

LSAT SAMPLE PAPER

Section I

24 Questions

Time - 35 minutes

1. One of the truisms of the advertising industry is that it is rarely necessary to say something of substance in an advertisement in order to boost sales. Instead, one only needs to attract the potential customer's attention; memory does the rest, for it is more important for sales that people know of a product than that they know something about it. Which of the following is assumed by the argument?

- A. People can remember a product without having much information about it.
- B. Advertisements, in their own way, function to improve people's memories.
- C. Attracting a potential customer's attention is a simple matter.
- D. The advertising industry knows little of substance about the products it promotes.

2. Why save endangered species? For the general public, endangered species appear to be little more than biological oddities. A very different perception is gained from considering the issue of extinction in a wider context. The important point is that many major social advances have been made on the basis of life forms whose worth would never have been perceived in advance. Consider the impact of rubber-producing plants on contemporary life and industry: approximately two-thirds of the world's rubber supply comes from rubber producing plants and is made into objects as diverse as rubber washers and rubber boots. The point of the passage is made chiefly by

- A. acknowledging the validity of two opposing points of view
- B. appealing to the emotions of the audience rather than to their intellects
- C. suggesting a useful perspective for viewing the question raised at the beginning of the passage
- D. trying to discredit the view of an opponent without presenting an alternative hypothesis

3. Only a member of the Regionalist party would oppose the bill for a new recycling law that would protect the environment from industrial interests. Ellen cannot be a member of the Regionalist party because she supports the bill. Which of the following statements points out why the conclusion is invalidly drawn?

- A. Regionalist party members have organized to oppose industrial interests on several other issues.
- B. Industrial interests need not oppose the protection of the environment.
- C. Past attempts to protect the environment through recycling laws have failed.
- D. It is possible that some Regionalist party members may not oppose the bill for a new recycling law.

4. Roberta was born in 1967, and so in 1976 she was nine years old. It is clear from this example that the last two digits of a person's birth year will be the same as the last two digits of the year of that person's ninth birthday, except that the position of the digits will be reversed. Which of the following is the best criticism of the assertions made?

- A. The generalization is valid only for those birth years that do not end in two zeroes.
- B. The example does not exhibit the same principle as is expressed in the generalization based on it.
- C. The generalization is valid only for those birth years in which the last digit is one greater than the second-to-last digit.
- D. The example cannot be shown to be correct unless the truth of the generalization is already presupposed.

5. The greatest chance for the existence of extraterrestrial life is on a planet beyond our solar system. The Milky Way galaxy alone contains 100 billion other suns, many of which could be accompanied by planets similar enough to Earth to make them suitable abodes of life. The statement presupposes which of the following?

- A. Living creatures on another planet would probably have the same appearance as those on Earth.
- B. Life cannot exist on other planets in our solar system.
- C. If the appropriate physical conditions exist, life is an inevitable consequence.
- D. It is likely that life on another planet would require conditions similar to those on Earth.

6. The state with the greatest fraction of its population in urban areas, if the urban areas are considered to include the suburbs, is California. The West is highly urbanized, but California is exceptional even in that region: 91 percent of its population lives in urban areas. Geographically, however, California is rural: 96 percent of its land is outside urban areas. If all of the statements are true, which of the following is best supported on the basis of them?

- A. No state has a smaller fraction of its population in rural areas than California has.
- B. The current rate of population growth in California's urban areas exceeds that current rate of population growth in California's rural areas.
- C. In California 96 percent of the population lives on 9 percent of the land.
- D. No state has a smaller area devoted to urban settlement than California has.

7. A ten-year comparison between the countries of Arudia and Cazonia in terms of crop yields per acre revealed that when only planted acreage is compared, Cazonian yields are equal to 68 percent of Arudian yields. When total agricultural acreage (planted acreage plus fallow acreage) is compared, however, Cazonia's yield is 114 percent of Arudia's yield. From the information above, which of the following can be most reliably inferred about Arudian and Cazonian agriculture during the ten-year period?

- A. A higher percentage of total agricultural acreage was fallow in Arudia than in Cazonia.
- B. Arudia had more fallow acreage than planted acreage.
- C. Fewer total acres of available agricultural land were fallow in Cazonia than in Arudia.
- D. Cazonia had more planted acreage than fallow acreage.

8. In the United States between 1850 and 1880, the number of farmers continued to increase, but at a rate lower than that of the general population. Which of the following statements directly contradicts the information presented above?

- A. The number of farmers in the general population increased slightly in the thirty years between 1850 and 1880.
- B. The rate of growth of the United States labor force and the rate of growth of the general population rose simultaneously in the thirty years between 1850 and 1880.
- C. The proportion of farmers in the United States labor force remained constant in the thirty years between 1850 and 1880.
- D. The proportion of farmers in the general population increased from 68 percent in 1850 to 72 percent in 1880.

9. The 38 corporations that filed United States income tax returns showing a net income of more than \$ 100 million accounted for 53 percent of the total taxable income from foreign sources reported on all tax returns. Sixty percent of the total taxable income from foreign

sources came from the 200 returns reporting income from 10 or more countries. If the statements above are true, which of the following must also be true?

- A. Most of the total taxable income earned by corporations with net income above \$ 100 million was earned from foreign sources.
- B. Wealthy individuals with large personal incomes reported 47 percent of the total taxable income from foreign sources.
- C. Income from foreign sources amounted to between 53 and 60 percent of all reported taxable income.
- D. Some of the corporations with net income above \$ 100 million reported income from 10 or more countries.

10. The greater the division of labor in an economy, the greater the need for coordination. This is because increased division of labor entails a larger number of specialized producers, which results in a greater burden on managers and, potentially, in a greater number of disruptions of supply and production. There is always more division of labor in market economies than in planned economies. If all of the statements given are true, the which of the following must also be true?

- A. Disruptions of supply and production are more frequent in planned economies than in market economies.
- B. There are more specialized producers in planned economies than in market economies.
- C. The need for coordination in market economies is greater than in planned economies.
- D. A manager's task is easier in a market economy than in a planned economy.

11. Therapists find that treatment of those people who seek help because they are unable to stop smoking or overeating is rarely successful. From these experiences, therapists have concluded that such habits are intractable, and success in breaking them is rare. As surveys show, millions of people have dropped the habit of smoking, and many people have successfully managed a substantial weight loss. If all of the statements are correct, an Explanation of their apparent contradiction is provided by the hypothesis that

- A. there have been some successes in therapy, and those successes were counted in the surveys
- B. it is easier to stop smoking than it is to stop overeating
- C. it is easy to break the habits of smoking and overeating by exercising willpower

D. those who succeed in curing themselves do not go for treatment and so are not included in the therapists' data

12. "On the whole," Ms. Dennis remarked, "engineering students are lazier now than they used to be. I know because fewer and fewer of my students regularly do the work they are assigned." Which of the following identifies a flaw in Ms. Dennis' reasoning?

- A. Plenty of people besides engineering students do not work as hard as they should.
- B. Ms. Dennis does not consider the excuses her students may have for being lazy.
- C. The argument does not propose any constructive solutions to the problem it identifies.
- D. The argument assumes that Ms. Dennis' students are representative of engineering students in general.

13. The overall operating costs of many small farms are reduced when the farmers of small farms eliminate expensive commercial chemical fertilizers and pesticides in favor of crop rotation and the twice-yearly use of manure as fertilizer. Therefore, farmers of large farms should adopt the same measures. They will then realize even greater total savings than do the small farmers. The argument assumes that

- A. it is more cost-effective for small farm farmers to eliminate the use of commercial fertilizers and pesticides than it is for large farm farmers to do so
- B. a sufficient amount of manure will be available for the fields of large farm farmers
- C. large farm farmers would not realize similar cost benefits by using treated sewage sludge instead of commercial chemical fertilizers
- D. large farm farmers generally look to small farm farmers for innovative ways of increasing crop yields or reducing operating costs

14. Factory workers in Beltania are guaranteed lifetime jobs, bonuses paid on the basis of productivity and corporate profits, and a wage rate that is not attached to a particular job. Paradoxically, these guarantees do not discourage factory owners from introducing labor-saving machinery. Such innovations are to the factory owners' advantage despite the fact that the owners must protect the wages of their workers. Which of the following, if true, most helps to explain why the introduction of labor-saving machinery is advantageous to factory owners?

- A. Before a Beltanian Factory worker is hired, he or she must present a record of his or her previous productivity.

- B. Labor-saving machinery increases productivity, thus yielding profits that more than cover the cost of retraining workers for other jobs.
- C. The purchase and maintenance of new machinery adds significantly to the final cost of the goods produced.
- D. Factory workers demand a change of procedure in the routine tasks they perform.

15. During the day in Lake Constance, the zooplankton *D. hyaline* departs for the depths where food is scarce and the water cold. *D. galeata* remains near the warm surface where food is abundant. Even though *D. galeata* grows and reproduces much faster, its population is often outnumbered by *D. hyaline*. Which of the following, if true, most helps to resolve the apparent paradox?

- A. The number of species of zooplankton living at the bottom of the lake is twice that of species living at the surface.
- B. Predators of zooplankton, such as whitefish and perch, live and feed near the surface of the lake during the day.
- C. In order to make the most of scarce food resources, *D. hyaline* matures more slowly than *D. galeata*.
- D. *D. galeata* clusters under vegetation during the hottest part of the day to avoid the Sun's rays.

16. A study attitudes toward prime-time television programs showed that programs with identical rating in terms of number of people watching received highly divergent marks for quality from their viewers. This additional piece of information could prove valuable for advertisers, who might be well advised to spend their advertising dollars for programs that viewers feel are of high quality. Which of the following, if true, supports the claim that information about viewers' perceptions of the quality of television programs could be valuable to advertisers?

- A. The number of programs judged to be of high quality constituted a high percentage of the total number of programs judged.
- B. Many of the programs judged to be of high quality were shown on noncommercial networks.
- C. Television viewers more frequently remember the sponsors of programs they admire than the sponsors of programs they judge mediocre.
- D. Television viewers tend to watch new programs only when those programs follow old, familiar programs.

17. Each year, fires in the United States cause \$ 12 billion in property losses, insurance costs, fire-fighting expenses, and loss of worker productivity. These fire losses are seven times those in Japan on a per capita basis. Which of the following, if true, would be LEAST likely to be a factor contributing to the difference between fire losses in Japan and those in the United States?

- A. Significantly more money per capita is spent each year on fire-prevention efforts in the United States than is spent on such efforts in Japan.
- B. The rate of arson, a major contributor to fire statistics in the United States, is almost negligible in Japan.
- C. Most Japanese homes, unlike those in the United States, are equipped with specially designed and effective fire-extinguishing equipment.
- D. Foam-based and plastic furniture, less popular in Japan than in the United States, ignites readily and releases twice the heat energy of equivalent weights of natural fibers.

