Critical Reasoning can be placed more comfortably in the Reading Comprehension family than the Logic family. Yet, it helps to understand key grammatical terms and to have a sound command over vocabulary in order to avoid misinterpretation. Key words in the argument such as **because**, **for**, and **since** indicate that a statement of evidence is about to follow. Similarly, words such as **therefore**, **hence**, **thus**, **consequently** signal a conclusion point.

Let us take a look at the types of questions which are generally asked in the examinations.

#### Conclusion

Let us take a look at the following example.

Students who go on trips to handicraft exhibitions find the concept of craftwork very abstract and confounding. This is because they have not been exposed to the history and evolution of craft forms in their school curriculum.

The conclusion that the author arrives at is:

- (a) students who have not been exposed to the history of craftwork would not be able to appreciate handicraft items.
- (b) students are no longer interested in craftwork due to their obsession with high-tech gadgets.
- (c) students have no interest in developing a taste for intricacies of art.
- (d) students should be taken for more exhibitions on fine arts.

In this question, we have to link related factors to arrive at a conclusion. What is the answer here? (b) and (c) are unlikely answers as we cannot judge likes and dislikes of students based on the information in the passage. (d) appears aimless as the students would be just as blank on craft, no matter how many exhibitions they are taken to. Hence, (a) is the answer as it relates how an ignorance on the history of craftwork leads to a lack of understanding of the work itself.

#### Assumption

The second type of 'find' question is to look for the assumption. Look at the following example:

Whenever I wear my John Bull shirt, people smile at me. So I must wear my John Bull shirt everyday.

The **causal** assumption here is that:

- (a) John Bull shirts are a status symbol of the elite.
- (b) the author is a great fan of John Bull and is flaunting his idol around.
- (c) people like the author because of his John Bull shirt.
- (d) the author has only one shirt in his wardrobe.

Let us explore this question and the logic behind it. What do people like? The author or his shirt? Or is it the Pepe jeans that the author normally wears along with the shirt? What if they liked the author's feel-good persona when he wears the John Bull shirt and did not even know whether he was wearing a John Bull shirt, or a John Bear shirt?

What do you think the answer is? (a) talks about a status symbol. So what? (b) has little relevance to the passage. (d) is too illogical to be a plausible answer. Hence, (c) is the answer. The author assumes that the reason behind the people's admiration is the John Bull shirt.

An assumption is a base for the validity of an argument. If an assumption fails, the whole argument is rendered void.

#### Strengthen/Weaken the Argument

We'll take an example to test the 'strengthen' variety.

A marketing drive had been undertaken 10 years ago in Connecticut to switch women to smoking cigarettes instead of having tea as a stimulant. The move had failed miserably. Recent efforts, though, have again been made to switch women to adopting a whole range of cigarettes exclusively for women. It is unlikely that this effort is going to reap results.

The above argument would be strengthened if which of the following was true?

- (a) Women prefer cigarettes that are sleek in appearance and add to their charisma.
- (b) The previous attempt was made under the prevalent marketing plan and conditions.
- (c) Women smoking cigarettes is a rare sight lest they be mistaken for loose women.
- (d) A cup of tea is more expensive than a cigarette.

In this argument, women's preferences as in (a) would be useless if they do not take to cigarettes at all. (c) talks about a hindering factor, but it fails to explain the technical failure of the marketing plan. Surely, market research would have taken this factor into account. Hence, (b) is the answer that explains the failure of the plan 10 years ago as a precedent for the impending failure.

We will now study an example of the 'weaken' kind. Here goes . . .

The recent success of Avon Products in the Chinese market proves how much influence Avon's CEO, Andrea Jung, can exert over her country of origin. The recent spate of sales has contributed hugely to the sales revenue of the company.

A major flaw that could weaken the above argument is that

- (a) Andrea Jung is a shrewd businesswoman.
- (b) Andrea Jung negotiated well with the Chinese Government and appealed to their nationalistic sense.
- (c) the passage assumes that Andrea Jung is the only factor that contributed to the corporate's success in China.
- (d) Avon is the number one cosmetic seller in China.
- (a) and (d) talks about the existing factors regarding Andrea's personality and Avon's status, these, per se, cannot weaken the argument. They are just the state of affairs. (b) actually strengthens the passage. Hence, (c) is the answer. Is Andrea the only factor? It could just as well be true that the Chinese authorities had just lifted a ban on cosmetic products from China resulting in a sales boom.

#### Inference

Let's take an example first.

It is possible to induce a measure of compassion in children from elite backgrounds if they are allowed to interact with children from underprivileged backgrounds. This way, they would be able to identify and empathize with deprived children instead of looking down upon them and virtually dismissing them as victims of fate.

It can be inferred from the above that

- (a) children born into the upper class can identify with children from rural backgrounds.
- (b) it is impossible to bridge the gap between the rich and the poor.
- (c) underprivileged children can look forward to better days.
- (d) children who are born into the upper class routinely despise and abhor street children.

Let's study these choices. (a) cannot be true because that is exactly the vision that the author wishes to realize. (b) negates the wishes of the author. (c) would become true if the author's plans are carried out. As of now, it is just wishful thinking, not an inference. Hence, (d) is the best answer. The words 'routinely despise' are more in agreement with the words in the question 'virtually dismiss them'.

#### Mimic the Reasoning

Let's check out this example.

Examination toppers do not study for more than 12 hours a day. If you study for more than 12 hours, you are not a topper.

Which of the choices given below has the same style of reasoning adopted in the question?

- (a) Olympic athletes practise for more than 10 hours a day. So, they always win in races.
- (b) Cars always take more than 3 minutes to start. If this starts in less than 3 minutes, it is not a car.
- (c) He takes 8 hours to go through his swimming routine. He is bound to achieve excellent results.
- (d) She practises ballet for only 6 hours. But to be worldclass, one must practise for 9 hours.

In this question, we have a 'more then ... less than' kind of relation. (a) and (c) do not share this relationship and thus fail. (d) does not employ a reason or method to qualify the ballet dancer. Hence, (b) is the answer that qualifies the object as 'not a car' because of the 'less than' criterion.

