

8.4 Practice Questions

Each of the critical reasoning questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer of the choices given.

544. Neuroscientist: Memory evolved to help animals react appropriately to situations they encounter by drawing on the past experience of similar situations. But this does not require that animals perfectly recall every detail of all their experiences. Instead, to function well, memory should generalize from past experiences that are similar to the current one.

The neuroscientist's statements, if true, most strongly support which of the following conclusions?

- (A) At least some animals perfectly recall every detail of at least some past experiences.
- (B) Perfectly recalling every detail of all their past experiences could help at least some animals react more appropriately than they otherwise would to new situations they encounter.
- (C) Generalizing from past experiences requires clear memories of most if not all the details of those experiences.
- (D) Recalling every detail of all past experiences would be incompatible with any ability to generalize from those experiences.
- (E) Animals can often react more appropriately than they otherwise would to situations they encounter if they draw on generalizations from past experiences of similar situations.

545. Astronomer: Most stars are born in groups of thousands, each star in a group forming from the same parent cloud of gas. Each cloud has a unique, homogeneous chemical composition. Therefore, whenever two stars have the same chemical composition as each other, they must have originated from the same cloud of gas.

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

- (A) In some groups of stars, not every star originated from the same parent cloud of gas.
- (B) Clouds of gas of similar or identical chemical composition may be remote from each other.
- (C) Whenever a star forms, it inherits the chemical composition of its parent cloud of gas.
- (D) Many stars in vastly different parts of the universe are quite similar in their chemical compositions.
- (E) Astronomers can at least sometimes precisely determine whether a star has the same chemical composition as its parent cloud of gas.

546. With employer-paid training, workers have the potential to become more productive not only in their present employment but also in any number of jobs with different employers. To increase the productivity of their workforce, many firms are planning to maintain or even increase their investments in worker training. But some training experts object that if a trained worker is hired away by another firm, the employer that paid for the training has merely subsidized a competitor. They note that such hiring has been on the rise in recent years.

Which of the following would, if true, contribute most to defeating the training experts' objection to the firms' strategy?

- (A) Firms that promise opportunities for advancement to their employees get, on average, somewhat larger numbers of job applications from untrained workers than do firms that make no such promise.

- (B) In many industries, employees who take continuing-education courses are more competitive in the job market.
- (C) More and more educational and training institutions are offering reduced tuition fees to firms that subsidize worker training.
- (D) Research shows that workers whose training is wholly or partially subsidized by their employer tend to get at least as much training as do workers who pay for all their own training.
- (E) For most firms that invest in training their employees, the value added by that investment in employees who stay exceeds the value lost through other employees' leaving to work for other companies.

547. Candle Corporation's television stations are likely to have more income from advertisers than previously. This is because advertisers prefer to reach people in the 18- to 49-year-old age group and the number of people in that group watching Candle television is increasing. Furthermore, among Candle viewers, the percentage of viewers 18 to 49 years old is increasing.

Which of the following, if true, would most strengthen the argument that Candle Corporation will receive more income from advertisers?

- (A) Advertisers carefully monitor the demographic characteristics of television audiences and purchase advertising time to reach the audiences they prefer to reach.
- (B) Among people over 49 years old, fewer viewers of Candle stations buy products advertised on television than do viewers of other stations.
- (C) There will be increasingly more advertisements on television that are directed at viewers who are over 49 years old.
- (D) Candle stations plan to show reruns of television shows during hours when other stations run shows for the first time.
- (E) People 18 to 49 years old generally have less disposable income to spend than do people over 49 years old.

548. A provincial government plans to raise the gasoline tax to give people an incentive to drive less, reducing traffic congestion in the long term. However, skeptics point out that most people in the province live in areas where cars are the only viable transportation to jobs and stores and therefore cannot greatly change their driving habits in response to higher gasoline prices.

In light of the skeptics' objection, which of the following, if true, would most logically support the prediction that the government's plan will achieve its goal of reducing traffic congestion?

- (A) The revenue from the tax will be used to make public transportation a viable means of transportation to jobs and stores for far more people.
- (B) The tax will encourage many residents to switch to more fuel-efficient cars, reducing air pollution and other problems.
- (C) Because gasoline has been underpriced for decades, the province has many neighborhoods where cars are the only viable means of transportation.
- (D) Most residents who cannot greatly change their driving habits could compensate for high gasoline prices by reducing other expenses.
- (E) Traffic congestion is an especially serious problem for people for whom cars are the only viable means of transportation.

549. Editorial: The roof of Northtown's municipal equipment-storage building collapsed under the weight of last week's heavy snowfall. The building was constructed recently and met local building-safety codes in every particular, except that the nails used for attaching roof supports to the building's columns were of a smaller size than the codes specify for this purpose. Clearly, this collapse exemplifies how even a single, apparently insignificant departure from safety standards can have severe consequences.

Which of the following, if true, most seriously weakens the editorial's argument?

- (A) The only other buildings to suffer roof collapses from the weight of the snowfall were older buildings constructed according to less exacting standards than those in the codes.
- (B) The amount of snow that accumulated on the roof of the equipment-storage building was greater than the predicted maximum that was used in drawing up the safety codes.
- (C) Because the equipment-storage building was not intended for human occupation, some safety-code provisions that would have applied to an office building did not apply to it.
- (D) The municipality of Northtown itself has the responsibility for ensuring that buildings constructed within its boundaries meet the provisions of the building-safety codes.
- (E) Because the equipment-storage building was used for storing snow-removal equipment, the building was almost completely empty when the roof collapsed.

550. Political theorist: Even with the best spies, area experts, and satellite surveillance, foreign policy assessments can still lack important information. In such circumstances intuitive judgment is vital. A national leader with such judgment can make good decisions about foreign policy even when current information is incomplete, since _____.

Which of the following, if true, most logically completes the argument?

- (A) the central reason for failure in foreign policy decision making is the absence of critical information

- (B) those leaders whose foreign policy decisions have been highly ranked have also been found to have good intuitive judgment
- (C) both intuitive judgment and good information are required for sound decision making
- (D) good foreign policy decisions often lead to improved methods of gathering information
- (E) intuitive judgment can produce good decisions based on past experience, even when there are important gaps in current information

551. During the earliest period of industrialization in Britain, steam engines were more expensive to build and operate than either windmills or water mills, the other practicable sources of power for factories. Yet despite their significant cost disadvantage, steam-powered factories were built in large numbers well before technical improvements brought their cost down. Furthermore, they were built even in regions where geographical conditions permitted the construction of wind- and water-powered factories close to major markets.

Which of the following, if true, most helps to explain the proliferation of steam-powered factories during the earliest period of industrialization in Britain?

- (A) In many areas of Britain, there were fewer steam-powered factories than wind- or water-powered factories in the earliest period of industrialization.
- (B) Unlike wind- or water-powered factories, steam-powered factories were fueled with coal, which sometimes had to be transported significant distances from the mine to the site of the factory.
- (C) It was both difficult and expensive to convert a factory from wind power or water power to steam power.
- (D) In the early period of industrialization, many goods sold in towns and cities could not be mass-produced in factories.
- (E) In Britain, the number of sites where a wind- or water-powered factory could be built was insufficient to provide for all of the demand for factory-produced goods at the time.

552. Snowmaking machines work by spraying a mist that freezes immediately on contact with cold air. Because the sudden freezing kills bacteria, QuickFreeze is planning to market a wastewater purification system

that works on the same principle. The process works only when temperatures are cold, however, so municipalities using it will still need to maintain a conventional system.

Which of the following, if true, provides the strongest grounds for a prediction that municipalities will buy QuickFreeze's purification system despite the need to maintain a conventional purification system as well?

- (A) Bacteria are not the only impurities that must be removed from wastewater.
 - (B) Many municipalities have old wastewater purification systems that need to be replaced.
 - (C) Conventional wastewater purification systems have not been fully successful in killing bacteria at cold temperatures.
 - (D) During times of warm weather, when it is not in use, QuickFreeze's purification system requires relatively little maintenance.
 - (E) Places where the winters are cold rarely have a problem of water shortage.
553. Suncorp, a new corporation with limited funds, has been clearing large sections of the tropical Amazon forest for cattle ranching. This practice continues even though greater profits can be made from rubber tapping, which does not destroy the forest, than from cattle ranching, which does destroy the forest.

Which of the following, if true, most helps to explain why Suncorp has been pursuing the less profitable of the two economic activities mentioned above?

- (A) The soil of the Amazon forest is very rich in nutrients that are important in the development of grazing lands.
- (B) Cattle-ranching operations that are located in tropical climates are more profitable than cattle-ranching operations that are located in cold-weather climates.
- (C) In certain districts, profits made from cattle ranching are more heavily taxed than profits made from any other industry.
- (D) Some of the cattle that are raised on land cleared in the Amazon are killed by wildcats.
- (E) The amount of money required to begin a rubber-tapping operation is twice as high as the amount needed to begin a cattle ranch.

554. Archaeologists use technology to analyze ancient sites. It is likely that this technology will advance considerably in the near future, allowing archaeologists to gather more information than is currently possible. If they study certain sites now, they risk contaminating or compromising them for future studies. Therefore, in order to maximize the potential for gathering knowledge in the long run, a team of archaeologists plans to delay the examination of a newly excavated site.

Which of the following would be most useful to investigate for the purpose of evaluating the plan's prospects for achieving its goal?

- (A) Whether any of the contents of the site will significantly deteriorate before the anticipated technology is available
 - (B) Whether there will continue to be improvements on the relevant technology
 - (C) Whether the team can study a site other than the newly excavated site for the time being
 - (D) Whether the site was inhabited by a very ancient culture
 - (E) Whether the anticipated technology will damage objects under study
555. A newly discovered painting seems to be the work of one of two seventeenth-century artists, either the northern German Johannes Drechen or the Frenchman Louis Birelle, who sometimes painted in the same style as Drechen. Analysis of the carved picture frame, which has been identified as the painting's original seventeenth-century frame, showed that it is made of wood found widely in northern Germany at the time, but rare in the part of France where Birelle lived. This shows that the painting is most likely the work of Drechen.

Which of the following is an assumption that the argument requires?

- (A) The frame was made from wood local to the region where the picture was painted.
- (B) Drechen is unlikely to have ever visited the home region of Birelle in France.
- (C) Sometimes a painting so resembles others of its era that no expert is able to confidently decide who painted it.
- (D) The painter of the picture chose the frame for the picture.
- (E) The carving style of the picture frame is not typical of any specific region of Europe.

556. Beginning in 1966 all new cars sold in Morodia were required to have safety belts and power steering. Previously, most cars in Morodia were without these features. Safety belts help to prevent injuries in collisions, and power steering helps to avoid collisions in the first place. But even though in 1966 one-seventh of the cars in Morodia were replaced with new cars, the number of car collisions and collision-related injuries did not decline.

Which of the following, if true about Morodia, most helps to explain why the number of collisions and collision-related injuries in Morodia failed to decline in 1966?

- (A) Because of a driver-education campaign, most drivers and passengers in cars that did have safety belts used them in 1966.
 - (B) Most of the new cars bought in 1966 were bought in the months of January and February.
 - (C) In 1965, substantially more than one-seventh of the cars in Morodia were replaced with new cars.
 - (D) An excessive reliance on the new safety features led many owners of new cars to drive less cautiously in 1966 than before.
 - (E) The seat belts and power steering put into new cars sold in 1966 had to undergo strict quality-control inspections by manufacturers, whether the cars were manufactured in Morodia or not.
557. In order to reduce the number of items damaged while in transit to customers, packaging consultants recommended that the TrueSave mail-order company increase the amount of packing material so as to fill any empty spaces in its cartons. Accordingly, TrueSave officials instructed the company's packers to use more packing material than before, and the packers zealously acted on these instructions and used as much as they could. Nevertheless, customer reports of damaged items rose somewhat.

Which of the following, if true, most helps to explain why acting on the consultants' recommendation failed to achieve its goal?

- (A) The change in packing policy led to an increase in expenditure on packing material and labor.
- (B) When packing material is compressed too densely, it loses some of its capacity to absorb shock.
- (C) The amount of packing material used in a carton does not significantly influence the ease with which a customer can unpack the package.

- (D) Most of the goods that TrueSave ships are electronic products that are highly vulnerable to being damaged in transit.
- (E) TrueSave has lost some of its regular customers as a result of the high number of damaged items they received.