18. Some would have you believe that the economic problems of Western Europe in the 1980s were caused by the Organization of Petroleum Exporting Countries (OPEC) oil cartel. This is nonsense. After all, Great Britain was not dependent on OPEC oil and yet Great Britain suffered from the same economic problems that afflicted France and West Germany. The author's point is made primarily by

- A. offering Great Britain as a counterexample
- B. analyzing the economic difficulties of France and West Germany
- C. pointing out a misconception in reasoning
- D. proposing an alternative Explanation

19. Why save endangered species? For the general public, endangered species appear to be little more than biological oddities. A very different perception is gained from considering the issue of extinction in a wider context. The important point is that many major social advances have been made on the basis of life forms whose worth would never have been perceived in advance. Consider the impact of rubber-producing plants on contemporary life and industry: approximately two-thirds of the world's rubber supply comes from rubber-producing plants and is made into objects as diverse as rubber washers and rubber boots. Any of the following facts could be used as illustrative examples in addition to the example of rubber-producing plants EXCEPT:

- A. The discovery of the vaccine for smallpox resulted from observing the effect of the cowpox virus on the hands of dairy workers.
- B. The major source of our pharmaceutical supplies is plants, some of them commonly thought of as weeds.
- C. Certain antibiotics were originally derived from mold growing on cantaloupes.
- D. Plastic is a unique product derived from petroleum and petroleum by-products.

20. Superficially, college graduates in 1982 resembled college graduates of 1964; they were fairly conservative, well dressed, and interested in tradition; they respected their parents. But there was a deep-seated difference: a majority of the members of the class of 1982 who were surveyed in their freshman year stated that making a good income was an important reason for their decision to go to college. The statements in the passage, if true, best support which of the following conclusions?

- A. The concerns of college graduates of 1964 were superficial compared to the financial worries of college graduates of 1982.
- B. Fewer than half the students of the class of 1964 declared as freshmen that they entered college in order to increase their earning potential.
- C. Educational background did not play as significant a part in determining income in 1964 as it did in 1982.
- D. A majority of the members of the class of 1964 revised their reasons for attending college between their freshman year and college graduation.

21. The Supreme Court is no longer able to keep pace with the tremendous number of cases it agrees to decide. The Court schedules and hears 160 hours of oral argument each year, and 108 hours of next year's term will be taken up by cases left over from this year. Certainly the Court cannot be asked to increase its already burdensome hours. The most reasonable long-range solution to this problem is to allow the Court to decide many cases without hearing oral argument; in this way the Court might eventually increase dramatically the number of cases it decides each year.

Which of the following, if true, could best be used to argue against the feasibility of the solution suggested?

- A. The time the Court spends hearing oral argument is only a small part of the total time it spends deciding a case.
- B. The Court cannot legitimately avoid hearing oral argument in any case left over from last year.
- C. Most authorities agree that 160 hours of oral argument is the maximum number that the Court can handle per year.
- D. Even now the Court decides a small number of cases without hearing oral argument.

22. Some insects are able to feed on the leaves of milkweed, a toxic plant, by first cutting and draining the vein that secretes the toxin. This method of detoxification guarantees that some insects will always be able to eat milkweed, because the plant could never evolve to produce a toxin that is lethal in the trace amounts left after the vein is cut. The argument depends on which of the following assumptions?

- A. The insects that successfully detoxify milkweed are not able to undergo the evolutionary changes necessary to allow them to detoxify other plants.
- B. Unlike milkweed, other kinds of toxic plants would be able to overcome their vulnerabilities to predators through evolutionary changes.
- C. The toxin-carrying veins of the milkweed plant can never evolve in such a way that insects cannot cut through.
- D. The method of detoxification used by insect predators of milkweed would not successfully detoxify other kinds of toxic plants.

23. "On the whole," Ms. Dennis remarked, "engineering students are lazier now than they used to be. I know because fewer and fewer of my students regularly do the work they are assigned." Ms. Dennis' conclusion depends on which of the following assumptions?

- A. Engineering students are working less because, in a booming market, they are spending more and more time investigating different job opportunities.
- B. Whether or not students do the work they are assigned is a good indication of how lazy they are.
- C. Engineering students should work harder than students in less demanding fields.
- D. Ms. Dennis' students are doing less work because Ms. Dennis is not as effective a teacher as she once was.

24. In recent years shrimp harvests by commercial fishermen in the South Atlantic have declined dramatically in total weight. The decline is due primarily to competition from a growing number of recreational fishermen, how are able to net young shrimp in the estuaries where they mature. Which of the following regulatory actions would most help increase the weight of shrimp harvests by commercial fishermen?

- A. Requiring commercial fishermen to fish in estuaries
- B. Limiting the total number of excursions per season for commercial fishermen
- C. Requiring recreational fishermen to use large-mesh nets in their fishing
- D. Putting an upper limit on the size of the shrimp recreational fishermen are allowed to catch

SECTION II

Time—35 minutes

23 Questions

Directions: Each group of questions in this section is based on a set of conditions. In answering some of the questions, it may be useful to draw a rough diagram. Choose the response that most accurately and completely answers each question and blacken the corresponding space on your answer sheet.

Questions 1–5

A company employee generates a series of five-digit product codes in accordance with the following rules:

The codes use the digits 0, 1, 2, 3, and 4, and no others.

Each digit occurs exactly once in any code.

The second digit has a value exactly twice that of the first digit.

The value of the third digit is less than the value of the fifth digit.

1. If the last digit of an acceptable product code is 1, it must be true that the

(A) first digit is 2

(B) second digit is 0

(C) third digit is 3

(D) fourth digit is 4

(E) fourth digit is 0

2. Which one of the following must be true about any acceptable product code?

(A) The digit 1 appears in some position before the digit 2.

(B) The digit 1 appears in some position before the digit 3.

(C) The digit 2 appears in some position before the digit 3.

(D) The digit 3 appears in some position before the digit 0.

(E) The digit 4 appears in some position before the digit 3.

3. If the third digit of an acceptable product code is not 0, which one of the following must be true?

(A) The second digit of the product code is 2.

(B) The third digit of the product code is 3.

(C) The fourth digit of the product code is 0.

(D) The fifth digit of the product code is 3.

(E) The fifth digit of the product code is 1.

4. Any of the following pairs could be the third and fourth digits, respectively, of an acceptable product code, EXCEPT:

(A) 0, 1 (B) 0, 3 (C) 1, 0 (D) 3, 0 (E) 3, 4

5. Which one of the following must be true about any acceptable product code?

(A) There is exactly one digit between the digit 0 and the digit 1.

(B) There is exactly one digit between the digit 1 and the digit 2.

(C) There are at most two digits between the digit 1 and the digit 3.

(D) There are at most two digits between the digit 2 and the digit 3.

(E) There are at most two digits between the digit 2 and the digit 4.

Questions 6–10

Exactly three films—Greed, Harvest, and Limelight—are shown during a film club’s festival held on Thursday, Friday, and Saturday. Each film is shown at least once during the festival but never more than once on a given day. On each day at least one film is shown. Films are shown one at a time. The following conditions apply:

On Thursday Harvest is shown, and no film is shown after it on that day.

On Friday either Greed or Limelight, but not both, is shown, and no film is shown after it on that day.

On Saturday either Greed or Harvest, but not both, is shown, and no film is shown after it on that day.

6. Which one of the following could be a complete and accurate description of the order in which the films are shown at the festival?

(A) Thursday: Limelight, then Harvest; Friday: Limelight; Saturday: Harvest

(B) Thursday: Harvest; Friday: Greed, then Limelight; Saturday: Limelight, then Greed

(C) Thursday: Harvest; Friday: Limelight; Saturday: Limelight, then Greed

(D) Thursday: Greed, then Harvest, then Limelight; Friday: Limelight; Saturday: Greed

(E) Thursday: Greed, then Harvest; Friday: Limelight, then Harvest; Saturday: Harvest

7. Which one of the following CANNOT be true?

(A) Harvest is the last film shown on each day of the festival.

(B) Limelight is shown on each day of the festival.

(C) Greed is shown second on each day of the festival.

(D) A different film is shown first on each day of the festival.

(E) A different film is shown last on each day of the festival.

8. If Limelight is never shown again during the festival once Greed is shown, then which one of the following is the maximum number of film showings that could occur during the festival?

(A) three

(B) four

(C) five

(D) six

(E) seven

9. If Greed is shown exactly three times, Harvest is shown exactly twice, and Limelight is shown exactly once, then which one of the following must be true?

(A) All three films are shown on Thursday.

(B) Exactly two films are shown on Saturday.

(C) Limelight and Harvest are both shown on Thursday.

(D) Greed is the only film shown on Saturday.

(E) Harvest and Greed are both shown on Friday.

10. If Limelight is shown exactly three times, Harvest is shown exactly twice, and Greed is shown exactly once, then which one of the following is a complete and accurate list of the films that could be the first film shown on Thursday?

(A) Harvest

(B) Limelight

(C) Greed, Harvest

(D) Greed, Limelight

(E) Greed, Harvest, Limelight

Questions 11–17

A cruise line is scheduling seven week-long voyages for the ship Freedom. Each voyage will occur in exactly one of the first seven weeks of the season: weeks 1 through 7. Each voyage will be to exactly one of four destinations:

Guadeloupe, Jamaica, Martinique, or Trinidad. Each destination will be scheduled for at least one of the weeks. The following conditions apply to Freedom's schedule:

Jamaica will not be its destination in week 4.

Trinidad will be its destination in week 7.

Freedom will make exactly two voyages to Martinique, and at least one voyage to Guadeloupe will occur in some week between those two voyages.

Guadeloupe will be its destination in the week preceding any voyage it makes to Jamaica.

No destination will be scheduled for consecutive weeks.

11. Which one of the following is an acceptable schedule of destinations for Freedom, in order from week 1 through week 7?

- (A) Guadeloupe, Jamaica, Martinique, Trinidad, Guadeloupe, Martinique, Trinidad
- (B) Guadeloupe, Martinique, Trinidad, Martinique, Guadeloupe, Jamaica, Trinidad
- (C) Jamaica, Martinique, Guadeloupe, Martinique, Guadeloupe, Jamaica, Trinidad
- (D) Martinique, Trinidad, Guadeloupe, Jamaica, Martinique, Guadeloupe, Trinidad
- (E) Martinique, Trinidad, Guadeloupe, Trinidad, Guadeloupe, Jamaica, Martinique

12. Which one of the following CANNOT be true about Freedom's schedule of voyages?

- (A) Freedom makes a voyage to Trinidad in week 6.
- (B) Freedom makes a voyage to Martinique in week 5.
- (C) Freedom makes a voyage to Jamaica in week 6.
- (D) Freedom makes a voyage to Jamaica in week 3.

(E) Freedom makes a voyage to Guadeloupe in week 3.

13. If Freedom makes a voyage to Trinidad in week 5, which one of the following could be true?

(A) Freedom makes a voyage to Trinidad in week 1.

(B) Freedom makes a voyage to Martinique in week 2.

(C) Freedom makes a voyage to Guadeloupe in week 3.

(D) Freedom makes a voyage to Martinique in week 4.

(E) Freedom makes a voyage to Jamaica in week 6.

14. If Freedom makes a voyage to Guadeloupe in week 1 and a voyage to Jamaica in week 5, which one of the following must be true?

(A) Freedom makes a voyage to Jamaica in week 2.

(B) Freedom makes a voyage to Trinidad in week 2.

(C) Freedom makes a voyage to Martinique in week 3.

(D) Freedom makes a voyage to Guadeloupe in week 6.

(E) Freedom makes a voyage to Martinique in week 6.

15. If Freedom makes a voyage to Guadeloupe in week 1 and to Trinidad in week 2, which one of the following must be true?

(A) Freedom makes a voyage to Martinique in week 3.

(B) Freedom makes a voyage to Martinique in week 4.

(C) Freedom makes a voyage to Martinique in week 5.

