

Although fullerenes—spherical molecules made entirely of carbon—were first found in the laboratory, they have since been found in nature, formed in fissures of the rare mineral shungite. Since laboratory synthesis of fullerenes requires distinctive conditions of temperature and pressure, this discovery should give geologists a test case for evaluating hypotheses about the state of the Earth's crust at the time these naturally occurring fullerenes were formed. **Which of the following, if true, most seriously undermines the argument?**

- A. Confirming that the shungite genuinely contained fullerenes took careful experimentation.
- B. Some fullerenes have also been found on the remains of a small meteorite that collided with a spacecraft.
- C. The mineral shungite itself contains large amounts of carbon, from which the fullerenes apparently formed.
- D. The naturally occurring fullerenes are arranged in a previously unknown crystalline structure.
- E. Shungite itself is formed only under distinctive conditions.

2. Economist: On average, the emergency treatment for an elderly person for injuries resulting from a fall costs \$11,000. A new therapeutic program can significantly reduce an elderly person's chances of falling. Though obviously desirable for many reasons, this treatment program will cost \$12,500 and thus cannot be justified. **Which of the following, if true, most seriously undermines the conclusion of the argument?**

- A. Among elderly people who had followed the program for only a few months, the number of serious falls reported was higher than it was for people who had followed the program for its recommended minimum length of one year.
- B. Falls resulting in serious injuries are less common among elderly people living in nursing homes than they are among elderly people who live alone at home.
- C. A frequent result of injuries sustained in falls is long-term pain, medication for which is not counted among the average per-person costs of emergency treatment for elderly people's injuries from such falls.
- D. The new therapeutic program focuses on therapies other than medication, since overmedication can cause disorientation and hence increase the likelihood that an elderly person will have a serious fall.
- E. A significant portion of the cost of the new therapeutic program is represented by regular visits by health care professionals, the costs of which tend to increase more rapidly than do those of other elements of the program.

3. The prairie vole, a small North American grassland rodent, breeds year-round, and a group of voles living together consists primarily of an extended family, often including two or more litters. Voles commonly live in large groups from late autumn through winter; from spring through early autumn, however, most voles live in far smaller groups. The seasonal variation in group size can probably be explained by a seasonal variation in mortality among young voles. **Which of the following, if true, provides the strongest support for the explanation offered?**

- A. It is in the spring and early summer that prairie vole communities generally contain the highest proportion of young voles.
- B. Prairie vole populations vary dramatically in size from year to year.
- C. The prairie vole subsists primarily on broad-leaved plants that are abundant only in spring.
- D. Winters in the prairie voles' habitat are often harsh, with temperatures that drop well below freezing.
- E. Snakes, a major predator of young prairie voles, are active only from spring through early autumn.

4. A popular beach has long had a dolphin feeding program in which fish are given to dolphins several times a day; many dolphins get as much as half of their food each day there. Although dolphins that first benefit from the program as adults are healthy and long-lived, their offspring have a lower life expectancy than offspring of dolphins that feed exclusively in the wild. **Which of the following, if true, most helps to explain the lower life expectancy of offspring of dolphins feeding at the beach compared to other young dolphins?**

- A. Sharks that prey on dolphins are less common in the open seas off the beach than in many other areas of the open seas where dolphins congregate.
- B. Many of the adult dolphins that feed at the beach are females that nurse their offspring there.
- C. The fish given to the dolphins at the beach are the same types of fish that dolphins typically catch in the wild.
- D. Many dolphins that feed at the beach with their offspring come to the beach only a few times a month.
- E. Adult dolphins that feed at the beach spend much less time teaching their offspring how to catch fish in the wild than do other adult dolphins.

5. Tiger sharks are common in the waters surrounding Tenare Island. Usually tiger sharks feed on smaller sharks, but sometimes they have attacked tourists swimming and surfing at Tenare's beaches. This has hurt Tenare's tourism industry, which is second only to its fishing industry in annual revenues. In order to help the economy, therefore, the mayor of the island has proposed an ongoing program to kill any tiger sharks within a mile of the beaches. **Which of the following, if true, most strongly calls into question the likelihood that implementation of the mayor's proposal will have the desired consequence?**

- A. Even if not all the tiger sharks that come close to the beaches are killed, the existence of the program would reassure tourists.
- B. Business owners who depend on tourism are willing to pay most of the cost of implementing the program.
- C. Tourists come to Tenare Island for its beaches, even though the island features a number of other tourist attractions.
- D. The small sharks on which tiger sharks prey feed on fish that are commercially important to the island's fisheries.
- E. Not all tourists who come to Tenare Island enjoy swimming or surfing.

6. The country of Ertland has never imported apples in any significant quantity because consumers there generally prefer the unique texture of Ertland-grown apples. Nevertheless, apple growers from Kosolia, a neighboring country, plan to sell their apples in Ertland by selling Kosolia-grown apples at half the price of local apples and promoting them as a nourishing, low-cost alternative. **Which of the following, if true, casts most doubt on the viability of the plan by Kosolia's apple growers to sell their apples in Ertland?**

- A. Most of the varieties of apples grown in Ertland were originally derived from common Kosolian varieties.
- B. Consumers in Ertland tend to spend about the same proportion of their income on fresh fruits and vegetables as do consumers in Kosolia.
- C. At times in the past, Ertland has exported significant quantities of apples to Kosolia.
- D. Some varieties of apples grown in Kosolia can be harvested throughout most of the year, whereas the varieties grown in Ertland can be harvested only during two months of the year.
- E. Profiles of Ertland-grown apples are high enough in Ertland that growers, wholesalers, and retailers there could easily afford to reduce the price at which these apples are sold.

7. As part of major renovations to Flowertown's Main Street train station, consultants to the train company proposed moving the station's entrance from its current valuable Main Street location to a low-rent adjoining side street and then leasing the high-rent entrance space to retail businesses. In that way, the train company could easily pay for those and all other proposed renovations without negative impact on its tight budget.

Which of the following, if true, would most strongly support the consultants' proposal?

- A. More train commuters are employed in businesses located on Main Street than in businesses located on the adjoining side street.
- B. A reliable survey of Flowertown's commuters showed that virtually none of them would use the train any less frequently if the station's entrance were moved.

- C. The high-rent block of Flowertown's Main Street includes several buildings whose owners currently seek to replace long-standing tenants lost in recent months.
- D. If the station's entrance were moved, the train company would need to begin costly renovations to its Main Street entrance space.
- E. Ridership on Flowertown trains declined only slightly from 1970 to 1985 while other train companies lost large numbers of commuters.

8. Automobile Dealer's Advertisement: The Highway Traffic Safety Institute reports that the PZ 1000 has the fewest injuries per accident of any car in its class. This shows that the PZ 1000 is one of the safest cars available today. Which of the following, if true, most seriously weakens the argument in the advertisement?

- A. The Highway Traffic Safety Institute report listed many cars in other classes that had more injuries per accident than did the PZ 1000.
- B. In recent years many more PZ 1000s have been sold than have any other kind of car in its class.
- C. Cars in the class to which the PZ 1000 belongs are more likely to be involved in accidents than are other types of cars.
- D. The difference between the number of injuries per accident for the PZ 1000 and that for other cars in its class is quite pronounced.
- E. The Highway Traffic Safety Institute issues reports only once a year.

9. Scientists are discussing ways to remove excess carbon dioxide from the atmosphere by increasing the amount that is absorbed by plant life. One plan to accomplish this is to establish giant floating seaweed farms in the oceans. When the seaweed plants die, they will be disposed of by being burned for fuel.

Which of the following, if true, would indicate the most serious weakness in the plan above?