558. Parland's alligator population has been declining in recent years, primarily because of hunting. Alligators prey heavily on a species of freshwater fish that is highly valued as food by Parlanders, who had hoped that the decline in the alligator population would lead to an increase in the numbers of these fish available for human consumption. Yet the population of this fish species has also declined, even though the annual number caught for human consumption has not increased.

Which of the following, if true, most helps to explain the decline in the population of the fish species?

- (A) The decline in the alligator population has meant that fishers can work in some parts of lakes and rivers that were formerly too dangerous.
 - (B) Over the last few years, Parland's commercial fishing enterprises have increased the number of fishing boats they use.
 - (C) The main predator of these fish is another species of fish on which alligators also prey.
 - (D) Many Parlanders who hunt alligators do so because of the high market price of alligator skins, not because of the threat alligators pose to the fish population.
 - (E) In several neighboring countries through which Parland's rivers also flow, alligators are at risk of extinction as a result of extensive hunting.
559. A certain automaker aims to increase its market share by deeply discounting its vehicles' prices for the next several months. The discounts will cut into profits, but because they will be heavily advertised the manufacturer hopes that they will attract buyers away from rival manufacturers' cars. In the longer term, the automaker envisions that customers initially attracted by the discounts may become loyal customers.

In assessing the plan's chances of achieving its aim, it would be most useful to know which of the following?

- (A) Whether the automaker's competitors are likely to respond by offering deep discounts on their own products

- (B) Whether the advertisements will be created by the manufacturer's current advertising agency
- (C) Whether some of the automaker's models will be more deeply discounted than others
- (D) Whether the automaker will be able to cut costs sufficiently to maintain profit margins even when the discounts are in effect
- (E) Whether an alternative strategy might enable the automaker to enhance its profitability while holding a constant or diminishing share of the market

560. In virtually any industry, technological improvements increase labor productivity, which is the output of goods and services per person-hour worked. In Parland's industries, labor productivity is significantly higher than it is in Vergia's industries. Clearly, therefore, Parland's industries must, on the whole, be further advanced technologically than Vergia's are.

The argument is most vulnerable to which of the following criticisms?

- (A) It offers a conclusion that is no more than a paraphrase of one of the pieces of information provided in its support.
- (B) It presents as evidence in support of a claim information that is inconsistent with other evidence presented in support of the same claim.
- (C) It takes one possible cause of a condition to be the actual cause of that condition without considering any other possible causes.
- (D) It takes a condition to be the effect of something that happened only after the condition already existed.
- (E) It makes a distinction that presupposes the truth of the conclusion that is to be established.

561. Chaco Canyon, a settlement of the ancient Anasazi culture in North America, had massive buildings. **It must have been a major Anasazi center.** Analysis of wood samples shows that some of the timber for the buildings came from the Chuska and San Mateo mountains, 50 miles from Chaco Canyon. **Only a major cultural center would have the organizational power to import timber from 50 miles away.**

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

- (A) The first is a premise used to support the argument's main conclusion; the second is the argument's main conclusion.
- (B) The first is the argument's main conclusion; the second is a premise used to support that conclusion.
- (C) The first is one of two premises used to support the argument's main conclusion; the second is the other of those two premises.
- (D) The first is a premise used to support the argument's main conclusion; the second is a premise used to support another conclusion drawn in the argument.
- (E) The first is inferred from another statement in the argument; the second is inferred from the first.

562. The Maxilux car company's design for its new luxury model, the Max 100, included a special design for the tires that was intended to complement the model's image. The winning bid for supplying these tires was submitted by Rubco. Analysts concluded that the bid would only just cover Rubco's costs on the tires, but Rubco executives claim that winning the bid will actually make a profit for the company.

Which of the following, if true, most strongly justifies the claim made by Rubco's executives?

- (A) In any Maxilux model, the spare tire is exactly the same make and model as the tires that are mounted on the wheels.
- (B) Rubco holds exclusive contracts to supply Maxilux with the tires for a number of other models made by Maxilux.
- (C) The production facilities for the Max 100 and those for the tires to be supplied by Rubco are located very near each other.
- (D) When people who have purchased a carefully designed luxury automobile need to replace a worn part of it, they almost invariably replace it with a part of exactly the same make and type.
- (E) When Maxilux awarded the tire contract to Rubco, the only criterion on which Rubco's bid was clearly ahead of its competitors' bids was price.

563. Which of the following most logically completes the passage?

Most bicycle helmets provide good protection for the top and back of the head, but little or no protection for the temple regions on the sides of the head. A study of head injuries resulting from bicycle accidents showed that a large proportion were caused by blows to the temple area. Therefore, if bicycle helmets protected this area, the risk of serious head injury in bicycle accidents would be greatly reduced, especially since _____.

- (A) among the bicyclists included in the study's sample of head injuries, only a very small proportion had been wearing a helmet at the time of their accident
- (B) even those bicyclists who regularly wear helmets have a poor understanding of the degree and kind of protection that helmets afford
- (C) a helmet that included protection for the temples would have to be somewhat larger and heavier than current helmets
- (D) the bone in the temple area is relatively thin and impacts in that area are thus very likely to cause brain injury
- (E) bicyclists generally land on their arm or shoulder when they fall to the side, which reduces the likelihood of severe impacts on the side of the head

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

In a typical year, Innovair's airplanes are involved in 35 collisions while parked or being towed in airports, with a resulting yearly cost of \$1,000,000 for repairs.

To reduce the frequency of ground collisions, Innovair will begin giving its ground crews additional training, at an annual cost of \$500,000. Although this will cut the number of ground collisions by about half at best, the drop in repair costs can be expected to be much greater, since _____.

- (A) most ground collisions happen when ground crews are rushing to minimize the time a delayed airplane spends on the ground
- (B) a ground collision typically occurs when there are no passengers on the airplane
- (C) the additional training will focus on helping ground crews avoid those kinds of ground collisions that cause the most costly damage

- (D) the \$500,000 cost figure for the additional training of ground crews includes the wages that those crews will earn during the time spent in actual training
- (E) most ground collisions have been caused by the least experienced ground-crew members

565. Hunter: **Many people blame hunters alone for the decline in Greenrock National Forest's deer population over the past ten years.** Yet clearly, black bears have also played an important role in this decline. In the past ten years, the forest's protected black bear population has risen sharply, and examination of black bears found dead in the forest during the deer hunting season showed that a number of them had recently fed on deer.

In the hunter's argument, the portion in boldface plays which of the following roles?

- (A) It is the main conclusion of the argument.
- (B) It is a finding that the argument seeks to explain.
- (C) It is an explanation that the argument concludes is correct.
- (D) It provides evidence in support of the main conclusion of the argument.
- (E) It introduces a judgment that the argument opposes.

566. Many agriculturally intensive areas of the world are beginning to encounter water scarcity problems. As a result, many farmers in these areas are likely to reduce their output as the water supply they need in order to maintain production shrinks. However, one group of farmers in such a region plans to increase their production by implementing techniques for water conservation.

Which of the following, if true, would most strongly support the prediction that the group's plan will succeed?

- (A) Farmers that can gain a larger share of the food market in their regions will be better positioned to control more water resources.
- (B) Most agricultural practices in areas with water shortages are water-intensive.
- (C) Other regions of the world not facing water shortages are likely to make up for the reduction in agricultural output.

- (D) Demand for agricultural products in the group's region is not expected to decline.
- (E) More than half the water used for agriculture in the farmers' region is lost to evaporation or leakage from irrigation channels.

567. Physician: The hormone melatonin has shown promise as a medication for sleep disorders when taken in synthesized form. Because the long-term side effects of synthetic melatonin are unknown, however, I cannot recommend its use at this time.

Patient: Your position is inconsistent with your usual practice. You prescribe many medications that you know have serious side effects, so concern about side effects cannot be the real reason you will not prescribe melatonin.

The patient's argument is flawed because it fails to consider that

- (A) the side effects of synthetic melatonin might be different from those of naturally produced melatonin
- (B) it is possible that the physician does not believe that melatonin has been conclusively shown to be effective
- (C) sleep disorders, if left untreated, might lead to serious medical complications
- (D) the side effects of a medication can take some time to manifest themselves
- (E) known risks can be weighed against known benefits, but unknown risks cannot

568. Hollywood restaurant is replacing some of its standard tables with tall tables and stools. The restaurant already fills every available seat during its operating hours, and the change in seating arrangements will not result in an increase in the restaurant's seating capacity. Nonetheless, the restaurant's management expects revenue to increase as a result of the seating change without any concurrent change in menu, prices, or operating hours.

Which of the following, if true, provides the best reason for the expectation?

- (A) One of the taller tables takes up less floor space than one of the standard tables.
- (B) Diners seated on stools typically do not linger over dinner as long as diners seated at standard tables.
- (C) Since the restaurant will replace only some of its standard tables, it can continue to accommodate customers who do not care for the taller tables.
- (D) Few diners are likely to avoid the restaurant because of the new seating arrangement.
- (E) The standard tables being replaced by tall tables would otherwise have to be replaced with new standard tables at a greater expense.

569. A major network news organization experienced a drop in viewership in the week following the airing of a controversial report on the economy. The network also received a very large number of complaints regarding the report. The network, however, maintains that negative reactions to the report had nothing to do with its loss of viewers.

Which of the following, if true, most strongly supports the network's position?

- (A) The other major network news organizations reported similar reductions in viewership during the same week.
- (B) The viewers who registered complaints with the network were regular viewers of the news organization's programs.
- (C) Major network news organizations publicly attribute drops in viewership to their own reports only when they receive complaints about those reports.
- (D) This was not the first time that this network news organization has aired a controversial report on the economy that has inspired viewers to complain to the network.
- (E) Most network news viewers rely on network news broadcasts as their primary source of information regarding the economy.

570. Only a reduction of 10 percent in the number of scheduled flights using Greentown's airport will allow the delays that are so common there to be avoided. Hevelia airstrip, 40 miles away, would, if upgraded and expanded, be an attractive alternative for fully 20 percent of the passengers using Greentown airport. Nevertheless, experts reject the claim that turning Hevelia into a full-service airport would end the chronic delays at Greentown.

Which of the following, if true, most helps to justify the experts' position?

- (A) Turning Hevelia into a full-service airport would require not only substantial construction at the airport itself, but also the construction of new access highways.
- (B) A second largely undeveloped airstrip close to Greentown airport would be a more attractive alternative than Hevelia for many passengers who now use Greentown.
- (C) Hevelia airstrip lies in a relatively undeveloped area but would, if it became a full-service airport, be a magnet for commercial and residential development.
- (D) If an airplane has to wait to land, the extra jet fuel required adds significantly to the airline's costs.
- (E) Several airlines use Greentown as a regional hub, so that most flights landing at Greentown have many passengers who then take different flights to reach their final destinations.

571. For similar cars and comparable drivers, automobile insurance for collision damage has always cost more in Greatport than in Fairmont. Police studies, however, show that cars owned by Greatport residents are, on average, slightly less likely to be involved in a collision than cars in Fairmont. Clearly, therefore, insurance companies are making a greater profit on collision-damage insurance in Greatport than in Fairmont.

In evaluating the argument, it would be most useful to compare

- (A) the level of traffic congestion in Greatport with the level of traffic congestion in Fairmont
- (B) the cost of repairing collision damage in Greatport with the cost of repairing collision damage in Fairmont

- (C) the rates Greatport residents pay for other forms of insurance with the rates paid for similar insurance by residents of Fairmont
- (D) the condition of Greatport's roads and streets with the condition of Fairmont's roads and streets
- (E) the cost of collision-damage insurance in Greatport and Fairmont with that in other cities

572. The air quality board recently informed Coffee Roast, a small coffee roasting firm, of a complaint regarding the smoke from its roaster. Recently enacted air quality regulations require machines roasting more than 10 pounds of coffee to be equipped with expensive smoke-dissipating afterburners. The firm, however, roasts only 8 pounds of coffee at a time. Nevertheless, the company has decided to purchase and install an afterburner.

Which of the following, if true, most strongly supports the firm's decision?