In this type of question, we have to clearly understand the inter-relations given in the main statement and apply the criteria to all the choices and make a quick match.

#### Resolve the Paradox

Let us understand this with an example.

In 1985, Panam reported an increase in total number of passengers it carried from the year before, but a decrease in total revenues — even though prices for the tickets on all routes remained unchanged during the two years under consideration.

Which of the following choices best helps to reconcile the apparent paradox in the question?

- (a) Passengers travelled shorter (and thus less expensive) distances in 1985, thus increasing total revenue.
- (b) Passengers travelled longer (and thus less expensive) distances in 1985, thus decreasing total revenue.
- (c) Passengers travelled shorter (and thus more expensive) distances in 1985, thus decreasing total revenue.
- (d) Passengers travelled shorter (and thus less expensive) distances in 1985, thus decreasing total revenue.

How do you do this one? We are given in the question that the revenues decreased, though the number of passengers increased. This can happen only in case of (d). If the total distance travelled is less, then it has offset the advantage of having a higher number of passengers and thus, the total revenues were adversely hit.

Critical Reasoning 11.3



## Exercise

**Directions for questions 1 to 6:** Read the argument given in the following questions and mark the appropriate answer.

 Plato said that art represents 'general truths' about human nature. Our city councilman is arguing in favour of the artistry — a giant mural in front of a jeep dealership, portraying a variety of four-wheeldrive vehicles. He cites Plato's conception of art as his support.

Which of the following questions weakens the above argument?

- (a) Can a city councilman understand Plato?
- (b) Which general truths about human nature does a four-wheel-drive mural not represent?
- (c) Could Plato have predicted a modern society filled with sophisticated machines?
- (d) To what extent are four-wheel-drive vehicles representative of a general advance in modern technology?
- Speaker 1: The holy passion of friendship is so sweet and steady, loyal and enduring in nature that it will last through a lifetime.

**Speaker 2:** If not asked to lend money.

The two speakers represent which of the following contrasting attitudes?

- (a) Faith and despair
- (b) Idealism and cynicism
- (c) Idealism
- (d) Socialism and capitalism
- 3. In 1945, a new industrial code was established to fix a minimum wage of quarter of a pound an hour in the UK. Industrial workers hailed this pronouncement as a blessing.

What does this statement imply?

- (a) You can fool some of the people some of the time.
- (b) Don't count your chicken before they hatch.
- (c) Times change.
- (d) Every dog has its day.
- 4. Unfortunately, only 12 per cent of the driving public regularly use seat belts. Automatic restraints are the answer and the quicker they are implemented, the sooner highways deaths will be reduced.

The author's conclusion is based upon which of the following assumptions?

- (a) Only 12 per cent of the driving public care about passengers' lives.
- (b) The use of restraints reduces highway deaths.
- (c) Regular seat belts are inadequate safety devices.
- (d) It is unfortunate that 88 per cent of the driving public does not use regular seat belts.
- 5. In the past, to run for one's country in the Olympics was the ultimate achievement of any athlete. Nowadays, an athlete's motives are more and more influenced by financial gain and consequently we do not see our best athletes in the Olympics, which is still only for amateurs.

Which of the following will most weaken the above conclusion?

- (a) Publicity, money and fame can only be achieved by competing in the Olympics, making athletes more 'marketable' while allowing them to retain their amateur status.
- (b) Winning a race is not as important as participating.
- (c) There is a widely held belief that our best Olympic athletes already receive enough in terms of promotion and sponsorship.
- (d) It has been suggested that professional athletes should be allowed to compete in the games.
- The function of a food technologist in a large marketing chain of food stores is to ensure that all foodstuff which is offered for sale in various retail outlets meets certain standard criteria of nonperishability, freshness and fitness for human consumption.

It is the technologist's job to visit the premises of suppliers and food producers (factory or farm), inspect their facilities and prepare a report thereon. His responsibility also includes receiving new products from local and foreign suppliers and performing exhaustive quality control testing on them. Finally, he should carry out surprise spotchecks on goods held in the marketing chain's own warehouses and stores.

What conclusion can best be drawn from the preceding paragraph?

- (a) A university degree in food technology is a necessary and sufficient condition for becoming a food technologist.
- (b) Imported products as well as home-produced goods, must be rigorously tested.
- (c) The food technologist stands between the unhygienic producer and the unsuspecting consumer.
- (d) Home-produced foodstuffs are safer to eat than goods imported from abroad because they are subject to more regular and closer inspection procedures.

**Directions for questions 7 and 8:** Answer the questions based on the following passage.

The mainstay of our business is credibility. We get that credibility and respect, and the power that goes with it only by being a socially and professionally responsible agent of the public. In some ways we journalists have to have the same attitude to news as an employee of a bank has to money — it is not ours. We are handling it on behalf of other people so it cannot be converted to our own use. If we do, it is embezzlement.

- 7. Which of the following criticism would most weaken the comparison between journalists and bank employees?
  - (a) Different newspapers print different news, just as different banks hold assets from various sources.
  - (b) The heart and soul of the banking business is money, not credibility.
  - (c) A bank teller need not be credible, just responsible.
  - (d) Embezzlement is a crime against the bank, not against the depositors. Bank employees are answerable to the bank alone.
- 8. The first sentence makes a point using which of the following techniques?
  - (a) Metaphor
- (b) Parody
- (c) Understatement
- (d) Statistical support
- 9. The value of a close examination of the circumstances of an aircraft accident lies not only in fixing blame but in learning lessons.
  - The above statement fits most logically into which of the following types of passages?
  - (a) A survey of the 'scapegoat phenomenon' in modern society.

