

Critical Reasoning Questions(No 30)

1.It can safely be inferred that there are at least as many trees in Ithaca as there are in Tompkins. More trees were planted in Ithaca in the past two years than in Tompkins.

For which one of the following does the conclusion logically follow ?

- (a) More trees were planted in Ithaca in the past two years than In Tompkins.
- (b) Ithaca is the region within which Tompkins is located.
- (c) Tompkins is suffering from an epidemic of tree-virus infection.
- (d) The average annual rainfall for Ithaca is greater than the average annual rainfall for Tompkins.
- (e) The average number of trees cut down annually in Tompkins is higher than in Ithaca.

2. The era of the 25-paise coin has come to an end. Those of us who have long cherished its old-world charm will be left only with fond memories. In its heyday, it enjoyed considerable worth. It could buy a cinema ticket; it covered the bus fare to a town and served as a generous offering to beggars. Much earlier, it was also a days wage and could buy one-fourth sack of rice. Inflation has rendered 25 paisa valueless and a relic from the past.

The inference that can be validity drawn from the information presented above is that

- (a) Inflation is increasing at a rate higher than ever before and has rendered the 25 paisa coin valueless.
- (b) The 25 paisa coin was once a princely sum.
- (c) There is no commercial use of the 25 paisa coin today.
- (d) One could spend an entire day on a 25 paisa coin.

3. Dr. Larson Sleep deprivation is the cause of many social ills, ranging from irritability to potentially dangerous instances of impaired decision making. Most people today suffer from sleep deprivation to some degree. Therefore we should restructure the workday to allow people flexibility in scheduling their work hours.

Which of the following, if true, would most strengthen the medical doctor's argument ?

- (a) The primary cause of sleep deprivation is overwork.
- (b) Employees would get more sleep if they had greater latitude in scheduling their work hours.
- (c) Individuals vary widely in the amount of sleep they require.
- (d) More people would suffer from sleep deprivation today than did in the past if the average number of hours worked per week had not decreased.
- (e) The extent of one's sleep deprivation is proportional to the length of one's workday.

4. In contrast to North Africa, the growth of Islam in the Bilad as Sudan did not stem primarily from political conquest or the Arabization of local cultures. For many centuries, it remained a minority faith in overwhelmingly pagan lands. Even in state where ruling elites converted to Islam, such as medieval Mali or Songhay, local believers often sought accommodation with established ways of life rather than seeking to overthrow them.

Which of the following can be inferred from the above passage ?

(a) Bilad as-Sudan slowly incorporated the Arab culture, which resulted in the promotion of the Islamic religion.

(b) The spread of Islam in Bilad as-Sudan happened once the religion had already become dominant in North Africa.

(c) Islam did not flourish in Bilad as-Sudan in the beginning because the local Islamic believers did not coerce people to change their faith.

(d) The ruling elites of the different states in Bilad as-Sudan were the first ones to be influenced by the principles of Islam.

5. Nate : Recently a craze has developed for home juicers, \$300 machines that separate the pulp of fruits and vegetables from the juice they contain. Outrageous claims are being made about the benefits of these devices : Drinking the juice they produce is said to help one lose weight or acquire a clear complexion, to aid in digestion, and even to prevent cancer. But there is no indication that juice separated from the pulp of the fruit or vegetable has any properties that it does not have when unseparated. Save your money if you want carrot juice, eat a carrot.

Which of the following, if true, most calls into question Nate's argument ?

- (a) Most people find it much easier to consume a given quantity of nutrients in liquid form than to eat solid foods containing the same quantity of the same nutrients.
- (b) Drinking juice from home juicers is less healthy than is eating fruits and vegetable because such juice does not contain the fiber that is eaten if one consumes the entire fruit or vegetable.
- (c) To most people who would be tempted to buy a home juicer, \$300 would not be a major expense.
- (d) Nate was a member of a panel that extensively evaluated early prototypes of home juicers.
- (e) Vitamin pills that supposedly contain nutrients available elsewhere only in fruit and vegetables often contain a form of those compounds that cannot be as easily metabolized as the varieties found in fruits and vegetables.