- (A) Until settling on the new air quality regulations, the board had debated whether to require afterburners for machines roasting more than 5 pounds of coffee at a time.
- (B) Coffee roasted in a machine equipped with an afterburner has its flavor subtly altered.
- (C) The cost to the firm of an afterburner is less than the cost of replacing its roaster with a smaller one.
- (D) Fewer complaints are reported in areas that maintain strict rules regarding afterburners.
- (E) The firm has reason to fear that negative publicity regarding the complaints could result in lost sales.

573. The tulu, a popular ornamental plant, does not reproduce naturally, and is only bred and sold by specialized horticultural companies. Unfortunately, the tulu is easily devastated by a contagious fungal rot. The government ministry plans to reassure worried gardeners by requiring all tulu plants to be tested for fungal rot before being sold. However, infected plants less than 30 weeks old have generally not built up enough fungal rot in their systems to be detected reliably. And many tulu plants are sold before they are 24 weeks old.

Which of the following, if performed by the government ministry, could logically be expected to overcome the problem with their plan to test for the fungal rot?

- (A) Releasing a general announcement that tulu plants less than 30 weeks old cannot be effectively tested for fungal rot
- (B) Requiring all tulu plants less than 30 weeks old to be labeled as such
- (C) Researching possible ways to test tulu plants less than 24 weeks old for fungal rot
- (D) Ensuring that tulu plants not be sold before they are 30 weeks old
- (E) Quarantining all tulu plants from horticultural companies at which any case of fungal rot has been detected until those tulu plants can be tested for fungal rot

574. People who do regular volunteer work tend to live longer, on average, than people who do not. It has been found that “doing good,” a category that certainly includes volunteer work, releases endorphins, the brain’s natural opiates, which induce in people a feeling of well-being. Clearly, there is a connection: Regular releases of endorphins must in some way help to extend people’s lives.

Which of the following, if true, most seriously undermines the force of the evidence given as support for the hypothesis that endorphins promote longevity?

- (A) People who do regular volunteer work are only somewhat more likely than others to characterize the work they do for a living as “doing good.”
- (B) Although extremely high levels of endorphins could be harmful to health, such levels are never reached as a result of the natural release of endorphins.
- (C) There are many people who have done some volunteer work but who do not do such work regularly.
- (D) People tend not to become involved in regular volunteer work unless they are healthy and energetic to begin with.
- (E) Releases of endorphins are responsible for the sense of well-being experienced by many long-distance runners while running.

575. In Mernia commercial fossil hunters often sell important fossils they have found, not to universities or museums, but to individual collectors, who pay much better but generally do not allow researchers access to their collections. To increase the number of fossils

available for research, some legislators propose requiring all fossils that are found in Mernia to be sold only to universities or museums.

Which of the following, if true, most strongly indicates that the legislators’ proposal will fail to achieve its goal?

- (A) Some fossil hunters in Mernia are not commercial fossil hunters, but rather are amateurs who keep the fossils that they find.
- (B) Most fossils found in Mernia are common types that have little scientific interest.
- (C) Commercial fossil hunters in Mernia currently sell some of the fossils they find to universities and museums.
- (D) Many universities in Mernia do not engage in fossil research.
- (E) Most fossils are found by commercial fossil hunters, and they would give up looking for fossils if they were no longer allowed to sell to individual collectors.

576. The Eurasian ruffe, a fish species inadvertently introduced into North America’s Great Lakes in recent years, feeds on the eggs of lake whitefish, a native species, thus threatening the lakes’ natural ecosystem. To help track the ruffe’s spread, government agencies have produced wallet-sized cards about the ruffe. The cards contain pictures of the ruffe and explain the danger they pose; the cards also request anglers to report any ruffe they catch.

Which of the following, if true, would provide most support for the prediction that the agencies’ action will have its intended effect?

- (A) The ruffe has spiny fins that make it unattractive as prey.
- (B) Ruffe generally feed at night, but most recreational fishing on the Great Lakes is done during daytime hours.
- (C) Most people who fish recreationally on the Great Lakes are interested in the preservation of the lake whitefish because it is a highly prized game fish.
- (D) The ruffe is one of several nonnative species in the Great Lakes whose existence threatens the survival of lake whitefish populations there.
- (E) The bait that most people use when fishing for whitefish on the Great Lakes is not attractive to ruffe.

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

Although the number of large artificial satellites orbiting the Earth is small compared to the number of small pieces of debris in orbit, the large satellites interfere more seriously with telescope observations because of the strong reflections they produce. Because many of those large satellites have ceased to function, the proposal has recently been made to eliminate interference from nonfunctioning satellites by exploding them in space. This proposal, however, is ill conceived, since _____.

- (A) many nonfunctioning satellites remain in orbit for years
 - (B) for satellites that have ceased to function, repairing them while they are in orbit would be prohibitively expensive
 - (C) there are no known previous instances of satellites' having been exploded on purpose
 - (D) the only way to make telescope observations without any interference from debris in orbit is to use telescopes launched into extremely high orbits around the Earth
 - (E) a greatly increased number of small particles in Earth's orbit would result in a blanket of reflections that would make certain valuable telescope observations impossible
578. Thyrian lawmaker: Thyria's Cheese Importation Board inspects all cheese shipments to Thyria and rejects shipments not meeting specified standards. Yet only 1 percent is ever rejected. Therefore, since the health consequences and associated economic costs of not rejecting that 1 percent are negligible, whereas the board's operating costs are considerable, for economic reasons alone the board should be disbanded.

Consultant: I disagree. The threat of having their shipments rejected deters many cheese exporters from shipping substandard product.

The consultant responds to the lawmaker's argument by

- (A) rejecting the lawmaker's argument while proposing that the standards according to which the board inspects imported cheese should be raised
- (B) providing evidence that the lawmaker's argument has significantly overestimated the cost of maintaining the board

- (C) objecting to the lawmaker's introducing into the discussion factors that are not strictly economic
- (D) pointing out a benefit of maintaining the board, which the lawmaker's argument has failed to consider
- (E) shifting the discussion from the argument at hand to an attack on the integrity of the cheese inspectors

579. The growing popularity of computer-based activities was widely expected to result in a decline in television viewing, since it had been assumed that people lack sufficient free time to maintain current television viewing levels while spending increasing amounts of free time on the computer. That assumption, however, is evidently false: In a recent mail survey concerning media use, a very large majority of respondents who report increasing time spent per week using computers report no change in time spent watching television.

Which of the following would it be most useful to determine in order to evaluate the argument?

- (A) Whether a large majority of the survey respondents reported watching television regularly
 - (B) Whether the amount of time spent watching television is declining among people who report that they rarely or never use computers
 - (C) Whether the type of television programs a person watches tends to change as the amount of time spent per week using computers increases
 - (D) Whether a large majority of the computer owners in the survey reported spending increasing amounts of time per week using computers
 - (E) Whether the survey respondents' reports of time spent using computers included time spent using computers at work
580. Although the school would receive financial benefits if it had soft drink vending machines in the cafeteria, we should not allow them. Allowing soft drink machines there would not be in our students' interest. If our students start drinking more soft drinks, they will be less healthy.
- The argument depends on which of the following?
- (A) If the soft drink vending machines were placed in the cafeteria, students would consume more soft drinks as a result.
 - (B) The amount of soft drinks that most students at the school currently drink is not detrimental to their health.

- (C) Students are apt to be healthier if they do not drink soft drinks at all than if they just drink small amounts occasionally.
- (D) Students will not simply bring soft drinks from home if the soft drink vending machines are not placed in the cafeteria.
- (E) The school's primary concern should be to promote good health among its students.

581. Many athletes inhale pure oxygen after exercise in an attempt to increase muscular reabsorption of oxygen. Measured continuously after exercise, however, the blood lactate levels of athletes who inhale pure oxygen are practically identical, on average, to those of athletes who breathe normal air. The lower the blood lactate level is, the higher the muscular reabsorption of oxygen is.

If the statements above are all true, they most strongly support which of the following conclusions?

- (A) Athletes' muscular reabsorption of oxygen is not increased when they inhale pure oxygen instead of normal air.
- (B) High blood lactate levels cannot be reduced.
- (C) Blood lactate levels are a poor measure of oxygen reabsorption by muscles.
- (D) The amount of oxygen reabsorbed by an athlete's muscles always remains constant.
- (E) The inhaling of pure oxygen has no legitimate role in athletics.

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

Sviatovin is a medieval Moringian text whose author and exact date of composition are unknown. However, the events in the life of Prince Sviatov that the text describes occurred in 1165, and in the diagram of Sviatov's family that accompanies the text his father, who died in 1167, is identified as still living. Thus *Sviatovin* must have been written between 1165 and 1167, assuming that _____.

- (A) the life of Prince Sviatov is not the subject of any other medieval Moringian texts
- (B) the author of *Sviatovin* intended it to provide as accurate a report about Prince Sviatov's exploits as possible
- (C) the diagram accurately represents the composition of Sviatov's family at the time *Sviatovin* was written
- (D) *Sviatovin* is the earliest Moringian text whose composition can be dated to within a few years
- (E) *Sviatovin* was not written by Sviatov's father himself

583. A study of ticket sales at a summer theater festival found that people who bought tickets to individual plays had a no-show rate of less than 1 percent, while those who paid in advance for all ten plays being performed that summer had a no-show rate of nearly 30 percent. This may be at least in part because the greater the awareness customers retain about the cost of an item, the more likely they are to use it.

Which of the following would, if true, best serve as an alternative explanation of the results of the study?

- (A) The price per ticket was slightly cheaper for those who bought all ten tickets in advance.
- (B) Many people who attended the theater festival believed strongly that they should support it financially.
- (C) Those who attended all ten plays became eligible for a partial refund.
- (D) Usually, people who bought tickets to individual plays did so immediately prior to each performance that they attended.
- (E) People who arrived just before the performance began could not be assured of obtaining seats in a preferred location.

584. Although there is no record of poet Edmund Spenser's parentage, we do know that as a youth Spenser attended the Merchant Tailors' School in London for a period between 1560 and 1570. Records from this time indicate that the Merchant Tailors' Guild then had only three members named Spenser: Robert Spenser, listed as a gentleman; Nicholas Spenser, elected the Guild's Warden in 1568; and John Spenser, listed as a "journeyman cloth-maker." Of these, the last was likely the least affluent of the three—and most likely Edmund's father, since school accounting records list Edmund as a scholar who attended the school at a reduced fee.

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

- (A) Anybody in sixteenth-century London who made clothing professionally would have had to be a member of the Merchant Tailors' Guild.
- (B) The fact that Edmund Spenser attended the Merchant Tailors' School did not necessarily mean that he planned to become a tailor.
- (C) No member of the Guild could become Guild warden in sixteenth-century London unless he was a gentleman.
- (D) Most of those whose fathers were members of the Merchant Tailors' Guild were students at the Merchant Tailors' School.
- (E) The Merchant Tailors' School did not reduce its fees for the children of the more affluent Guild members.

585. Trancorp currently transports all its goods to Burland Island by truck. The only bridge over the channel separating Burland from the mainland is congested, and trucks typically spend hours in traffic. Trains can reach the channel more quickly than trucks, and freight cars can be transported to Burland by barges that typically cross the channel in an hour. Therefore, to reduce shipping time, Trancorp plans to switch to trains and barges to transport goods to Burland.

Which of the following would be most important to know in determining whether Trancorp's plan, if implemented, is likely to achieve its goal?

- (A) Whether transportation by train and barge would be substantially less expensive than transportation by truck
- (B) Whether there are boats that can make the trip between the mainland and Burland faster than barges can

- (C) Whether loading the freight cars onto barges is very time consuming
- (D) Whether the average number of vehicles traveling over the bridge into Burland has been relatively constant in recent years
- (E) Whether most trucks transporting goods into Burland return to the mainland empty

586. Rainwater contains hydrogen of a heavy form called deuterium. The deuterium content of wood reflects the deuterium content of rainwater available to trees during their growth. Wood from trees that grew between 16,000 and 24,000 years ago in North America contains significantly more deuterium than wood from trees growing today. But water trapped in several North American caves that formed during that same early period contains significantly less deuterium than rainwater in North America contains today.

Which of the following, if true, most helps to reconcile the two findings?