(D) Freedom makes a voyage to Guadeloupe in week 3.

(E) Freedom makes a voyage to Guadeloupe in week 5.

16. If Freedom makes a voyage to Martinique in week 3, which one of the following could be an accurate list of Freedom's destinations in week 4 and week 5, respectively?

- (A) Guadeloupe, Trinidad
- (B) Jamaica, Guadeloupe
- (C) Martinique, Trinidad
- (D) Trinidad, Jamaica
- (E) Trinidad, Martinique

17. Which one of the following must be true about Freedom's schedule of voyages?

- (A) Freedom makes a voyage to Guadeloupe either in week 1 or else in week 2.
- (B) Freedom makes a voyage to Martinique either in week 2 or else in week 3.
- (C) Freedom makes at most two voyages to Guadeloupe.
- (D) Freedom makes at most two voyages to Jamaica.
- (E) Freedom makes at most two voyages to Trinidad

Questions 18–23

There are exactly three recycling centers in Rivertown: Center 1, Center 2, and Center 3. Exactly five kinds of material are recycled at these recycling centers: glass, newsprint, plastic, tin, and wood. Each recycling center recycles at least two but no more than three of these kinds of material. The following conditions must hold:

Any recycling center that recycles wood also recycles newsprint.

Every kind of material that Center 2 recycles is also recycled at Center 1.

Only one of the recycling centers recycles plastic, and that recycling center does not recycle glass.

18. Which one of the following could be an accurate account of all the kinds of material recycled at each recycling center in Rivertown?

- (A) Center 1: newsprint, plastic, wood; Center 2: newsprint, wood; Center 3: glass, tin, wood
- (B) Center 1: glass, newsprint, tin; Center 2: glass, newsprint, tin; Center 3: newsprint, plastic, wood

(C) Center 1: glass, newsprint, wood; Center 2: glass, newsprint, tin; Center 3: plastic, tin

(D) Center 1: glass, plastic, tin; Center 2: glass, tin; Center 3: newsprint, wood

(E) Center 1: newsprint, plastic, wood; Center 2: newsprint, plastic, wood; Center 3: glass, newsprint, tin

19. Which one of the following is a complete and accurate list of the recycling centers in Rivertown any one of which could recycle plastic?

(A) Center 1 only

(B) Center 3 only

(C) Center 1, Center 2

(D) Center 1, Center 3

(E) Center 1, Center 2, Center 3

20. If Center 2 recycles three kinds of material, then which one of the following kinds of material must Center 3 recycle?

(A) glass

(B) newsprint

(C) plastic

(D) tin

(E) wood

21. If each recycling center in Rivertown recycles exactly three kinds of material, then which one of the following could be true?

(A) Only Center 2 recycles glass.

(B) Only Center 3 recycles newsprint.

(C) Only Center 1 recycles plastic.

(D) Only Center 3 recycles tin.

(E) Only Center 1 recycles wood.

22. If Center 3 recycles glass, then which one of the following kinds of material must Center 2 recycle?

(A) glass

(B) newsprint

(C) plastic

(D) tin

(E) wood

23. If Center 1 is the only recycling center that recycles wood, then which one of the following could be a complete and accurate list of the kinds of material that one of the recycling centers recycles?

(A) plastic, tin

(B) newsprint, wood

(C) newsprint, tin

(D) glass, wood

(E) glass, tin

SECTION III

Time—35 minutes

25 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. Economist: Every business strives to increase its productivity, for this increases profits for the owners and the likelihood that the business will survive. But not all efforts to increase productivity are beneficial to the business as a whole. Often, attempts to increase productivity decrease the number of employees, which clearly harms the dismissed employees as well as the sense of security of the retained employees.

Which one of the following most accurately expresses the main conclusion of the economist's argument?

- (A) If an action taken to secure the survival of a business fails to enhance the welfare of the business's employees, that action cannot be good for the business as a whole.
- (B) Some measures taken by a business to increase productivity fail to be beneficial to the business as a whole.
- (C) Only if the employees of a business are also its owners will the interests of the employees and owners coincide, enabling measures that will be beneficial to the business as a whole.
- (D) There is no business that does not make efforts to increase its productivity.
- (E) Decreasing the number of employees in a business undermines the sense of security of retained employees.

2. All Labrador retrievers bark a great deal. All Saint Bernards bark infrequently. Each of Rosa's dogs is a cross between a Labrador retriever and a Saint Bernard. Therefore, Rosa's dogs are moderate barkers.

Which one of the following uses flawed reasoning that most closely resembles the flawed reasoning used in the argument above?

- (A) All students who study diligently make good grades. But some students who do not study diligently also make good grades. Jane studies somewhat diligently. Therefore, Jane makes somewhat good grades.
- (B) All type A chemicals are extremely toxic to human beings. All type B chemicals are nontoxic to human beings. This household cleaner is a mixture of a type A chemical and a type B chemical. Therefore, this household cleaner is moderately toxic.

(C) All students at Hanson School live in Green County. All students at Edwards School live in Winn County. Members of the Perry family attend both Hanson and Edwards. Therefore, some members of the Perry family live in Green County and some live in Winn County.

(D) All transcriptionists know shorthand. All engineers know calculus. Bob has worked both as a transcriptionist and as an engineer. Therefore, Bob knows both shorthand and calculus.

(E) All of Kenisha's dresses are very well made. All of Connie's dresses are very badly made. Half of the dresses in this closet are very well made, and half of them are very badly made. Therefore, half of the dresses in this closet are Kenisha's and half of them are Connie's.

3. A century in certain ways is like a life, and as the end of a century approaches, people behave toward that century much as someone who is nearing the end of life does toward that life. So just as people in their last years spend much time looking back on the events of their life, people at a century's end _____. Which one of the following most logically completes the argument?

(A) reminisce about their own lives

(B) fear that their own lives are about to end

(C) focus on what the next century will bring

(D) become very interested in the history of the century just ending

(E) reflect on how certain unfortunate events of the century could have been avoided

4. Consumer: The latest Connorly Report suggests that Ocksenfrey prepackaged meals are virtually devoid of nutritional value. But the Connorly Report is commissioned by Danto Foods, Ocksenfrey's largest corporate rival, and early drafts of the report are submitted for approval to Danto Foods' public relations department. Because of the obvious bias of this report, it is clear that Ocksenfrey's prepackaged meals really are nutritious. The reasoning in the consumer's argument is most vulnerable to criticism on the grounds that the argument

(A) treats evidence that there is an apparent bias as evidence that the Connorly Report's claims are false

(B) draws a conclusion based solely on an unrepresentative sample of Ocksenfrey's products

(C) fails to take into account the possibility that Ocksenfrey has just as much motivation to create negative publicity for Danto as Danto has to create negative publicity for Ocksenfrey

(D) fails to provide evidence that Danto Foods' prepackaged meals are not more nutritious than

Ocksenfrey's are

(E) presumes, without providing justification, that Danto Foods' public relations department would not approve a draft of a report that was hostile to Danto Foods' products

5. Scientist: Earth's average annual temperature has increased by about 0.5 degrees Celsius over the last century. This warming is primarily the result of the buildup of minor gases in the atmosphere, blocking the outward flow of heat from the planet. Which one of the following, if true, would count as evidence against the scientist's explanation of Earth's warming?

(A) Only some of the minor gases whose presence in the atmosphere allegedly resulted in the phenomenon described by the scientist were produced by industrial pollution.

(B) Most of the warming occurred before 1940, while most of the buildup of minor gases in the atmosphere occurred after 1940.

(C) Over the last century, Earth received slightly more solar radiation in certain years than it did in others.

(D) Volcanic dust and other particles in the atmosphere reflect much of the Sun's radiation back into space before it can reach Earth's surface.

(E) The accumulation of minor gases in the atmosphere has been greater over the last century than at any other time in Earth's history.

6. An undergraduate degree is necessary for appointment to the executive board. Further, no one with a felony conviction can be appointed to the board. Thus, Murray, an accountant with both a bachelor's and a master's degree, cannot be accepted for the position of Executive Administrator, since he has a felony conviction.

The argument's conclusion follows logically if which one of the following is assumed?

(A) Anyone with a master's degree and without a felony conviction is eligible for appointment to the executive board.

(B) Only candidates eligible for appointment to the executive board can be accepted for the position of Executive Administrator.

(C) An undergraduate degree is not necessary for acceptance for the position of Executive Administrator.

(D) If Murray did not have a felony conviction, he would be accepted for the position of Executive Administrator.

(E) The felony charge on which Murray was convicted is relevant to the duties of the position of Executive Administrator.

7. Ethicist: The most advanced kind of moral motivation is based solely on abstract principles. This form of motivation is in contrast with calculated selfinterest or the desire to adhere to societal norms and conventions.

The actions of which one of the following individuals exhibit the most advanced kind of moral motivation, as described by the ethicist?

(A) Bobby contributed money to a local charity during a charity drive at work because he worried that not doing so would make him look stingy.

(B) Wes contributed money to a local charity during a charity drive at work because he believed that doing so would improve his employer's opinion of him.

(C) Donna's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Donna did not report this practice to the authorities, out of fear that her employers would retaliate against her.

(D) Jadine's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Jadine reported this practice to the authorities out of a belief that protecting the environment is always more important than monetary profit.

(E) Leigh's employers engaged in an illegal but profitable practice that caused serious damage to the environment. Leigh reported this practice to the authorities only because several colleagues had been pressuring her to do so.

8. Proponents of the electric car maintain that when the technical problems associated with its battery design are solved, such cars will be widely used and, because they are emission-free,

will result in an abatement of the environmental degradation caused by auto emissions. But unless we dam more rivers, the electricity to charge these batteries will come from nuclear or coal-fired power plants. Each of these three power sources produces considerable environmental damage. Thus, the electric car _____.

Which one of the following most logically completes the argument?

- (A) will have worse environmental consequences than its proponents may believe
- (B) will probably remain less popular than other types of cars
- (C) requires that purely technical problems be solved before it can succeed
- (D) will increase the total level of emissions rather than reduce it
- (E) will not produce a net reduction in environmental degradation

9. Although video game sales have increased steadily over the past 3 years, we can expect a reversal of this trend in the very near future. Historically, over three quarters of video games sold have been purchased by people from 13 to 16 years of age, and the number of people in this age group is expected to decline steadily over the next 10 years.

Which one of the following, if true, would most seriously weaken the argument?

- (A) Most people 17 years old or older have never purchased a video game.
- (B) Video game rentals have declined over the past 3 years.
- (C) New technology will undoubtedly make entirely new entertainment options available over the next 10 years.
- (D) The number of different types of video games available is unlikely to decrease in the near future.
- (E) Most of the people who have purchased video games over the past 3 years are over the age of 16.

10. Double-blind techniques should be used whenever possible in scientific experiments. They help prevent the misinterpretations that often arise due to expectations and opinions that scientists already hold, and clearly scientists should be extremely diligent in trying to avoid such misinterpretations.

Which one of the following most accurately expresses the main conclusion of the argument?

(A) Scientists' objectivity may be impeded by interpreting experimental evidence on the basis of expectations and opinions that they already hold.

(B) It is advisable for scientists to use double-blind techniques in as high a proportion of their experiments as they can.

(C) Scientists sometimes neglect to adequately consider the risk of misinterpreting evidence on the basis of prior expectations and opinions.

(D) Whenever possible, scientists should refrain from interpreting evidence on the basis of previously formed expectations and convictions.

