

SECTION I

Time—35 minutes

26 Questions

Directions: The questions in this section are based on the reasoning contained in brief statements or passages. For 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. After you have chosen the best answer, blacken the corresponding space on your answer sheet.

1. Powell: Private waste-removal companies spend 60 percent of what public waste-removal companies spend per customer, yet give their customers at least as good service. Private waste-removal companies, therefore, work more efficiently.

Freeman: Your conclusion is unwarranted. Different customers have different waste-removal needs. Since private companies, unlike their public counterparts, can select which customers to serve, they choose to exclude the potential customers whom they judge to be the most costly to serve.

The issue in dispute between Powell and Freeman is the

- (A) accuracy of the figure of 60 percent with regard to the difference in service costs between private and public waste-removal companies
- (B) reason private waste-removal companies are able to offer service comparable to that offered by public ones while spending less money per customer
- (C) ability of private versus public waste-removal companies to select which customers to serve
- (D) likelihood of the local authorities' turning public waste-removal companies into private ones so that the companies can operate with lower service costs than they now incur
- (E) relationship between the needs of a waste-removal customer and the amount of money it takes to serve that customer

2. Although 90 percent of the population believes itself to be well informed about health care, only 20 percent knows enough about DNA to understand a news story about DNA. So apparently at least 80 percent of the population does not know enough about medical concepts to make well-informed personal medical choices or to make good public policy decisions about health care.

The argument's reasoning is questionable because the argument fails to demonstrate that

- (A) those people who can understand news stories about DNA are able to make well-informed personal medical choices
- (B) more than 20 percent of the population needs to be well informed about health care for good public policy decisions about health care to be made
- (C) one's being able to make well-informed personal medical choices ensures that one makes good public policy decisions about health care
- (D) an understanding of DNA is essential to making well-informed personal medical choices or to making good public policy decisions about health care
- (E) since 90 percent of the population believes itself to be well informed about health care, at least 70 percent of the population is mistaken in that belief

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Questions 3–4

In Yasukawa's month-long study of blackbirds, the percentage of smaller birds that survived the duration of the study exceeded the percentage of larger birds that survived. However, Yasukawa's conclusion that size is a determinant of a blackbird's chances of survival over a month-long period is probably mistaken, since smaller blackbirds are generally younger than larger ones.

3. The statements above, if true, support which one of the following inferences?
- (A) Among the blackbirds that survived the month-long study, there was no relation between size and age.
 - (B) Larger blackbirds of a given age are actually more likely to survive over a one-month period than are smaller blackbirds of the same age.
 - (C) Among blackbirds of the same size, a difference in age probably does not indicate a difference in chances of survival over a one-month period.
 - (D) Among blackbirds of the same age, a difference in size may not indicate a difference in chances of survival over a month-long period.
 - (E) With a larger sample of blackbirds, the percentage of smaller birds that survive a one-month period would be the same as the percentage of larger birds that survive.
4. Which one of the following, if true, indicates that the criticism of Yasukawa's research is based on a misunderstanding of it?
- (A) Yasukawa compared the survival chances of two different species of blackbirds, a larger and a small species, rather than of different sizes of birds within one species.
 - (B) Yasukawa examined blackbirds in their natural habitat rather than in captivity.
 - (C) Yasukawa did not compare the survival chances of blackbirds with those of other kinds of birds.
 - (D) Yasukawa noted that the larger blackbirds had more success in fights than did the smaller blackbirds.
 - (E) Yasukawa noted that the larger blackbirds tended to have more firmly established social hierarchies than did the smaller blackbirds.
5. During the 1980's Japanese collectors were very active in the market for European art, especially as purchasers of nineteenth-century Impressionist paintings. This striking pattern surely reflects a specific preference on the part of many Japanese collectors for certain aesthetic attributes they found in nineteenth-century Impressionist paintings.
- Which one of the following, if true, most strongly supports the explanation above?
- (A) Impressionist paintings first became popular among art collectors in Europe at the beginning of the twentieth century.
 - (B) During the 1980s, the Japanese economy underwent a sustained expansion that was unprecedented in the country's recent history.
 - (C) Several nineteenth-century Impressionist painters adopted certain techniques and visual effects found in Japanese prints that are highly esteemed in Japan.
 - (D) During the 1960s and 1970s, the prices of nineteenth-century Impressionist paintings often exceeded the prices of paintings by older European masters.
 - (E) During the 1980s, collectors from Japan and around the world purchased many paintings and prints by well-known twentieth-century Japanese artists.