- (A) There is little deuterium in the North American caves other than the deuterium in the water trapped there.
- (B) Exposure to water after a tree has died does not change the deuterium content of the wood.
- (C) Industrialization in North America over the past 100 years has altered the deuterium content of rain.
- (D) Trees draw on shallow groundwater from rain that falls during their growth, whereas water trapped in caves may have fallen as rainwater thousands of years before the caves formed.
- (E) Wood with a high deuterium content is no more likely to remain preserved for long periods than is wood with a low deuterium content.

587. Which of the choices most logically completes the following argument?

NowNews, although still the most popular magazine covering cultural events in Kalopolis, has recently suffered a significant drop in advertising revenue because of falling circulation. Many readers have begun buying a competing magazine that, at 50 cents per copy, costs less than *NowNews* at \$1.50 per copy. In order to boost circulation and thus increase advertising revenue, *NowNews's* publisher

has proposed making it available at no charge. However, this proposal has a serious drawback, since _____.

- (A) those Kalopolis residents with the greatest interest in cultural events are regular readers of both magazines.
- (B) one reason *NowNews*'s circulation fell was that its competitor's reporting on cultural events was superior.
- (C) the newsstands and stores that currently sell *NowNews* will no longer carry it if it is being given away for free.
- (D) at present, 10 percent of the total number of copies of each issue of *NowNews* are distributed free to students on college campuses in the Kalopolis area.
- (E) *NowNews*'s competitor would begin to lose large amounts of money if it were forced to lower its cover price.

588. Archaeologist: Researchers excavating a burial site in Cyprus found a feline skeleton lying near a human skeleton. Both skeletons were in the same sediment at the same depth and equally well-preserved, suggesting that the feline and human were buried together about 9,500 years ago. This shows that felines were domesticated around the time farming began, when they would have been useful in protecting stores of grain from mice.

Which of the following, if true, would most seriously weaken the archaeologist's argument?

- (A) Archaeologists have not found any remains of stores of grain in the immediate vicinity of the burial site.
- (B) The burial site in Cyprus is substantially older than any other known burial site in which a feline skeleton and a human skeleton appear to have been buried together.
- (C) Paintings found near the burial site seem to show people keeping felines as domestic companions, but do not show felines hunting mice.

- (D) In Cyprus, there are many burial sites dating from around 9,500 years ago in which the remains of wild animals appear to have been buried alongside human remains.
- (E) Before felines were domesticated, early farmers had no effective way to protect stores of grain from mice.

589. The heavy traffic in Masana is a growing drain on the city's economy—the clogging of the streets of the central business district alone cost the economy more than \$1.2 billion over the past year. In order to address this problem, officials plan to introduce congestion pricing, by which drivers would pay to enter the city's most heavily trafficked areas during the busiest times of the day.

Which of the following, if true, would most strongly indicate that the plan will be a success?

- (A) Approximately one-fifth of the vehicles in the central business district are in transit from one side of the city to the other.
- (B) Planners expect that, without congestion pricing, traffic in Masana is likely to grow by 6 percent in the next five years.
- (C) In other urban areas, congestion pricing has strongly encouraged carpooling (sharing of rides by private commuters).
- (D) Several studies have shown that a reduction in traffic of 15 percent in Masana could result in 5,500 or more new jobs.
- (E) Over 30 percent of the vehicles in the city's center are occupied by more than one person.

590. Economist: The most economically efficient way to reduce emissions of air pollutants is to tax them in proportion to the damage they are likely to cause. But in Country Y, many serious pollutants are untaxed and unregulated, and policy makers strongly oppose new taxes. Therefore, the best way to achieve a reduction in air pollutant emissions in Country Y would be to institute fixed upper limits on them.

Which of the following is an assumption of the economist's argument?

- (A) Policy makers in Country Y oppose all new taxes equally strongly, regardless of any benefits they may provide.
- (B) Country Y's air pollutant emissions would not fall significantly if they were taxed in proportion to the damage they are likely to cause.
- (C) Policy makers in Country Y strongly favor reductions in air pollutant emissions.
- (D) Country Y's policy makers believe that air pollutant emissions should be reduced with maximum economic efficiency.
- (E) Policy makers in Country Y do not oppose setting fixed upper limits on air pollutant emissions as strongly as they oppose new taxes.

591. Humans get Lyme disease from infected ticks. Ticks get infected by feeding on animals with Lyme disease, but the ease of transmission from host animal to tick varies. With most species of host animal, transmission of Lyme disease to ticks is extremely rare, but white-footed mice are an exception, readily passing Lyme disease to ticks. And white-footed mouse populations greatly expand, becoming the main food source for ticks, in areas where biodiversity is in decline.

The information in the passage most strongly supports which of the following?

- (A) In areas where many humans are infected with Lyme disease, the proportion of ticks infected with Lyme disease is especially high.
- (B) Very few animals that live in areas where there are no white-footed mice are infected with Lyme disease.
- (C) Humans are less at risk of contracting Lyme disease in areas where biodiversity is high.

- (D) Ticks feed on white-footed mice only when other host species are not available to them.
- (E) The greater the biodiversity of an area, the more likely any given host animal in that area is to pass Lyme disease to ticks.

592. Many industrialized nations are trying to reduce atmospheric concentrations of carbon dioxide, a gas released by the burning of fossil fuels. One proposal is to replace conventional cement, which is made with calcium carbonate, by a new "eco-cement." This new cement, made with magnesium carbonate, absorbs large amounts of carbon dioxide when exposed to the atmosphere. Therefore, using eco-cement for new concrete building projects will significantly help reduce atmospheric concentrations of carbon dioxide.

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

- (A) The cost of magnesium carbonate, currently greater than the cost of calcium carbonate, probably will fall as more magnesium carbonate is used in cement manufacture.
- (B) Eco-cement is strengthened when absorbed carbon dioxide reacts with the cement.
- (C) Before the development of eco-cement, magnesium-based cement was considered too susceptible to water erosion to be of practical use.
- (D) The manufacture of eco-cement uses considerably less fossil fuel per unit of cement than the manufacture of conventional cement does.
- (E) Most building-industry groups are unaware of the development or availability of eco-cement.

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

Davison River farmers are currently deciding between planting winter wheat this fall or spring wheat next spring. Winter wheat and spring wheat are usually about equally profitable. Because of new government restrictions on the use of Davison River water for irrigation, per acre yields for winter wheat, though not for spring wheat, would be much lower than average. Therefore, planting spring wheat will be more profitable than planting winter wheat, since _____.

- (A) the smaller-than-average size of a winter wheat harvest this year would not be compensated for by higher winter wheat prices
- (B) new crops of spring wheat must be planted earlier than the time at which standing crops of winter wheat are ready to be harvested
- (C) the spring wheat that farmers in the Davison River region plant is well adapted to the soil of the region
- (D) spring wheat has uses that are different from those of winter wheat
- (E) planting spring wheat is more profitable than planting certain other crops, such as rye

594. Advertisement: When your car's engine is running at its normal operating temperature, any major brand of motor oil will protect it about as well as Tuff does. When the engine is cold, it is a different story: Tuff motor oil flows better at lower temperatures than its major competitors do. So, if you want your car's engine to have maximum protection, you should use Tuff.

Which of the following, if true, most strengthens the argument in the advertisement?

- (A) Tuff motor oil provides above-average protection for engines that happen to overheat.
- (B) Tuff motor oil is periodically supplied free of charge to automobile manufacturers to use in factory-new cars.
- (C) Tuff motor oil's share of the engine oil market peaked three years ago.
- (D) Tuff motor oil, like any motor oil, is thicker and flows less freely at cold temperatures than at hot temperatures.
- (E) Tuff motor oil is manufactured at only one refinery and shipped from there to all markets.

595. *The Testament of William Thorpe* was published around 1530 as an appendix to Thorpe's longer *Examination*. Many scholars, however, doubt the attribution of the *Testament* to Thorpe because, whereas the *Examination* is dated 1406, the *Testament* is dated 1460. One scholar has recently argued that the 1460 date be amended to 1409, based on the observation that when these numbers are expressed as Roman numerals, MCCCCLX and MCCCCIX, it becomes easy to see how the dates might have become confused through scribal error.

Which of the following, if true, would most support the scholar's hypothesis concerning the date of the *Testament*?

- (A) The sole evidence that historians have had that William Thorpe died no earlier than 1460 was the presumed date of publication of the *Testament*.
- (B) In the preface to the 1530 publication, the editor attributes both works to William Thorpe.
- (C) Few writers in fifteenth-century England marked dates in their works using only Roman numerals.
- (D) The *Testament* alludes to a date, "Friday, September 20," as apparently contemporaneous with the writing of the *Testament*, and September 20 fell on a Friday in 1409 but not in 1460.
- (E) The *Testament* contains few references to historical events that occurred later than 1406.

596. To reduce productivity losses from employees calling in sick, Corporation X implemented a new policy requiring employees to come into work unless they were so sick that they had to go to a doctor. But a year after the policy was implemented, a study found that Corporation X's overall productivity losses due to reported employee illnesses had increased.

Which of the following, if true, would best explain why the policy produced the reverse of its intended effect?

- (A) After the policy was implemented, employees more frequently went to the doctor when they felt sick.
- (B) Before the policy was implemented, employees who were not sick at all often called in sick.
- (C) Employees coming into work when sick often infect many of their coworkers.
- (D) Unusually few employees became genuinely sick during the year after the policy was implemented.
- (E) There are many other factors besides employee illness that can adversely affect productivity.

597. Advertising by mail has become much less effective, with fewer consumers responding. Because consumers are increasingly overwhelmed by the sheer amount of junk mail they receive, most discard almost all offers without considering them. Thus, an effective way for corporations to improve response rates would be to more carefully target the individuals to whom they mail advertising, thereby cutting down on the amount of junk mail each consumer receives.

Which of the following, if true, would most support the recommendation above?

- (A) There are cost-effective means by which corporations that currently advertise by mail could improve response rates.
- (B) Many successful corporations are already carefully targeting the individuals to whom they mail advertising.
- (C) Any consumer who, immediately after receiving an advertisement by mail, merely glances at it, is very likely to discard it.
- (D) Improvements in the quality of the advertising materials used in mail that is carefully targeted to individuals can improve the response rate for such mail.
- (E) Response rates to carefully targeted advertisements by mail are considerably higher, on average, than response rates to most other forms of advertising.

598. Petrochemical industry officials have said that the extreme pressure exerted on plant managers during the last five years to improve profits by cutting costs has done nothing to impair the industry's ability to operate safely. However, environmentalists contend that the recent rash of serious oil spills and accidents at petrochemical plants is traceable to cost-cutting measures.

Which of the following, if true, would provide the strongest support for the position held by industry officials?

- (A) The petrochemical industry benefits if accidents do not occur, since accidents involve risk of employee injury as well as loss of equipment and product.
- (B) Petrochemical industry unions recently demanded that additional money be spent on safety and environmental protection measures, but the unions readily abandoned those demands in exchange for job security.

- (C) Despite major cutbacks in most other areas of operation, the petrochemical industry has devoted more of its resources to environmental and safety measures in the last five years than in the preceding five years.
- (D) There is evidence that the most damaging of the recent oil spills would have been prevented had cost-cutting measures not been instituted.
- (E) Both the large fines and the adverse publicity generated by the most recent oil spill have prompted the petrochemical industry to increase the resources devoted to oil-spill prevention.

599. Economist: The price of tap water in our region should be raised drastically. **Supplies in local freshwater reservoirs have been declining for years** because water is being used faster than it can be replenished. Since the price of tap water has been low, **few users have bothered to adopt even easy conservation measures**.

The two sections in boldface play which of the following roles in the economist's argument?

- (A) The first is a conclusion for which support is provided, and which in turn supports the main conclusion; the second is the main conclusion.
- (B) The first is an observation for which the second provides an explanation; the second is the main conclusion but not the only conclusion.
- (C) The first is a premise supporting the argument's main conclusion; so is the second.
- (D) The first is the only conclusion; the second provides an explanation for the first.
- (E) The first is the main conclusion; the second is a conclusion for which support is provided, and which in turn supports the first.

600. Politician: Hybrid cars use significantly less fuel per kilometer than nonhybrids. And fuel produces air pollution, which contributes to a number of environmental problems. Motorists can save money by driving cars that are more fuel efficient, and they will be encouraged to drive hybrid cars if we make them aware of that fact. Therefore, we can help reduce the total amount of pollution emitted by cars in this country by highlighting this advantage of hybrid cars.