(E) Double-blind experimental techniques are often an effective way of ensuring scientific objectivity.

11. It is now a common complaint that the electronic media have corroded the intellectual skills required and fostered by the literary media. But several centuries ago the complaint was that certain intellectual skills, such as the powerful memory and extemporaneous eloquence that were intrinsic to oral culture, were being destroyed by the spread of literacy. So, what awaits us is probably a mere alteration of the human mind rather than its devolution.

The reference to the complaint of several centuries ago that powerful memory and extemporaneous eloquence were being destroyed plays which one of the following roles in the argument?

(A) evidence supporting the claim that the intellectual skills fostered by the literary media are being destroyed by the electronic media

(B) an illustration of the general hypothesis being advanced that intellectual abilities are inseparable from the means by which people communicate

(C) an example of a cultural change that did not necessarily have a detrimental effect on the human mind overall

(D) evidence that the claim that the intellectual skills required and fostered by the literary media are being lost is unwarranted

(E) possible evidence, mentioned and then dismissed, that might be cited by supporters of the hypothesis being criticized

12. Suppose I have promised to keep a confidence and someone asks me a question that I cannot answer truthfully without thereby breaking the promise.

Obviously, I cannot both keep and break the same promise. Therefore, one cannot be obliged both to answer all questions truthfully and to keep all promises.

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

(A) It is claimed that we have the unencumbered right to say whatever we want. It is also claimed that we have the obligation to be civil to others. But civility requires that we not always say what we want. So, it cannot be true both that we have the unencumbered right to say whatever we want and that we have the duty to be civil.

(B) Some politicians could attain popularity with voters only by making extravagant promises; this, however, would deceive the people. So, since the only way for some politicians to be popular is to deceive, and any politician needs to be popular, it follows that some politicians must deceive.

(C) If we put a lot of effort into making this report look good, the client might think we did so because we believed our proposal would not stand on its own merits. On the other hand, if we do not try to make the report look good, the client might think we are not serious about her business. So, whatever we do, we risk her criticism.

(D) If creditors have legitimate claims against a business and the business has the resources to pay those debts, then the business is obliged to pay them. Also, if a business has obligations to pay debts, then a court will force it to pay them. But the courts did not force this business to pay its debts, so either the creditors did not have legitimate claims or the business did not have sufficient resources.

(E) If we extend our business hours, we will either have to hire new employees or have existing employees work overtime. But both new employees and additional overtime would dramatically increase our labor costs. We cannot afford to increase labor costs, so we will have to keep our business hours as they stand.

13. Standard aluminum soft-drink cans do not vary in the amount of aluminum that they contain. Fifty percent of the aluminum contained in a certain group (M) of standard aluminum soft-drink cans was recycled from another group (L) of used, standard aluminum softdrink cans. Since all the cans in L were recycled into cans in M and since the amount of material other than aluminum in an aluminum can is negligible, it follows that M contains twice as many cans as L.

The conclusion of the argument follows logically if which one of the following is assumed?

- (A) The aluminum in the cans of M cannot be recycled further.
- (B) Recycled aluminum is of poorer quality than unrecycled aluminum.
- (C) All of the aluminum in an aluminum can is recovered when the can is recycled.
- (D) None of the soft-drink cans in group L had been made from recycled aluminum.
- (E) Aluminum soft-drink cans are more easily recycled than are soft-drink cans made from other materials.

14. A cup of raw milk, after being heated in a microwave oven to 50 degrees Celsius, contains half its initial concentration of a particular enzyme, lysozyme. If, however, the milk reaches that temperature through exposure to a conventional heat source of 50 degrees Celsius, it will contain nearly all of its initial concentration of the enzyme. Therefore, what destroys the enzyme is not heat but microwaves, which generate heat.

Which one of the following, if true, most seriously weakens the argument?

- (A) Heating raw milk in a microwave oven to a temperature of 100 degrees Celsius destroys nearly all of the lysozyme initially present in that milk.
- (B) Enzymes in raw milk that are destroyed through excessive heating can be replaced by adding enzymes that have been extracted from other sources.
- (C) A liquid exposed to a conventional heat source of exactly 50 degrees Celsius will reach that temperature more slowly than it would if it were exposed to a conventional heat source hotter than 50 degrees Celsius.
- (D) Milk that has been heated in a microwave oven does not taste noticeably different from milk that has been briefly heated by exposure to a conventional heat source.

(E) Heating any liquid by microwave creates small zones within it that are much hotter than the

overall temperature that the liquid will ultimately reach.

15. A new government policy has been developed to avoid many serious cases of influenza. This goal will be accomplished by the annual vaccination of high-risk individuals: everyone 65 and older as well as anyone with a chronic disease that might cause them to experience complications from the influenza virus.

Each year's vaccination will protect only against the strain of the influenza virus deemed most likely to be prevalent that year, so every year it will be necessary for all high-risk individuals to receive a vaccine for a different strain of the virus.

Which one of the following is an assumption that would allow the conclusion above to be properly drawn?

(A) The number of individuals in the high-risk group for influenza will not significantly change from year to year.

(B) The likelihood that a serious influenza epidemic will occur varies from year to year.

(C) No vaccine for the influenza virus protects against more than one strain of that virus.

(D) Each year the strain of influenza virus deemed most likely to be prevalent will be one that had not previously been deemed most likely to be prevalent.

(E) Each year's vaccine will have fewer side effects than the vaccine of the previous year since the technology for making vaccines will constantly improve.

16. Taylor: Researchers at a local university claim that 61 percent of the information transferred during a conversation is communicated through nonverbal signals. But this claim, like all such mathematically precise claims, is suspect, because claims of such exactitude could never be established by science.

Sandra: While precision is unobtainable in many areas of life, it is commonplace in others. Many scientific disciplines obtain extremely precise results, which should not be doubted merely because of their precision.

The statements above provide the most support for holding that Sandra would disagree with Taylor about which one of the following statements?

- (A) Research might reveal that 61 percent of the information taken in during a conversation is communicated through nonverbal signals.
- (B) It is possible to determine whether 61 percent of the information taken in during a conversation is communicated through nonverbal signals.
- (C) The study of verbal and nonverbal communication is an area where one cannot expect great precision in one's research results.
- (D) Some sciences can yield mathematically precise results that are not inherently suspect.
- (E) If inherently suspect claims are usually false, then the majority of claims made by scientists are false as well.

17. Hospital executive: At a recent conference on nonprofit management, several computer experts maintained that the most significant threat faced by large institutions such as universities and hospitals is unauthorized access to confidential data. In light of this testimony, we should make the protection of our clients' confidentiality our highest priority. The hospital executive's argument is most vulnerable to which one of the following objections?

- (A) The argument confuses the causes of a problem with the appropriate solutions to that problem.
- (B) The argument relies on the testimony of experts whose expertise is not shown to be sufficiently broad to support their general claim.
- (C) The argument assumes that a correlation between two phenomena is evidence that one is the cause of the other.
- (D) The argument draws a general conclusion about a group based on data about an unrepresentative sample of that group.
- (E) The argument infers that a property belonging to large institutions belongs to all institutions.

18. Modern science is built on the process of posing hypotheses and testing them against observations—in essence, attempting to show that the hypotheses are incorrect. Nothing brings more recognition than overthrowing conventional wisdom. It is accordingly unsurprising that some scientists are skeptical of the widely accepted predictions of global warming. What is instead remarkable is that with hundreds of researchers striving to make breakthroughs in climatology, very few find evidence that global warming is unlikely.

The information above provides the most support for which one of the following statements?

- (A) Most scientists who are reluctant to accept the global warming hypothesis are not acting in accordance with the accepted standards of scientific debate.
- (B) Most researchers in climatology have substantial motive to find evidence that would discredit the global warming hypothesis.
- (C) There is evidence that conclusively shows that the global warming hypothesis is true.
- (D) Scientists who are skeptical about global warming have not offered any alternative hypotheses to explain climatological data.
- (E) Research in global warming is primarily driven by a desire for recognition in the scientific community.

19. Historian: The Land Party achieved its only national victory in Banestria in 1935. It received most of its support that year in rural and semirural areas, where the bulk of Banestria's population lived at the time. The economic woes of the years surrounding that election hit agricultural and small business interests the hardest, and the Land Party specifically targeted those groups in 1935. I conclude that the success of the Land Party that year was due to the combination of the Land Party's specifically addressing the concerns of these groups and the depth of the economic problems people in these groups were facing.

Each of the following, if true, strengthens the historian's argument EXCEPT:

- (A) In preceding elections the Land Party made no attempt to address the interests of economically distressed urban groups.
- (B) Voters are more likely to vote for a political party that focuses on their problems.

(C) The Land Party had most of its successes when there was economic distress in the agricultural sector.

(D) No other major party in Banestria specifically addressed the issues of people who lived in semirural areas in 1935.

(E) The greater the degree of economic distress someone is in, the more likely that person is to vote.

20. Gamba: Muñoz claims that the Southwest Hopeville Neighbors Association overwhelmingly opposes the new water system, citing this as evidence of citywide opposition. The association did pass a resolution opposing the new water system, but only 25 of 350 members voted, with 10 in favor of the system. Furthermore, the 15 opposing votes represent far less than 1 percent of Hopeville's population. One should not assume that so few votes represent the view of the majority of Hopeville's residents.

Of the following, which one most accurately describes Gamba's strategy of argumentation?

(A) questioning a conclusion based on the results of a vote, on the grounds that people with certain views are more likely to vote

(B) questioning a claim supported by statistical data by arguing that statistical data can be manipulated to support whatever view the interpreter wants to support

(C) attempting to refute an argument by showing that, contrary to what has been claimed, the truth of the premises does not guarantee the truth of the conclusion

(D) criticizing a view on the grounds that the view is based on evidence that is in principle impossible to disconfirm

(E) attempting to cast doubt on a conclusion by claiming that the statistical sample on which the conclusion is based is too small to be dependable

21. Driver: My friends say I will one day have an accident because I drive my sports car recklessly. But I have done some research, and apparently minivans and larger sedans have very low accident rates compared to sports cars. So trading my sports car in for a minivan would lower my risk of having an accident.

The reasoning in the driver's argument is most vulnerable to criticism on the grounds that this argument

- (A) infers a cause from a mere correlation
- (B) relies on a sample that is too narrow
- (C) misinterprets evidence that a result is likely as evidence that the result is certain
- (D) mistakes a condition sufficient for bringing about a result for a condition necessary for doing so
- (E) relies on a source that is probably not well-informed

22. Editoralist: News media rarely cover local politics thoroughly, and local political business is usually conducted secretively. These factors each tend to isolate local politicians from their electorates. This has the effect of reducing the chance that any particular act of resident participation will elicit a positive official response, which in turn discourages resident participation in local politics.

Which one of the following is most strongly supported by the editoralist's statements?

- (A) Particular acts of resident participation would be likely to elicit a positive response from local politicians if those politicians were less isolated from their electorate.
- (B) Local political business should be conducted less secretively because this would avoid discouraging resident participation in local politics.
- (C) The most important factor influencing a resident's decision as to whether to participate in local politics is the chance that the participation will elicit a positive official response.
- (D) More-frequent thorough coverage of local politics would reduce at least one source of discouragement from resident participation in local politics.
- (E) If resident participation in local politics were not discouraged, this would cause local politicians to be less isolated from their electorate.