- (b) An argument in favour of including specific details in any academic essay.
- (c) An argument against the usefulness of the National Transportation Safety Board.
- (d) A description of the causes of a particular aircraft accident.
- 10. Consumer are not as easily manipulated as they are often painted. They may know what they want, and what they want may be greatly different from what other people believe they need.
  - Which of the following statements, if true, most weakens the above argument?
  - (a) Most people continue to buy the same brand of a product year after year.
  - (b) Companies that advertise the most sell the most products.
  - (c) Store shelves packed with a variety of different brands have the potential to confuse the consumer.
  - (d) Most consumers know which brand they are going to buy before entering a store.
- 11. The daily journey from his home to his office takes John Bond on an average 1 hr and 35 min by car. A friend has told him a different route that is longer in mileage but takes only an hour and a quarter on average, because it contains stretches of roads where it is possible to drive at higher speeds. John Bond's only consideration apart from the time factor is cost and he calculates that his car will consume 10% less gasoline if he takes the suggested new route. John decides to take the new route for the next two weeks as an experiment. If the following statements were considered, which one of the following may have an effect on the decision made by John?
  - (a) Major road work has begun on the shorter (in distance) route, which holds up traffic for an extra 10 min. The project will take six months but after its completion the improvements will allow the journey to be completed in half an hour less than its present time duration.
  - (b) It is likely for a strike to be declared at local gas stations and the amount of gasoline purchased by drivers, may be rationed.
  - (c) John finds a route which is slightly longer than his old route, but shorter than the suggested route.
  - (d) The old route passes the door of a work colleague who, without a ride, would have to go to work by bus.

- 12. All elephants are gray. And all mice are gray. Therefore, I conclude that all elephants are mice.
  - The arguments above is invalid because
  - (a) the writer bases his argument on another argument that contains circular reasoning.
  - (b) the writer has illogically classified two disparate groups together when there is no relationship between them, except that they share an attribute.
  - (c) the writer has made an analogy between two dissimilar qualities.
  - (d) the writer has used a fallacy which involves an ambiguous description of animals by their colour.

**Directions for questions 13 and 14:** Answer the questions based on the following passage.

The last census showed a sharp rise in the number of Indians living together as unmarried couples during the 1970s, but a more recent increase in the marriage rate in 1981 suggests that matrimony will make a comeback in the 1980s.

- 13. Which of the following best refutes the argument above?
  - (a) As overall population increases, the number of marriageable people also increases, which does not necessarily show any decline in livein-relationships.
  - (b) Although information about the 1981 marriage rate is not complete, most analysis consider it to be reliable.
  - (c) Many of those marrying in 1981 were couples who had lived together during the 1970s.
  - (d) The marriage rate increased dramatically in 1971 and fell even more dramatically in the following years.
- 14. With which of the following statements is the author most likely to agree?
  - (a) Americans should not live together as unmarried couples.
  - (b) Matrimony is preferable to living together.
  - (c) Economic circumstances have made matrimony attractive as a way of paying less income tax.
  - (d) Prevailing attitudes towards marriage tend to persist for more than one year.

15. The shortsightedness of our government and our scientists has virtually nullified all of their great discoveries because of their failure to consider the environmental impact. The situation is far from hopeless but our government agencies must become better watchdogs.

This argument fails to place any blame on

- I. consumers who prefer new technology to clean air.
- II. the inability of the government to set rules and regulations.
- III. legal loopholes which allow the abuse of government regulations by wealthy industrialists.
- (a) I only
- (b) II only
- (c) III only
- (d) I and III
- 16. Voltaire once said, "Common sense is not so common."

Which of the following statements most nearly parallels Voltaire's statement?

- (a) God must have loved the common man, he certainly made enough of them.
- (b) The common good is not necessarily best for everyone.
- (c) Jumbo shrimp may not actually be very big.
- (d) Good people may not necessarily have good sense.
- 17. There are three main factors that control the risks of becoming dependent on drugs. These factors are the type of drug, the personality of an individual and the adult population, and the circumstances in which the drug is taken. Indeed, it could be said that even though majority of the adult population has taken alcohol, very few of them have become dependent on it. Also, many strong drugs that have been used for medical purposes have not caused a patient to become addicted to them

However, it can be demonstrated that people who have taken drugs for fun are more likely to become dependent on them. The dependence is not always physiological but may remain psychological, although the effects are still essentially the same. Those at greatest risk appear to be personalities that are psychopathic, immature, or otherwise unstable.

Psychological dependence is very strong with heroin, morphine, cocaine and amphetamines. Physiological dependence is great with heroin and morphine, but less with amphetamines, barbiturates and alcohol.

Which of the following conclusion can be drawn from the text?

- (a) One cannot become addicted to certain drugs if one has a strong personality.
- (b) Taking drugs for 'kicks' increases the possibility of becoming dependent on drugs.
- (c) Psychological dependence is the greatest with heroin.
- (d) Alcohol is a safe drug since very few people become dependent on it.
- 18. Sally overslept. Therefore, she did not eat breakfast. She realized that she was late for school, so she ran as fast as she could and did not see a hole in the ground beneath her. She tripped and broke her ankle. She was then taken to the hospital and while lying in bed was visited by her friend, who asked her why she had got up so late.

Which of the following conclusions can be made from the above passage?

- (a) Because Sally did not eat her breakfast, she broke her ankle.
- (b) Sally's friend visited her in the hospital because she wanted to know why she was late for school.
- (c) Sally did not notice the hole because she was in a hurry to get to school.
- (d) Sally broke her ankle because she went to bed late the previous night.
- 19. Amit: If an alien species ever visited Earth, it would surely be because they were looking for other intelligent species with whom they could communicate. Since we have not been contacted by aliens, we may conclude that none has ever visited this planet.

Anita: Or, perhaps, they did not think that human beings are intelligent.

How is Anita's response related to Amit's argument?

- (a) She misses Amit's point entirely.
- (b) She attacks Amit personally rather than his reasoning.

(c) She points out that Amit made an unwarranted assumption.

- (d) She ignores the detailed internal development of Amit's logic.
- 20. If quarks are the smallest subatomic particles in the universe, then gluons are needed to hold quarks together. Since gluons are needed to hole quarks together, it follows that quarks are the smallest subatomic particles in the universe.

The logic of the above argument is most nearly paralleled by which of the following?