Which of the following, if true, would most indicate a vulnerability of the politician's argument?

- (A) People with more fuel-efficient cars typically drive more than do those with less fuel-efficient cars.
- (B) Not all air pollution originates from automobiles.
- (C) Hybrid cars have already begun to gain popularity.
- (D) Fuel-efficient alternatives to hybrid cars will likely become available in the future.
- (E) The future cost of gasoline and other fuel cannot be predicted with absolute precision or certainty.

601. Which of the following most logically completes the passage?

A recent government study links the high rates of respiratory ailments in Groverston to airborne pollutants released by the Woodco plywood manufacturing plant there. To address the problem, the government imposed strict regulations on emissions which will go into effect in four years.

Although Woodco plans to cut its emissions in half two years ahead of schedule, it is unlikely that the rate of respiratory ailments will decline before the regulations go into effect, since _____.

- (A) the number of facilities capable of treating respiratory ailments is not likely to increase
- (B) reducing emissions even further than planned would necessitate decreasing production at Woodco
- (C) it is difficult to make accurate, long-term predictions about emissions
- (D) not all respiratory ailments are caused by airborne pollutants
- (E) three new plywood manufacturing plants are about to go into production in Groverston

602. One summer, floods covered low-lying garlic fields situated in a region with a large mosquito population. Since mosquitoes lay their eggs in standing water, flooded fields would normally attract mosquitoes, yet no mosquitoes were found in the fields. Diallyl sulfide, a major component of garlic, is known to repel several species of insects, including mosquitoes, so it is likely that diallyl sulfide from the garlic repelled the mosquitoes.

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

- (A) Diallyl sulfide is also found in onions but at concentrations lower than in garlic.
- (B) The mosquito population of the region as a whole was significantly smaller during the year in which the flooding took place than it had been in previous years.
- (C) By the end of the summer, most of the garlic plants in the flooded fields had been killed by waterborne fungi.
- (D) Many insect species not repelled by diallyl sulfide were found in the flooded garlic fields throughout the summer.
- (E) Mosquitoes are known to be susceptible to toxins in plants other than garlic, such as marigolds.

603. Which of the following most logically completes the passage?

Pecan growers get a high price for their crop when pecans are comparatively scarce, but the price drops sharply when pecans are abundant. Thus, in high-yield years, growers often hold back part of their crop in refrigerated warehouses for one or two years, hoping for higher prices in the future. This year's pecan crop was the smallest in five years. It is nonetheless quite possible that a portion of this year's crop will be held back, since _____.

- (A) each of the last two years produced recordbreaking pecan yields
- (B) the quality of this year's pecan crop is no worse than the quality of the pecan crops of the previous five years
- (C) pecan prices have not been subject to sharp fluctuations in recent years
- (D) for some pecan growers, this year's crop was no smaller than last year's
- (E) the practice of holding back part of one year's crop had not yet become widespread the last time the pecan crop was as small as it was this year

604. Coffee shop owner: A large number of customers will pay at least the fair market value for a cup of coffee, even if there is no formal charge. Some will pay more than this out of appreciation of the trust that is placed in them. And our total number of customers is likely to increase. We could therefore improve our net cash flow by implementing an honor system in which customers pay what they wish for coffee by depositing money in a can.

Manager: We're likely to lose money on this plan. Many customers would cheat the system, paying a very small sum or nothing at all.

Which of the following, if true, would best support the owner's plan, in light of the manager's concern?

- (A) The new system, if implemented, would increase the number of customers.
- (B) By roasting its own coffee, the shop has managed to reduce the difficulties (and cost) of maintaining an inventory of freshly roasted coffee.
- (C) Many customers stay in the cafe for long stretches of time.
- (D) The shop makes a substantial profit from pastries and other food bought by the coffee drinkers.
- (E) No other coffee shop in the area has such a system.

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

By competing with rodents for seeds, black ants help control rodent populations that pose a public health risk. However, a very aggressive species of black ant, the Loma ant, which has recently invaded a certain region, has a venomous sting that is often fatal to humans. Therefore, the planned introduction into that region of ant flies, which prey on Loma ants, would benefit public health, since _____.

- (A) ant flies do not attack black ants other than Loma ants
- (B) Loma ants are less effective than many bird species in competing with rodents for seeds
- (C) certain other species of black ants are more effective than Loma ants in competing with rodents for seeds
- (D) the sting of Loma ants can also be fatal to rodents
- (E) some pesticides that could be used to control Loma ants are harmful to the environment

606. Journalist: In physics journals, the number of articles reporting the results of experiments involving particle accelerators was lower last year than it had been in previous years. Several of the particle accelerators at major research institutions were out of service the year before last for repairs, so it is likely that the low number of articles was due to the decline in availability of particle accelerators.

Which of the following, if true, most seriously undermines the journalist's argument?

- (A) Every article based on experiments with particle accelerators that was submitted for publication last year actually was published.
- (B) The average time scientists must wait for access to a particle accelerator has declined over the last several years.
- (C) The number of physics journals was the same last year as in previous years.
- (D) Particle accelerators can be used for more than one group of experiments in any given year.
- (E) Recent changes in the editorial policies of several physics journals have decreased the likelihood that articles concerning particle-accelerator research will be accepted for publication.

607. Birds have been said to be descended from certain birdlike dinosaur species with which they share distinctive structural features. The fossil record, however, shows that this cannot be so, since there are bird fossils that are much older than the earliest birdlike dinosaur fossils that have been found.

Which of the following is an assumption on which the argument relies?

- (A) The birdlike dinosaurs have no living descendants.
- (B) There are no flightless dinosaur species that have the distinctive structural features shared by birds and birdlike dinosaurs.
- (C) There are no birdlike dinosaur fossils that are older than the bird fossils but have not yet been unearthed.
- (D) It could not have been the case that some birds were descended from one of the birdlike dinosaur species and other birds from another.
- (E) Birds cannot have been descended from dinosaur species with which the birds do not share the distinctive structural features.

608. City council member: Demand for electricity has been increasing by 1.5 percent a year, and there simply is no more space to build additional power plants to meet future demand increases. We must therefore begin to curtail usage, which is why I propose passing ordinances requiring energy-conservation measures in all city departments.

The city council member's proposal assumes which of the following?

- (A) Existing power plants do not have the capacity to handle all of the projected increase in demand for electricity.
- (B) No city departments have implemented energy-conservation measures voluntarily.
- (C) Passing ordinances designed to curtail electricity usage will not have negative economic consequences for the city.
- (D) Residential consumers are not responsible for the recent increases in demand for electricity.
- (E) City departments that successfully conserve energy will set a good example for residential and industrial consumers of electricity.

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

Using broad-spectrum weed killers on weeds that are competing with crops for sunlight, water, and nutrients presents a difficulty: how to keep the crop from being killed along with the weeds. For at least some food crops, specially treated seed that produces plants resistant to weed killers is under development. This resistance wears off as the plants mature. Therefore, the special seed treatment will be especially useful for plants that _____.

- (A) produce their crop over an extended period of time, as summer squash does
- (B) produce large seeds that are easy to treat individually, as corn and beans do
- (C) provide, as they approach maturity, shade dense enough to keep weeds from growing

- (D) are typically grown in large tracts devoted to a single crop
- (E) are cultivated specifically for the seed they produce rather than for their leaves or roots

610. Previously, Autoco designed all of its cars itself and then contracted with specialized parts suppliers to build parts according to its specifications. Now it plans to include its suppliers in designing the parts they are to build. Since many parts suppliers have more designers with specialized experience than Autoco has, Autoco expects this shift to reduce the overall time and cost of the design of its next new car.

Which of the following, if true, most strongly supports Autoco's expectation?

- (A) When suppliers provide their own designs, Autoco often needs to modify its overall design.
- (B) In order to provide designs for Autoco, several of the parts suppliers will have to add to their existing staffs of designers.
- (C) Parts and services provided by outside suppliers account for more than 50 percent of Autoco's total costs.
- (D) When suppliers built parts according to specifications provided by Autoco, the suppliers competed to win contracts.
- (E) Most of Autoco's suppliers have on hand a wide range of previously prepared parts designs that can readily be modified for a new car.

611. In Stenland, many workers have been complaining that they cannot survive on minimum wage, the lowest wage an employer is permitted to pay. The government is proposing to raise the minimum wage. Many employers who pay their workers the current minimum wage argue that if it is raised, unemployment will increase because they will no longer be able to afford to employ as many workers.

Which of the following, if true in Stenland, most strongly supports the claim that raising the minimum wage there will not have the effects that the employers predict?

- (A) For any position with wages below a living wage, the difficulty of finding and retaining employees adds as much to employment costs as would raising wages.
- (B) Raising the minimum wage does not also increase the amount employers have to contribute in employee benefits.
- (C) When inflation is taken into account, the proposed new minimum wage is not as high as the current one was when it was introduced.
- (D) Many employees currently being paid wages at the level of the proposed new minimum wage will demand significant wage increases.
- (E) Many employers who pay some workers only the minimum wage also pay other workers wages that are much higher than the minimum.

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

The attribution of the choral work *Lacrimae* to the composer Pescard (1400–1474) has been regarded as tentative, since it was based on a single treatise from the early 1500s that named Pescard as the composer. Recently, several musical treatises from the late 1500s have come to light, all of which name Pescard as the composer of *Lacrimae*. Unfortunately, these newly discovered treatises lend no support to the attribution of *Lacrimae* to Pescard, since _____.

- (A) the treatise from the early 1500s misidentifies the composers of some of the musical works it considers
- (B) the author of the treatise from the early 1500s had no very strong evidence on which to base the identification of Pescard as the composer of *Lacrimae*

- (C) there are works that can conclusively be attributed to Pescard that are not even mentioned in the treatise from the early 1500s
- (D) the later treatises probably had no source for their attribution other than the earlier treatise
- (E) no known treatises from the 1600s identify Pescard as the composer of *Lacrimae*

613. When trying to identify new technologies that promise to transform the marketplace, market researchers survey the managers of those companies that are developing new technologies. Such managers have an enormous stake in succeeding, so they invariably overstate the potential of their new technologies. Surprisingly, however, market researchers typically do not survey a new technology's potential buyers, even though it is the buyers—not the producers—who will ultimately determine a technology's commercial success.

Which of the following, if true, best accounts for the typical survey practices among market researchers?

- (A) If a new technology succeeds, the commercial benefits accrue largely to the producers, not to the buyers, of that technology.
- (B) People who promote the virtues of a new technology typically fail to consider that the old technology that is currently in use continues to be improved, often substantially.
- (C) Investors are unlikely to invest substantial amounts of capital in a company whose own managers are skeptical about the commercial prospects of a new technology they are developing.
- (D) The potential buyers for not-yet-available technologies can seldom be reliably identified.
- (E) The developers of a new technology are generally no better positioned than its potential buyers to gauge how rapidly the new technology can be efficiently mass-produced.

614. Infotek, a computer manufacturer in Katrovia, has just introduced a new personal computer model that sells for significantly less than any other model. Market research shows, however, that very few Katrovian households without personal computers would buy a computer, regardless of its price. Therefore, introducing the new model is unlikely to increase the number of computers in Katrovian homes.

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

- (A) Infotek achieved the lower price of the new model by using components of lower quality than those used by other manufacturers.
- (B) The main reason cited by consumers in Katrovia for replacing a personal computer is the desire to have an improved model.
- (C) Katrovians in households that already have computers are unlikely to purchase the new Infotek model as an additional computer for home use.
- (D) The price of other personal computers in Katrovia is unlikely to drop below the price of Infotek's new model in the near future.
- (E) Most personal computers purchased in Katrovia are intended for home use.

615. Fast-food restaurants make up 45 percent of all restaurants in Canatria. Customers at these restaurants tend to be young; in fact, studies have shown that the older people get, the less likely they are to eat in fast-food restaurants. Since the average age of the Canatryan population is gradually rising and will continue to do so, the number of fast-food restaurants is likely to decrease.

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

- (A) Fast-food restaurants in Canatria are getting bigger, so each one can serve more customers.
- (B) Some older people eat at fast-food restaurants more frequently than the average young person.
- (C) Many people who rarely eat in fast-food restaurants nevertheless eat regularly in restaurants.
- (D) The overall population of Canatria is growing steadily.
- (E) As the population of Canatria gets older, more people are eating at home.

