATION**

The argument in this question concludes —the mandatory warnings that nutrition companies are required to print have had no effect.

It holds that the warnings have had no effect because —there are still millions of people who are unaware that their over eating endangers their health. In order to refute the argument it is sufficient to present evidence of two things:

- that there are some people who are aware of the dangers of over eating and
- that these people are aware because of the mandatory warnings.

(A) is incorrect because it includes only the first part of the refutation described above. This is an attempt to refute the author's argument.

(B) is incorrect because the author's argument does not deal with the reasons people over eat.

(C) is incorrect because the fact that "government has had to force companies to warn ... of the dangers" is irrelevant to the issue of warnings and awareness.

Since (D) presents the true evidence, it is the correct answer.

(E) is incorrect because it merely elaborates a minor detail in the passage.

**SOLVED EXAMPLES****Directions:**

The questions in this section are based on the reasoning contained in brief statements or passages. In some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage.

Answer of each question has been given at the end of the exercise.

**Questions 1 - 2**

In an in vitro study, 160 white cats were injected with Salt X. 160 other white cats were injected with placebo. In two weeks, 39% of the white cats, who were injected with Salt X showed symptoms of Kay fever. Hence, it can be concluded that Kay fever is caused by some elements similar to the elements in Salt X.

1. Which of the following statements would most seriously weaken the above discussion?
  - A. People suffering from Kay fever are the victims of the golden viper of Sindh.
  - B. One among the 160 white cats had already showed symptoms of Kay fever prior to the experiment.
  - C. The natural habitats of white cats does not contain any of the elements found in Salt X.
  - D. The 160 white cats used in the experiment were kept isolated from each other.
  - E. The scientists administered the injections being ignorant of the contents of the salt used.
2. Which of the following would most strengthen the argument above?
  - A. Some of the elements in Salt X are extracted from the root of a certain poisonous herb of Hunza.
  - B. The blood test of the victims of Kay fever revealed the presence of a toxic element in their blood, normally found in salt X.
  - C. Almost all the white cats died within two days after the first symptom appeared.
  - D. Normally the rate of Kay fever among white cats is less than 0.01%.
  - E. Within two weeks, about 40% of the white cats, who were injected with placebo, also contracted Kay fever.
3. Wall chalking on public property should be outlawed. Radicals and fanatics have no right to use public property when promoting their unsavory views. The argument above is based on the idea
  - A. The general public has an interest in the free exchange of different political views.
  - B. Every person who uses wall chalking for the promotion of ideas is a radical or fanatic.
  - C. Radicals and fanatics prefer the use of public property while propagating their viewpoint.
  - D. Legal constraints should be equal for all
  - E. Any promotional activity, which is against public interest, should be protected by law.



## Questions 4 - 5

One's ability to adjust in an environment successfully leads to happiness. War at a universal level destroys the weaker people, who are the most unable to adjust to their environment. Thus, war at the universal level puts weaklings out of their misery and allows more space for their predators to enjoy life in a better manner. As those actions have to be performed, which maximize the level of happiness of the greatest number, war at a universal level should take place.

4. The author's discussion would be greatly weakened, if he agreed to which of the following?

- I- Technology could change the environment.
- II- War at the universal level would be an integral part of the environment.
- III- It is possible for the strong to survive without suppressing the weak.

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

5. What response would the author of the above discussion come up with, in the case of the objection that the weaklings far exceed strong people?

- I- He would respond with the statement that the person making the objection is a weakling.
- II- He would respond by saying that weaklings will be miserable no matter what happens.
- III- He would respond with the statement that the strong would be frustrated if the weaklings are destroyed.

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

6. If Rubina was born in NWFP, then she is a citizen of Pakistan. The statement above can be deduced from which of the following statements?

- A. Every citizen of the Pakistan is resident either of one of the province or of one of the tribal area.
- B. Rubina was born either in NWFP or in Sindh.
- C. Some people born in NWFP are citizens of Pakistan.
- D. Everyone born in Pakistan is a citizen of Pakistan.
- E. Rubina is a citizen either of Pakistan or of any other country.

## ANSWERS

1	B	3	B	5	E
2	B	4	A	6	E

**EXPLANATIONS:**

1. If any one of the cat under experiment had symptoms of kay fever then the conclusion is based on faulty assumption. The best response is B.
2. If some element of the salt X is found in the blood of the victims, then it is directly related to the kay fever. The best response is B.
3. The first sentence and the second sentence are connected in a way that fanatics and radicals refer to the hidden object of the first sentence. The best response is B.
4. If technology can change the environment then the weaker people can be adjusted in the environment by the use of technology. The best response is A.
5. Point II is parallel to the statement of the author. Happiness is relative so if all weaklings are destroyed then strong will have no comparison. The best response is E.
6. The first part of the statement raises an issue, whether Rubina was born in NWFP or not. The best response is E.