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6. Frankie: If jelly makers were given incentives to make a certain percentage of their jellies from cloudberry, income for cloudberry gatherers would increase.

Anna: That plan would fail. Cacao, like cloudberry, was once harvested from wild plants. When chocolate became popular in Europe, the cacao gatherers could not supply enough to meet the increased demand, and farmers began to grow large quantities of it at low cost. Now all cacao used in commercial chocolate production is grown on farms. Likewise, if the demand for cloudberry increases, domesticated berries grown on farms will completely supplant berries gathered in the wild.

Anna's argument proceeds by

- (A) giving a reason why a proposed course of action would be beneficial to all those affected by it
 - (B) reinterpreting evidence presented in support of a proposal as a reason to reject the proposal
 - (C) projecting the result of following a proposal in a given situation by comparing that situation with a past situation
 - (D) proposing a general theory as a way of explaining a specific market situation
 - (E) contending that the uses for one product are similar to the uses for another product
7. Because of the recent recession in Country A, most magazines published there have experienced decreases in advertising revenue, so much so that the survival of the most widely read magazines is in grave doubt. At the same time, however, more people in Country A are reading more magazines than ever before, and the number of financially successful magazines in Country A is greater than ever.
- Which one of the following, if true, most helps to resolve the apparent discrepancy in the information above?
- (A) Most magazines reduce the amount they charge for advertisements during a recession.
 - (B) The audience for a successful television show far exceeds the readership of even the most widely read magazine.
 - (C) Advertising is the main source of revenue only for the most widely read magazines; other magazines rely on circulation for their revenue.
 - (D) Because of the recession, people in Country A have cut back on magazine subscriptions and are reading borrowed magazines.
 - (E) More of the new general interest magazines that were launched this year in Country A have survived than survived in previous years.

8. The gray squirrel, introduced into local woodlands ten years ago, threatens the indigenous population of an endangered owl species, because the squirrels' habitual stripping of tree bark destroys the trees in which the owls nest. Some local officials have advocated setting out poison for the gray squirrels. The officials argue that this measure, while eliminating the squirrels, would pose no threat to the owl population, since the poison would be placed in containers accessible only to squirrels and other rodents.

Which one of the following, if true, most calls into question the officials' argument?

- (A) One of the species whose members are likely to eat the poison is the red squirrel, a species on which owls do not prey.
- (B) The owls whose nesting sites are currently being destroyed by the gray squirrels feed primarily on rodents.
- (C) No indigenous population of any other bird species apart from the endangered owls is threatened by the gray squirrels.
- (D) The owls that are threatened build their nests in the tops of trees, but the gray squirrels strip away bark from the trunks.
- (E) The officials' plan entails adding the poison to food sources that are usually eaten by rodents but not by other animals.

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Questions 9–10

Sales manager: Last year the total number of meals sold in our company's restaurants was much higher than it was the year before. Obviously consumers find our meals desirable.

Accountant: If you look at individual restaurants, however, you find that the number of meals sold actually decreased substantially at every one of our restaurants that was in operation both last year and the year before. The desirability of our meals to consumers has clearly decreased, given that this group of restaurants—the only ones for which we have sales figures that permit a comparison between last year and the year before—demonstrates a trend toward fewer sales.

9. If the sales figures cited by the accountant and the sales manager are both accurate, which one of the following must be true?
 - (A) The company opened at least one new restaurant in the last two years.
 - (B) The company's meals are less competitive than they once were.
 - (C) The quality of the company's meals has not improved over the past two years.
 - (D) The prices of the company's meals have changed over the past two years.
 - (E) The market share captured by the company's restaurants fell last year.
10. Which one of the following, if true, most seriously calls into question the accountant's argument?
 - (A) The company's restaurants last year dropped from their menus most of the new dishes that had been introduced the year before.
 - (B) Prior to last year there was an overall downward trend in the company's sales.
 - (C) Those of the company's restaurants that did increase their sales last year did not offer large discounts on prices to attract customers.
 - (D) Sales of the company's most expensive meal contributed little to the overall two-year sales increase.
 - (E) Most of the company's restaurants that were in operation throughout both last year and the year before are located in areas where residents experienced a severe overall decline in income last year.
11. A local chemical plant produces pesticides that can cause sterility in small mammals such as otters. Soon after the plant began operating, the incidence of sterility among the otters that swim in a nearby river increased dramatically. Therefore, pesticides are definitely contaminating the river.

Which one of the following arguments contains a flaw in reasoning that is similar to one in the argument above?