6. Opponents of peat harvesting in this country argue that it would alter the ecological balance of our peat-rich wetlands and that, as a direct consequence of this, much of the country's water supply would be threatened with contamination. But this cannot be true, for in Ireland, where peat has been harvested for centuries, the water supply is not contaminated. We can safely proceed with the harvesting of peat.

Which one of the following, if true, most strengthens the argument ?

- (a) Over hundreds of years, the ecological balance of all areas changes slowly but significantly, sometimes to the advantage of certain flora and fauna.
- (b) The original ecology of the peat-harvesting areas of Ireland was virtually identical to that of the undisturbed wetlands of this country.
- (c) The activities of the other industries in coming years are likely to have adverse effects on the water supply of this country.
- (d) The peat resources of this country are far larger than those of some countries that successfully harvest peat.
- (e) The peat-harvesting industry of Ireland has been able to supply most of that country's fuel for generations.

7. The Israel Defense Force (IDF) is planning to launch a wearable device capable of helping save lives by monitoring a soldier's physical condition and alerting commanders to life-threatening situations. The physiological sensor, a miniature device developed by Israeli start-up Life Beam, is attached to the ear of a person and simultaneously monitors critical physiological parameters, including blood pressure, breathing and heart rate, while the soldier is engaged in rigorous activities. The sensor can instantly discern life-threatening changes that point to heat stroke or dehydration, enabling early evacuation and treatment.

The above paragraph is not based on which of the following assumptions ?

- (a) Evacuation and treatment are always possible and can save lives.
- (b) Every life-threatening situation has heat stroke and dehydration as symptoms.
- (c) Soldiers will wear the device most of the time.
- (d) External factors will not pollute the data collected by the device.

8. If enactment of laws was sufficient to protect women, then women in India are on velvet. But reality bites. The law is observed in the breach, or the law is not effectively enforced by the law-enforcement agencies, or judicial redress lies beyond the woman's horizon, or yet, the evil is seen as an accepted practice. Or women get beaten by "hard cases" like Omprakash and Others vs. Radhacharan and Others.

It can be inferred from the passage that

- (a) the society labels crimes against women as evil and yet accepts them.
- (b) India has implemented a significant number of laws to protect women.
- (c) in India judicial redress lies beyond the reach of most women.
- (d) due to the lack of an effective law enforcement system, the social condition of women in India is hopeless.

9. Statement : “Democracy cannot exist without secularism”.

Which of the following statements, if true, would show that the above statement is false ?

- (a) Libya was democratic and secular but democracy could not survive there.
- (b) Britain is democratic but not secular.
- (c) Iran is neither democratic nor secular.
- (d) North Korea is secular but not democratic.

10. It is not dangerous for children to view cartoon violence because it doesn't affect them to a great degree. Psychologists feel that if parents enforce rules like don't hit other kids, the child does not grow up to become unruly or bad-tempered. A young child needs a parents help to learn the concept of right and wrong and to keep this concept in check when emotions get the better of him. Parenting is the driving force that shapes a child's life.

The argument above assumes that

- (a) Cartoon violence is always dangerous for a child.
- (b) Parents are the only major driving force that shapes a child's life.
- (c) Children adhere to the rules that are laid down by parents.
- (d) In the absence of good parenting, children will succumb to the negative effects of cartoon violence.

11. A smoker's (poor) choice should not affect the health of others. Secondhand cigarette smoke contains hundreds of toxic chemicals including arsenic ammonia, hydrogen cyanide, formaldehyde, benzene, and vinyl chloride. It is known to cause cancer, coronary heart diseases, and respiratory problems. There is no risk-free level of exposure to secondhand smoke. So, smoking should be banned in public places.

The argument above assumes which of the following ?