**DO IT YOURSELF****PRACTICE EXERCISE****Directions:**

The questions in this section are based on the reasoning contained in brief statements or passages. In some questions, more than one of the choices could conceivably answer the question. However, you are to choose the best answer; that is, the response that most accurately and completely answers the question. You should not make assumptions that are by commonsense standards implausible, superfluous, or incompatible with the passage.

The answers of the questions have been given at the next page after exercise.

**QUESTIONS:****Questions 7 - 8**

Follow us to the real Pakistan leaving behind the disturbances of civilization. Real Pakistan is still inhabited by the eagle, the cow, the black deer, and tigers; it is still spacious, sprawling, and majestic. Experience the freedom and serenity still to be found in \_\_\_\_\_.

7. Choose the best option to complete the above statement:

- A. the natural beauty of our land
- B. the fascinating urban centers
- C. the wild terrain of NWFP
- D. one's own subconscious
- E. the great sprawling cities of the upper Pakistan

8. The above paragraph is most likely to appear in which of the following?

- A. A Guide to Pakistan's intrinsic beauty
- B. Exploring the Great Outdoors
- C. The Quiet Beauty of Harappa
- D. How the Eagle Became Extinct
- E. Returning to Pakistan

9. In 1970, Shaheen Inn earned Rs.10 million in hotel business. By 1990, revenue doubled and in 2000, it reached the sum of Rs. 40 million. Each of the following, if true, may explain the trend in hotel business except:

- A. The number of total hotel rooms has increased.
- B. Average cost per room has increased.

- C. The number of customers has increased from 1970 to 1990.
- D. Average stay per customer has increased.
- E. The average price of customer services has increased.

10. If I am elected, I will fight for changes effecting the growth and prosperity of the poor. We will work together to do away with the bureaucratic bogs which have existed ever since my opponent took office. Every one of you knows what I stand for; I invite my opponent to.....

- A. extend his support to me
- B. make his mind clear
- C. stop lying to the public
- D. hand in his resignation graciously
- E. get our city more federal aid

11. Dieticians claim that those people who seek help to quit the habit of over eating, are unable to stop overeating. Therefore, doctors have concluded that success in breaking such habit is rare. A large-scale survey shows that thousands of people have quit the habit of over eating. If both of the statements above are correct, an explanation that resolves their apparent contradiction is.

- A. Dieticians do not work seriously so the people are not satisfied with their treatment.
- B. The survey was conducted at only the posh

- areas of big cities, so it is based on wrong sample
- C. Will power play vital role in success to quite such habits
- D. People need more food.
- E. Those who succeeded in quitting the over eating did not go to dieticians for treatment and so are not included in the dieticians' data
12. Our beliefs regarding the world cannot be certain. Even well confirmed scientific theory is likely to change over a short period. If we do not try to understand, then it is like to be away from the human race. Undoubtedly, life is worth living in other respects--as it is no mean thing to be an animal. It is also true that a man wishes to see this speculative domain beyond his next breakfast. From the above discussion it can be concluded that the author believes that
- A. men spend a lot of time on thinking about future
- B. Science is the major hurdle in development
- C. Life is contingent so a man should not think about his future.
- D. man is a social animal
- E. men are different from animals on the basis of their reasoning abilities
13. The Rawalpindi city council started a publicity campaign for convincing the people to use public transport rather than their own transport in the city. Two months later there was a decrease in private transport on the roads in the mid city area. The city council claimed that their publicity campaign was successful to convince people to leave their cars at home and ride the city bus service to work. Which of the following, if true create the most serious doubt on the conclusion drawn above?
- A) There was a subsequent increase in the use of CNG.
- B) The busiest roads of the city have been damaged because of continual floods in Nala Layee for last five months.
- C) People are busy enough to bring their vehicles on the roads.
- D) City council expended a lot of money to make the campaign successful.
- E) The number of cars has increased due to Bank loaning in the city.
14. About 20 percent of Pakistani husband think that wives with school going children should work outside the home. Only 10 percent of Iranian husband approves of mothers working if school going children live at home. Every other Pakistani wife and every third Iranian wife with school going children has a job outside her home. If the above statement is correct, which of the following must be true?
- A. Iranian women have fewer children than Pakistani women.
- B. Iranian husband would seem to be less satisfied about working wives who have school going children than Pakistani husbands.
- C. More Iranian than Pakistani wives work outside the home.
- D. Iranian husband is having more conservative attitudes than Pakistani husbands are.
- E. Employment opportunities for Pakistani wives are greater than for Iranian wives.
15. Everything that a person does, which is dictated because of ignorance is not voluntary. Involuntary actions are those, which produce pain and repentance. In case a man has done something in his ignorance and he does not feel vexed due to his action, he has not acted voluntarily as he was not aware of what he was doing, nor yet involuntarily since he is not pained. After reading this passage we can arrive at the conclusion that:
- A. A person is not a voluntary agent, if he acts by reason of ignorance and repents.
- B. If an action is done by reason of ignorance and is not voluntary, then it was repented.
- C. A man is an involuntary agent, if he acts by reason of ignorance.
- D. Some actions are either involuntary or not voluntary.
- E. If a man is not a voluntary agent, he acted because of ignorance and repents.
16. Everything that the king knows necessarily is, because even what we ourselves know necessarily is; and, of course, our knowledge is not as certain as King's knowledge is. However, no future contingent thing