616. In order to withstand tidal currents, juvenile horseshoe crabs frequently burrow in the sand. Such burrowing discourages barnacles from clinging to their shells. When fully grown, however, the crabs can readily withstand tidal currents without burrowing, and thus they acquire substantial populations of barnacles. Surprisingly, in areas where tidal currents are very weak, juvenile horseshoe crabs are found not to have significant barnacle populations, even though they seldom burrow.

Which of the following, if true, most helps to explain the surprising finding?

- (A) Tidal currents do not themselves dislodge barnacles from the shells of horseshoe crabs.
- (B) Barnacles most readily attach themselves to horseshoe crabs in areas where tidal currents are weakest.
- (C) The strength of the tidal currents in a given location varies widely over the course of a day.
- (D) A very large barnacle population can significantly decrease the ability of a horseshoe crab to find food.
- (E) Until they are fully grown, horseshoe crabs shed their shells and grow new ones several times a year.

617. Last year a chain of fast-food restaurants, whose menu had always centered on hamburgers, added its first vegetarian sandwich, much lower in fat than the chain's other offerings. Despite heavy marketing, the new sandwich accounts for a very small proportion of the chain's sales. The sandwich's sales would have to quadruple to cover the costs associated with including it on the menu. Since such an increase is unlikely, the chain would be more profitable if it dropped the sandwich.

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

- (A) Although many of the chain's customers have never tried the vegetarian sandwich, in a market research survey most of those who had tried it reported that they were very satisfied with it.
- (B) Many of the people who eat at the chain's restaurants also eat at the restaurants of competing chains and report no strong preference among the competitors.
- (C) Among fast-food chains in general, there has been little or no growth in hamburger sales over the past several years as the range of competing offerings at other restaurants has grown.
- (D) When even one member of a group of diners is a vegetarian or has a preference for low-fat food, the group tends to avoid restaurants that lack vegetarian or low-fat menu options.
- (E) An attempt by the chain to introduce a lower-fat hamburger failed several years ago, since it attracted few new customers and most of the chain's regular customers greatly preferred the taste of the regular hamburgers.

618. Transportation expenses accounted for a large portion of the total dollar amount spent on trips for pleasure by residents of the United States in 1997, and about half of the total dollar amount spent on transportation was for airfare. However, the large majority of United States residents who took trips for pleasure in 1997 did not travel by airplane but used other means of transportation.

If the statements above are true, which of the following must also be true about United States residents who took trips for pleasure in 1997?

- (A) Most of those who traveled by airplane did so because the airfare to their destination was lower than the cost of other available means of transportation.
 - (B) Most of those who traveled by airplane did so because other means of transportation to their destination were unavailable.
 - (C) Per mile traveled, those who traveled by airplane tended to spend more on transportation to their destination than did those who used other means of transportation.
 - (D) Overall, people who did not travel by airplane had lower average transportation expenses than people who did.
 - (E) Those who traveled by airplane spent about as much, on average, on other means of transportation as they did on airfare.
619. Voters commonly condemn politicians for being insincere, but politicians often must disguise their true feelings when they make public statements. If they expressed their honest views—about, say, their party's policies—then achieving politically necessary compromises would be much more difficult. Clearly, the very insincerity that people decry shows that our government is functioning well.

Which of the following, if true, most seriously undermines this reasoning?

- (A) Achieving political compromises is not all that is necessary for the proper functioning of a government.
- (B) Some political compromises are not in the best long-term interest of the government.
- (C) Voters often judge politicians by criteria other than the sincerity with which they express their views.
- (D) A political party's policies could turn out to be detrimental to the functioning of a government.

- (E) Some of the public statements made by politicians about their party's policies could in fact be sincere.

620. To reduce waste of raw materials, the government of Sperland is considering requiring household appliances to be broken down for salvage when discarded. To cover the cost of salvage, the government is planning to charge a fee, which would be imposed when the appliance is first sold. Imposing the fee at the time of salvage would reduce waste more effectively, however, because consumers tend to keep old appliances longer if they are faced with a fee for discarding them.

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

- (A) Increasing the cost of disposing of an appliance properly increases the incentive to dispose of it improperly.
 - (B) The fee provides manufacturers with no incentive to produce appliances that are more durable.
 - (C) For people who have bought new appliances recently, the salvage fee would not need to be paid for a number of years.
 - (D) People who sell their used, working appliances to others would not need to pay the salvage fee.
 - (E) Many nonfunctioning appliances that are currently discarded could be repaired at relatively little expense.
621. When there is less rainfall than normal, the water level of Australian rivers falls and the rivers flow more slowly. Because algae whose habitat is river water grow best in slow-moving water, the amount of algae per unit of water generally increases when there has been little rain. By contrast, however, following a period of extreme drought, algae levels are low even in very slow-moving river water.

Which of the following, if true, does most to explain the contrast described above?

- (A) During periods of extreme drought, the populations of some of the species that feed on algae tend to fall.
- (B) The more slowly water moves, the more conducive its temperature is to the growth of algae.
- (C) When algae populations reach very high levels, conditions within the river can become toxic for some of the other species that normally live there.

- (D) Australian rivers dry up completely for short intervals in periods of extreme drought.
- (E) Except during periods of extreme drought, algae levels tend to be higher in rivers in which the flow has been controlled by damming than in rivers that flow freely.

622. Increased use of incineration is sometimes advocated as a safe way to dispose of chemical waste. But opponents of incineration point to the 40 incidents involving unexpected releases of dangerous chemical agents that were reported just last year at two existing incinerators commissioned to destroy a quantity of chemical waste material. Since designs for proposed new incinerators include no additional means of preventing such releases, leaks will only become more prevalent if use of incineration increases.

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

- (A) At the two incinerators at which leaks were reported, staff had had only cursory training on the proper procedures for incinerating chemical waste.
- (B) Other means of disposing of chemical waste, such as chemical neutralization processes, have not been proven safer than incineration.
- (C) The capacity of existing incinerators is sufficient to allow for increased incineration of chemical waste without any need for new incinerators.
- (D) The frequency of reports of unexpected releases of chemical agents at newly built incinerators is about the same as the frequency at older incinerators.
- (E) In only three of the reported incidents of unexpected chemical leaks did the releases extend outside the property on which the incinerators were located.

623. Public health expert: **Increasing the urgency of a public health message may be counterproductive.** In addition to irritating the majority who already behave responsibly, **it may undermine all government pronouncements on health by convincing people that such messages are overly cautious.** And there is no reason to believe that those who ignore measured voices will listen to shouting.

The two sections in boldface play which of the following roles in the public health expert's argument?

- (A) The first is a conclusion for which support is provided, but is not the argument's main conclusion; the second is an unsupported premise supporting the argument's main conclusion.
- (B) The first is a premise supporting the only explicit conclusion; so is the second.
- (C) The first is the argument's main conclusion; the second supports that conclusion and is itself a conclusion for which support is provided.
- (D) The first is a premise supporting the argument's only conclusion; the second is that conclusion.
- (E) The first is the argument's only explicit conclusion; the second is a premise supporting that conclusion.

624. Several industries have recently switched at least partly from older technologies powered by fossil fuels to new technologies powered by electricity. It is thus evident that less fossil fuel is being used as a result of the operations of these industries than would have been used if these industries had retained their older technologies.

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

- (A) Many of the industries that have switched at least partly to the new technologies have increased their output.
- (B) Less fossil fuel was used to manufacture the machinery employed in the new technologies than was originally used to manufacture the machinery employed in the older technologies.
- (C) More electricity is used by those industries that have switched at least partly to the new technologies than by those industries that have not switched.
- (D) Some of the industries that have switched at least partly to the new technologies still use primarily technologies that are powered by fossil fuels.
- (E) The amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount that would have been used to power the older technologies.

625. The difference in average annual income in favor of employees who have college degrees, compared with those who do not have such degrees, doubled between 1980 and 1990. Some analysts have hypothesized that increased competition between employers for employees with college degrees drove up income for such employees.

Which of the following, if true, most seriously undermines the explanation described above?

- (A) During the 1980s a growing percentage of college graduates, unable to find jobs requiring a college degree, took unskilled jobs.
- (B) The average age of all employees increased slightly during the 1980s.
- (C) The unemployment rate changed very little throughout most of the 1980s.
- (D) From 1980 to 1990 the difference in average income between employees with advanced degrees and those with bachelor's degrees also increased.
- (E) During the 1980s there were some employees with no college degree who earned incomes comparable to the top incomes earned by employees with a college degree.

626. Which of the following most logically completes the passage?

According to the last pre-election poll in Whippleton, most voters believe that the three problems government needs to address, in order of importance, are pollution, crime, and unemployment. Yet in the election, candidates from parties perceived as strongly against pollution were defeated, while those elected were all from parties with a history of opposing legislation designed to reduce pollution. These results should not be taken to indicate that the poll was inaccurate, however, since _____.

- (A) some voters in Whippleton do not believe that pollution needs to be reduced
- (B) every candidate who was defeated had a strong antipollution record
- (C) there were no issues other than crime, unemployment, and pollution on which the candidates had significant differences of opinion

- (D) all the candidates who were elected were perceived as being stronger against both crime and unemployment than the candidates who were defeated
- (E) many of the people who voted in the election refused to participate in the poll

627. Manufacturing plants in Arundia have recently been acquired in substantial numbers by investors from abroad. Arundian politicians are proposing legislative action to stop such investment, justifying the proposal by arguing that foreign investors, opportunistically exploiting a recent fall in the value of the Arundian currency, were able to buy Arundian assets at less than their true value.

Which of the following, if true, casts the most serious doubt on the adequacy of the Arundian politicians' justification for the proposed legislation?

- (A) The Arundian government originally welcomed the fall in the value of the Arundian currency because the fall made Arundian exports more competitive on international markets.
- (B) Foreign investors who acquired Arundian manufacturing plants generally did so with no intention of keeping and running those plants over the long term.
- (C) Without the recent fall in the value of the Arundian currency, many of the Arundian assets bought by foreign investors would have been beyond the financial reach of those investors.
- (D) In Concordia, a country broadly similar to Arundia, the share of manufacturing assets that is foreign-controlled is 60 percent higher than it is in Arundia.
- (E) The true value of an investment is determined by the value of the profits from it, and the low value of the Arundian currency has depressed the value of any profits earned by foreign investors from Arundian assets.

628. Proposed new safety rules for Beach City airport would lengthen considerably the minimum time between takeoffs from the airport. In consequence, the airport would be able to accommodate 10 percent fewer flights than currently use the airport daily. The city's operating budget depends heavily on taxes generated

by tourist spending, and most of the tourists come by plane. Therefore, the proposed new safety rules, if adopted, will reduce the revenue available for the operating budget.

The argument depends on assuming which of the following?

- (A) There are no periods of the day during which the interval between flights taking off from the airport is significantly greater than the currently allowed minimum.
- (B) Few, if any, of the tourists who use Beach City airport do so when their main destination is a neighboring community and not Beach City itself.
- (C) If the proposed safety rules are adopted, the reduction in tourist numbers will not result mainly from a reduction in the number of tourists who spend relatively little in Beach City.
- (D) Increasing the minimum time between takeoffs is the only way to achieve necessary safety improvements without a large expenditure by the city government on airport enhancements.
- (E) The response to the adoption of the new safety rules would not include a large increase in the number of passengers per flight.

629. The introduction of new drugs into the market is frequently prevented by a shortage of human subjects for the clinical trials needed to show that the drugs are safe and effective. Since the lives and health of people in future generations may depend on treatments that are currently experimental, practicing physicians are morally in the wrong when, in the absence of any treatment proven to be effective, they fail to encourage suitable patients to volunteer for clinical trials.

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

- (A) Many drugs undergoing clinical trials are intended for the treatment of conditions for which there is currently no effective treatment.

- (B) Patients do not share the physician's professional concern for public health, but everyone has a moral obligation to alleviate suffering when able to do so.
- (C) Usually, half the patients in a clinical trial serve as a control group and receive a nonactive drug in place of the drug being tested.
- (D) An experimental drug cannot legally be made available to patients unless those patients are subjects in clinical trials of the drug.
- (E) Physicians have an overriding moral and legal duty to care for the health and safety of their current patients.