- (a) Other factors such as environment pollution, burning firewood, etc. are not responsible for causing cancer and respiratory problems.
- (b) Smokers are not aware of the harmful effects of secondhand smoke.
- (c) Smokers do not avoid smoking in a public place.
- (d) Passive smokers do not have the choice or option to avoid exposure to secondhand smoke.

12. The objective of education is to develop independent thinking and rationalism amongst students. It is unfortunate that school curriculum is becoming a means to proliferate the ideology of the political party in power.

The passage best support the statement that education

- (a) should only be under the domain of schools.
- (b) is supposed to be child-centric and not teacher-centric
- (c) is one that promotes autonomous and logical thinking in students.
- (d) is influenced and manipulated by politics.

13. Either the boss or his son will attend the seminar if the day is sunny.

Assuming the above statement to be true, choose the opinion that logically follows from the given statement.

- (a) The boss will attend the seminar, so the day is sunny.
- (b) Either the boss or his son will attend the seminar, so the day is sunny.
- (c) The day is not sunny, so neither the boss nor his son will attend the seminar.
- (d) Neither the boss nor his son will attend the seminar, so the day is not sunny.

14. Numerous ancient Mayan cities have been discovered in the Yucatan peninsula in recent decades. The ruins lack any evidence of destruction by invading forces, internal revolts, or disease, and appear simply to have been abandoned. Some archaeologists have theorized that the cities were abandoned due to a severe drought known to have occurred in the region between 800 and 1000 AD.

Which of the following, if true, most strongly supports the archaeologists' theory

- (a) Ample archaeological evidence of Mayan peasant revolts and city-state warfare exists, but such events could never result in the permanent abandonment of cities.
- (b) No monumental inscriptions created after 900 AD have been found in these cities, but inscriptions dating before that time have been found in abundance.
- (c) Studies of Yucatan lake sediment cores provide conclusive evidence that a prolonged drought occurred in the region from 800 to 1000 AD.
- (d) Climatic studies have documented cycles of intermittent drought in the Yucatan peninsula dating from the present to at least 7,000 year ago.
- (e) The Mayan city Uxmal was continuously inhabited from 800 to 1550 AD.

15. Researchers have found that people who drink five or more cups of coffee a day have a risk of heart disease 2.5 times the average after corrections are made for age and smoking habits. Members of the research team say that, on the basis of their findings, they now limit their own daily coffee intake to two cups.

Which of the following, if true, indicates that the researchers' precaution might not have the result of decreasing their risk of heart disease ?

(a) The study found that for people who drank three or more cups of coffee daily, the additional risk of heart disease increased with each extra daily cup.

(b) Per capita coffee consumption has been declining over the past 20 years because of the increasing popularity of soft drinks and because of health worries.

(c) The study did not collect information that would show whether variations in the level of coffee consumption are directly related to variations in level of stress, a major causal factor in heart disease.

(d) Subsequent studies have consistently show that heavy smokers consume coffee at about three times the rate of nonsmokers.

(e) Subsequent studies have shown that heavy coffee consumption tends to cause an elevated blood-cholesterol level, an immediate indicator of increased risk of heart diseases.

16. Alonso : The introduction of a new drug into the marketplace should be contingent upon our having good understanding of its social impact. However, the social impact of the newly marketed antihistamine is far from clear. It is obvious, then, that there should be a general reduction in the pace of bringing to the marketplace new drugs that are now being created.

Which one of the following, if true, most strengthens the argument ?

- (a) The social impact of the new antihistamine is much better understood than that of most new drugs being tested.
- (b) The social impact of some of the new drugs being tested is poorly understood.
- (c) The economic success of some drugs is inversely proportional to how well we understand their social impact.
- (d) The new antihistamine is chemically similar to some of the new drugs being tested.
- (e) The new antihistamine should be next on the market only if most new drugs being tested should be on the market also.

17. A factory was trying out a new process for producing one of its products, with the goal of reducing production costs. A trial production run using the new process showed a fifteen percent reduction in costs compared with past performance using the standard process. The production managers therefore concluded that the new process did produce a cost savings.