- A. Some areas of ocean in the Southern Hemisphere do not contain sufficient nutrients to support large seaweed farms.
- B. When a seaweed plant is burned, it releases an amount of carbon dioxide comparable to the amount it has absorbed in its lifetime.
- C. Even if seaweed farms prove effective, some people will be reluctant to switch to this new fuel.
- D. Each year about seven billion tons of carbon dioxide are released into the atmosphere but only about five billion tons are absorbed by plant life.
- E. Seaweed farms would make more money by farming seaweed to sell as nutritional supplements than by farming seaweed to sell as fuel.

10. **Jennifer:** Video rental outlets in Centerville together handled 10,000 fewer video rentals in 1994 than in 1993. The decline in rentals was probably due almost entirely to the February 1994 opening of Videorama, the first and only video rental outlet in the area that, in addition to renting videos, also sold them cheaply.

Brad: There must be another explanation: as you yourself said, the decline was on the order of 10,000 rentals. Yet Videorama sold only 4,000 videos in 1994.

Which of the following, if true, would most seriously weaken the force of the objection that Brad presents to Jennifer's explanation?

- A. In 1994 Videorama rented out more videos than it sold.
- B. In 1994 two new outlets that rent but that do not sell videos opened in Centerville.
- C. Most of the video rental outlets in Centerville rent videos at a discount on certain nights of the week.
- D. People often buy videos of movies that they have previously seen in a theater.
- E. People who own videos frequently loan them to their friends.

11. **Mourdet Winery:** Danville Winery's new wine was introduced to compete with our most popular wine, which is sold in a distinctive tall, black bottle. Danville uses a similar bottle. Thus, it is likely that many customers intending to buy our wine will mistakenly buy theirs instead.

Danville Winery: Not so. The two bottles can be readily distinguished: the label on ours, but not on theirs, is gold colored.

Which of the following, if true, most undermines Danville Winery's response?

- A. Gold is the background color on the label of many of the wines produced by Danville Winery.
- B. When the bottles are viewed side by side, Danville Winery's bottle is perceptibly taller than Mourdet Winery's.
- C. Danville Winery, unlike Mourdet Winery, displays its wine's label prominently in advertisements.
- D. It is common for occasional purchasers to buy a bottle of wine on the basis of a general impression of the most obvious feature of the bottle.
- E. Many popular wines are sold in bottles of a standard design.

12. **Finding of a survey of Systems magazine subscribers:** Thirty percent of all merchandise orders placed by subscribers in response to advertisements in the magazine last year were placed by subscribers under age thirty-five.

Finding of a survey of advertisers in Systems magazine: Most of the merchandise orders placed in response to advertisements in Systems last year were placed by people under age thirty-five.

For both of the findings to be accurate, which of the following must be true?

- A. More subscribers to Systems who have never ordered merchandise in response to advertisements in the magazine are age thirty-five or over than are under age thirty-five.
- B. Among subscribers to Systems, the proportion who are under age thirty-five was considerably lower last year than it is now.
- C. Most merchandise orders placed in response to advertisements in Systems last year were placed by Systems subscribers over age thirty-five.
- D. Last year, the average dollar amount of merchandise orders placed was less for subscribers under age thirty five than for those age thirty-five or over.
- E. Last year many people who placed orders for merchandise in response to advertisements in Systems were not subscribers to the magazine.

13. **Which of the following most logically completes the argument?**

United States manufacturers currently produce most of the world's solar-power generators—most of which are exported to Europe. However, European manufacturers are emerging and probably will ultimately capture much of the European market. The United States government is funding initiatives intended to encourage use of solar power within the United States. If these initiatives succeed in increasing the demand for solar-power generators in the United States, United States manufacturers will probably maintain significant production levels, since _____.

- A. some United States manufacturers have been substantially increasing their output over the last several years
- B. the efficiency of solar-power generators in converting energy from the Sun into electric power is not improving as fast as it once did
- C. just as European manufacturers enjoy certain competitive advantages in Europe, so do United States manufacturers in the United States
- D. European governments are currently undertaking initiatives to stimulate the use of solar power within Europe
- E. the current market for solar-power generators in the United States is very limited

14. The higher the level of certain vitamins and minerals in the bloodstream, the better a person's lung function, as measured by the amount of air the person can expel in one second. The lung function of smokers is significantly worse, on average, than that of nonsmokers. Clearly, therefore, one way for smokers to improve their lung function is for them to increase their intake of foods that are rich in these helpful vitamins and minerals. **Which of the following is an assumption on which this argument depends?**

- A. Smokers are less likely than nonsmokers to have diets that are rich in vitamins and minerals.
- B. The lung function of smokers whose diets are rich in those vitamins and minerals is generally better than that of nonsmokers with comparable diets.

- C. People whose diets are deficient in those vitamins and minerals do not typically have other health problems in addition to diminished lung function.
- D. Stopping smoking will not typically improve lung function more than any diet changes can.
- E. Smoking does not introduce into the body chemicals that prevent the helpful vitamins and minerals from entering the bloodstream.

15. **Astronomer:** Observations of the Shoemaker-Levi comet on its collision course with Jupiter showed that the comet broke into fragments before entering Jupiter's atmosphere in 1994, but they did not show how big those fragments were. In hopes of gaining some indication of the fragments' size, astronomers studied spectrographic analyses of Jupiter's outer atmosphere. These analyses revealed unprecedented traces of sulfur after the fragments' entry. **The fragments themselves almost certainly contained no sulfur, but many astronomers believe that the cloud layer below Jupiter's outer atmosphere does contain sulfur.** Since sulfur would have seeped into the outer atmosphere if comet fragments had penetrated this cloud layer, **it is likely that some of the fragments were at least large enough to have passed through Jupiter's outer atmosphere without being burned up.**

In the astronomer's argument, the two portions in **boldface** play which of the following roles?

- A. The first presents a circumstance for which the astronomer offers an explanation; the second is part of that explanation.
- B. The first acknowledges a consideration that weighs against the conclusion of the argument; the second is that conclusion.
- C. The first acknowledges a consideration that weighs against the conclusion of the argument; the second provides evidence in support of that conclusion.
- D. The first provides evidence in support of the conclusion of the argument; the second acknowledges a consideration that weighs against that conclusion.
- E. The first is a judgment advanced in support of the conclusion of the argument; the second is that conclusion.

16. Most of the world's supply of uranium currently comes from mines. It is possible to extract uranium from seawater, but the cost of doing so is greater than the price that uranium fetches on the world market. Therefore, until the cost of extracting uranium from seawater can somehow be reduced, this method of obtaining uranium is unlikely to be commercially viable. **Which of the following would it be most useful to determine in evaluating the argument?**

- A. Whether the uranium in deposits on land is rapidly being depleted
- B. Whether most uranium is used near where it is mined
- C. Whether there are any technological advances that show promise of reducing the cost of extracting uranium from seawater
- D. Whether the total amount of uranium in seawater is significantly greater than the total amount of uranium on land
- E. Whether uranium can be extracted from freshwater at a cost similar to the cost of extracting it from seawater

17. Urban air contains more sulfur dioxide than does rural air, and plants in cities typically grow more slowly than do plants in rural areas. In an experiment to see how much of the difference in growth is due to sulfur dioxide, classes in an urban and a rural school grew plants in greenhouses at their schools and filtered the greenhouse air to eliminate sulfur dioxide. Plants in the urban greenhouse grew more slowly than those in the rural greenhouse. **Which of the following, if true, would it be most important to take into account in evaluating the result?**

- A. The urban school was located in a part of the city in which levels of sulfur dioxide in the air were usually far lower than is typical for urban areas.
- B. At both schools, the plants in the greenhouses grew much more quickly than did plants planted outdoors in plots near the greenhouses.
- C. The urban class conducting the experiment was larger than the rural class conducting the experiment.

- D. Heavy vehicular traffic such as is found in cities constantly deposits grime on greenhouse windows, reducing the amount of light that reaches the plants inside.
- E. Because of the higher levels of sulfur dioxide in the air at the urban school, the air filters for the urban school's greenhouse were changed more frequently than were those at the rural school.