 - (A) The bacteria that cause tetanus live in the digestive tract of horses. Tetanus is a highly infectious disease. Consequently it must be that horses contract tetanus more frequently than do most other animals.
 - (B) A diet low in calcium can cause a drop in egg production in poultry. When chickens on a local farm were let out in the spring to forage for food, their egg production dropped noticeably. So the food found and eaten by the chickens is undeniably low in calcium.
 - (C) Animals that are undernourished are very susceptible to infection. Animals in the largest metropolitan zoos are not undernourished, so they surely must not be very susceptible to disease.
 - (D) Apes are defined by having, among other characteristics, opposable thumbs and no external tail. Recently, fossil remains of a previously unknown animal were found. Because this animal had opposable thumbs, it must have been an ape.
 - (E) The only animal that could have produced a track similar to this one is a bear. But there are no bears in this area of the country, so this animal track is a fake.

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12. Clothes made from natural fibers such as cotton, unlike clothes made from artificial fibers such as polyester often shrink when washed at high temperatures. The reason for this shrinkage is that natural fibers are tightly curled in their original state. Since the manufacturer of cloth requires straight fibers, natural fibers are artificially straightened prior to being made into cloth. High temperatures cause all fibers in cloth to return to their original states.

Which one of the following is most strongly supported by the information above?

- (A) Washing clothes made from natural fibers at low temperatures causes the fibers to straighten slightly.
- (B) High temperatures have no effect on the straightness of fibers in clothes made from a blend of natural and artificial fibers.
- (C) Clothes made from natural fibers stretch more easily than do clothes made from artificial fibers.
- (D) If natural fibers that have been straightened and used for cloth are curled up again by high temperatures, they cannot be straightened again.
- (E) Artificial fibers are straight in their original state.

13. Problems caused by the leaching of pollutants from dumps and landfills are worst in countries with an annual per capita economic output of \$4,000 to \$5,000, and less severe for considerably poorer and considerably richer countries. This is so because pollution problems increase during the early stages of a country's industrial development but then diminish as increasing industrial development generates adequate resources to tackle such problems. Therefore, problems caused by such leaching in Country X, where the annual per capita economic output is now \$5,000, should begin to diminish in the next few years.

Which one of the following is an assumption on which the argument depends?

- (A) Within the next few years, Country X will impose a system of fines for illegal waste disposal by its industrial companies.
- (B) Countries surrounding Country X will reduce the amount of pollution that their factories release into the air and water.
- (C) Industrial development in Country X will increase in the next few years.
- (D) Country X will begin the process of industrialization in the next few years.
- (E) No other country with a similar amount of industrial development has pollution problems that are as severe as those in Country X.

14. Critic: Many popular psychological theories are poor theories in that they are inelegant and do not help to dispel the mystery that surrounds our psyche. However, this is not really important. The theories produce the right results: therapeutically, they tend to have greater success than their more scientific rivals.

The statement about the relative therapeutic success of many popular psychological theories plays which one of the following roles in the critic's argument?

- (A) It is used to disprove evidence against these theories.
- (B) It is used to override some considerations against these theories.
- (C) It is used to suggest that popular psychological theories are actually better scientific explanations than are their rivals.
- (D) It is used to illustrate what the critic takes to be the most important aspect of scientific theories.
- (E) It is used to suggest that the popular theories may not be as devoid of explanatory power as one may be led to believe.

15. Tony: Few anarchists have ever performed violent actions. These few are vastly outnumbered by the violent adherents of other political ideologies. Therefore, the special association in the public mind between anarchism and political violence is unwarranted.

Keisha: Anarchists have always been few in number, whereas other ideologies have often spawned mass movements. Therefore, the proportion of anarchists who are violent is possibly greater than the proportion of adherents of other ideologies who are violent.

Keisha responds to Tony's argument in which one of the following ways?

- (A) She shows that Tony's conclusion is questionable because Tony bases it on a comparison that inappropriately involves absolute numbers rather than proportions.
- (B) She attempts to undermine Tony's conclusion by introducing plausible evidence that is incompatible with the evidence Tony offers in support of that conclusion.
- (C) She questions the accuracy of the claims on which Tony bases his conclusion.
- (D) She presents evidence that the two groups Tony has compared have no significant qualities in common.
- (E) She indicates that Tony has adopted questionable criteria for including certain people in the groups he is comparing.

16. Recent research shows that sound change (pronunciation shift) in a language is not gradual. New sounds often emerge suddenly. This confounds the classical account of sound change, whose central tenet is gradualness. Since this classical account must be discarded, sound-change theory in general must also be.