Which of the following, if true, casts most doubt on the production managers conclusion ?

(a) In the cost reduction project that eventually led to the trial of the new process, production managers had initially been seeking cost reductions of fifty percent.

(b) Analysis of the trial of the new process showed that the cost reduction during the trial was entirely attributable to a reduction in the number of finished products rejected by quality control.

(c) While the trial was being conducted, production costs at the factory for a similar product, produced without benefit of the new process, also showed a fifteen percent reduction.

(d) Although some of the factory's managers have been arguing that the product is outdated and ought to be redesigned, the use of the new production process does not involve any changes in the finished product.

(e) Since the new process differs from the standard process only in the way in which the stages of production are organized and ordered, the cost of the materials used in the product is the same in both processes.

18. Passengers must exit airplanes swiftly after accidents, since gases released following accidents are toxic to humans and often explode soon after being released. In order to prevent passenger deaths from gas inhalation, safety officials recommend that passengers be provided with smoke hoods that prevent inhalation of the gases.

Which of the following, if true, constitutes the strongest reason not to require implementation of the safety officials' recommendation ?

- (a) Test evacuations showed that putting on the smoke hoods added considerably to the overall time it took passengers to leave the cabin.
- (b) Some airlines are unwilling to buy the smoke hoods because they consider them to be prohibitively expensive.
- (c) Although the smoke hoods protect passengers from the toxic gases, they can do nothing to prevent the gases from igniting.
- (d) Some experienced flyers fail to pay attention to the safety instructions given on every commercial flight before takeoff.
- (e) In many airplane accidents, passengers who were able to reach emergency exits were overcome by toxic gases before they could exit the airplane.

19. The program to control the entry of illegal drugs into the country was a failure in 1987. If the program had been successful, the wholesale price of most illegal drugs would not have dropped substantially in 1987.

The argument in the passage depends on which of the following assumptions ?

- (a) The supply of illegal drugs dropped substantially in 1987.
- (b) The price paid for most illegal drugs by the average consumer did not drop substantially in 1987.
- (c) Domestic production of illegal drugs increased at a higher rate than did the entry of such drugs into the country.
- (d) The wholesale price of a few illegal drugs increased substantially in 1987.
- (e) A drop in demand for most illegal drugs in 1987 was not the sole cause of the drop in their wholesale price.

20. Property taxes are typically set at a flat rate per \$1,000 of officially assessed value. Reassessments should be frequent in order to remove distortions that arise when property values change at differential rates. In practice, however, reassessments typically occur when they benefit the government—that is, when their effect is to increase total tax revenue.

If the statements above are true, which of the following describes a situation in which a reassessment should occur but is unlikely to do so ?

- (a) Property values have risen sharply and uniformly.
- (b) Property values have all risen—some very sharply, some less so.
- (c) Property values have for the most part risen sharply; yet some have dropped slightly.
- (d) Property values have for the most part dropped significantly; yet some have risen slightly.
- (e) Property values have dropped significantly and uniformly.

21. To persuade consumers to buy its personal computers for home use, SuperComp has enlisted computer dealers in shopping centers to carry its product and launched a major advertising campaign that has already increase public awareness of the SuperComp brand. Despite the fact that these dealers achieved dramatically increased sales of computers last month, however, analysts doubt that SuperComp's products accounted for much of that increase.

Which of the following, if true, best supports the claim that the analysis' doubt is well founded ?

- (a) In market surveys, few respondents who had been exposed to SuperComp's advertising campaign said they thought there was no point in owning a home computer.
- (b) People who own a home computer often buy a second such computer, but only rarely do people buy a third computer.
- (c) SuperComp's dealers also sell other brands of computers that are very similar to SuperComp's but less expensive and that afford the dealers a significantly higher markup.
- (d) The dealers who were chosen to sell SuperComp's computers were selected in part because their stores are located in shopping centers that attract relatively wealthy shoppers.
- (e) Computer-industry analysts believed before the SuperComp campaign began that most consumers who already owned home computers were not yet ready to replace them.