18. Many small roads do not have painted markings along their edges. Clear edge markings would make it easier for drivers to see upcoming curves and to judge the car's position on the road, particularly when visibility is poor, and would therefore seem to be a useful contribution to road safety. However, after Greatwater County painted edge markings on all its narrow, winding roads, the annual accident rate along those roads actually increased slightly. **Which of the following, if true, most helps to explain the increase in accident rate?**

- A. Greatwater County has an unusually high proportion of narrow, winding roads.
- B. In bad weather it can be nearly as difficult for drivers to see the road as it is at night.
- C. Prior to the painting of the edge markings, Greatwater County's narrow, winding roads already had a somewhat higher accident rate than other Greatwater County roads.
- D. Many of the accidents on narrow, winding roads involve a single vehicle veering off the road, rather than the collision of two vehicles.
- E. After the markings were painted on the roads, many drivers who had gone out of their way to avoid driving on those roads at night no longer did so.

19. Gortland has long been narrowly self-sufficient in both grain and meat. However, as per capita income in Gortland has risen toward the world average, per capita consumption of meat has also risen toward the world average, and it takes several pounds of grain to produce one pound of meat. Therefore, since per capita income continues to rise, whereas domestic grain production will not increase, Gortland will soon have to import either grain or meat or both. **Which of the following is an assumption on which the argument depends?**

- A. The total acreage devoted to grain production in Gortland will soon decrease.
- B. Importing either grain or meat will not result in a significantly higher percentage of Gortlanders' incomes being spent on food than is currently the case.
- C. The per capita consumption of meat in Gortland is increasing at roughly the same rate across all income levels.
- D. The per capita income of meat producers in Gortland is rising faster than the per capita income of grain producers.
- E. People in Gortland who increase their consumption of meat will not radically decrease their consumption of grain.

20. For years the beautiful Renaissance buildings in Palitito have been damaged by exhaust from the many tour buses that come to the city. There has been little parking space, so most buses have idled at the curb during each stop on their tour, and idling produces as much exhaust as driving. The city has now provided parking that accommodates a third of the tour buses, so damage to Palitito's buildings from the buses' exhaust will diminish significantly. **Which of the following, if true, most strongly supports the argument?**

- A. The exhaust from Palitito's few automobiles is not a significant threat to Palitito's buildings.
- B. Palitito's Renaissance buildings are not threatened by pollution other than engine exhaust.
- C. Tour buses typically spend less than one-quarter of the time they are in Palitito transporting passengers from one site to another.
- D. More tourists come to Palitito by tour bus than by any other single means of transportation.
- E. Some of the tour buses that are unable to find parking drive around Palitito while their passengers are visiting a site.

21. Traces of cultivated emmer wheat have been found among the earliest agricultural remains of many archaeological sites in Europe and Asia. The only place where the wild form of emmer wheat has been found growing is a relatively narrow strip of southwest Asia. Since the oldest remains of cultivated emmer

wheat yet found are from village sites in the same narrow strip, it is clear that emmer wheat was first domesticated somewhere in that strip. **Which of the following, if true, most strengthens the argument?**

- A. The present-day distribution of another wild wheat, einkorn, which was also domesticated early in the development of agriculture, covers a much larger area of southwest Asia.
- B. Modern experiments show that wild emmer wheat can easily be domesticated so as to yield nearly as well as traditionally domestic strains.
- C. At the time when emmer wheat was first cultivated, it was the most nutritious of all the varieties of grain that were then cultivated.
- D. In the region containing the strip where wild emmer wheat has been found, climatic conditions have changed very little since before the development of agriculture.
- E. It is very difficult, without genetic testing, to differentiate the wild form of emmer wheat from a closely related wild wheat that also grows in southwest Asia.

22. In the late 1980s, the population of sea otters in the North Pacific began to decline. There are two plausible explanations for the decline: predation, possibly by killer whales, or disease. Of these two, disease is the more likely, since a concurrent sharp decline in populations of seals and sea lions is believed to have been caused by disease, and diseases that infect these creatures are likely to be able to infect sea otters also. **Which of the following, if true, most seriously weakens the reasoning?**

- A. Killer whales in the North Pacific usually prey on seals and sea lions but will, when this food source is scarce, seek out other prey.
- B. There is no indication that the sea otter population at any North Pacific location declined in the 1980s because of substantial numbers of sea otters migrating to other locations.
- C. Along the Pacific coast of North America in the 1980s, sea otters were absent from many locations where they had been relatively common in former times.
- D. Following the decline in the population of the sea otters, there was an increase in the population of sea urchins, which are sea otters' main food source.
- E. The North Pacific populations of seals and sea lions cover a wider geographic area than does the population of sea otters.

23. From 1978 to 1988, beverage containers accounted for a steadily decreasing percentage of the total weight of household garbage in the United States. The increasingly widespread practice of recycling aluminum and glass was responsible for most of this decline. However, although aluminum recycling was more widely practiced in this period than glass recycling, it was found that the weight of glass bottles in household garbage declined by a greater percentage than the weight of aluminum cans. **Which of the following, if true of the United States in the period 1978 to 1988, most helps to account for the finding?**

- A. Glass bottles are significantly heavier than aluminum cans of comparable size.
- B. Recycled aluminum cans were almost all beverage containers, but a significant fraction of the recycled glass bottles had contained products other than beverages.
- C. Manufacturers replaced many glass bottles, but few aluminum cans, with plastic containers.
- D. The total weight of glass bottles purchased by households increased at a slightly faster rate than the total weight of aluminum cans.
- E. In many areas, glass bottles had to be sorted by color of the glass before being recycled, whereas aluminum cans required no sorting.

24. Tiger beetles are such fast runners that they can capture virtually any nonflying insect. However, when running toward an insect, the beetles intermittently stop, and then, a moment later, resume their attack. Perhaps they cannot maintain their pace and must pause for a moment's rest; but an alternative hypothesis is that while running tiger beetles are unable to process the resulting rapidly changing visual information, and so quickly go blind and stop. **Which of the following, if discovered in experiments using artificially moved prey insects, would support one of the two hypotheses and undermine the other?**

- A. When a prey insect is moved directly toward a beetle that has been chasing it, the beetle immediately turns and runs away without its usual intermittent stopping.
- B. In pursuing a moving insect, the beetles usually respond immediately to changes in the insect's direction, and pause equally frequently whether the chase is up or down an incline.
- C. The beetles maintain a fixed time interval between pauses, although when an insect that had been stationary begins to flee, the beetle increases its speed after its next pause.
- D. If, when a beetle pauses, it has not gained on the insect it is pursuing, the beetle generally ends its pursuit.
- E. When an obstacle is suddenly introduced just in front of running beetles, the beetles sometimes stop immediately, but they never respond by running around the barrier.

25. Twelve years ago and again five years ago, there were extended periods when the Darfir Republic's currency, the pundra, was weak: its value was unusually low relative to the world's most stable currencies. Both times a weak pundra made Darfir's manufactured products a bargain on world markets, and Darfir's exports were up substantially. Now some politicians are saying that, in order to cause another similarly sized increase in exports, the government should allow the pundra to become weak again. **Which of the following, if true, provides the government with the strongest grounds to doubt that the politicians' recommendation, if followed, will achieve its aim?**

- A. Several of the politicians now recommending that the pundra be allowed to become weak made that same recommendation before each of the last two periods of currency weakness.
- B. After several decades of operating well below peak capacity, Darfir's manufacturing sector is now operating at near-peak levels.
- C. The economy of a country experiencing a rise in exports will become healthier only if the country's currency is strong or the rise in exports is significant.
- D. Those countries whose manufactured products compete with Darfir's on the world market all currently have stable currencies.
- E. A sharp improvement in the efficiency of Darfir's manufacturing plants would make Darfir's products a bargain on world markets even without any weakening of the pundra relative to other currencies.