- (a) If this library has a good Spanish literature collection, it will contain a copy of Les Conquerants by Marlaux. The collection does contain a copy of Les Conquerants. Therefore, the library has a good Spanish literature collection.
- (b) If there is a man-in-the-moon, the moon must be made of green cheese for him to eat. There is a man-in-the-moon, so the moon is made of green cheese.
- (c) Either helium or hydrogen is the lightest element of the periodic table. Helium is not the lightest element of the periodic table, so hydrogen must be the lightest element of the periodic table.
- (d) If Sunita is taller than Ram, and if Ram is taller than Ekta, then if Sunita is taller than Ram, Sunita is also taller than Ekta.
- 21. In the earliest stages of the common law, a party could have his case heard by a judge only upon the payment of a fee to the court and only if his case fits within one of the forms for which there existed a writ. At first the number of such formalized cases of action was very small, but judges invented new forms which brought more cases and greater revenues.

Which of the following is most can be inferred from the paragraph above?

- (a) Early judges often decided cases in an arbitrary and haphazard manner.
- (b) In most early cases, the plaintiff rather than the defendant prevailed.
- (c) The judiciary at first had greater power than either the legislature or the executive.
- (d) One of the motivating forces for the early expansion in judicial power was economical considerations.

22. A recent survey by the economics department of an French League University revealed that increases in the salaries of preachers are accompanied by increases in the nationwide average of rum consumption. From 1965 to 1970, preachers' salaries increased on an average of 15% and rum sales grew by 14.5%. From 1970 to 1975 average preachers' salaries rose by 17% and rum sales by 17.5%. From 1975 to 1980, rum sales expanded by only 8% and average preachers' salaries also grew by only 8%.

Which of the following is the most likely explanation for the findings cited in the paragraph?

- (a) When preachers have more disposable income, they tend to allocate that extra money to alcohol.
- (b) When preachers are paid more, they preach longer, and longer sermons tend to drive people to drink.
- (c) Since there were more preachers in the country, there were also more people; and a larger population will consume greater quantities of liquor.
- (d) The general standard of living increased from 1965 to 1980, which accounts for both the increase in the rum consumption and preachers' average salaries.
- 23. The owners of a local supermarket have decided to make use of three, now-redundant, checkout counters. They believe that they will attract those customers who lately have been put off by the long checkout lines during the mid-morning and evening rush hours. The owners have concluded that in order to be successful, the increased revenue from added counters will have to be more than the increase in maintenance costs for the added counters.

We can summarize that the underlying goal of the owners is

- (a) to improve service to all customers.
- (b) to attract people who have never been to the store.
- (c) to make use of the redundant counters.
- (d) to increase profits.
- 24. In the United States, there is an increasing concern over the use of radiation, particularly radiation for medical uses. Mammograms, or breast X-rays, can reveal the early stages of breast cancer, the leading cause of cancer death in American women.

Public awareness of the risk of breast cancer, particularly among those younger than 50, was heightened during the 1970s by the publicity given to the mastectomies of prominent women, including the then First Lady Betty Ford. The establishment in 1973 of a free nationwide screening programme resulted in an unprecedented rush for mammograms.

Within three years, several hundred thousands women had been examined and 1,800 breast cancer cases detected. However, studies showed that mammograms can cause as well as identify cancer and the researchers involved in the studies concluded that the mammography programme produced five cancer cases for every one it detected.

Which one of the following would most strengthen the conclusion drawn by the researchers?

- (a) Tests have shown that mammography does not increase the survival rates of women younger than 50.
- (b) Drug therapy to cure cancers of the breasts were found to be successful.
- (c) It has been decided that all women over 50 be given a mammogram every three years.
- (d) The breast has been shown as being extremely sensitive to radiation-induced cancer.
- 25. Two women, one living in Lucknow, the other living in Delhi, carried on a lengthy correspondence by mail. The subject of the exchange was a dispute over certain personality traits of Jawaharlal Nehru. After some two dozen letters, the Lucknow resident received the following note from her Delhi correspondent: "It seems you were right all along. Yesterday I met some one who actually knew Jawaharlal Nehru, and he confirmed your opinion."

The two women could have been arguing on the basis of all the following EXCEPT

- (a) published biographical information
- (b) old news film footage
- (c) direct personal acquaintance
- (d) assumption
- 26. The protection of the right of property by the constitution is tenuous at best. It is true that the Fifth Amendment states that the government may not take private property for public use without compensation, but it is the government that defines private property.

- Which of the following is most likely the point the author is leading up to?
- (a) Individual rights that are protected by the Supreme Court are secure against government encroachment.
- (b) Private property is neither more nor less than that what the government says is private property.
- (c) The government has no authority to deprive an individual of liberty.
- (d) No government that acts arbitrarily can be justified.
- 27. Since all the swans that I have encountered have been white, it follows that the swans I will see when I visit the Mumbai Zoo will also be white.
  - Which of the following most closely parallels the reasoning of the preceding argument?
  - (a) Some birds are incapable of flight: therefore, swans are probably incapable of flight.
  - (b) Every ballet I have attended has failed to interest me: so a theatrical production which fails to interest me must be a ballet.
  - (c) Since all cases of severe depression I have encountered were susceptible to treatment by chlorpromazine, there must be something in the chlorpromazine which adjusts the patient's brain chemistry.
  - (d) Since no medicine I have tried for my allergy has ever helped, this new product probably will not work either.
- 28. EENA: Participation in intramural competitive sports teach students the importance of teamwork, for no one wants to let his or her teammates down. MEENA: The real reason behind students playing hard is that such programmes place a premium on winning and no one wants to be a member of a

losing team.

- Which of the following comments can most reasonably be made about the exchange between Eena and Meena?
- (a) If fewer and fewer schools are sponsoring intramural sports programmes now than a decade ago, Eena's position is undermined.
- (b) If high schools and universities provide financial assistance for the purchase of sports equipment, Meena's assertion about the importance of winning is weakened.