22. If Shero wins the election, McGuinness will be appointed head of the planning commission. But Stauning is more qualified to head it since he is an architect who has been on the planning commission for 15 years. Unless the polls are grossly inaccurate, Shero will win.

Which one of the following can be properly inferred from the information above ?

- (a) If the polls are grossly inaccurate, someone more qualified than McGuinness will be appointed head of the planning commission.
- (b) McGuinness will be appointed head of the planning commission only if the polls are a good indication of how the election will turn out.
- (c) Either Shero will win the election or Stauning will be appointed head of the planning commission.
- (d) McGuinness is not an architect and has not been on the planning commission for 15 years or more.
- (e) If the polls are a good indication of how the election will turn out, someone less qualified than Stauning will be appointed head of the planning commission.

23. Treasure Hunter : In general, archaeological artifacts found on public property cannot legally be privately owned. But according to centuries-old maritime law people who risk their lives attempting to rescue a ship in peril are permitted to keep whatever cargo they can salvage. Under this rule treasure hunters clearly are entitled to keep the cargo from ancient shipwrecks that they risk their lives to save from oblivion in public waters.

Archaeologist : Not so. These shipwrecks have stabilized over the centuries they have lain underwater. The only danger they are in is from greedy treasure hunters who destroy archaeological evidence in their hurry to loot salable artifacts.

On the evidence of their statements, it can be concluded that the treasure hunter and the archaeologist disagree on which of the following ?

- (a) What constitutes an archaeological artifact
- (b) In what sense, if any, an ancient shipwreck can be said to be in peril
- (c) Whether treasure hunters risk their lives when they retrieve artifacts from ancient shipwrecks
- (d) Whether maritime law can ever be applied to a ship that has already sunk
- (e) Whether antique shipwrecks in public waters can properly be said to be on public property

24. Opponent of offshore oil drilling : The projected benefits of drilling new oil wells in certain areas in the outer continental shelf are not worth the risk of environmental disaster. The oil already being extracted from these areas currently provides only 4 percent of our country's daily oil requirements, and the new wells would only add one-half of 1 percent.

Proponent of offshore oil drilling : Don't be ridiculous ! You might just as well argue that new farms should not be allowed, since no new farm could supply the total food needs of our country for more than a few minutes.

The drilling proponent's reply to the drilling opponent proceeds by :

- (a) Offering evidence in support of drilling that is more decisive than is the evidence offered by the drilling opponent
- (b) Claiming that the statistics cited as evidence by the drilling opponent are factually inaccurate
- (c) Pointing out that the drilling opponent's argument is a misapplication of a frequently legitimate way of arguing
- (d) Citing as parallel to the argument made by the drilling opponent an argument in which the conclusion is strikingly unsupported
- (e) Proposing a conclusion that is more strongly supported by the drilling opponent's evidence than is the conclusion offered by the drilling opponent

25. There are those who complain that municipal libraries are outdated and unnecessary. These same people object to the tax dollars spent funding municipal libraries. However, these people are missing out on a simple pleasure : reading a great book. Taken this way, libraries are truly wonderful resources worthy of public funding.

The two underline portions play which of the following roles ?

- (a) The first is a generalization accepted by the author as true; the second is a consequence that follows from the truth of that generalization.
- (b) The first is evidence that supports one of two contradictory points of view; the second is the second point of view.
- (c) The first is a commonly held point of view; the second is support for that point of view.
- (d) The first is one of two contradictory points of view; the second is the other point of view.
- (e) The first concedes a consideration that weighs against the viewpoint of the author; the second is that viewpoint.

26. Acid rain, caused by high levels of sulfur dioxide and mercury trapped in global air currents, affects one third of China's territory. Coal-fired power plants are notorious for emitting large quantities of these pollutants. To combat the problem, the Chinese national government has set aggressive environmental goals for the next five years. These goals includes a 20-percent improvement in energy efficiency and a pledge that, by the end of the five years, 10 percent of the nation's energy will come from renewable resources such as hydroelectric or wind power.