26. The population of Megacity, a sprawling metropolis in Remsland, has grown at a fairly steady rate for over a century. A hundred years ago, poor sanitation in the city caused high mortality rates among the city's inhabitants, and what fueled the population increase was immigration from rural villages. This immigration has continued and even increased. Moreover, in recent decades, city sanitation has improved enormously. Yet the city's population growth has not significantly accelerated. **Which of the following, if true, most helps to explain why the city's population growth rate has not changed?**

- A. Mortality rates that were associated with poor sanitation in Megacity a hundred years ago were orders of magnitude higher than are mortality rates associated with vehicular traffic, which is currently a major cause of death in the city.
- B. For several decades, Megacity, as distinct from the countryside, has had a steadily declining birth rate.
- C. Cities smaller than Megacity have also experienced sustained population growth.
- D. The great majority of immigrants to Remsland settle in Megacity, at least initially.
- E. Megacity has long offered better employment prospects than most rural areas.

27. Plant scientists have used genetic engineering on seeds to produce crop plants that are highly resistant to insect damage. **Unfortunately, the seeds themselves are quite expensive, and the plants require more fertilizer and water to grow well than normal ones.** Thus, for most farmers the savings on pesticides would not compensate for the higher seed costs and the cost of additional fertilizer. **However, since consumer demand for grains, fruits, and vegetables grown without the use of pesticides continues to rise, the use of genetically engineered seeds of this kind is likely to become widespread.**

In the argument given, the two portions in **boldface** play which of the following roles?

- A. The first supplies a context for the argument; the second is the argument's main conclusion.

- B. The first introduces a development that the argument predicts will have a certain outcome; the second is a state of affairs that the argument denies will be part of that outcome.
- C. The first presents a development that the argument predicts will have a certain outcome; the second acknowledges a consideration that weighs against that prediction.
- D. The first provides evidence to support a prediction that the argument seeks to defend; the second is that prediction.
- E. The first and the second each provide evidence to support the argument's main conclusion.

28. First-time computer buyers buying PXC home computers typically buy models that cost much less and have a smaller profit margin per computer than do PXC computers bought by people replacing their computers with more powerful models. Last year PXC's profits from computer sales were substantially higher than the previous year, although about the same number of PXC computers were sold and the prices and profit margins for each computer model that PXC sells remained unchanged. **If the statements above are true, which of the following is most strongly supported by them?**

- A. PXC's competitors raised the prices on their computers last year, making PXC computers more attractive to first-time computer buyers.
- B. The number of people buying PXC computers who also bought PXC computer-related products, such as printers, was larger last year than the previous year.
- C. Among computer buyers who bought a PXC computer to replace their existing computer, the proportion who were replacing a computer made by a competitor of PXC was greater last year than the previous year.
- D. The proportion of PXC computers bought by first-time computer buyers was smaller last year than the previous year.
- E. PXC's production costs for its computers were lower last year than they had been the previous year.

29. To reduce the danger to life and property posed by major earthquakes, scientists have been investigating several techniques for giving advance warning of dangerous earthquakes. Since catfish swim erratically before earthquakes, some investigators have proposed monitoring catfish to predict dangerous earthquakes. **Which of the following, if true, most seriously undermines the usefulness of the proposal?**

- A. In Japan, which is subject to frequent earthquakes, the behavior of catfish has long been associated with earthquakes.
- B. Mechanical methods for detecting earthquakes have not proved effective.
- C. Tremors lead to the release of hydrogen sulfide gas into water, thereby causing various fish and shellfish to behave erratically.
- D. Careful construction can reduce the dangers posed by earthquakes.
- E. Even very slight, fleeting tremors cause catfish to swim erratically.

30. A city plans to attract new citizens with new housing and new facilities such as parks, recreation centers, and libraries. One component of the city's plan is to require that developers seeking permission to build this new housing provide these additional facilities at no cost to the city. **Which of the following, if true, would point to a possible flaw in the city's plan?**

- A. Developers would pass along their costs to the buyer, thereby raising the cost of housing units beyond the ability of likely purchasers to afford them.
- B. Light, nonpolluting industries have located in the area, offering more jobs and better-paying jobs than do the more-established industries in the area.
- C. Other towns and cities nearby have yet to embark on any comparable plans to attract new citizens.
- D. Most developers see the extra expense of providing municipal facilities as simply one of the many costs of doing business.
- E. Studies show that purchasers of new houses, especially first-time buyers, rank recreational resources as an important factor in deciding to buy a particular house.

31. Manufacturers issue cents-off coupons to get consumers to try their brand of product with the hope that the consumers who try their brand will switch their brand loyalty. So in the initial marketing of their new brand X, Hartman Industries should issue cents-off coupons, thereby attracting a large segment of potential consumers as loyal customers. **Which of the following, if true, casts the most serious doubt on the likelihood that the marketing strategy recommended above will have the result that is claimed?**

- A. Many consumers are unlikely to try new brands of products unless offered an inducement to do so.
- B. The consumers whose purchases are strongly influenced by cents-off coupons tend not to become loyal customers of any particular brand.
- C. Many grocery stores attract customers by doubling the face value of manufacturer's coupons.
- D. Typically less than one-third of the coupons issued by a manufacturer are redeemed by consumers.
- E. A marketing campaign that uses cents-off coupons is most effective when combined with a television advertising campaign.

32. **State spokesperson:** Many businesspeople who have not been to our state believe that we have an inadequate road system. Those people are mistaken, as is obvious from the fact that in each of the past six years, our state has spent more money per mile on road improvements than any other state. **Which of the following, if true, most seriously undermines the reasoning in the spokesperson's argument?**

- A. In the spokesperson's state, spending on road improvements has been increasing more slowly over the past six years than it has in several other states.
- B. Adequacy of a state's road system is generally less important to a businessperson considering doing business there than is the availability of qualified employees.
- C. Over the past six years, numerous businesses have left the spokesperson's state, but about as many businesses have moved into the state.
- D. In general, the number of miles of road in a state's road system depends on both the area and the population of the state.
- E. Only states with seriously inadequate road systems need to spend large amounts of money on road improvements.

33. When a caterpillar emerges from the egg on a tree branch, it immediately climbs upward until it finds a leaf bud to eat. Biologists thought that this behavior displayed an innate tendency to move in the direction opposite to the pull of gravity. In a recent experiment, a strong light source was placed at the bottom of a tree, and caterpillars, after hatching, climbed downward. **Which of the following hypotheses is best supported by the statements given?**

- A. Caterpillars have an innate tendency to move in the direction of gravity.
- B. Newly hatched caterpillars are unable to see in the dark.
- C. Newly hatched caterpillars move towards the strongest light source in the environment.
- D. Newly hatched caterpillars move toward the leaf bud nearest to them.
- E. The eyes of newly hatched caterpillars become less sensitive to light over time.

34. For several years, per capita expenditure on prescription drugs in Voronia rose by fifteen percent or more annually. In order to curb these dramatic increases, the ministry of health prohibited drug manufacturers from raising any of their products' prices. Even though use of prescription drugs did not expand after this price freeze, per capita expenditure for prescription drugs continued to increase by a substantial percentage each year. **Which of the following, if true, most helps to explain why the ministry's action did not achieve its goal?**

- A. After price increases were prohibited, drug manufacturers concentrated on producing new medications to replace existing products.
- B. The population of Voronia rose steadily throughout the period.
- C. Improvements in manufacturing processes enabled drug manufacturers to maintain high profit levels on drugs despite the price freeze.

- D. In addition to imposing a price freeze, the government encouraged doctors to prescribe generic versions of common drugs instead of the more expensive brand-name versions.
- E. After price increases were prohibited, some foreign manufacturers of expensive drugs ceased marketing them in Voronia.