- (c) If teamwork is essential for success in intramural competitive sports, Eena's position and Meena's position are not necessarily incompatible.
- (d) Since the argument is one about motivation, it should be possible to resolve the issue by taking a survey of deans at schools which have intramural sports programmes.
- 29. Unless new reserves are found soon, the world's supply of coal is being depleted in such a way that with demand continuing to grow at present rates, reserves will be exhausted by the year 2040. Which of the following, if true, will most weaken the above argument?
  - (a) There has been a slowdown in the rate of increase in world demand for coal over the last five years from 10% to 5%.
  - (b) It has been known for many years that there are stocks of coal under Antarctica which have yet to be economically exploited.
  - (c) Oil is being used increasingly in place of coal for many industrial and domestic uses.
  - (d) None of these
- 30. A cryptographer has intercepted an enemy message that is in code. He knows that the code is a simple substitution of numbers for letters.
  - Which of the following would be the least helpful in breaking the code?
  - (a) Knowing the frequency with which the vowels of the language are used.
  - (b) Knowing the frequency with which two vowels appear together in the language.
  - (c) Knowing the frequency with which odd numbers appear relative to even numbers in the message.
  - (d) Knowing the conjugation of the verb to be used in the language on which the code is based.
- 31. One way of reducing commuting time for those who work in the cities is to increase the speed at which traffic moves in the heart of the city. This can be accomplished by raising the tolls on the tunnels and bridges connecting the city with other communities. This will discourage auto traffic into the city and will encourage people to use public transportation instead.
  - Which of the following, if true, would LEAST weaken the above argument?

- (a) Nearly all of the traffic in the centre of the city is commercial traffic, which will continue despite toll increases.
- (b) Some people now driving alone into the city would choose to carpool with each other rather than use the public transportation.
- (c) Any temporary improvement in traffic flow would be lost because the improvement itself would attract more cars.
- (d) The numbers of commuters who would be deterred by the toll increases would be insignificant.
- 32. Statistics published by the Department of Traffic and Highway Safety show that nearly 80% of all traffic fatalities occur at the general speed of under 35 miles per hour and within 25 miles of home.
  - Which of the following would be the most reasonable conclusion to draw from these statistics?
  - (a) A person is less likely to have a fatal accident if he always drives over 35 miles per hour and always at distances greater than 25 miles from his home.
  - (b) There is a direct correlation between distance driven and the likelihood of fatal accident.
  - (c) The greater the likelihood that one is about to be involved in a fatal accident, the more likely it is that he is driving close to home at a speed less than 35 miles per hour.
  - (d) Most driving is done at less than 35 miles per hour.
- 33. A study published by the Department of Education shows that children in the central cities lag far behind students in the suburbs and the rural areas in reading skills. The report blamed this difference on the overcrowding of the classrooms in city schools. I maintain, however, that the real reason that city children are poorer readers than non-city children is that they do not get enough fresh air and sunlight.

Which of the following would LEAST strengthen the author's point in the argument above?

- (a) Medical research shows a correlation between air pollution and learning disabilities.
- (b) A report by educational experts demonstrates that there is no relationship between the number of students in a classroom and a student's ability to read.

- (c) A notice released by the Department of Education retracted that part of their report which mentions overcrowding as the reason for the difference.
- (d) A proposal by the federal government to funds emergency programs to hire more teachers for central city schools in an attempt to reduce overcrowding in the classrooms.
- 34. In accordance with their powers, many state authorities are introducing fluoridation of drinking water. This follows the conclusion of an 8 year research on the fact that the process ensures that children and adults receive the required intake of fluoride in order to strengthen their teeth. The maximum level has been set at one part per million. However, there are many who object to this, claiming that fluoridation removes freedom of choice.

Which of the following will weaken the claim of the proponents of fluoridation?

- (a) Fluoridation over a certain prescribed level has been shown to lead to general weakening of teeth.
- (b) There is no record of the long-term effects of drinking fluoridated water.
- (c) The people to be affected by fluoridation claim that they have not been given sufficient opportunity to voice their views.
- (d) Fluoridation is only one part of general dental health.
- 35. Mr and Mrs Smith and their son John want to cross the Dart river. The only way across is to go with Mr Jones in his rowboat. Mr Jones will not allow anyone to row his boat and will take only one passenger at a time. John is only a little boy, so he cannot be left alone on the river bank.

Which of the following conditions are not part of the successful passage of the Smiths across the river?

- (a) Mr Smith crosses the river first
- (b) Mr Smith crosses the river last
- (c) Mr and Mrs Smith do not cross together
- (d) John crosses the river first
- 36. Some philosophers have argued that there exist certain human or natural rights, which belong to all human beings by virtue of their humanity. But a review of the laws of different societies shows that the rights accorded to a person vary from society to society and even within a society over time. Since there is no right that is universally protected, there are no natural rights.

- A defender of the theory that natural rights do exist might respond to this objection by arguing that
- (a) some human beings do not have any natural rights.
- (b) some human rights are natural while others derive from a source such as a constitution.
- (c) people in one society may have natural rights which people in another society lack.
- (d) natural rights may exist even though they are not protected by some societies.

**Directions for questions 37 and 38:** Answer the questions based on the following passage.

The single greatest weakness of American parties is their inability to achieve cohesion in the legislature.

Although there is some measure of party unity, it is not uncommon for the majority party to be unable to implement important legislation. The unity is strongest during election campaigns; after the primary elections. the losing candidates all promise their support to the party nominee. By the time the Congress convenes, the unity has dissipated. This phenomenon is attributable to the fragmented nature of party politics. The national committees are no more than feudal lords who receive nominal fealty from their vassals. A congressman builds his own power upon a local base. Consequently, a congressman is likely to be responsive to local special interest groups. Evidence of this is seen in the differences in voting patterns between the upper and lower houses. In the Senate, where terms are longer, there is more party unity.

- 37. Which of the following, if true, would most strengthen the author's argument?
  - (a) On 30 key issues, 18 of the 67 majority party members in the Senate voted against the party leaders.
  - (b) On 30 key issues, 70 of the 305 majority party members in the House voted against the party leaders.
  - (c) On 30 key issues, over half the members of the minority party in both houses voted with the majority party against the leaders of the minority party.
  - (d) Of 30 key legislative proposals introduced by a president whose party controlled a majority in both houses, only four passed both houses.
- 38. Which of the following, if true, would most weaken the author's argument?
  - (a) Congressmen receive funds from the national party committee.

- (b) Senators vote against the party leader only two-thirds as often as members of the House.
- (c) The primary duty of an officeholder is to be responsive to his local constituency rather than party leaders.
- (d) There is more unity among minority party members than among majority party members
- 39. SPEAKER: The great majority of people in the United States have access to the best medical care available anywhere in the world.