23. Philosopher: An action is morally right if it would be reasonably expected to increase the aggregate well-being of the people affected by it. An action is morally wrong if and only if it would be reasonably expected to reduce the aggregate wellbeing of the people affected by it.

Thus, actions that would be reasonably expected to leave unchanged the aggregate well-being of the people affected by them are also right.

The philosopher's conclusion follows logically if which one of the following is assumed?

- (A) Only wrong actions would be reasonably expected to reduce the aggregate well-being of the people affected by them.
- (B) No action is both right and wrong.
- (C) Any action that is not morally wrong is morally right.
- (D) There are actions that would be reasonably expected to leave unchanged the aggregate well-being of the people affected by them.
- (E) Only right actions have good consequences.

24. Car companies solicit consumer information on such human factors as whether a seat is comfortable or whether a set of controls is easy to use. However, designer interaction with consumers is superior to survey data; the data may tell the designer why a feature on last year's model was given a low rating, but data will not explain how that feature needs to be changed in order to receive a higher rating. The reasoning above conforms most closely to which one of the following propositions?

- (A) Getting consumer input for design modifications can contribute to successful product design.
- (B) Car companies traditionally conduct extensive postmarket surveys.
- (C) Designers aim to create features that will appeal to specific market niches.
- (D) A car will have unappealing features if consumers are not consulted during its design stage.
- (E) Consumer input affects external rather than internal design components of cars.

25. During the nineteenth century, the French academy of art was a major financial sponsor of painting and sculpture in France; sponsorship by private individuals had decreased dramatically by this time. Because the academy discouraged innovation in the arts, there was little innovation in nineteenth century French sculpture.

Yet nineteenth century French painting showed a remarkable degree of innovation. Which one of the following, if true, most helps to explain the difference between the amount of innovation in French painting and the amount of innovation in French sculpture during the nineteenth century?

- (A) In France in the nineteenth century, the French academy gave more of its financial support to painting than it did to sculpture.
- (B) The French academy in the nineteenth century financially supported a greater number of sculptors than painters, but individual painters received more support, on average, than individual sculptors.
- (C) Because stone was so much more expensive than paint and canvas, far more unsponsored paintings were produced than were unsponsored sculptures in France during the nineteenth century.
- (D) Very few of the artists in France in the nineteenth century who produced sculptures also produced paintings.
- (E) Although the academy was the primary sponsor of sculpture and painting, the total amount of financial support that French sculptors and painters received from sponsors declined during the nineteenth century.

SECTION IV

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. Why should the disappearance of beetles, plants, or birds concern us? First, a species, the irreplaceable product of millions of years of development, is of intrinsic value. Another, perhaps more compelling, reason to conserve biological diversity is pure self-interest. Like every species, ours is intimately dependent on others for its well-being. Time after time, creatures, even those once thought useless or harmful, are found to play crucial roles in natural systems. Predators driven to extinction no longer keep populations of potential pests in check; earthworms or termites killed by pesticides no longer aerate soils; mangroves cut for firewood no longer protect coastlines from the erosive force of the sea. The above argument as a whole seeks to establish that

- (A) it is only selfish people who wish to conserve biological diversity
- (B) whether species to which people pay little attention become extinct is not of great importance except to scientists
- (C) there are no species in nature that are, properly considered, harmful to people
- (D) species of plant and animal life should be preserved because they are valuable both in themselves and for the well-being of people

2. Davisville's mayor: The Davisville Airport is actually located in the city of Millersburg. Millersburg officials have argued that it is illegal for restaurants in the Davisville Airport to serve alcoholic beverages because Millersburg has outlawed alcoholic beverages. But they are mistaken. Since the City of Davisville owns the Davisville Airport, and it is legal for restaurants to serve alcoholic beverages in Davisville, it is legal for them to do so in the Davisville Airport. Which one of the following principles, if valid, most helps to justify the reasoning in the Davisville mayor's argument?

- (A) Ownership takes precedence over any other factor in determining which city's laws apply in a facility owned by one city but located in another.
- (B) If one city owns a facility located in another city and a dispute about legal jurisdiction arises, then the city that owns the facility should offer to sell it to the other city.
- (C) If one city owns a facility located in another city, government officials of both cities should settle through negotiation which city's laws apply in that facility.

(D) A facility located outside of a city is not subject to the laws of that city even if the facility is owned by the city.

3. The pigment that gives fresh blueberries their deep purplish-blue color is found in the berry's skin—not in its flesh, which is pale green. Therefore, since the smaller the berry, the more skin there is in relation to the rest of the berry, it follows that a pie filling made from a pound or two of fresh, whole blueberries _____. Which one of the following most logically completes

the argument?

- (A) should be made of the freshest berries available
- (B) will taste the same whether the berries used are large or small
- (C) will taste good only if made of high-quality berries
- (D) will be darker if small berries rather than large ones are used

4. Ecologist: Smallpox, one of the worst diseases ever to afflict humans, has in some outbreaks killed as much as 50 percent of local populations. The last known surviving cultures of variola—the smallpox virus—are confined to two high-security laboratories. Some scientists are anxious to destroy the remaining variola cultures, to which humans are susceptible. Research on the cultures, however, may someday lead to important benefits for humans, and so the cultures should not be destroyed. Which one of the following, if true, would do most to strengthen the ecologist's argument?

- (A) Smallpox has killed millions of humans over the centuries, and when it reaches the stage of an epidemic it is extremely difficult to eradicate.
- (B) It is more likely that the virus, if left available to researchers, will lead to an important medical breakthrough than that the virus will be accidentally released from the laboratory.
- (C) Variola is a rare type of virus in that it can only be transmitted from one human to another, yet does not affect rats, monkeys, or insects.
- (D) It is becoming increasingly important to prevent any nation from acquiring the means to wage biological warfare.

5. Miguel has four family members who plan to come to his graduation on Sunday afternoon, but it is likely that only three of them will be allowed to attend. Normally graduation is held in the football stadium, where there is no limit on the number of family members who can

attend. However, the ceremony is relocated to the gymnasium if it rains, and each graduate receives just

three admission tickets for use by family members. The conclusion of the argument is most strongly supported if which one of the following is assumed?

- (A) Miguel's graduating class is much larger than usual.
- (B) Miguel has lost one of the admission tickets to be used if the ceremony is held in the gymnasium.
- (C) The weather service has indicated that there is a very high likelihood of rain on Sunday afternoon.
- (D) Miguel has several friends who have fewer than three family members coming to graduation.

6. Elephants are often observed licking clay from mud holes. There is ample evidence that other animals ingest clay because it neutralizes toxins in their diets. Since elephants eat many plants that contain toxic compounds, their licking of clay is probably triggered by toxins too.

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

- (A) Some of the clay that elephants lick contains minerals that are nutritionally essential for any animal.
- (B) Elephants typically drink water immediately before or after they lick clay.
- (C) Older elephants typically ingest more clay than young elephants do.
- (D) Elephants do not lick clay at times when their diet consists almost entirely of toxin-free foods.

7. Economist: In our country, the price of cola is regulated by the Cola Commission. Decades ago, when the commission was formed, such regulation was reasonable because there was a monopoly on cola production. Now, however, fierce competition in this market keeps cola prices low. So the Cola Commission should be abolished. The economist's reasoning is most vulnerable to criticism on the grounds that it fails to consider the possibility that

- (A) the Cola Commission regulates aspects of the cola industry other than cola's price
- (B) no new competitors have entered the economist's country's cola market in the last several years
- (C) many dedicated and talented people serve on the Cola Commission
- (D) ending regulation of cola prices in the economist's country will have no effect on these prices, which are already below the ceilings set by the Cola Commission

8. The aesthetic reaction to a work of art depends on the immediate environment, and true appreciation of art requires that it be presented in an environment that allows for lengthy, solitary deliberation. Hence it is unfortunate that art museums have recently invented the notion of the “art-show event,” for which historically important, rarely seen works are collected into a show that is then heavily advertised and brings in huge crowds. The statements above, if true, most strongly support which one of the following?

- (A) People who really love and understand art tend to avoid museum art-show events.
- (B) The more time one spends and the fewer people that are around, the more one will like a work of art.
- (C) Most of the people who go to museum art-show events do not know how to appreciate art and fail to realize what they are missing.
- (D) Museum art-show events do not facilitate proper appreciation of art.

9. The average life expectancy of people who drink alcohol heavily is lower than that of people who do not drink heavily, and people who smoke tobacco have lower life expectancies on average than those who refrain from smoking. Yet the average life expectancy of people who both drink heavily and smoke tends to decrease when such people give up drinking. Which one of the following most helps to reconcile the discrepancy described above?

- (A) Most heavy drinkers who are also smokers tend to smoke more heavily if they stop drinking.
- (B) The life expectancy of smokers who stop smoking increases, even if they have smoked for many years.
- (C) The average life expectancy of relatively light smokers is lower than that of people who have never smoked at all.
- (D) The life expectancy of smokers who are heavy drinkers usually increases if they give up both smoking and drinking.

10. Publishers, like all private businesses, have always been concerned about profitability. But, while it used to be at least possible to get a book published that was unlikely to be popular, and hence unlikely to be a moneymaker, profitability is now the sole criterion. Thus, no matter how much literary merit a book possesses, it will not be published in today's

market if it looks like it will not be popular. Which one of the following sentences most accurately expresses the main conclusion of the argument?

- (A) Books of literary merit cannot be published in today's market.
- (B) Publishers used to select books for publication based on literary merit.
- (C) Good books are published now only if they are also likely to be popular.
- (D) It is harder to get a book published today than it once was.

11. Scientists hypothesized that the end of a certain geological period came about when a cataclysmic meteor impact near the equator caused debris to fly up into the atmosphere, where it was scattered by winds, blocking out the sunlight and abruptly killing off many species. In European rock layers, the fossil record of the boundary layer that marks the end of the period supports this picture of rapid, mass extinction of life. But the boundary layer in the Antarctic is much thicker, so that it appears that the extinction process there lasted a much longer time, contrary to what the hypothesis would have predicted. Which one of the following, if true, resolves the apparent discrepancy noted above?

- (A) Although scientists have traditionally used the last appearance of creatures called ammonites to define the boundary layer, they recently found ammonites 20 meters above the previously identified boundary layer in the Antarctic.
- (B) It was recently discovered that Europe accumulated sediment at a slower rate than did the Antarctic region, so that a layer of sediment of a given thickness represents a longer period of time in Europe than it does in the Antarctic.
- (C) The controversy over whether the mass extinctions at the end of the geological period resulted from the impact of a meteor began only in 1979.
- (D) The findings in Europe agree with data about the boundary layer from all other mid-latitude sites.

12. Heern: I object to the mayor's proposal that taxicabs pick up and drop off passengers only at designated stops. This proposal aims to reduce traffic jams and accidents, but if the mayor herself were affected by such a law, she would oppose it. Thus the proposal is without merit. The reasoning in Heern's argument is most vulnerable to criticism on the grounds that this argument

- (A) infers, from the claim that a proposal will not achieve one of its aims, that the proposal is

entirely without merit

(B) presumes, without providing justification, that the proposed law would not be the most effective way to reduce traffic jams and accidents

(C) takes for granted that the frequency and location of designated stops would inconvenience most taxicab users

(D) focuses on the mayor's preferences instead of addressing the merits of the proposal

13. Recent studies indicate that people who spend significant time browsing the World Wide Web do so at the expense of time spent in face-to-face interaction with other people. This has led some to fear that social isolation will greatly increase because of the popularity of browsing the Web. But, since browsing the Web is just one of many popular solitary activities, and any time spent on a solitary activity is time spent not interacting face-to-face with other people, such fears

are unwarranted. Which one of the following most accurately describes the role played in the argument by the view that social isolation will greatly increase because of the popularity of browsing the Web?