35. Which of the following most logically completes the argument?

The last members of a now-extinct species of a European wild deer called the giant deer lived in Ireland about 16,000 years ago. Prehistoric cave paintings in France depict this animal as having a large hump on its back. Fossils of this animal, however, do not show any hump. Nevertheless, there is no reason to conclude that the cave paintings are therefore inaccurate in this regard, since _____.

- A. some prehistoric cave paintings in France also depict other animals as having a hump
- B. fossils of the giant deer are much more common in Ireland than in France
- C. animal humps are composed of fatty tissue, which does not fossilize
- D. the cave paintings of the giant deer were painted well before 16,000 years ago
- E. only one currently existing species of deer has any anatomical feature that even remotely resembles a hump

36. Outsourcing is the practice of obtaining from an independent supplier a product or service that a company has previously provided for itself. Vernon, Inc., a small manufacturing company that has in recent years experienced a decline in its profits, plans to boost its profits by outsourcing those parts of its business that independent suppliers can provide at lower cost than Vernon can itself. **Which of the following, if true, most strongly supports the prediction that Vernon's plan will achieve its goal?**

- A. Among the parts of its business that Vernon does not plan to outsource are some that require standards of accuracy too high for most independent suppliers to provide at lower cost than Vernon can.
- B. Vernon itself acts as an independent supplier of specialized hardware items to certain manufacturers that formerly made those items themselves.
- C. Relatively few manufacturers that start as independent suppliers have been able to expand their business and become direct competitors of the companies they once supplied.
- D. Vernon plans to select the independent suppliers it will use on the basis of submitted bids.
- E. Attending to certain tasks that Vernon performs relatively inefficiently has taken up much of the time and effort of top managers whose time would have been better spent attending to Vernon's core business.

37. Capuchin monkeys in Venezuela often rub a certain type of millipede into their fur. Secretions of these millipedes have been shown to contain two chemicals that are potent mosquito repellents, and mosquitoes carry parasites that debilitate the capuchins. The rubbing behavior is rare except during the rainy season, when mosquito populations are at their peak. Therefore, the monkeys probably rub the millipedes into their fur because doing so helps protect them against mosquitoes. **Which of the following would it be most useful to determine in order to evaluate the argument?**

- A. Whether the two chemicals provide any protection for the millipedes against their own predators
- B. Whether the type of millipede used by the capuchin monkeys in Venezuela is found in other parts of the world
- C. Whether animals other than capuchins rub insects of any kind into their fur
- D. Whether the only time the millipedes are readily available to the capuchins is during the rainy season
- E. Whether secretions of any other insects accessible to the capuchins contain chemicals that repel mosquitoes

38. Which of the following most logically completes the argument below?

When interest rates are high, insurance companies reduce the premiums they charge for many kinds of insurance policies. The reason is that insurance companies want to take in as much money as possible in premiums so that they can invest the money at high rates of interest. And premium reductions help achieve this objective, since _____.

- A. interest rates are likely to decrease when large amounts of money are available for loans

- B. smaller insurance companies are not able to amass enough money to take advantage of investing at high interest rates
- C. insurance companies can sell many more insurance policies if they charge lower premiums than they would if they left premiums unchanged
- D. an increase in the number of policies sold eventually leads to an increase in the number of claims that an insurance company has to pay
- E. the number of claims that insurance companies pay increases at a higher rate than does the number of policies that the insurance companies can sell at the lower premiums

39. After its customers complained about being pressured to buy unneeded insurance, an insurance agency stopped rewarding its agents for high sales volume and instead gave them bonuses for high levels of customer satisfaction. Under this new plan, both customer satisfaction and the insurance agency's sales increased. **Each of the following, if true, helps to explain how the change in incentives for agents could have resulted in increased sales EXCEPT:**

- A. Customers were so pleased that the insurance agency had responded to their complaints that they recommended the agency to their friends.
- B. Agents listened more closely to customers of long standing and were able to sell them additional insurance policies that met new needs.
- C. Agents more frequently postponed completing the attendant paperwork even after the terms for an insurance policy were settled to the satisfaction of the client.
- D. Dissatisfied customers of other agencies, attracted by the reports of the change in agency policy, became customers of the agency.
- E. Having come to trust the increased judiciousness of the agents' recommendations, customers approached the agency to discuss and ultimately to buy more supplementary insurance than they previously had bought under pressure.

40. **Columnist:** People should avoid using a certain artificial fat that has been touted as a resource for those whose medical advisers have advised them to reduce their fat intake. Although the artificial fat, which can be used in place of fat in food preparation, has none of the negative health effects of fat, it does have a serious drawback: it absorbs certain essential vitamins, thereby preventing them from being used by the body. **In evaluating the columnist's position, it would be most useful to determine which of the following?**

- A. Whether increasing one's intake of the vitamins can compensate for the effects of the artificial fat
- B. Whether the vitamins that the artificial fat absorbs are present in foods that contain the fat
- C. Whether having an extremely low fat intake for an extended period can endanger the health
- D. Whether there are any foods that cannot be prepared using the artificial fat as a substitute for other fats
- E. Whether people are generally able to detect differences in taste between foods prepared using the artificial fat and foods that are similar except for the use of other fats

41. In the two years following the unification of Germany in 1989, the number of cars owned by residents of East Germany and the total distance traveled by cars in East Germany both increased by about 40 percent. In those two years, however, the number of East German residents killed each year as car occupants in traffic accidents increased by about 300 percent. **Which of the following, if true, most helps to explain the disproportionate increase in traffic fatalities?**

- A. The average number of passengers per car was higher in the years before unification than it was in the two years after.
- B. After unification, many people who had been living in East Germany relocated to West Germany.
- C. After unification, a smaller proportion of the cars being purchased by East German residents were used vehicles.
- D. Drivers who had driven little or not at all before 1989 accounted for much of the increase in the total distance traveled by cars.

E. Over the same two-year period in East Germany, other road users, such as motorcyclists, bicyclists, and pedestrians, experienced only small increases in traffic fatalities.

42. **Editorial:** Regulations recently imposed by the government of Risemia call for unprecedented reductions in the amounts of pollutants manufacturers are allowed to discharge into the environment. It will take costly new pollution control equipment requiring expensive maintenance to comply with these regulations. Resultant price increases for Risemian manufactured goods will lead to the loss of some export markets. Clearly, therefore, annual exports of Risemian manufactured goods will in the future occur at diminished levels. **Which of the following, if true, most seriously weakens the argument in the editorial?**

- A. The need to comply with the new regulations will stimulate the development within Risemia of new pollution control equipment for which a strong worldwide demand is likely to emerge.
- B. The proposed regulations include a schedule of fines for noncompliance that escalate steeply in cases of repeated noncompliance.
- C. Savings from utilizing the chemicals captured by the pollution control equipment will remain far below the cost of maintaining the equipment.
- D. By international standards, the levels of pollutants currently emitted by some of Risemia's manufacturing plants are not considered excessive.
- E. The stockholders of most of Risemia's manufacturing corporations exert substantial pressure on the corporations to comply with environmental laws.

43. Paint on a new airliner is usually applied in two stages: first, a coat of primer, and then a top coat. A new process requires no primer, but instead uses two layers of the same newly developed coating, with each layer of the new coating having the same thickness and weight as a traditional top coat. Using the new process instead of the old process increases the price of a new aircraft considerably. **Which of the following, if true, most strongly indicates that it is in an airline's long-term economic interest to purchase new airliners painted using the new process rather than the old process?**

- A. Although most new airliners are still painted using the old process, aircraft manufacturers now offer a purchaser of any new airliner the option of having it painted using the new process instead.
- B. A layer of primer on an airliner weighs more than a layer of the new coating would by an amount large enough to make a difference to that airliner's load-bearing capacity.
- C. A single layer of the new coating provides the aluminum skin of the airliner with less protection against corrosion than does a layer of primer of the usual thickness.
- D. Unlike the old process, the new process was originally invented for use on spacecraft, which are subject to extremes of temperature to which airliners are never exposed.
- E. Because the new coating has a viscosity similar to that of a traditional top coat, aircraft manufacturers can apply it using the same equipment as is used for a traditional top coat.