OBJECTOR: There are thousands of poor in this country who cannot afford to pay to see a doctor.

A possible objection to the speaker's comments would be to point to the existence of

- (a) a country which has more medical assistants than the United States.
- (b) a nation where medical care is provided free of charge by the government.
- (c) a country in which the people are given better medical care than Americans.
- (d) government hearings in the United States on the problems poor people have getting medical care.
- 40. Monopoly is characterized by absence of or decline in competition. The ABC company realizes that its operations are in competitive industries.

Which of the following conclusions may be inferred for the above?

- (a) ABC's market is not monopolistic.
- (b) Monopoly is defined as one seller in a market.
- (c) The ABC company has no domestic competitors.
- (d) The ABC company is publicly owned.
- 41. Farmers in the south have observed that heavy frost is usually preceded by a full moon. They are convinced that the full moon somehow generates the frost.

Which of the following, if true, would weaken the farmers' conviction?

- (a) The temperature must fall below 10 degrees Celsius (50 degrees Fahrenheit) for frost to occur.
- (b) Absence of a cloud cover cools the ground which causes frost.
- (c) Farmers are superstitious people.
- (d) No one has proved that the moon causes frost.

11.11

42. Some judges have allowed hospitals to disconnect life-support equipment of patients who have no prospects of recovery. But I say "this is cold-blooded murder". Either we put a stop to this practice now or we will soon have programmes of euthanasia for the old and infirm as well as others who might be considered a burden. Rather than disconnecting life-support equipment, we should let nature take its course.

Which of the following are valid objections to the above argument?

- I. It is internally inconsistent.
- II. It presents a false dilemma.
- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II
- 43. PUBLIC ANNOUNCEMENT: When you enrol with Fast Track Career Institute (FTCI), you will have access to our placement counselling service. Last year, 92% of our graduates who asked us to help them find jobs, found them. So go to FTCI for your future!

Which of the following would be appropriate questions to ask in order to determine the value of the preceding claim?

- I. How many of your graduates asked FTCI for assistance?
- II. How many people graduated from FTCI last vear?
- III. Did those people who asked for jobs find ones in the areas for which they were trained?
- IV. Was FCBI responsible for finding the jobs or did graduates find them independently?
- (a) I and II only
- (b) I, II and III only
- (c) I, II and IV only
- (d) I, II, III and IV
- 44. Why pay outrageously high prices for imported sparkling water when there is now inexpensive water carbonated and bottled here in the India at its source Gangotri, UP. Neither you nor your guests will taste the difference, but if you would be embarrassed if it were learned that you were serving a domestic sparkling water, then serve Cold Springs Water but serve it in a leaded crystal decanter.

The advertisement rests on which of the following assumptions?

I. It is difficult if not impossible to distinguish Gangotri water from imported competitors on the basis of taste.

- II. Most sparkling waters are not bottled at the source.
- III. Some people will purchase an imported sparkling water bottle over a domestic one symbol even if it means playing a much higher price.
- (a) I only
- (b) II only
- (c) III only
- (d) I and III only
- 45. In our investigation of this murder, we are guided by our previous experience with the Bhopal Killer. You will recall that in that case the victims were also carrying a great deal of money when they were killed, but the money was not taken. Also, the same murder weapon, a pistol was used in both the cases. Finally, both the murders were committed between six in the evening and midnight. So we are probably after someone who looks like the Bhopal Killer who was finally tried, convicted and executed: 5' 11" tall, has a mustache and short brown hair, walks with a slight limp.

The author makes which of the following assumptions?

- I. Crimes similar in detail are likely to be committed by perpetrators who are similar in physical appearance.
- II. The Bhopal Killer has apparently escaped from prison and has resumed his criminal activities.
- III. The man first convicted as the Bhopal Killer was actually innocent, and the real Bhopal Killer is still loose.
- (a) I only
- (b) I and II only
- (c) II only
- (d) I and III only
- 46. Professor Tembel told his class that the method of student evaluation of teachers is not a valid measure of teaching quality. Students should fill out questionnaires at the end of the semester when courses have been completed.

Which of the following, if true, provides support for Professor Tembel's proposal?

- (a) Professor Tembel received low ratings from his students.
- (b) Students filled out questionnaires after midterm examination.
- (c) Students are interested in teacher evaluation.
- (d) Teachers are not obligated to use the survey results.
- 47. The president lobbied for passage of his new trade bill which would liberalize trade with industrialized countries such as US, members of the European Community and Japan.

#### 11.12

Each of the following, if true, could account for the above, EXCEPT

- (a) the president is up for reelection and needs to show results
- (b) labour unions have petitioned the president to provide more local jobs
- (c) the trade agreement could bring a *quid pro quo* on pending negotiations
- (d) economists claimed that the passage of the bill would increase the country's trade deficit
- 48. The main ingredient in this bottle of Dr David's Milk of Magnesia is used by nine out of 10 hospitals across the country as an antacid and laxative.

If this advertising claim is true, which of the following statements must also be true?

- Nine out of 10 hospitals across the country use Dr David's Milk of Magnesia for some ailments.
- II. Only one out of 10 hospitals in the country does not treat acid indigestion and constipation.

## **Critical Reasoning**

- III. Only one out of 10 hospitals across the country does not recommend Dr. David's Milk of Magnesia for patients who need a milk of magnesia.
- (a) I only
- (b) II only
- (c) I and III
- (d) None of the statements is necessarily true
- 49. Is your company going to continue to discriminate against women in its hiring and promotion policies? The above question might be considered unfair for which of the following reasons?
  - I. Its construction seeks a 'yes' or 'no' answer where both might be inappropriate.
  - II. It is internally inconsistent.
  - III. It contains a hidden presupposition which the responder might wish to contest.
  - (a) I only
- (b) II only
- (c) I and II only
- (d) I and III only