necessarily is. Among the following statements, which naturally follows from the above:

- A. There are no future contingent things.
- B. It is not true that the king has knowledge of only necessary things.
- C. The king has knowledge of no contingent future things.
- D. It is not possible for us to know the king.
- E. The king has knowledge of everything.

17. Some critics are of the opinion that the intrinsic qualities of photography depend on criticism and hence it is a matter of opinion. It is rather odd, though, that in a legal connection, serious critics themselves quite often behave as if they believed criticism to be a matter of opinion. Why be a critic - and teach in universities - in case criticism involves nothing but uttering capricious and arbitrary opinions? In the above argument the author is trying to convince that

- A. the qualities of photography are not dependent on criticism.
- D. critics seem hypocritical.
- C. people can not judge the art work
- D. photography is an art independent of your opinion
- E. artists should teach at universities.

#### Questions 18 - 19

Selfishness is a principal evil in our society. Every person is concerned with only himself. Personal advancement is the only motivating force in the world today. This does not mean that individuals are not willing to help one another, on the contrary, \_\_\_\_\_. However, these are only short-term occurrences, which ultimately serve our long-term goal of personal gain.

18. To fill in the blank in the above passage, select one of the options from the below mentioned options:

- A. we are always trying to undermine others endeavors.
- B. people always deceive one another.
- C. even close friends are not trustworthy.
- D. people want power to control others
- E. there are many occasions when we graciously

offer our assistance.

19. Which among the following options would most strongly contradict the author's attitude towards society?

- A. The greatest strength of society is altruism.
- B. We must all learn the art of love.
- C. Our short-term actions may contradict our long-term goals.
- D. Morality is the bedrock of a growing community.
- E. The forces of good will ultimately triumph over evil.

20. Professor Taimoor told his class that teacher's evaluation by students is not a valid measure of teaching quality. For this evaluation, students should fill out questionnaires at the end of the course. Which of the following, if true, supports professor Taimoor's suggestion?

- A. Students' evaluation of teachers is a wrong method.
- B. Student's opinions against teachers are filtered during course.
- C. Professor Taimoor had received low ratings from his students.
- D. Teachers are not interested in any survey.
- E. Students show interest in teacher evaluation.

21. Muzzaffar is a terrible driver. He had ten traffic violations in the past year. Which of the following can be said about the above claim?

- A. Muzzaffar does not know how to drive
- B. Muzzaffar is an addict of drugs
- C. It is obvious that everyone has accidents in bad weather.
- D. Some thing, in this argument is hidden.
- E. The given statement is wrong.

22. Drama Producers earn their profits primarily from advertising revenue, and potential advertisers are more likely to advertise on a TV with a wide network, a large number of cable operators, and other viewers. However, the coverage of the channel that is currently the most popular one in this city has steadily declined during the last two years, while the

coverage of one of its competitors has steadily increased. Any of the following, if true, would help explain the apparent discrepancy between the two statements above EXCEPT:

- A. The most profitable producer in the city receives revenue from its subscribers as well from advertisers.
- B. Advertisers generally switch from the most popular channel to another one only when the other one becomes the most popular instead.
- C. The number of channels competing viably with the most profitable channel in the city has increased during the last two years.
- D. The network of the most profitable TV channel in the city is still greater than of any of its competitors.
- E. Advertising rates charged by the most profitable TV channel in the city are significantly higher than those charged by its competitors.