44. In countries in which new life-sustaining drugs cannot be patented, such drugs are sold at widely affordable prices; those same drugs, where patented, command premium prices because the patents shield patent-holding manufacturers from competitors. These facts show that future access to new life-sustaining drugs can be improved if the practice of granting patents on newly developed life-sustaining drugs were to be abolished everywhere. **Which of the following, if true, most seriously weakens the argument?**

- A. In countries in which life-sustaining drugs cannot be patented, their manufacture is nevertheless a profitable enterprise.
- B. Countries that do not currently grant patents on life-sustaining drugs are, for the most part, countries with large populations.
- C. In some countries specific processes for the manufacture of pharmaceutical drugs can be patented even in cases in which the drugs themselves cannot be patented.
- D. Pharmaceutical companies can afford the research that goes into the development of new drugs only if patents allow them to earn high profits.

E. Countries that grant patents on life-sustaining drugs almost always ban their importation from countries that do not grant such patents.

45. A major impediment to wide acceptance of electric vehicles even on the part of people who use their cars almost exclusively for commuting is the inability to use electric vehicles for occasional extended trips. In an attempt to make purchasing electric vehicles more attractive to commuters, one electric vehicle producer is planning to offer customers three days free rental of a conventional car for every 1,000 miles that they drive their electric vehicle. **Which of the following, if true, most threatens the plan's prospects for success?**

- A. Many electric vehicles that are used for commercial purposes are not needed for extended trips.
- B. Because a majority of commuters drive at least 100 miles a week, the cost to the producer of making good the offer would add considerably to the already high price of electric vehicles.
- C. The relatively long time it takes to recharge the battery of an electric vehicle can easily be fitted into the regular patterns of car use characteristic of commuters.
- D. Although electric vehicles are essentially emission-free in actual use, generating the electricity necessary for charging an electric vehicle's battery can burden the environment.
- E. Some family vehicles are used primarily not for commuting but for making short local trips, such as to do errands.

46. Archaeologists in Michigan have excavated a Native American camp near Dumaw Creek. Radiocarbon dating of animal bones found at the site indicates that the camp dates from some time between 1605 and 1755. However, the camp probably dates to no later than 1630, since no European trade goods were found at the site, and European traders were active in the region from the 1620's onward. **Which of the following, if true, most strengthens the argument?**

- A. Due to trade among Native Americans, some European trade goods would have reached the area before the European traders themselves did.
- B. At all camps in the region that have been reliably dated to the late 1620's, remains of European trade goods have been found.
- C. The first European trade goods to reach the area would have been considered especially valuable and preserved as much as possible from loss or destruction.
- D. The first European traders in the area followed soon after the first European explorers.
- E. The site is that of a temporary camp that would have been used seasonally for a few years and then abandoned.

47. Automobile emissions are a significant source of air pollutants, and cars over five years old typically generate significantly greater amounts of pollutants than newer cars. In Torinia, which has recently built its first automobile manufacturing plant, most cars are over five years old. Aiming to boost Torinia's economy and reduce air pollution, the government plans to introduce incentives for Torinians to scrap their old cars every five years and replace them with new ones. **Which of the following, if true, most seriously undermines the likelihood that the planned incentives, if implemented, will achieve both of the cited aims?**

- A. Without the implementation of the planned incentives, most Torinians who own an old car would be unlikely to buy a new car.
- B. Torinia's automobile plant manufactures car models that typically generate smaller amounts of air pollutants than most similarly sized car models manufactured elsewhere.
- C. The new cars produced in Torinia are not likely to be exported to other countries.
- D. The largest source of atmospheric pollutants in Torinia is not automobile emissions, but emissions from power plants.
- E. The manufacture and the scrapping of cars each generate significant amounts of air pollutants.

48. Parasitic wasps lay their eggs directly into the eggs of various host insects in exactly the right numbers for any suitable size of host egg. If they laid too many eggs in a host egg, the developing wasp larvae would compete with each other to the death for nutrients and space. If too few eggs were laid,

portions of the host egg would decay, killing the wasp larvae. **Which of the following conclusions can properly be drawn from the information above?**

- A. The size of the smallest host egg that a wasp could theoretically parasitize can be determined from the wasp's egg-laying behavior.
- B. Host insects lack any effective defenses against the form of predation practiced by parasitic wasps.
- C. Parasitic wasps learn from experience how many eggs to lay into the eggs of different host species.
- D. Failure to lay enough eggs would lead to the death of the developing wasp larvae more quickly than would laying too many eggs.
- E. Parasitic wasps use visual clues to calculate the size of a host egg.

49. An overly centralized economy, not the changes in the climate, is responsible for the poor agricultural production in Country X since its new government came to power. Neighboring Country Y has experienced the same climatic conditions, but while agricultural production has been falling in Country X, it has been rising in Country Y. **Which of the following, if true, would most weaken the argument above?**

- A. Industrial production also is declining in Country X.
- B. Whereas Country Y is landlocked, Country X has a major seaport.
- C. Both Country X and Country Y have been experiencing drought conditions.
- D. The crops that have always been grown in Country X are different from those that have always been grown in Country Y.
- E. Country X's new government instituted a centralized economy with the intention of ensuring an equitable distribution of goods.

50. Generally scientists enter their field with the goal of doing important new research and accept as their colleagues those with similar motivation. Therefore, when any scientist wins renown as an expounder of science to general audiences, most other scientists conclude that this popularizer should no longer be regarded as a true colleague. **The explanation offered above for the low esteem in which scientific popularizers are held by research scientists assumes that**

- A. serious scientific research is not a solitary activity, but relies on active cooperation among a group of colleagues
- B. research scientists tend not to regard as colleagues those scientists whose renown they envy
- C. a scientist can become a famous popularizer without having completed any important research
- D. research scientists believe that those who are well known as popularizers of science are not motivated to do important new research
- E. no important new research can be accessible to or accurately assessed by those who are not themselves scientists

51. A company's two divisions performed with remarkable consistency over the past three years: in each of those years, the pharmaceuticals division has accounted for roughly 20 percent of dollar sales and 40 percent of profits, and the chemicals division for the balance. **Which of the following can properly be inferred regarding the past three years from the statement above?**

- A. Total dollar sales for each of the company's divisions have remained roughly constant.
- B. The pharmaceuticals division has faced stiffer competition in its markets than has the chemicals division.
- C. The chemicals division has realized lower profits per dollar of sales than has the pharmaceuticals division.
- D. The product mix offered by each of the company's divisions has remained unchanged.
- E. Highly profitable products accounted for a higher percentage of the chemicals division's sales than of those of the pharmaceuticals division.

52. The technological conservatism of bicycle manufacturers is a reflection of the kinds of demand they are trying to meet. The only cyclists seriously interested in innovation and willing to pay for it are bicycle

racers. Therefore, innovation in bicycle technology is limited by what authorities will accept as standard for purposes of competition in bicycle races. **Which of the following is an assumption made in drawing the conclusion above?**

- A. The market for cheap, traditional bicycles cannot expand unless the market for high-performance competition bicycles expands.
- B. High-performance bicycles are likely to be improved more as a result of technological innovations developed in small workshops than as a result of technological innovations developed in major manufacturing concerns.
- C. Bicycle racers do not generate a strong demand for innovations that fall outside what is officially recognized as standard for purposes of competition.
- D. The technological conservatism of bicycle manufacturers results primarily from their desire to manufacture a product that can be sold without being altered to suit different national markets.
- E. The authorities who set standards for high-performance bicycle racing do not keep informed about innovative bicycle design.