Which one of the following, if assumed, does most to justify the argument's conclusion?

- (A) The data on which the classical account of sound-change theory was based are now known to be inaccurate.
 - (B) The emergence of new sounds appears to be random.
 - (C) The meeting of linguistically disparate cultures can affect the sound of their languages in unpredictable ways.
 - (D) All theories of sound change rely heavily on the classical theory.
 - (E) For most languages, historical records of their earlier stages are scarce or nonexistent.
17. The stable functioning of a society depends upon the relatively long-term stability of the goals of its citizens. This is clear from the fact that unless the majority of individuals have a predictable and enduring set of aspirations, it will be impossible for a legislature to craft laws that will augment the satisfaction of the citizenry, and it should be obvious that a society is stable only if its laws tend to increase the happiness of its citizens.

The claim that a society is stable only if its laws tend to increase the happiness of its citizens plays which one of the following roles in the argument?

- (A) It is the conclusion of the argument.
- (B) It helps to support the conclusion of the argument.
- (C) It is a claim that must be refuted if the conclusion is to be established.
- (D) It is a consequence of the argument.
- (E) It is used to illustrate the general principle that the argument presupposes.

18. Astronauts who experience weightlessness frequently get motion sickness. The astronauts see their own motion relative to passing objects, but while the astronauts are weightless their inner ears indicate that their bodies are not moving. The astronauts' experience is best explained by the hypothesis that conflicting information received by the brain about the body's motion causes motion sickness.

Which one of the following, if true, provides the strongest additional support for the hypotheses above?

- (A) During rough voyages ship passengers in cabins providing a view of the water are less likely to get motion sickness than are passengers in cabins providing no view.
 - (B) Many people who are experienced airplane passengers occasionally get motion sickness.
 - (C) Some automobile passengers whose inner ears indicate that they are moving and who have a clear view of the objects they are passing get motion sickness.
 - (D) People who have aisle seats in trains or airplanes are as likely to get motion sickness as are people who have window seats.
 - (E) Some astronauts do not get motion sickness even after being in orbit for several days.
19. Pollen and other allergens can cause cells in the nose to release histamine, a chemical that inflames nasal tissue and causes runny nose, congestion, and sneezing. Antihistamines minimize these allergy symptoms by blocking the action of histamine. In addition, antihistamines have other effects, including drowsiness. However, histamine plays no role in the processes by which colds produce their symptoms.
- If the statements above are true, which one of the following must also be true?
- (A) Pollen and other allergens do not cause colds.
 - (B) Colds are more difficult to treat than allergies.
 - (C) Antihistamines, when taken alone, are ineffective against congestion caused by colds.
 - (D) The sleeplessness that sometimes accompanies allergies can be effectively treated with antihistamines.
 - (E) Any effect antihistamines may have in reducing cold symptoms does not result from blocking the action of histamine.

20. A poem is any work of art that exploits some of the musical characteristics of language, such as meter, rhythm, euphony, and rhyme. A novel, though it may be a work of art in language, does not usually exploit the musical characteristics of language. A symphony, though it may be a work of art that exploit the musical characteristics of sounds, rarely involves language. A limerick, though it may exploit some musical characteristics of language, is not, strictly speaking, art.

The statements above, if true, most strongly support which one of the following?

- (A) If a creation is neither a poem, nor a novel, nor a symphony, then it is not a work of art.
 - (B) An example of so-called blank verse, which does not rhyme, is not really a poem.
 - (C) If a novel exploits meter and rhyme while standing as a work of art, then it is both a novel and a poem.
 - (D) Limericks constitute a nonartistic type of poetry.
 - (E) If a symphony does not exploit the musical characteristics of sound, then it is not a work of art.
21. In order to pressure the government of Country S to become less repressive, some legislators in Country R want to ban all exports from R to S. Companies in R that manufacture telecommunication equipment such as telephones and fax machines have argued that exports of their products should be exempted from the ban, on the grounds that it is impossible for a country to remain repressive when telecommunication equipment is widely available to the population of that country.
- Which one of the following is an assumption on which the argument given by the manufacturers depends?
- (A) The government of S has recently increased the amount of telecommunication equipment it allows to be imported into the country.
 - (B) The telecommunication equipment that would be imported into S if the exemption were to be granted would not be available solely to top government officials in S.
 - (C) A majority of the members of R's legislature do not favor exempting telecommunication equipment from the ban on exports to Country S.
 - (D) Of all exports that could be sent to Country S, telecommunication equipment would be the most effective in helping citizens of S oppose that country's repressive government.
 - (E) Without pressure from Country R, the government of S would be able to continue repressing its citizens indefinitely.