Which of the following, if true, is the best criticism of the Chinese government's strategy as a method for achieving a reduction in acid rain ?

- (a) Some forms of air pollution, such as heavy particulate fumes, would not be affected by the suggested energy improvements.
- (b) Once the changes have been implemented, the actual reduction in acid rain would vary from region to region.
- (c) The goals would be forced on every region in China, including those that have no problems with acid rain.
- (d) Acid rain is also caused by other factors, such as volcanic eruptions or pollution from neighboring countries, over which China has no control.
- (e) Regional Chinese officials tend to ignore environmental regulations in order to meet aggressive economic requirements imposed on their regions' industries.

27. It is logical to conclude that it is more dangerous to ride in an automobile than to ride on a motorcycle. After all, the National Safety Council estimates that one person in 19,000 will die each year in an automobile, while only one out of every 73,000 will be killed as a motorcyclist.

Which of the following studies would be most useful in assessing the validity of the argument above ?

- (a) Comparing the National Safety Council's statistics with those of other nations where traffic laws and conditions are similar
- (b) Expressing the difference between the probability of death among automobile passengers and that of motorcyclists as a percentage of the total number of deaths
- (c) Separating the odds of death due to operating vehicles illegally from those in which the operator is not at fault
- (d) Comparing death rates per thousand members of each group rather than comparing total numbers of deaths
- (e) Comparing the number of deaths that take place on highways versus those that take place on local roads

28. Raisins are made by drying grapes in the sun. Although some of the sugar in the grapes is caramelized in the process, nothing is added. Moreover, the only thing removed from the grapes is the water that evaporates during the drying, and water contains no calories or nutrients. The fact that raisins contain more iron per food calorie than grapes do is thus puzzling.

Which one of the following, if true, most helps to explain why raisins contain more iron per calorie than do grapes ?

- (a) Since grapes are bigger than raisins, it take several bunches of grapes to provide the same amount of iron as a handful of raisins does.
- (b) Caramelized sugar cannot be digested, so its calories do not count toward the food calorie content of raisins.
- (c) The body can absorb iron and other nutrients more quickly from grapes than from raisins because of the relatively high water content of grapes.
- (d) Raisins, but not grapes, are available year-round, so many people get a greater share of their yearly iron intake from raisins than from grapes.
- (e) Raisins are often eaten in combination with other iron-containing foods, while grapes are usually eaten by themselves.

29. About two million years ago, lava dammed up a river in western Asia and caused a small lake to form. The lake existed for about half a million years. Bones of an early human ancestor were recently found in the ancient lake-bottom sediments on top of the layer of a lava. Therefore, ancestors of modern humans lived in Western Asia between 2 million and 1.5 million years ago.

Which one of the following is an assumption required by the argument ?

- (a) There were not other lakes in the immediate area before the lava dammed up the river.
- (b) The lake contained fish that the human ancestors could have used for food.
- (c) The lava under the lake-bottom sediments did not contain any human fossil remains.
- (d) The lake was deep enough that a person could drown in it.
- (e) The bones were already in the sediments by the time the lake disappeared.

30. In North India there has been an explosion of public interest in, and enjoyment of, opera over the last three decades. The evidence of this explosion is that of the 70 or so professional opera companies currently active in North India, 45 were founded over the course of the last 30 years.

The reasoning above assumes which one of the following ?

- (a) All of the 70 professional opera companies are commercially viable options.
- (b) There were fewer than 45 professional opera companies that had been active 30 years ago and that ceased operations during the last 30 years.
- (c) There has not been a corresponding increase in the number of professional companies devoted to other performing arts.
- (d) The size of the average audience at performances by professional opera companies has increased over the past three decades.
- (e) The 45 most recently founded opera companies were all established as a result of enthusiasm on the part of a potential audience.