53. When a polygraph test is judged inconclusive, this is no reflection on the examinee. Rather, such a judgment means that the test has failed to show whether the examinee was truthful or untruthful. Nevertheless, employers will sometimes refuse to hire a job applicant because of an inconclusive polygraph test result. **Which of the following conclusions can most properly be drawn from the information above?**

- A. Most examinees with inconclusive polygraph test results are in fact untruthful.
- B. Polygraph tests should not be used by employers in the consideration of job applicants.
- C. An inconclusive polygraph test result is sometimes unfairly held against the examinee.
- D. A polygraph test indicating that an examinee is untruthful can sometimes be mistaken.
- E. Some employers have refused to consider the results of polygraph tests when evaluating job applicants.

54. Male bowerbirds construct elaborately decorated nests, or bowers. Basing their judgment on the fact that different local populations of bowerbirds of the same species build bowers that exhibit different building and decorative styles, researchers have concluded that the bowerbirds' building styles are a culturally acquired, rather than a genetically transmitted, trait. **Which of the following, if true, would most strengthen the conclusion drawn by the researchers?**

- A. There are more common characteristics than there are differences among the bowerbuilding styles of the local bowerbird population that has been studied most extensively.
- B. Young male bowerbirds are inept at bowerbuilding and apparently spend years watching their elders before becoming accomplished in the local bower style.
- C. The bowers of one species of bowerbird lack the towers and ornamentation characteristic of the bowers of most other species of bowerbird.
- D. Bowerbirds are found only in New Guinea and Australia, where local populations of the birds apparently seldom have contact with one another.
- E. It is well known that the song dialects of some songbirds are learned rather than transmitted genetically.

55. According to the Tristate Transportation Authority, making certain improvements to the main commuter rail line would increase ridership dramatically. The authority plans to finance these improvements over the course of five years by raising automobile tolls on the two highway bridges along the route the rail line serves. Although the proposed improvements are indeed needed, the authority's plan for securing the necessary funds should be rejected because it would unfairly force drivers to absorb the entire cost of something from which they receive no benefit. **Which of the following, if true, would cast the most doubt on the effectiveness of the authority's plan to finance the proposed improvements by increasing bridge tolls?**

- A. Before the authority increases tolls on any of the area bridges, it is required by law to hold public hearings at which objections to the proposed increase can be raised.

- B. Whenever bridge tolls are increased, the authority must pay a private contractor to adjust the automated to collecting machines.
- C. Between the time a proposed toll increase is announced and the time the increase is actually put into effect, many commuters buy more tokens than usual to postpone the effects of the increase.
- D. When tolls were last increased on the two bridges in question, almost 20 percent of the regular commuter traffic switched to a slightly longer alternative route that has since been improved.
- E. The chairman of the authority is a member of the Tristate Automobile Club that has registered strong opposition to the proposed toll increase.

56. Crops can be traded on the futures market before they are harvested. If a poor corn harvest is predicted, prices of corn futures rise; if a bountiful corn harvest is predicted, prices of corn futures fall. This morning meteorologists are predicting much-needed rain for the corn-growing region starting tomorrow. Therefore, since adequate moisture is essential for the current crop's survival, prices of corn futures will fall sharply today. **Which of the following, if true, most weakens the argument above?**

- A. Corn that does not receive adequate moisture during its critical pollination stage will not produce a bountiful harvest.
- B. Futures prices for corn have been fluctuating more dramatically this season than last season.
- C. The rain that meteorologists predicted for tomorrow is expected to extend well beyond the corn-growing region.
- D. Agriculture experts announced today that a disease that has devastated some of the corn crop will spread widely before the end of the growing season.
- E. Most people who trade in corn futures rarely take physical possession of the corn they trade.

57. **Roland:** The alarming fact is that 90 percent of the people in this country now report that they know someone who is unemployed.

Sharon: But a normal, moderate level of unemployment is 5 percent, with 1 out of 20 workers unemployed. So at any given time if a person knows approximately 50 workers, 1 or more will very likely be unemployed. **Sharon's argument is structured to lead to which of the following as a conclusion?**

- A. The fact that 90% of the people know someone who is unemployed is not an indication that unemployment is abnormally high.
- B. The current level of unemployment is not moderate.
- C. If at least 5% of workers are unemployed, the result of questioning a representative group of people cannot be the percentage Roland cites.
- D. It is unlikely that the people whose statements Roland cites are giving accurate reports.
- E. If an unemployment figure is given as a certain percent, the actual percentage of those without jobs is even higher.

58. **Roland:** The alarming fact is that 90 percent of the people in this country now report that they know someone who is unemployed.

Sharon: But a normal, moderate level of unemployment is 5 percent, with 1 out of 20 workers unemployed. So at any given time if a person knows approximately 50 workers, 1 or more will very likely be unemployed. **Sharon's argument relies on the assumption that**

- A. normal levels of unemployment are rarely exceeded
- B. unemployment is not normally concentrated in geographically isolated segments of the population
- C. the number of people who each know someone who is unemployed is always higher than 90% of the Population
- D. Roland is not consciously distorting the statistics he presents
- E. knowledge that a personal acquaintance is unemployed generates more fear of losing one's job than does knowledge of unemployment statistics

59. A certain mayor has proposed a fee of five dollars per day on private vehicles entering the city, claiming that the fee will alleviate the city's traffic congestion. The mayor reasons that, since the fee will

exceed the cost of round-trip bus fare from many nearby points, many people will switch from using their cars to using the bus.

Which of the following statements, if true, provides the best evidence that the mayor's reasoning is flawed?

- A. Projected increases in the price of gasoline will increase the cost of taking a private vehicle into the city.
- B. The cost of parking fees already makes it considerably more expensive for most people to take a private vehicle into the city than to take a bus.
- C. Most of the people currently riding the bus do not own private vehicles.
- D. Many commuters opposing the mayor's plan have indicated that they would rather endure traffic congestion than pay a five-dollar-per day fee.
- E. During the average workday, private vehicles owned and operated by people living within the city account for twenty percent of the city's traffic congestion.

60. Because no employee wants to be associated with bad news in the eyes of a superior, information about serious problems at lower levels is progressively softened and distorted as it goes up each step in the management hierarchy. The chief executive is, therefore, less well informed about problems at lower levels than are his or her subordinates at those levels. **The conclusion drawn above is based on the assumption that**

- A. problems should be solved at the level in the management hierarchy at which they occur
- B. employees should be rewarded for accurately reporting problems to their superiors
- C. problem-solving ability is more important at higher levels than it is at lower levels of the management hierarchy
- D. chief executives obtain information about problems at lower levels from no source other than their subordinates
- E. some employees are more concerned about truth than about the way they are perceived by their superiors

61. **Which of the following best completes the passage below?**

At a recent conference on environmental threats to the North Sea, most participating countries favored uniform controls on the quality of effluents, whether or not specific environmental damage could be attributed to a particular source of effluent. What must, of course, be shown, in order to avoid excessively restrictive controls, is that _____.

- A. any uniform controls that are adopted are likely to be implemented without delay
- B. any substance to be made subject to controls can actually cause environmental damage
- C. the countries favoring uniform controls are those generating the largest quantities of effluents
- D. all of any given pollutant that is to be controlled actually reaches the North Sea at present
- E. environmental damage already inflicted on the North Sea is reversible

62. The interview is an essential part of a successful hiring program because, with it, job applicants who have personalities that are unsuited to the requirements of the job will be eliminated from consideration.

The argument above logically depends on which of the following assumptions?

- A. A hiring program will be successful if it includes interviews.
- B. The interview is a more important part of a successful hiring program than is the development of a job description.
- C. Interviewers can accurately identify applicants whose personalities are unsuited to the requirements of the job.
- D. The only purpose of an interview is to evaluate whether job applicants' personalities are suited to the requirements of the job.
- E. The fit of job applicants' personalities to the requirements of the job was once the most important factor in making hiring decisions.