	Answer Key								
<b>1.</b> (c)	<b>2.</b> (b)	<b>3.</b> (c)	<b>4.</b> (b)	<b>5</b> . (a)	<b>6.</b> (c)	<b>7.</b> (d)	<b>8.</b> (a)	<b>9.</b> (d)	<b>10.</b> (b)
<b>11.</b> (c)	<b>12.</b> (b)	<b>13</b> . (d)	<b>14.</b> (d)	<b>15</b> . (d)	<b>16</b> . (c)	<b>17.</b> (b)	<b>18.</b> (c)	<b>19.</b> (c)	<b>20</b> . (a)
<b>21.</b> (d)	<b>22.</b> (a)	<b>23.</b> (d)	<b>24.</b> (d)	<b>25.</b> (c)	<b>26.</b> (b)	<b>27.</b> (d)	<b>28.</b> (c)	<b>29.</b> (d)	<b>30.</b> (c)
<b>31.</b> (b)	<b>32.</b> (d)	<b>33.</b> (d)	<b>34</b> . (b)	<b>35</b> . (d)	<b>36.</b> (d)	<b>37.</b> (d)	<b>38.</b> (c)	<b>39.</b> (c)	<b>40</b> . (a)
<b>41.</b> (b)	<b>42.</b> (c)	<b>43.</b> (d)	<b>44.</b> (d)	<b>45.</b> (a)	<b>46.</b> (b)	<b>47.</b> (d)	<b>48.</b> (d)	<b>49.</b> (d)	

Critical Reasoning 11.13



## **Explanations**

- 1. c The argument states that the city councilman is arguing in favour of the artistry (in front of a jeep dealership) stating that the famous philosopher Plato's conception of art supports this ('art represents general truths about human nature'). However, are we sure that when Plato made such a conception, he could have known that in future society would comprise of sophisticated machinery? Thus, option (c) is a valid question that could weaken the argument.
- b The first speaker has a rosy outlook towards friendship and the second is quite a cynic and doubts that it would last a life time. Hence, their attitudes are of idealism and cynicism.
- c The sentence is about preventing exploitation of labour and so (c) is the best answer as it show times have charged and labour exploitation is being checked.
- 4. b The author attributes restraint directly to effectiveness in preventing highway deaths. He assumes that once automatic restraints are put, highway deaths will reduce. Thus, option (b) is the correct answer.
- 5. a The argument states that lately we do not see our best athletes in Olympics as they are influenced by financial gains. Option (a) weakens this by saying that financial motives are best realized through competing in the Olympics, hence, undermining he conclusion.
- 6. c Considering the extent of the technologist's duties, he is probably the only saviour of the consumer. Thus, we can conclude that he ensures that consumers receive and consume hygienic food. Hence, option (c) is the correct answer.
- 7. d The author compares journalists and bank employees stating that misuse of news is comparable to embezzlement (misuse of money), as this money belongs to other people. An employee's job is to merely handle it. However, if we look at option (d), we can see that the very definition of embezzlement (stated in the passage) has been attacked, calling it a crime against the bank not other people. This means that a bank employee's responsibility is towards the bank not the public (including depositors). Hence, option (d) is the correct answer.
- 8. a The word *mainstay*, which means chief support has been metaphorically used to describe credibility in a business. Hence, option (a) is the correct answer.

- 9. d For a lesson to be learnt, it is important to answer questions such as, what went wrong? How and when did it happen? Who was responsible? And so on. The circumstances of an incident (aircraft accident in this case) can only be understood if these questions are answered. Hence, the given statement is most likely to fit in a passage that describes the causes of a particular aircraft accident. So, option (d) is the correct answer.
- 10. b Only option (b) weakens the argument. If advertisements have such a profound effect on a buyer's behaviour, it means that consumers can be easily led and that they do not also buys know what they want.
- 11. c This new route falls pat in-between the old route and the suggested route in terms of distance. So it's worth considering and may have an effect on John's decision. So, option (c) is the correct answer.
- 12. b The given argument concludes that mice and elephants are the same because they are both gray in colour. However, this is incorrect because two different groups cannot be equated just because they share an attribute (also stated in option (b). Hence, option (b) is the correct answer.
- 13. d The given argument states that matrimony will make a comeback in the 1980s as there has been a recent increase in the marriage rate in 1981. Option (d) says that even though marriage rate increased in 1971 as well, it fell dramatically in the subsequent years, causing the 1970s to be a decade of an increase in the number of live-in couples. Hence, we can say that option (d) refutes the given argument by suggesting that an increase in the number of married couples in a given year does not necessarily mean that it will not decrease in the following years as well (look at the case of 1971 and the 1970s).
- 14. d The author feels that the increase in the marriage rate in 1981 means that matrimony will make a comeback in the 1980s. This signals that he thinks or rather assumes that the attitude towards marriage persisting in 1981 will continue throughout the decade (more than the current year). Hence, option (d) is the correct answer.
- 15. d The argument does not blame the ignorant consumer or the manipulative industrialists for the current state of affairs. Hence, option (d) is the correct answer.

#### 11.14

- 16. c Only option (c) parallels the given statement by saying that big (jumbo) shrimp may not actually be big, just as common sense is not actually common.
- 17. b The second passage clearly states that people who try drugs just for fun are likely to become dependent on them. Hence, option (b) is the correct answer.
- 18. c The passage states that Sally had overslept, because of which she was late for school. In her hurry to get to school on time she did not notice the hole in the ground and tripped over it. Thus, we can say that option (c) is a valid conclusion based on the passage. Option (b) is incorrect as we cannot be sure that the friend's purpose of visit was only to know why Sally was late for school.
- 19. c Amit assumes that earthlings are intelligent enough to warrant extra-terrestrial interest. But Anita believes that human beings may not be that intelligent at all. Hence, option (c) is the answer.
- 20. a Option (a) is the correct answer as its line of reasoning (circular reasoning) is same as the one used in the argument. A circular reasoning employs the fallacy if X, then Y. Y, so X.
- 21. d The paragraph states that a party's case would be heard only after he paid the fees to the court. So, we can say that economical considerations or money was an important factor in expansion of judicial power. Hence, option (d) is the correct answer.
- 22. a The increase in rum sales in the paragraph can be attributed to the increase in the disposable income of the preachers.
- 23. d The owners want to make sure that the new move will contribute to the profits (revenue should be higher than maintenance costs). Thus, option (d), 'to increase profits' is their underlying goal.
- 24. d If the breast has been shown to be sensitive to radiation-induced cancer, then the researchers' concern is valid. Hence, option (d) is the correct answer.
- 25. c The dispute between the two women came to an end when the Delhi based woman met an acquaintance of Jawaharlal Nehru, who confirmed the opinions of the Lucknow based woman. Thus, we can say that the argument between the two women was not on the basis of a direct personal acquaintance.
- 26. b The author states that the government has the final say in both the definition and use of private property. Hence, option (b) is the correct answer.
- 27. d In the main argument the author generalizes a phenomena on the basis of a specific instance. He feels that the swans that he would see in the