630. As a construction material, bamboo is as strong as steel and sturdier than concrete. Moreover, in tropical areas bamboo is a much less expensive construction material than either steel or concrete and is always readily available. In tropical areas, therefore, building with bamboo makes better economic sense than building with steel or concrete, except where land values are high.

Which of the following, if true, most helps to explain the exception noted above?

- (A) Buildings constructed of bamboo are less likely to suffer earthquake damage than are steel and concrete buildings.
- (B) Bamboo is unsuitable as a building material for multistory buildings.
- (C) In order to protect it from being damaged by termites and beetles, bamboo must be soaked, at some expense, in a preservative.
- (D) In some tropical areas, bamboo is used to make the scaffolding that is used during large construction projects.
- (E) Bamboo growing in an area where land values are increasing is often cleared to make way for construction.

631. Newspaper editors should not allow reporters to write the headlines for their own stories. The reason for this is that, while the headlines that reporters themselves write are often clever, what typically makes them clever is that they allude to little-known information that is familiar to the reporter but that never appears explicitly in the story itself.

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

- (A) The reporter who writes a story is usually better placed than the reporter's editor is to judge what the story's most newsworthy features are.
- (B) To write a headline that is clever, a person must have sufficient understanding of the story that the headline accompanies.
- (C) Most reporters rarely bother to find out how other reporters have written stories and headlines about the same events that they themselves have covered.
- (D) For virtually any story that a reporter writes, there are at least a few people who know more about the story's subject matter than does the reporter.
- (E) The kind of headlines that newspaper editors want are those that anyone who has read a reporter's story in its entirety will recognize as clever.

632. Scientists have modified feed corn genetically, increasing its resistance to insect pests. Farmers who tried out the genetically modified corn last season applied less insecticide to their corn fields and still got yields comparable to those they would have gotten with ordinary corn. Ordinary corn seed, however, costs less, and what these farmers saved on insecticide rarely exceeded their extra costs for seed. Therefore, for most feed-corn farmers, switching to genetically modified seed would be unlikely to increase profits.

Which of the following would it be most useful to know in order to evaluate the argument?

- (A) Whether there are insect pests that sometimes reduce feed-corn yields, but against which commonly used insecticides and the genetic modification are equally ineffective
- (B) Whether the price that farmers receive for feed corn has remained steady over the past few years

- (C) Whether the insecticides typically used on feed corn tend to be more expensive than insecticides typically used on other crops
- (D) Whether most of the farmers who tried the genetically modified corn last season applied more insecticide than was actually necessary
- (E) Whether, for most farmers who plant feed corn, it is their most profitable crop

633. Debater: The average amount of overtime per month worked by an employee in the manufacturing division of the Haglut Corporation is 14 hours. Most employees of the Haglut Corporation work in the manufacturing division. Furthermore, the average amount of overtime per month worked by any employee in the company generally does not fluctuate much from month to month. Therefore, each month, most employees of the Haglut Corporation almost certainly work at least some overtime.

The debater's argument is most vulnerable to criticism on which of these grounds?

- (A) It takes for granted that the manufacturing division is a typical division of the corporation with regard to the average amount of overtime its employees work each month.
- (B) It takes for granted that if a certain average amount of overtime is worked each month by each employee of the Haglut Corporation, then approximately the same amount of overtime must be worked each month by each employee of the manufacturing division.
- (C) It confuses a claim from which the argument's conclusion about the Haglut Corporation would necessarily follow with a claim that would follow from the argument's conclusion only with a high degree of probability.
- (D) It overlooks the possibility that even if, on average, a certain amount of overtime is worked by the members of some group, many members of that group may work no overtime at all.
- (E) It overlooks the possibility that even if most employees of the corporation work some overtime each month, any one corporate employee may, in some months, work no overtime.

634. Proponents of the recently introduced tax on sales of new luxury boats had argued that a tax of this sort would be an equitable way to increase government revenue because the admittedly heavy tax burden would fall only on wealthy people and neither they nor anyone else would suffer any economic hardship. In fact, however, 20 percent of the workers employed by manufacturers of luxury boats have lost their jobs as a direct result of this tax.

The information given, if true, most strongly supports which of the following?

- (A) The market for luxury boats would have collapsed even if the new tax on luxury boats had been lower.
- (B) The new tax would produce a net gain in tax revenue for the government only if the yearly total revenue that it generates exceeds the total of any yearly tax-revenue decrease resulting from the workers' loss of jobs.
- (C) Because many people never buy luxury items, imposing a sales tax on luxury items is the kind of legislative action that does not cost incumbent legislators much popular support.
- (D) Before the tax was instituted, luxury boats were largely bought by people who were not wealthy.
- (E) Taxes can be equitable only if their burden is evenly distributed over the entire population.

635. In Wareland last year, 16 percent of licensed drivers under 21 and 11 percent of drivers ages 21–24 were in serious accidents. By contrast, only 3 percent of licensed drivers 65 and older were involved in serious accidents. These figures clearly show that the greater experience and developed habits of caution possessed by drivers in the 65-and-older group make them far safer behind the wheel than the younger drivers are.

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

- (A) Drivers 65 and older do not, on average, drive very many fewer miles per year than drivers 24 and younger.

- (B) Drivers 65 and older do not constitute a significantly larger percentage of licensed drivers in Wareland than drivers ages 18–24 do.
- (C) Drivers 65 and older are less likely than are drivers 24 and younger to drive during weather conditions that greatly increase the risk of accidents.
- (D) The difference between the accident rate of drivers under 21 and of those ages 21–24 is attributable to the greater driving experience of those in the older group.
- (E) There is no age bracket for which the accident rate is lower than it is for licensed drivers 65 and older.

636. In the past the country of Malvernia has relied heavily on imported oil. Malvernia recently implemented a program to convert heating systems from oil to natural gas. Malvernia currently produces more natural gas each year than it uses, and oil production in Malvernian oil fields is increasing at a steady pace. If these trends in fuel production and usage continue, therefore, Malvernian reliance on foreign sources for fuel is likely to decline soon.

Which of the following would it be most useful to establish in evaluating the argument?

- (A) When, if ever, will production of oil in Malvernia outstrip production of natural gas?
- (B) Is Malvernia among the countries that rely most on imported oil?
- (C) What proportion of Malvernia's total energy needs is met by hydroelectric, solar, and nuclear power?
- (D) Is the amount of oil used each year in Malvernia for generating electricity and fuel for transportation increasing?
- (E) Have any existing oil-burning heating systems in Malvernia already been converted to natural-gas-burning heating systems?

637. Exposure to certain chemicals commonly used in elementary schools as cleaners or pesticides causes allergic reactions in some children. Elementary school nurses in Renston report that the proportion of schoolchildren sent to them for treatment of allergic reactions to those chemicals has increased significantly over the past ten years. Therefore, either Renston's schoolchildren have been exposed to greater quantities of the chemicals, or they are more sensitive to them than schoolchildren were ten years ago.

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

- (A) The number of school nurses employed by Renston's elementary schools has not decreased over the past ten years.
- (B) Children who are allergic to the chemicals are no more likely than other children to have allergies to other substances.
- (C) Children who have allergic reactions to the chemicals are not more likely to be sent to a school nurse now than they were ten years ago.
- (D) The chemicals are not commonly used as cleaners or pesticides in houses and apartment buildings in Renston.
- (E) Children attending elementary school do not make up a larger proportion of Renston's population now than they did ten years ago.

638. Normally, the pineal gland governs a person's sleep-wake cycle by secreting melatonin in response to the daily cycle of light and darkness as detected by the eye. Nonetheless, many people who are totally blind due to lesions in the visual cortex of the brain easily maintain a 24-hour sleep-wake cycle. So the neural pathway by which the pineal gland receives information from the eye probably does not pass through the visual cortex.

For purposes of evaluating the argument it would be most useful to establish which of the following?

- (A) Whether melatonin supplements help people who have difficulty maintaining a 24-hour sleep cycle to establish such a pattern
- (B) Whether the melatonin levels of most totally blind people who successfully maintain a 24-hour sleep-wake cycle change in response to changes in exposure to light and darkness

- (C) Whether melatonin is the only substance secreted by the pineal gland
- (D) Whether most people who do not have a 24-hour sleep-wake cycle nevertheless have a cycle of consistent duration
- (E) Whether there are any people with normal vision whose melatonin levels respond abnormally to periods of light and darkness

639. **In countries where automobile insurance includes compensation for whiplash injuries sustained in automobile accidents, reports of having suffered such injuries are twice as frequent as they are in countries where whiplash is not covered.**

Presently, no objective test for whiplash exists, so it is true that spurious reports of whiplash injuries cannot be readily identified. Nevertheless, these facts do not warrant the conclusion drawn by some commentators that in the countries with the higher rates of reported whiplash injuries, half of the reported cases are spurious. Clearly, **in countries where automobile insurance does not include compensation for whiplash, people often have little incentive to report whiplash injuries that they actually have suffered.**

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first is a claim that the argument disputes; the second is a conclusion that has been based on that claim.
- (B) The first is a claim that has been used to support a conclusion that the argument accepts; the second is that conclusion.
- (C) The first is evidence that has been used to support a conclusion for which the argument provides further evidence; the second is the main conclusion of the argument.
- (D) The first is a finding whose implications are at issue in the argument; the second is a claim presented in order to argue against deriving certain implications from that finding.
- (E) The first is a finding whose accuracy is evaluated in the argument; the second is evidence presented to establish that the finding is accurate.

640. Last year Comfort Airlines had twice as many delayed flights as the year before, but the number of complaints from passengers about delayed flights went up three times. It is unlikely that this disproportionate increase in complaints was rooted in an increase in overall dissatisfaction with the service Comfort Airlines provides, since the airline made a special effort to improve other aspects of its service last year.

Which of the following, if true, most helps to explain the disproportionate increase in customer complaints?

- (A) Comfort Airlines had more flights last year than the year before.
- (B) Last year a single period of unusually bad weather caused a large number of flights to be delayed.
- (C) Some of the improvements that Comfort Airlines made in its service were required by new government regulations.
- (D) The average length of a flight delay was greater last year than it was the year before.
- (E) The average number of passengers per flight was no higher last year than the year before.

641. Last year a global disturbance of weather patterns disrupted harvests in many of the world's important agricultural areas. Worldwide production of soybeans, an important source of protein for people and livestock alike, was not adversely affected, however. Indeed, last year's soybean crop was actually slightly larger than average. Nevertheless, the weather phenomenon is probably responsible for a recent increase in the world price of soybeans.

Which of the following, if true, provides the strongest justification for the attribution of the increase in soybean prices to the weather phenomenon?

- (A) Last year's harvest of anchovies, which provide an important protein source for livestock, was disrupted by the effects of the weather phenomenon.
- (B) Most countries that produce soybeans for export had above-average harvests of a number of food crops other than soybeans last year.

- (C) The world price of soybeans also rose several years ago, immediately after an earlier occurrence of a similar global weather disturbance.
- (D) Heavy rains attributable to the weather phenomenon improved grazing pastures last year, allowing farmers in many parts of the world to reduce their dependence on supplemental feed.
- (E) Prior to last year, soybean prices had been falling for several years.

642. Most of the year, the hermit thrush, a North American songbird, eats a diet consisting mainly of insects, but in autumn, as the thrushes migrate to their Central and South American wintering grounds, they feed almost exclusively on wild berries. Wild berries, however, are not as rich in calories as insects, yet thrushes need to consume plenty of calories in order to complete their migration. One possible explanation is that berries contain other nutrients that thrushes need for migration and that insects lack.

Which of the following, if true, most seriously calls into question the explanation given for the thrush's diet during migration?

- (A) Hermit thrushes, if undernourished, are unable to complete their autumn migration before the onset of winter.
- (B) Insect species contain certain nutrients that are not found in wild berries.
- (C) For songbirds, catching insects requires the expenditure of significantly more calories than eating wild berries does.
- (D) Along the hermit thrushes' migration routes, insects are abundant throughout the migration season.
- (E) There are some species of wild berries that hermit thrushes generally do not eat, even though these berry species are exceptionally rich in calories.

643. The kinds of hand and wrist injuries that result from extended use of a computer while maintaining an incorrect posture are common among schoolchildren in Harnville. Computers are important to the school curriculum there, so instead of reducing the amount their students use computers, teachers plan to bring about a sharp reduction in the number of these injuries by carefully monitoring their students' posture when using computers in the classroom.