63. Companies O and P each have the same number of employees who work the same number of hours per week. According to records maintained by each company, the employees of Company O had fewer job-related accidents last year than did the employees of Company P. Therefore, employees of Company O are less likely to have job-related accidents than are employees of Company P. **Which of the following, if true, would most weaken the conclusion?**

- A. The employees of Company P lost more time at work due to job-related accidents than did the employees of Company O.
- B. Company P considered more types of accidents to be job-related than did Company O.
- C. The employees of Company P were sick more often than were the employees of Company O.
- D. Several employees of Company O each had more than one job-related accident.
- E. The majority of job-related accidents at Company O involved a single machine.

64. Adult female rats who have never before encountered rat pups will start to show maternal behaviors after being confined with a pup for about seven days. This period can be considerably shortened by disabling the female's sense of smell or by removing the scent-producing glands of the pup. **Which of the following hypotheses best explains the contrast described above?**

- A. The sense of smell in adult female rats is more acute than that in rat pups.
- B. The amount of scent produced by rat pups increases when they are in the presence of a female rat that did not bear them.
- C. Female rats that have given birth are more affected by olfactory cues than are female rats that have never given birth.
- D. A female rat that has given birth shows maternal behavior toward rat pups that she did not bear more quickly than does a female rat that has never given birth.
- E. The development of a female rat's maternal interest in a rat pup that she did not bear is inhibited by the odor of the pup.

65. Sales of telephones have increased dramatically over the last year. In order to take advantage of this increase, Mammoth Industries plans to expand production of its own model of telephone, while continuing its already very extensive advertising of this product. **Which of the following, if true, provides most support for the view that Mammoth Industries cannot increase its sales of telephones by adopting the plan outlined above?**

- A. Although it sells all of the telephones that it produces, Mammoth Industries' share of all telephone sales has declined over the last year.
- B. Mammoth Industries' average inventory of telephones awaiting shipment to retailers has declined slightly over the last year.
- C. Advertising has made the brand name of Mammoth Industries' telephones widely known, but few consumers know that Mammoth Industries owns this brand.
- D. Mammoth Industries' telephone is one of three brands of telephone that have together accounted for the bulk of the last year's increase in sales.
- E. Despite a slight decline in the retail price, sales of Mammoth Industries' telephones have fallen in the last year.

66. Bank depositors in the United States are all financially protected against bank failure because the government insures all individuals' bank deposits. An economist argues that this insurance is partly responsible for the high rate of bank failures, since it removes from depositors any financial incentive to find out whether the bank that holds their money is secure against failure. If depositors were more selective, then banks would need to be secure in order to compete for depositors' money. **The economist's argument makes which of the following assumptions?**

- A. Bank failures are caused when big borrowers default on loan repayments.
- B. A significant proportion of depositors maintain accounts at several different banks.
- C. The more a depositor has to deposit, the more careful he or she tends to be in selecting a bank.
- D. The difference in the interest rates paid to depositors by different banks is not a significant factor in bank failures.

E. Potential depositors are able to determine which banks are secure against failure.

67. A drug that is highly effective in treating many types of infection can, at present, be obtained only from the bark of the ibora, a tree that is quite rare in the wild. It takes the bark of 5,000 trees to make one kilogram of the drug. It follows, therefore, that continued production of the drug must inevitably lead to the ibora's extinction. **Which of the following, if true, most seriously weakens the argument above?**

- A. The drug made from ibora bark is dispensed to doctors from a central authority.
- B. The drug made from ibora bark is expensive to produce.
- C. The leaves of the ibora are used in a number of medical products.
- D. The ibora can be propagated from cuttings and grown under cultivation.
- E. The ibora generally grows in largely inaccessible places.

68. Manufacturers sometimes discount the price of a product to retailers for a promotion period when the product is advertised to consumers. Such promotions often result in a dramatic increase in amount of product sold by the manufacturers to retailers. Nevertheless, the manufacturers could often make more profit by not holding the promotions. **Which of the following, if true, most strongly supports the claim above about the manufacturers' profit?**

- A. The amount of discount generally offered by manufacturers to retailers is carefully calculated to represent the minimum needed to draw consumers' attention to the product.
- B. For many consumer products the period of advertising discounted prices to consumers is about a week, not sufficiently long for consumers to become used to the sale price.
- C. For products that are not newly introduced, the purpose of such promotions is to keep the products in the minds of consumers and to attract consumers who are currently using competing products.
- D. During such a promotion retailers tend to accumulate in their warehouses inventory bought at discount; they then sell much of it later at their regular price.
- E. If a manufacturer fails to offer such promotions but its competitor offers them, that competitor will tend to attract consumers away from the manufacturer's product.

69. Excavation of the ancient city of Kourion on the island of Cyprus revealed a pattern of debris and collapsed buildings typical of towns devastated by earthquakes. Archaeologists have hypothesized that the destruction was due to a major earthquake known to have occurred near the island in A.D. 365. **Which of the following, if true, most strongly supports the archaeologists' hypothesis?**

- A. Bronze ceremonial drinking vessels that are often found in graves dating from years preceding and following A.D. 365 were also found in several graves near Kourion.
- B. No coins minted after A.D. 365 were found in Kourion, but coins minted before that year were found in abundance.
- C. Most modern histories of Cyprus mention that an earthquake occurred near the island in A.D. 365.
- D. Several small statues carved in styles current in Cyprus in the century between A.D. 300 and 400 were found in Kourion.
- E. Stone inscriptions in a form of the Greek alphabet that was definitely used in Cyprus after A.D. 365 were found in Kourion.

70. According to a review of 61 studies of patients suffering from severely debilitating depression, a large majority of the patients reported that missing a night's sleep immediately lifted their depression. Yet sleep-deprivation is not used to treat depression even though the conventional treatments, which use drugs and electric shocks, often have serious side effects. **Which of the following, if true, best explains the fact that sleepdeprivation is not used as a treatment for depression?**

- A. For a small percentage of depressed patients, missing a night's sleep induces a temporary sense of euphoria.
- B. Keeping depressed patients awake is more difficult than keeping awake people who are not depressed.
- C. Prolonged loss of sleep can lead to temporary impairment of judgment comparable to that induced by consuming several ounces of alcohol.

- D. The dramatic shifts in mood connected with sleep and wakefulness have not been traced to particular changes in brain chemistry.
- E. Depression returns in full force as soon as the patient sleeps for even a few minutes.

71. In many corporations, employees are being replaced by automated equipment in order to save money. However, many workers who lose their jobs to automation will need government assistance to survive, and the same corporations that are laying people off will eventually pay for that assistance through increased taxes and unemployment insurance payments. **Which of the following, if true, most strengthens the author's argument?**

- A. Many workers who have already lost their jobs to automation have been unable to find new jobs.
- B. Many corporations that have failed to automate have seen their profits decline.
- C. Taxes and unemployment insurance are paid also by corporations that are not automating.
- D. Most of the new jobs created by automation pay less than the jobs eliminated by automation did.
- E. The initial investment in machinery for automation is often greater than the short-term savings in labor costs.

72. United States hospitals have traditionally relied primarily on revenues from paying patients to offset losses from unreimbursed care. Almost all paying patients now rely on governmental or private health insurance to pay hospital bills. Recently, insurers have been strictly limiting what they pay hospitals for the care of insured patients to amounts at or below actual costs. **Which of the following conclusions is best supported by the information above?**

- A. Although the advance of technology has made expensive medical procedures available to the wealthy, such procedures are out of the reach of low-income patients.
- B. If hospitals do not find ways of raising additional income for unreimbursed care, they must either deny some of that care or suffer losses if they give it.
- C. Some patients have incomes too high for eligibility for governmental health insurance but are unable to afford private insurance for hospital care.
- D. If the hospitals reduce their costs in providing care, insurance companies will maintain the current level of reimbursement, thereby providing more funds for unreimbursed care.
- E. Even though philanthropic donations have traditionally provided some support for the hospitals, such donations are at present declining.