22. Some people believe that saying that an organization is hierarchical says everything there is to say about how that organization operates. All bureaucratically controlled organizations are hierarchical. Yet the Public Works Department, although bureaucratically controlled, operates quite differently than most other bureaucratically controlled organizations operate.

If the statements above are true, which one of the following must also be true on the basis of them?

- (A) The Public Works Department operates more like a nonbureaucratically controlled organization than like a bureaucratically controlled organization.
 - (B) Any organization that is hierarchical is bureaucratically controlled.
 - (C) From the fact that a given organization is hierarchical nothing can reliably be concluded about how that organization operates.
 - (D) Not all hierarchical organizations operate in the same way.
 - (E) Whether or not an organization is bureaucratically controlled has nothing to do with how that organization operates.
23. Research indicates that 90 percent of extreme insomniacs consume large amount of coffee. Since Tom drinks a lot of coffee, it is quite likely that he is an extreme insomniac.
- Which one of the following most accurately describes a flaw in the argument's reasoning?
- (A) It fails to acknowledge the possibility that Tom is among the 10 percent of people who drink large amounts of coffee who are not extreme insomniacs.
 - (B) It fails to consider the possible contribution to extreme insomnia of other causes of insomnia besides coffee.
 - (C) It relies on evidence that does not indicate the frequency of extreme insomnia among people who drink large amounts of coffee.
 - (D) It draws an inference about one specific individual from evidence that describes only the characteristics of a class of individuals
 - (E) It presumes without warrant that drinking coffee always causes insomnia.

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24. Folklorist: Oral traditions are often preferable to written ones. Exclusive dependence on speech improves the memory; literate populations grow sluggish in recall, running to written sources whenever they need information. Because writing has no limits, it can proliferate to the point where writer and reader both become confused. Since oral traditions are dependent on memory, what is useless and irrelevant is quickly eradicated.

Which one of the following principles, if valid, most helps to justify the folklorist's argumentation?

- (A) Accuracy in communication breeds mental self-reliance.
 - (B) Literate populations need to make efforts to communicate efficiently.
 - (C) Tradition is of greater value than accumulation of knowledge.
 - (D) Economy of expression is to be preferred over verbosity.
 - (E) Ideas that cannot be discussed clearly should not be discussed at all.
25. When interviewing job candidates, personnel managers not only evaluate a candidate's work experience and educational background but also inquire about hobbies. Personnel managers try to justify these inquiries by noting that the enthusiasm someone shows for a hobby may well carry over to enthusiasm for a job. But such enthusiasm may also indicate that the candidate is less concerned with work than with play. Therefore personnel managers should not inquire about a candidate's hobbies.

The argument is flawed because it overlooks each of the following possibilities EXCEPT:

- (A) A candidate's involvement in particular hobbies may indicate a capacity to make long-term commitments.
- (B) Candidates who have no hobbies may pretend that they have one when asked in an interview.
- (C) Inquiries about a hobby may put candidates at ease, eliciting more honest responses about important questions.
- (D) Having certain kinds of hobbies may indicate that a candidate has good organizational skills.
- (E) Personnel managers may make better choices among candidates if they are not restricted from asking particular types of questions.

26. Researcher: The vast majority of a person's dreams bear no resemblance whatsoever to real events that follow the dreams. Thus, it is unreasonable to believe that one has extrasensory perception solely on the basis of having had several vivid dreams about events that happen after the dreams.

Which one of the following arguments is most similar in its reasoning to the argument above?

- (A) It is unreasonable to believe that a new drug cures heart disease when it is tested, albeit successfully, on only a few patients. Most new drugs require testing on large numbers of patients before they are considered effective.
- (B) Many people who undergo surgery for ulcers show no long-term improvement. So it is unreasonable to believe that surgery for ulcers is effective, even though ulcer surgery benefits many people as well.
- (C) Even though many cancer patients experience remissions without drinking herbal tea, it is unreasonable to believe that not drinking herbal tea causes such remissions. Several factors are known to be relevant to cancer remission.
- (D) A number of people who die prematurely take aspirin. But it is unreasonable to conclude that aspirin is dangerous. Most people who take aspirin do not die prematurely.
- (E) A significant number of children raised near power lines develop cancer. So it is unreasonable to deny a connection between living near power lines and developing cancer, even though many people living near power lines never develop cancer.

S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT WORK ON ANY OTHER SECTION IN THE TEST.