(A) It is the overall conclusion of the argument.

(B) It is the claim that the argument attempts to undermine.

(C) It is a concession that is made to those who might otherwise disagree with the conclusion of the argument.

(D) It is presented as evidence that independently supports the conclusion of the argument.

14. Animals generally avoid foods that are harmful to them and favor those that benefit them. Thus it is surprising that gypsy moth caterpillars prefer to eat leaves that contain high concentrations of certain naturally occurring toxins called alkaloids, even though caterpillars grow faster on alkaloid-free diets. Which one of the following, if true, most helps to resolve the apparent discrepancy?

(A) In the alkaloid-containing plants on which gypsy moth caterpillars feed, the toxins are found only in the leaves.

(B) Caterpillars whose growth is inhibited by the consumption of alkaloids are more vulnerable to attack by predators.

(C) The alkaloid-containing plants on which gypsy moth caterpillars feed increase their production of toxins when their leaves are injured.

(D) Alkaloids that have been eaten by caterpillars are poisonous to parasitic wasp larvae that feed on caterpillars' internal tissues.

15. Commentator: The quality of health care is declining. Medical schools have been graduating fewer people than are needed to replace retiring physicians. Furthermore, on average, a physician now spends only 15 minutes with a patient on the patient's first visit. Which one of the following, if true, most weakens the commentator's argument?

- (A) The average length of all patient-physician visits is 20 minutes.
- (B) More and more people are seeking physicians, thus increasing the number of patients that physicians treat.
- (C) Most patients do not like to spend an inordinate amount of time in physicians' offices.
- (D) Five years ago, the average first patient-physician visit lasted 10 minutes.

Questions 16–17

16. Nadia: Directors of films that depict historical figures and events have a responsibility to represent those figures and events in a manner that is as faithful as possible to the facts. Otherwise, directors are likely to produce biased or misleading presentations of such events that will be accepted by audiences as historical fact.

Ariel: But even a historical film is and should be the expression of its director's artistic sensibility. Rather than constrain directors, what must be done is to educate film audiences to see film as art rather than as history, thereby ensuring that historical films are not accepted uncritically as historical fact.

Which one of the following is the point at issue between Nadia and Ariel?

- (A) whether the people who make up film audiences are likely to believe that what they see in films is an accurate depiction of historical figures and events
- (B) whether film directors have an obligation to represent historical figures and events in a manner that is as faithful as possible to the facts
- (C) whether it is possible for films that depict historical figures and events to be vehicles for a director's artistic sensibility
- (D) whether directors of films that depict historical figures or events tend to misrepresent those figures and events

17. Which one of the following is an assumption made by Ariel's argument?

- (A) Some films that depict historical figures and events do so in a manner that is faithful to the facts.
- (B) A director's artistic sensibility necessarily results in distortion of historical figures and events in film.
- (C) It is less objectionable to alter how a film audience might interpret a historical film than it is to interfere with the expression of a film director's artistic sensibility.
- (D) Directors make historical films with the intention of influencing audiences' understanding of the particular figures and events depicted in the films.

18. Politician: There should be a mandatory prison sentence for everyone convicted of a violent crime. Some people object to such a policy on the grounds that it overlooks differences among individual cases that, if taken into consideration by judges and juries, could result in less prison overcrowding. But we can dismiss this objection since these critics would take a different view if they had themselves been victims of violent crime. The politician's argument is most vulnerable to criticism on the grounds that this argument

- (A) fails to clearly distinguish violent crime from nonviolent crime
- (B) takes for granted that one's view is unjustified if one would, under different circumstances, take a different view
- (C) takes for granted that prison overcrowding is caused mainly by a policy of mandatory prison sentences
- (D) attempts to establish a factual generalization using anecdotal evidence

19. The folk medicine of many different cultures has extolled the use of garlic both to prevent and to cure many diseases. Modern medical research is absorbing some of these beliefs. Recent studies indicate that many of the more than 50 sulphur compounds that can be produced from garlic (depending upon whether it is boiled, fried in oil, or dried) have medicinal utility. Some of these compounds lower blood cholesterol, others reduce platelet clumping, while still others shrink some kinds of tumors. Other plants and herbs recommended by traditional medicine may also prove valuable for medicine generally. Each of the following statements is supported by the information above EXCEPT:

- (A) The belief that garlic is an effective way to prevent or cure some diseases is not limited to a small number of closely related cultures.
- (B) The cures of modern medicine are not always different from those of folk medicine.

- (C) It can be medically beneficial to reduce platelet clumping or to lower blood cholesterol.
- (D) Garlic that is neither boiled, fried in oil, nor dried has no medicinal value.

20. Journalism professor: Since the number of reportable facts confronting any journalist is extraordinarily large, every journalist must employ a principle of selection. However, any such principle of selection is bound to be subjective, for it involves value judgments. Therefore, the view that there is any degree of objectivity in journalistic reporting is a myth. This means that, for example, no newspaper article is more objective than any other. The journalism professor's argument is flawed because it

- (A) draws a conclusion regarding what is right or wrong entirely on the basis of evidence regarding matters of fact
- (B) concludes that a practice completely lacks a quality on the basis of evidence for its lacking the pure form of that quality
- (C) fails to justify its presumption that judgments about fact and judgments about value are indistinguishable
- (D) fails to distinguish between the methods employed by individual members of a particular profession and the methods endorsed by the profession as a whole

21. Albumin, one element of blood plasma, is an effective substitute for plasma in treating or preventing shock, the collapse of blood vessels due to a drop in the liquid volume of the bloodstream. Injected into the bloodstream, albumin absorbs enough liquid from surrounding tissues to keep the blood vessels open. It has an advantage over plasma because it can be made available for emergencies while taking up a fraction of the shipping and storage space of plasma.

Of the following, which one best illustrates the principle illustrated by the stated advantage of using albumin as a substitute for plasma?

- (A) The use of nonmetallic composites rather than solid metals can increase the cost of aircraft but enables them to be built stronger.
- (B) A newspaper can increase advertising revenue without increasing its bulk or weight if it is printed in a smaller format.

(C) Hardbound books can be a better choice than paperbacks despite their extra bulk if the books

need to be more durable than paperbacks.

(D) Dehydrated foods have much the same food value as ordinary foods and are more convenient

for hikers because they are lighter and take up less space in backpacks.

22. A customer returning defective merchandise should be given an immediate refund if the merchandise was defective when purchased and was not on sale; if the customer is returning merchandise that is not defective or was damaged by customer negligence or customer abuse, the customer should be referred to the manager. Which one of the following judgments conforms most closely to the principle stated above?

(A) A customer purchased a lawn mower, which became inoperative after the customer used it

only five times. Even though the lawn mower was not on sale when purchased, the customer should be referred to the manager.

(B) A customer purchased twelve bags of cement at the regular price, to build a walkway. The walkway was completed with only ten bags and the customer wishes to return the two remaining bags. The customer should be given an immediate refund.

(C) A customer purchased a VCR that was on sale. Even though the VCR failed to rewind videocassettes upon the customer's arrival home, the customer should be directed to the manager.

(D) A customer purchased a set of wrought-iron patio furniture at the regular price. The welding

on two of the chairs was faulty, causing both to collapse during their first use. The customer should be given an immediate refund.

23. Jamal: It's incorrect to maintain that current data suggest a weakness in the economy. Stocks are paying higher dividends than ever and corporations' profits are very high. Yet you criticize corporations on the basis of wage data, which are the only data showing a decline.

Jennifer: You're right that only wage data show a decline, but those data are important because they show a shift of income from companies' workers to their shareholders. The statistics you cite mean little to the expanding numbers of workers finding it increasingly

difficult to make a living. Jamal's and Jennifer's statements provide the most support for holding that they agree about the truth of which one of the following?

- (A) Statistical information tends to reflect the biases of its compilers.
- (B) Income should not be redistributed from workers to shareholders.
- (C) The decline in wages is a worrisome economic trend.
- (D) Corporations are currently making considerable profits.

24. Because the recycling of glass is not typically costeffective, there is a shortage of glass recycling facilities and glass recycling is not an obligation we all bear. So some people ought not to recycle glass. Which one of the following arguments contains a flaw in reasoning most similar to that in the argument above?

- (A) It is false that you should break your promise, so you do not have an obligation to break your promise.
- (B) Because operating museums is so expensive, the government can no longer afford to support them. So private foundations that can afford to do so have an obligation to provide the financial support that the government previously provided.
- (C) Anyone who rides a bicycle at night ought not to ride on a highway. So we ought not to bike on the highway during our trip today.
- (D) Some convention participants do not have to register on the first day of the convention since their flights were delayed past midnight. So some participants should not register on the first day of the convention.

25. Peterson, the current world record holder in the women's 100-meter backstroke, has ranked first in the world for seven years. Her performance in recent competitions was disappointing, but during training she unofficially beat her official world record time. So she can be expected to set a new world record in the 100-meter backstroke during the upcoming world competition. Which one of the following, if true, most strengthens the argument?

- (A) Peterson is widely expected to win the 100-meter backstroke in the next world competition.
- (B) Peterson had the flu during a recent competition.
- (C) Peterson has also set world records in several other swimming events.
- (D) Peterson has in each of the past seven years swum faster during world competitions than during training for those competitions.

26. There were several early attempts to forge a reconciliation between Shintoism and Buddhism based on mutual respect among their adherents. The evidence for this includes extant sculptures depicting Shinto gods wearing Buddhist vestments. Which one of the following is an assumption on which the argument depends?

- (A) Most sculptures contemporaneous with the sculptures mentioned were intended to have religious significance.
- (B) No sculptures that have not survived depicted Shinto gods wearing Buddhist vestments.
- (C) Early attempts at reconciling Shintoism with Buddhism were successful.
- (D) The depiction of Shinto gods wearing Buddhist vestments was not intended to represent the triumph of Shintoism over Buddhism.

STOP

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.

ANSWERS

SECTION I

1. A 2. C 3. D 4. C 5. D 6. A 7. A 8. D 9. D 10. C 11. D 12. D 13. B 14. B 15. B
16. C 17. A 18. A 19. D 20. B 21. A 22. C 23. B 24. C

SECTION II

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

SECTION III

1. B 2. B 3. D 4. A 5. B 6. B 7. D 8. A 9. E 10. B 11. C 12. A 13. C 14. E 15. D 16. D 17. B
18. B 19. A 20. E 21. A 22. D 23. C 24. A 25. C

SECTION IV

1. D 8. D 15. D 22. D

2. A 9. A 16. B 23. D
3. D 10. C 17. C 24. D
4. B 11. B 18. B 25. D
5. C 12. D 19. D 26. D
6. D 13. B 20. B
7. A 14. D 21. D

Explanation:

1. The passage discusses how advertising usually need only draw people's attention to a product and need not provide any substance for people to remember the product. Thus, the passage implies that people can remember a product without having much information about it, and A is the correct answer. B is incorrect. The passage suggests that if advertisements draw people's attention to a product, the people are more apt to remember the product. The advertisement is not said to improve people's memories, only to draw people's attention so they will use their existing memories. C is also incorrect. The passage says that all one usually needs to do is attract a potential customer's attention. It does not say how easy or difficult that is. The fourth answer choice is incorrect. The passage says that it is rarely necessary to say something of substance in an advertisement but does not suggest that the advertising industry knows little of substance about the product. The last answer choice is incorrect. The passage does not suggest that advertisements make false claims about products.