- Mumbai Zoo would be white in colour because all the swans that he has ever encountered in his life were white. This line of reasoning is also present in option (d), which says that since no medicine has ever cured the author's allergy, the new medicine won't probably either.
- 28. c If you establish that teamwork is essential for success in intramural competitive sports, you will find that there is nothing intrinsically different between the arguments of Eena and Meena. Eena clearly states that intramural sports teach students the importance of teamwork. Meena says that no student wants to be a member of a losing team, which means that he will work in cooperation with his team (same as teamwork!). Hence, option (c) is the correct answer.
- 29. d None of the given statements weaken the main argument. Option (a) states that *rate of increase* in the world demand for coal has slowed down, however the increase is still prevalent. Option (b) does not weaken the argument, as we cannot say for sure that the unexploited coal reserves in Antarctica are capable of meeting the world demand. Option (c) is also incorrect because we do not know to what extent coal has been substituted by oil. It is possible that only a mere fraction of coal users have switched to oil.
- 30. c In order to decipher the enemy message, numbers have to be first converted into letters. Hence, it is irrelevant to know about the frequency with which numbers appear (odd or even) as they will have to be converted into letters.
- 31. b Options (a), (c) and (d) all weaken the argument. Whereas, option (b) indirectly strengthens it as more number of car pools would also reduce the traffic on roads.
- 32. d The safest and most reasonable conclusion would be (d). Since, 80% of traffic fatalities occur at the 'general speed' of under 35 miles per hour, we can say that most driving is done at less than 35 miles per hour.
- 33. d Option (d) attributes the poor performance of the central city school children to the overcrowding in classrooms and not the lack of fresh air. Hence, it does not strengthen the argument.
- 34. b If it's too early to predict the long-term results of fluoridation, then the proponents' claim is questionable. There may be a possibility that fluoridation leads to harmful effects in the long run.
- 35. d If John crosses the river first, he will have to be left alone on the river bank because Mr. Jones will have to row back to get John's parents. However, the argument states that John cannot be left alone

- on the riverbank. Hence, option (d) is not part of the successful passage of the Smiths across the river
- 36. d The argument concludes by saying that there are no natural rights at all because no right is universally protected. Option (d) weakens the argument by stating that natural rights can continue to exist even when they are not protected.
- 37. d Option (d) is an illustration of how a majority party is crippled by the polarity of members of different parties. Due to the absence of pure unity, the majority party is able to implement only four out of the 30 legislation proposals.
- 38. c The passage states that after the primary elections, the losing candidates promise their support to the party nominee and side with their own party. However, option (c) undermines/ weakens this by stating that the primary duty of an officeholder is to be responsive towards his local constituency rather than party leaders. Hence, option (c) is the correct answer.
- 39. c Since the speaker is focusing on the superior facilities of medical attention available in the United States, a possible objection to this would be to question the validity of this observation. Hence, option (c), which states that in a given country people receives better medical care than Americans, objects the speaker's comments.
- 40. a If ABC's market is characterized by competition, then the market is not monopolistic.
- 41. b Option (b) attributes the presence of the frost to a factor other than the full moon, i.e. the absence of the cloud cover. Hence, option (b) weakens the farmers' conviction.
- 42. c The above argument states that we should put a stop to euthanasia (disconnecting the life-support system) and nature should be allowed to take its course. However, this argument is open to objection on the grounds that if nature should be allowed to take its course, then life-support systems for dying or otherwise seriously ill patients should also not be allowed (part of medical periphery). So, we can say that the given argument is inconsistent and presents a false dilemma.
- 43. d All the given questions are valid in order to judge the value of the given claim. Questions I and II need to be asked in order to determine the number of the graduates in question. "92% of our graduates" could be a referral to only a handful of students. Questions III and IV are important as one ought to know whether the graduates found jobs in their area of interest or not and also, whether

- the help given by FCBI was responsible for the jobs found by the graduates or was there any other factor responsible for this
- 44. d The argument states that the difference between Gangotri water and imported sparkling water is not conspicuous but there may be a possibility of it being found out. Also, the author states that one should serve imported sparkling water if he fears the embarrassment that would result if his guests found out about this difference. This means that some guests prefer imported sparkling water to domestic sparkling water. Hence, option (d) is the correct answer.
- 45. a The author clearly assumes that just because the manner and details of the present crime are exactly same as the one committed by the Bhopal killer, the perpetrator of the present crime looks a lot like the Bhopal killer. Hence, statement I is an assumption of the author. Statements II and III are not assumptions but question the credibility of the argument.
- 46. b Out of the given options, only option (b) provides support for the Professor's proposal. There could be a possibility that students filled out questionnaires after a mid-term examination in which they did not score very well. As a result, unfavorable ratings were allotted to teachers. Hence, students should fill out questionnaires at the end of the semester.
- 47. d As per option (d), the new trade bill could decrease the country's trade deficit, thereby posing a question to the president's lobbying for passage of a new trade bill. Hence, option (d) is the correct answer.
- 48. d The argument states that nine out of ten hospitals use Dr. David's Milk of Magnesia as an antacid and laxative. However, we do not know that these uses can be clubbed as 'some ailments'. Statement II is irrelevant to the argument as the author is not concerned with the ailments that are not treated by Dr. David's Milk of Magnesia. Statement III talks about the 'recommendation' while the argument talks about 'usage' of Dr. David's Milk of Magnesia. Hence, none of the given statements are true.
- 49. d The correct answer is option (d). If the response is 'no', then the respondent is confessing to gender discrimination in the company in the past. A 'yes' reply would be unimaginable. Also, before replying the responder may question the assumptions that are underlying in the question (that the company has practiced gender discrimination in the past)