23. In an examination, Rizwana has more marks than Fauzia. Shugufta has fewer marks than Zahid. Fauzia and Abid have more marks than Shugufta. If the above is true, which of the following must also be true?

- A. Fauzia has fewer marks than Shugufta.
- B. Rizwana has more points than Shugufta.
- C. Fauzia has fewer points than Zahid.
- D. Zahid has more points than Rizwana.
- E. Zahid has more points than Abid.

24. Many people do not read the books they purchase. For example, seventeen percent of college students in Pakistan have text books, but only forty-five percent of them read more than once a year, and only seventeen percent read more than once a week. Which of the following, if true, casts doubt on the claim that most people read the books they purchase?

- A. Regular book readers are most susceptible to eye diseases.
- B. Readers often exaggerate about their book reading.
- C. Many people buy books to pretend to be a scholar.
- D. The sale of novels is more than that of other types.
- E. Reading speed is increased by frequent readings.

25. Classical songs occupy a unique and peculiar position in every culture. They are imperishable as cultural landmarks, but the emotions expressed in some of the folks are often superseded by newer tunes. However, the classics survive just as heritage, as imposing features of the society, yet unsuited for habitation unless remodeled. The principal point put forth in the above passage is that classical works

- A. are ignored by young generation
- B. are an obstacle in the development in new tunes
- C. should be stored in museums.
- D. lose their distinctive features as time passes.
- E. need our respect and admiration even if their tunes and ideas they express are no longer current.

26. Many people especially the experts in the field of forestry are against all forest fires. They demand that all forest fires should be extinguished and let the forest die out by their own. The study of forest fires show that in the long run, forest fires may in fact, be beneficial to the ecology as a whole. Among the following, which statement would logically follow from one of the observations referred to in the passage above?

- A. The reason of almost all forest fires is natural.
- B. Human beings try to extinguish the fire for gaining heat.
- C. Studies indicate that forest fires regularly occurred in the times prior to human occupation of forest areas.
- D. The animal and plant life destroyed by forest fires seldom represents endangered species.
- E. Occasionally, the small fire prevents a large scale fire by the accumulation of flammable materials.

27. A greater number of computers are sold in Sahiwal than in Burewala. Therefore, the people of Sahiwal are better informed about world events than are the people of Burewala. Each of the following, if true, weakens the conclusion above EXCEPT:

- A. Sahiwal has a larger population than Burewala.
- B. Most people of Burewala work in Sahiwal.
- C. Each person in Sahiwal spends less time surfing



internet than does a person in Burewala.

- D. The internet bandwidth is 128 kbps in both towns.  
E. Bandwidth usage in Burewala is more than that in Sahiwal

28. People should be held accountable for their own behavior, and if holding people accountable for their own behavior entails capital punishment, then so be it. However, no person should be held accountable for behavior over which he or she had no control. Which of the following is the most logical conclusion of the argument above?

- A. People should not be held accountable for the behavior of other people.  
B. People have control over their own behavior.  
C. People cannot control the behavior of other people.  
D. Behavior that cannot be controlled should not be punished.  
E. People have control over behavior that is subject to capital punishment.

29. As any economist knows, healthy people pose less of an economic burden to society than unhealthy people. Not surprisingly, then, every rupee our government spends on prenatal care for undocumented immigrants will save taxpayers of this country three rupees. Which of the following, if true, would best explain why the statistics cited above are not surprising?

- A. The taxpayers pay for prenatal care of all immigrants.  
B. Pregnant women who do not receive prenatal care are more likely to experience health problems than other pregnant women.  
C. Benefits for prenatal care serve to promote undocumented immigration.  
D. Babies whose mothers did not receive prenatal care are just as healthy as other babies.  
E. Babies born in this state to undocumented immigrant parents are entitled to infant care benefits from the government.

30. There is clear evidence that the mandated vaccination of children under age four has resulted in fewer child fatalities over the past five years. Compared to the five-year period

prior to the passage of laws requiring the vaccination, fatalities of children under age four have decreased by 30 percent. Which one of the following, if true, most substantially strengthens the argument above?

- A. The fatality rate for other age groups has remained steady over the past five years.  
B. Air pollution has been increased over the period of past five years.  
C. Government has implemented a malaria control campaign last year  
D. Health conditions in the country are better than has been previously.  
E. Death rate of pregnant women has decreased.

7	A	19	A
8	A	20	B
9	B	21	D
10	B	22	C
11	E	23	B
12	E	24	B
13	B	25	E
14	B	26	E
15	A	27	D
16	C	28	D
17	D	29	B
18	E	30	A