2. The passage suggests that considering the possibility of extinction with an eye toward the possible utility of a previously unvalued species will lead to a different answer to the question than considering the possibility of extinction from a more general perspective. C describes the author's procedure of suggesting a new perspective and is thus the correct answer. The first choice is incorrect. The author argues that it is important to preserve endangered species without endorsing any opposing point of view. The view attributed to the general public is not accepted; rather, an argument is given to show what that view misses. B is incorrect. The author uses an approach that is primarily factual, and does not seek to arouse the emotions of its audience. D is also incorrect. The author tries to undermine an opposing position by presenting an alternative to it. The last answer choice is incorrect. The generalization about the potential value of life forms whose value was not perceived in advance is supported by an example of a similar case, namely that of rubber plants.

3. The fact that only a member of the Regionalist party would oppose the bill does not imply that all members of the Regionalist party would oppose the bill. Based on the initial statement, Ellen may or may not be a member of the Regionalist party if she supports the bill. For the conclusion to be valid, the initial statement would have to read, "All members of the Regionalist party would oppose the bill for a new recycling law..." Thus, the choice of D makes the relevant logical point.

The first three answer choices are incorrect. Each presents at best a piece of background information without being specifically related to the question of whether all Regionalist party members would oppose the bill. The last answer choice is also incorrect. Ellen's attending programs and distributing literature prepared by the Regionalist party might appear to make it likely that the conclusion is false. But suggesting that the conclusion might be false does not help show why the conclusion is invalidly drawn.

4. The generalization is only true for some birth years. A good criticism of the generalization would show when the generalization is not true. C does just that and thus is the correct answer. A is incorrect. It is false that the generalization holds for all years that do not end in two zeros. For example, 1970 is a birth year that does not end in two zeros. However, 1970 plus nine equals 1979, and hence this is a case for which the generalization is not valid. Since this answer choice is false, it cannot be a good criticism of the assertions. The second answer choice is also incorrect. In the example, the last two digits of the person's birth year-67-are the same as the last two digits of the year of the person's ninth birthday-76-except reversed. Thus, the example does in fact exhibit the same principle as the generalization. The fourth answer choice is incorrect. The difference between 1976 and 1967 is nine. The correctness of the first statement depends only on this fact and the fact that Roberta was born in 1967 and was still alive in 1976. Thus, the truth of the generalization is not presupposed. The last answer choice is also incorrect. Consider birth year 1923. a person born in 1923 would have been nine in 1932 and the generalization holds. So E is false.

5. In stating that planets may exist that are similar enough to Earth to make them suitable for supporting life, the author implicitly rules out planets dissimilar to Earth as likely to support life. The assumption underlying the statement is that life on another planet is likely to require conditions similar to those on Earth. Therefore, E is the correct answer. A is not correct. The

statement presupposes nothing about the appearance of extraterrestrial life. B is incorrect. The statement implies that it is relatively unlikely that life exists on other planets in our solar system, but it makes no presupposition absolutely ruling out the possibility that such life exists. The answer choice of C is incorrect. Although the statement suggests that there is the greatest chance for life when physical conditions are appropriate, it leaves open the possibility that no life will exist even with appropriate conditions. D is also incorrect. The statement says that it is possible that more than one of the suns in the galaxy is accompanied by an Earth-like planet, but it does not presuppose that there are actually any such suns.

6. The passage states that of all the states, California has the greatest fraction of its population (91 out of 100) living in urban areas. That means only 9 out of every 100 California residents live in rural areas. The greatest fraction of any other states' population living in urban areas, to be smaller than California's fraction, must be 90 or fewer out of every 100. That means that, in every other state, 10 or more out of every 100 residents live in rural areas. Since 9 out of every 100 is smaller than 10 or more out of every 100, so A is the correct answer. B is incorrect. In order to decide whether this statement is true, it is necessary to know about rates of population growth. No such information is provided in the passage. The third answer choice is also incorrect. Since 96 percent of the land is outside urban areas, 4 percent is inside urban areas. Thus, 91 percent of the population lives on 4 percent of the land. The fourth answer choice is incorrect. The passage does not provide enough information to determine whether this statement is true or false. No comparison is made between the amount of land area in California devoted to urban settlement and the amount of land area in other states devoted to urban settlement. E is incorrect. The passage does not provide sufficient information to determine whether this statement is true or false. Information on the actual size of the population as compared to total land area of California and other states would be necessary to make a judgment about population density in these states.

7. If crop yield per planted acre was less in Cazonia than it was in Arudia, yet crop yield per total (planted plus fallow) agricultural acreage was greater in Cazonia than it was in Arudia, there must have been a lower percentage of the total acreage that was left fallow in Cazonia than there was in Arudia. Therefore, the correct answer is A. B is incorrect. From the information in the passage, it is impossible to tell whether Arudia had more or less fallow acreage than planted acreage. C is not correct. Since the comparisons made in the passage are

based on crop yields per acre, it is impossible to tell whether there was more or less fallow acreage in Cazonia than in Arudia. D is also incorrect. From the information in the passage, it is impossible to tell whether Cazonia had more or less planted acreage than fallow acreage. The last answer choice is incorrect. Since the comparisons made in the passage are based on crop yields per acre, it is impossible to tell whether Cazonia produced a greater volume of crops than Arudia produced.

8. The passage indicates that the proportion of farmers in the general population decreased from 1850 to 1880. the fifth answer choice says exactly the opposite-that this proportion increased; therefore, it contradicts the passage and is the correct response. A is incorrect. The passage also indicates that the number of farmers increased between 1850 and 1880, and thus agrees with this choice. B is also incorrect. The passage does not tell us about the rate of growth of the labor force. It can be inferred from the passage that the general population grew, but this choice agrees with, rather than contradicts, this conclusion. The choice of C is not the correct answer. We cannot draw any conclusions about the proportion of farmers in the labor force from the passage alone. The fourth is also incorrect. We cannot draw any conclusions about the proportion of farmers in the labor force from the passage alone.

9. If 38 tax returns in one category account for 53 percent of the total taxable income from foreign sources, and if 200 tax returns in another category account for 60 percent of the same amount, then the two categories must overlap to some extent. Only if the two percentages, added together, amounted to 100 percent or less is there not necessarily any overlap. Here, the two percentages add up to 113 percent. The answer choice that expresses an overlap between the category of corporations with a net income of above \$ 100 million and that of corporations with income from 10 or more countries is D, which is thus the correct answer. A is not correct. Whereas corporations with net incomes of above \$ 100 million account for more than half of the total taxable income from foreign sources, we cannot tell from the information given what proportion of their own total incomes from all sources is derived from incomes from foreign sources. The second answer choice is incorrect. All we can infer is that 47 percent was reported by taxpayers other than corporations with net incomes above \$ 100 million. These taxpayers could be other corporations with somewhat lower incomes. C is not the correct answer choice. The figures of 53 and 60 percent refer to percentages of total

taxable income from foreign sources. Neither these nor any other figures in the passage refer to or imply any percentages of all reported taxable income. E, the last choice, is also incorrect. Since there are only 38 corporations with reported net incomes of more than \$ 100 million, but 200 taxpayers with income from 10 or more countries, at the very most somewhat less than 20 percent of those 200 taxpayers could report net incomes of more than \$ 100 million.

10. C is the correct answer. If, as the first statement claims, greater division of labor entails a greater need for coordination and if, as the second statement claims, there is always more division of labor in market economies than in planned economies, then it must be true that the need for coordination in market economies is greater than in planned economies. The first choice is incorrect. If the statements are true, then it is possible, and even expected, that disruptions of supply and production are NOT more frequent in planned economies than in market economies. The statements suggest that since there is always more division of labor in market economies than in planned economies, there is potentially a greater number of disruptions in market economies than in planned economies. B is not correct. One would expect there to be fewer, not more, specialized producers in planned economies than in market economies, other things being equal. This is because, according to the statements, there is always more division of labor in market economies than in planned economies and because increased division of labor entails a larger number of specialized producers. The fourth answer choice is incorrect. The statement lead to the conclusion that a manager's task would be harder, not easier, in a market economy than in a planned economy. This is because the increased division of labor that exists in a market economy entails a larger number of specialized producers. The last answer choice, E is also incorrect. The statement that division of labor functions more effectively in market economies than in planned economies does not follow from the statements given. The statements imply that such effectiveness is dependent on the amount of coordination available, but no information concerning that amount is given.

11. If, as this choice suggests, the very people who would lead the therapists to view such habits as more tractable do not come for treatment, it is quite understandable why therapists persist in their pessimistic view. At the same time, E is consistent with the survey results. Therefore, the last choice is the correct answer. A is incorrect. Even assuming that this choice is true, no light is shed on why successes should be so rare in therapy, and yet, if the surveys are to be believed, so common overall. B is also incorrect. Since the comparative strength of

habits is not an issue in the therapists' findings or the surveys, it cannot have anything to do with the apparent contradiction; consequently, information about it cannot help resolve that contradiction. C is also not the correct answer choice. If C were true, the survey results would appear rather unremarkable, but the therapists' findings would be baffling. The apparent contradiction would not be diminished but underscored. The fourth answer choice is incorrect. The survey results as reported focus on the numbers of people who have successfully fought a habit, not on the proportion of those who tried to break their habits who succeeded. This answer choice pertains only to the latter and so is essentially irrelevant.

12. Since the constantly decreasing work output of Ms. Dennis' students could stem from causes specific to those students, Ms. Dennis is not logically justified in extending her judgment about her own students to engineering students in general. D is a concise statement of the logically flawed assumption Ms. Dennis must be making in so extending her judgment. Thus, this answer choice is the correct answer. A is incorrect. Whether or not other groups resemble engineering students has no bearing on whether or not certain conclusions about engineering students follow logically from certain observations about some engineering students. Thus, Ms. Dennis' lack of attention to people who are not engineering students is not a flaw in her reasoning. B is also incorrect. Any excuses offered for laziness do not alter it, though they might help us understand it. Ms. Dennis is only concerned with establishing that the laziness of engineering students is a fact; she does not inquire into possible explanations. It is not a flaw of her reasoning as it stands that it addresses the particular concerns it addresses. C is not the correct answer choice. Ms. Dennis' reasoning is involved in reaching a conclusion on the basis of certain evidence. It does not go beyond that. This choice concerns itself with matters beyond the ones Ms. Dennis reasons about, and thus cannot be considered a flaw in her reasoning. The last answer choice is also incorrect. The logical merits or flaws of an argument are independent of the emotional attitudes of the person making the argument. Since this choice describes an emotional attitude, it cannot identify a reasoning flaw.

13. B is the correct answer choice. It would be impossible to argue reasonably that large farmers should use manure as fertilizer because they would realize even greater savings than the small farmers without also assuming that there is a sufficient amount of manure available for the fields of large farmers. A is not the correct answer choice. The argument implies that it would be more cost effective for large farmers to eliminate commercial fertilizers and

pesticides than it would be for small farmers to do so. The third answer is incorrect. No statements are made in the argument concerning treated sewage sludge and no assumption is made about it. D is not the correct answer choice. This statement is not assumed because if it were false—if large farmers seldom or never looked to small farmers for innovative ways of increasing crop yields or reducing operating costs—this would not affect anything relevant to the argument about the total savings that large farmers might gain by adopting new farming practices. E is also not the correct answer choice. It may well be true that the smaller the farm, the more control the farmer has over operating costs. However, with respect to control, the argument only that large farmers have enough control over their farming methods to adopt the recommended measures.

14. If the second answer choice is true, introducing labor-saving machinery results in additional profits even if it also requires the retraining of workers. Hence, this answer choice demonstrates the advantages to the factory owners of labor-saving machinery. Thus, B is the correct answer. The first answer choice is incorrect. Productivity in a previous job may relate to productivity in the job for which a worker is hired. However, if the worker's job is eliminated by new machinery, the factory owner loses the advantage of having been able to select a highly productive worker for that job. There is no indication in this answer choice of what advantage, if any, the owner gains. C is incorrect. Since increased costs, other things being equal, mean decreased profits, this answer choice suggests the change is disadvantageous to the factory owners. D is also incorrect. Changes of procedure may result for those employees whose jobs are eliminated by the introduction of machinery, but would not necessarily result for a substantial number of factory workers. The owners have an advantage only if a substantial number of workers have been satisfied. Thus, this fourth answer choice cannot explain why the change is advantageous. The last answer choice is incorrect. Limited competition might imply that the factory owners will be able to sell their products, even if the price must be raised to cover new machinery as well as wages. Although this does not harm the factory owners, it does not suggest an advantage either.

15. The presence of predators of zooplankton, feeding near the surface during the day, would suggest that *D. galeata* is consumed at a higher rate than *D. hyaline*. Therefore, if this choice were true, it would help resolve the apparent paradox that *D. galeata* grows and reproduces faster than *D. hyaline*, yet *D. hyalian* has the greater population. A is incorrect. Nothing is said in the paragraph to show the relevance of the presence of other species of zooplankton to

the relative population size of the two species. C is not correct. This information explains the slower growth and reproduction of *D. hyaline*, which is one aspect of the paradox; but it does nothing to show how *D. hyaline* can grow and reproduce more slowly and yet have the greater population. D is incorrect. Nothing is said in the paragraph to show the relevance to the paradox of *D. galeata*'s clustering under vegetation. E is also incorrect. More information on the faster reproduction of *D. galeata* does not show how, despite faster growth and reproduction, *D. galeata* has the lesser population.

16. C is the correct answer, because advertisers are interested in having their products remembered favorably. By linking viewer perception of program quality with this goal, this choice gives advertisers a reason to care about the quality of programs they sponsor. A is incorrect. That a large portion of programs are judged to be of high quality does not bolster the conclusion that information about viewer perception of program quality will be useful to advertisers. Rather, if a large portion of programs are judged to be of high quality, an advertiser may feel relatively safe in looking only at the ratings. B is incorrect. Programs on noncommercial networks cannot contain ads. Information as to their quality will not help advertisers place ads with programs judged to be of high quality. D is incorrect. This answer makes no mention of either program quality or viewer buying habits and thus neither strengthens nor weakens the connection between the two. The idea expressed in the answer thus has nothing to do with the importance of program quality to advertisers. The last answer choice is also incorrect. This answer connects the perception of the quality of advertisements to buying habits. It does not determine a connection between perception of the quality of programs and buying habits and thus is irrelevant to any interest advertisers may have in program quality.

17. The fact that more money per capita is spent on fire-prevention in the United States than in Japan would be a factor likely to contribute to greater fire loss in Japan than in the United States. Therefore, this factor would be very unlikely to contribute to lesser fire loss in Japan, and A is the correct answer.

B is incorrect. A greater incidence of arson in the United States would indeed be likely to contribute to greater fire loss in the United States. C is also incorrect. More effective fire extinguishing equipment in more Japanese homes would indeed be likely to contribute to lesser fire loss in Japan. D is incorrect. The greater popularity of foam based and plastic furniture in the United States would indeed be likely to be a factor contributing to greater fire

loss in the United States, since such furniture is a greater fire hazard than furniture of natural fibers. E is also incorrect. Greater attention to prevention and training by Japanese fire departments would indeed be likely to contribute to lesser fire loss in Japan.

18. The author argues that the economic problems of Western Europe are not caused by the Organization of Petroleum Exporting Countries (OPEC) oil cartel. This point is made by using Great Britain as an example of a Western European country that is not dependent on OPEC oil but has the same economic problems as France and West Germany. Thus, the first answer choice is the correct answer. B is incorrect. The author's point (that the economic problems of Western Europe are not caused by the OPEC oil cartel) is made by stating that the economic problems of France and West Germany are the same as those of Great Britain and by pointing out that Great Britain does not depend on OPEC oil as France and West Germany do. This in no way implies what the nature of the economic problems of France and West Germany is. C is also incorrect. The author does not present or discuss the reasoning used to arrive at the conclusion that the OPEC oil cartel has caused the economic problems of Western Europe. Rather, the author presents evidence suggesting that the conclusion cannot be true. The fourth answer choice is not the correct answer. The author presents evidence that the economic problems of Western Europe are not caused by the OPEC oil cartel, but no suggestion is given about the true cause of those economic problems. This last answer choice is also incorrect. The author's point is made by comparing Great Britain with France and West Germany.

19. Examples that would serve the same function as rubber producing plants must involve a situation in which an organism previously thought to be useless is seen to be extremely beneficial for some human endeavor. Petroleum is not an organism and is useful itself and thus is not such an example. Thus, the fourth choice is the correct answer. Responses one, two, three and five are incorrect. They are examples of situations in which an organism previously thought to be useless is seen to be extremely beneficial for some human endeavor.

20. The passage claims that 1982 and 1964 college graduates were similar except that a majority of the 1982 graduates stated during their freshman year that making a good income was an important reason for going to college. This implies that fewer than half of the 1964 class, as freshmen, stated that making a good income was an important reason for going to college. B states a consequence of this implication and is the correct answer. A is incorrect.

The passage discusses differences in financial reasons for attending college, as expressed by freshmen in the two classes. Nothing is stated about the financial worries of either class as graduates. Neither is it clear from the passage that financial worries are necessarily implied by the desire to make a good income. C is also incorrect. The passage implies that desire for a good income was a more important reason for the members of the class of 1982 to decide to go to college than for the members of the class of 1964. However, the passage does not provide information on whether a college education provides more, less, or the same impact on income for the 1964 graduates as compared to the 1982 graduates. This fourth choice is incorrect. The passage does not describe or imply any difference in the reasons for attending college between freshman year and college graduation for either class. The last answer choice is also incorrect. The passage states that the 1964 and 1982 college graduates were both firmly conservative. Thus, the passage does not support any conclusion that the two classes differed in degree of conservatism.

21. The passage suggests that the number of cases heard by the Supreme Court each year might eventually be increased dramatically if the Supreme Court were allowed to decide many cases without the customary oral argument. If A is true, however, then the number of cases decided by the Supreme Court is primarily determined by time other than the time spent hearing oral argument. Thus, the time spent hearing oral argument does not constitute a significant bottleneck. So this choice could be used rather well to argue against the proposal made in the passage. B is incorrect. This argues not against the feasibility of the proposed solution; it merely warns that the benefits from it would be delayed. The fact that, in view of this answer choice, there would probably not be any significant immediate relief from the burdens of hearing oral argument is irrelevant: the passage expressly concerns itself with finding a long-range solution. C is also incorrect. The thrust of the proposal is to make the 160 hours available for hearing oral argument go farther. The person making the proposal accepts the 160 hours as an upper limit. Thus, this statement supports rather than argues against the proposed solution. The fourth answer choice is incorrect. From a knowledge of the information in this answer choice no further conclusions regarding the proposal follow. This information is simply part of the current state of affairs that the proposal is designed to improve. The last choice is also incorrect. The concern of the choice—the cost to the parties involved—plays no part whatever in the argument developed in the passage; the passage is

concerned solely with time-related limitations on the number of cases the Supreme Court is able to decide.

22. C is the correct answer. It is impossible to argue logically that the insects' method of detoxification by cutting and draining guarantees that some insects will always be able to eat milkweed without assuming that for some reason that toxin-carrying veins of the milkweed can never evolve to become so strong that they would thwart the insects' attempts to cut through them. A is incorrect. The passage does not make any claims about plants other than milkweed. The insects that detoxify milkweed by cutting veins might evolve an ability to detoxify other plants without this affecting anything relevant to the argument offered about their ability to eat milkweed. The second answer choice is incorrect. The passage is not concerned with other types of toxic plants and makes no assumption about them. The fourth answer choice is also incorrect. The method of detoxification used by the insects on milkweed might also be used to detoxify other plants without this affecting anything relevant to the argument offered about the insects' ability to eat milkweed. The fifth answer choice is incorrect. It may be true that there are insects that use means other than draining toxins in order to feed on toxic plants, but the conclusion drawn in the passage does not depend on there being any such insects.

23. The conclusion that engineering students are lazier now than they used to be does not follow from the stated observation that fewer and fewer of Ms. Dennis' students regularly do the work they are assigned. In fact, the conclusion is not in any way supported by the reported observation unless it is also true that failure to do the assigned work indicates laziness. That latter proposition must therefore be one of the tacit assumptions underlying the conclusion. B best expresses this assumption and is thus the correct answer. A is incorrect. Ms. Dennis concludes that her students are lazy on the basis of what she sees as a consequence of that laziness. This choice suggests a cause of that laziness. But Ms. Dennis does not have to make any assumptions about the causes of that laziness in order to draw her conclusion. C is also incorrect. This comparison between the work demands on engineering students and those on other students is irrelevant to the question of whether the work habits of engineering students have changed over time. The fourth answer choice is incorrect. If Ms. Dennis believed that the reason for her own students' decreasing performance was her own declining effectiveness, she would not think of her students as exemplifying trends among

engineering students in general. The last answer choice is also incorrect. Whether laziness is outgrown is irrelevant to the question of whether work habits of engineering students have changed over time.

24. If recreational fishermen were required to use large-mesh nets when fishing, fewer young shrimp would be trapped in those nets (making the reasonable assumptions, of course, that young, immature shrimp are smaller than mature shrimp and that by “large-mesh nets” is meant net with spaces big enough for young shrimp to pass through them). Thus, there is a strong likelihood that such a requirement would help increase commercial shrimp harvests. This makes C the best answer, and thus the correct answer. A is incorrect. This requirement is most unlikely to bring relief; if anything, it will exacerbate the problem if commercial fishermen, too, start netting young shrimp. The second answer choice is also incorrect. This requirement would presumably make sense if the problem were caused by commercial fishermen catching too many mature shrimp. But the passage clearly indicates that the main problem is that too many young shrimp are netted before they reach maturity. D is not the correct answer choice. Since the problem lies mainly in the numbers of immature, and thus presumably small, shrimp that recreational fishermen catch, preventing those fishermen from catching large shrimp above a certain size is unlikely to provide an effective solution. The last answer choice is also incorrect. Nothing in the passage suggests that recreational fishermen are not already free to move into the open ocean if they own ocean-going craft. And if they are not already free to move into the open ocean, there is still nothing to suggest that they are interested in doing so in large enough numbers to relieve the over-fishing of young shrimp in estuaries.