Which of the following would it be most useful to know in order to assess the likelihood that the teachers' plan will be successful?

- (A) Whether extended use of a computer while maintaining incorrect posture can cause injuries other than hand and wrist injuries
- (B) Whether hand and wrist injuries not caused by computer use are common among schoolchildren in Harnville
- (C) What proportion of schoolchildren in Harnville with hand and wrist injuries use computers extensively outside the classroom
- (D) Whether changes in the curriculum could reduce the schools' dependence on computers
- (E) What proportion of schoolchildren in Harnville already use correct posture while using a computer

644. A certain cultivated herb is one of a group of closely related plants that thrive in soil with high concentrations of metals that are toxic to most other plants. Agronomists studying the growth of this herb have discovered that it produces large amounts of histidine, an amino acid that, in test-tube solutions, renders these metals chemically inert. Hence, the herb's high histidine production must be the key feature that allows it to grow in metal-rich soils.

In evaluating the argument, it would be most important to determine which of the following?

- (A) Whether the herb can thrive in soil that does not have high concentrations of the toxic metals
- (B) Whether others of the closely related group of plants also produce histidine in large quantities

- (C) Whether the herb's high level of histidine production is associated with an unusually low level of production of some other amino acid
- (D) Whether growing the herb in soil with high concentrations of the metals will, over time, reduce their concentrations in the soil
- (E) Whether the concentration of histidine in the growing herb declines as the plant approaches maturity

645. Many people suffer an allergic reaction to certain sulfites, including those that are commonly added to wine as preservatives. However, since there are several winemakers who add sulfites to none of the wines they produce, people who would like to drink wine but are allergic to sulfites can drink wines produced by these winemakers without risking an allergic reaction to sulfites.

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

- (A) These winemakers have been able to duplicate the preservative effect produced by adding sulfites by means that do not involve adding any potentially allergenic substances to their wine.
- (B) Not all forms of sulfite are equally likely to produce the allergic reaction.
- (C) Wine is the only beverage to which sulfites are commonly added.
- (D) Apart from sulfites, there are no substances commonly present in wine that give rise to an allergic reaction.
- (E) Sulfites are not naturally present in the wines produced by these winemakers in amounts large enough to produce an allergic reaction in someone who drinks these wines.

646. A new law gives ownership of patents—documents providing exclusive right to make and sell an invention—to universities, not the government, when those patents result from government-sponsored university research. Administrators at Logos University plan to sell any patents they acquire to corporations in order to fund programs to improve undergraduate teaching.

Which of the following, if true, would cast the most doubt on the viability of the college administrators' plan described above?

- (A) Profit-making corporations interested in developing products based on patents held by universities are likely to try to serve as exclusive sponsors of ongoing university research projects.
- (B) Corporate sponsors of research in university facilities are entitled to tax credits under new federal tax-code guidelines.
- (C) Research scientists at Logos University have few or no teaching responsibilities and participate little if at all in the undergraduate programs in their field.
- (D) Government-sponsored research conducted at Logos University for the most part duplicates research already completed by several profitmaking corporations.
- (E) Logos University is unlikely to attract corporate sponsorship of its scientific research.

647. Since it has become known that **several of a bank's top executives have been buying shares in their own bank**, the bank's depositors, who had been worried by rumors that the bank faced impending financial collapse, have been greatly relieved. They reason that, since top executives evidently have faith in the bank's financial soundness, those worrisome rumors must be false. Such reasoning might well be overoptimistic, however, since **corporate executives have been known to buy shares in their own company in a calculated attempt to dispel negative rumors about the company's health**.

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first describes evidence that has been taken as supporting a conclusion; the second gives a reason for questioning that support.
- (B) The first describes evidence that has been taken as supporting a conclusion; the second states a contrary conclusion that is the main conclusion of the argument.

- (C) The first provides evidence in support of the main conclusion of the argument; the second states that conclusion.
- (D) The first describes the circumstance that the argument as a whole seeks to explain; the second gives the explanation that the argument seeks to establish.
- (E) The first describes the circumstance that the argument as a whole seeks to explain; the second provides evidence in support of the explanation that the argument seeks to establish.

648. Between 1980 and 2000 the sea otter population of the Aleutian Islands declined precipitously. There were no signs of disease or malnutrition, so there was probably an increase in the number of otters being eaten by predators. Orcas will eat otters when seals, their normal prey, are unavailable, and the Aleutian Islands seal population declined dramatically in the 1980s. Therefore, orcas were most likely the immediate cause of the otter population decline.

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

- (A) The population of sea urchins, the main food of sea otters, has increased since the sea otter population declined.
- (B) Seals do not eat sea otters, nor do they compete with sea otters for food.
- (C) Most of the surviving sea otters live in a bay that is inaccessible to orcas.
- (D) The population of orcas in the Aleutian Islands has declined since the 1980s.
- (E) An increase in commercial fishing near the Aleutian Islands in the 1980s caused a slight decline in the population of the fish that seals use for food.

649. Studies in restaurants show that the tips left by customers who pay their bill in cash tend to be larger when the bill is presented on a tray that bears a credit-card logo. Consumer psychologists hypothesize that simply seeing a credit-card logo makes many credit-card holders willing to spend more because it reminds them that their spending power exceeds the cash they have immediately available.

Which of the following, if true, most strongly supports the psychologists' interpretation of the studies?

- (A) The effect noted in the studies is not limited to patrons who have credit cards.
- (B) Patrons who are under financial pressure from their credit-card obligations tend to tip less when presented with a restaurant bill on a tray with a credit-card logo than when the tray has no logo.
- (C) In virtually all of the cases in the studies, the patrons who paid bills in cash did not possess credit cards.
- (D) In general, restaurant patrons who pay their bills in cash leave larger tips than do those who pay by credit card.
- (E) The percentage of restaurant bills paid with a given brand of credit card increases when that credit card's logo is displayed on the tray with which the bill is presented.

650. In an experiment, each volunteer was allowed to choose between an easy task and a hard task and was told that another volunteer would do the other task. Each volunteer could also choose to have a computer assign the two tasks randomly. Most volunteers chose the easy task for themselves and under questioning later said they had acted fairly. But when the scenario was described to another group of volunteers, almost all said choosing the easy task would be unfair. This shows that most people apply weaker moral standards to themselves than to others.

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

- (A) At least some volunteers who said they had acted fairly in choosing the easy task would have said that it was unfair for someone else to do so.
- (B) The most moral choice for the volunteers would have been to have the computer assign the two tasks randomly.

- (C) There were at least some volunteers who were assigned to do the hard task and felt that the assignment was unfair.
- (D) On average, the volunteers to whom the scenario was described were more accurate in their moral judgments than the other volunteers were.
- (E) At least some volunteers given the choice between assigning the tasks themselves and having the computer assign them felt that they had made the only fair choice available to them.

651. Country X's recent stock-trading scandal should not diminish investors' confidence in the country's stock market. For one thing, **the discovery of the scandal confirms that Country X has a strong regulatory system**, as the following considerations show. In any stock market, some fraudulent activity is inevitable. If a stock market is well regulated, any significant stock-trading fraud in it will very likely be discovered. This deters potential perpetrators and facilitates improvement in regulatory processes.

In the argument, the portion in boldface plays which of the following roles?

- (A) It is the argument's only conclusion.
- (B) It is a conclusion for which the argument provides support and which itself is used to support the argument's main conclusion.
- (C) It is the argument's main conclusion and is supported by another explicitly stated conclusion for which further support is provided.
- (D) It is an assumption for which no explicit support is provided and is used to support the argument's only conclusion.
- (E) It is a compound statement containing both the argument's main conclusion and an assumption used to support that conclusion.

652. **Delta Products Inc. has recently switched at least partly from older technologies using fossil fuels to new technologies powered by electricity.** The question has been raised whether it can be concluded that **for a given level of output Delta's operation now causes less fossil fuel to be consumed than it did formerly.** The answer, clearly, is yes, since the amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount needed to power the older technologies, provided level of output is held constant.

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first identifies the content of the conclusion of the argument; the second provides support for that conclusion.
- (B) The first provides support for the conclusion of the argument; the second identifies the content of that conclusion.
- (C) The first states the conclusion of the argument; the second calls that conclusion into question.
- (D) The first provides support for the conclusion of the argument; the second calls that conclusion into question.
- (E) Each provides support for the conclusion of the argument.

653. Theater Critic: The play *La Finestrina*, now at Central Theater, was written in Italy in the eighteenth century. The director claims that this production is as similar to the original production as is possible in a modern theater. Although the actor who plays Harlequin the clown gives a performance very reminiscent of the twentieth-century American comedian Groucho Marx, Marx's comic style was very much within the comic acting tradition that had begun in sixteenth-century Italy.

The considerations given best serve as part of an argument that

- (A) modern audiences would find it hard to tolerate certain characteristics of a historically accurate performance of an eighteenth-century play
- (B) Groucho Marx once performed the part of the character Harlequin in *La Finestrina*
- (C) in the United States the training of actors in the twentieth century is based on principles that do not differ radically from those that underlay the training of actors in eighteenth-century Italy
- (D) the performance of the actor who plays Harlequin in *La Finestrina* does not serve as evidence against the director's claim
- (E) the director of *La Finestrina* must have advised the actor who plays Harlequin to model his performance on comic performances of Groucho Marx

654. Although the discount stores in Goreville's central shopping district are expected to close within five years as a result of competition from a SpendLess discount department store that just opened, those

locations will not stay vacant for long. In the five years since the opening of Colson's, a nondiscount department store, a new store has opened at the location of every store in the shopping district that closed because it could not compete with Colson's.

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

- (A) Many customers of Colson's are expected to do less shopping there than they did before the SpendLess store opened.
- (B) Increasingly, the stores that have opened in the central shopping district since Colson's opened have been discount stores.
- (C) At present, the central shopping district has as many stores operating in it as it ever had.
- (D) Over the course of the next five years, it is expected that Goreville's population will grow at a faster rate than it has for the past several decades.
- (E) Many stores in the central shopping district sell types of merchandise that are not available at either SpendLess or Colson's.

655. Last year all refuse collected by Shelbyville city services was incinerated. This incineration generated a large quantity of residual ash. In order to reduce the amount of residual ash Shelbyville generates this year to half of last year's total, the city has revamped its collection program. This year city services will separate for recycling enough refuse to reduce the number of truckloads of refuse to be incinerated to half of last year's number.

Which of the following is required for the revamped collection program to achieve its aim?

- (A) This year, no materials that city services could separate for recycling will be incinerated.
- (B) Separating recyclable materials from materials to be incinerated will cost Shelbyville less than half what it cost last year to dispose of the residual ash.
- (C) Refuse collected by city services will contain a larger proportion of recyclable materials this year than it did last year.
- (D) The refuse incinerated this year will generate no more residual ash per truckload incinerated than did the refuse incinerated last year.
- (E) The total quantity of refuse collected by Shelbyville city services this year will be no greater than that collected last year.

656. Veterinarians generally derive some of their income from selling several manufacturers' lines of pet-care products. Knowing that pet owners rarely throw away mail from their pet's veterinarian unread, one manufacturer of pet-care products offered free promotional materials on its products to veterinarians for mailing to their clients. Very few veterinarians accepted the offer, however, even though the manufacturer's products are of high quality.

Which of the following, if true, most helps to explain the veterinarians' reaction to the manufacturer's promotional scheme?

- (A) Most of the veterinarians to whom the free promotional materials were offered were already selling the manufacturer's pet-care products to their clients.
- (B) The special promotional materials were intended as a supplement to the manufacturer's usual promotional activities rather than as a replacement for them.
- (C) The manufacturer's products, unlike most equally good competing products sold by veterinarians, are also available in pet stores and in supermarkets.
- (D) Many pet owners have begun demanding quality in products they buy for their pets that is as high as that in products they buy for themselves.
- (E) Veterinarians sometimes recommend that pet owners use products formulated for people when no suitable product specially formulated for animals is available.

657. The average hourly wage of television assemblers in Vernland has long been significantly lower than that in neighboring Borodia. Since Borodia dropped all tariffs on Vernlandian televisions three years ago, the number of televisions sold annually in Borodia has not changed. However, recent statistics show a drop in the number of television assemblers in Borodia. Therefore, updated trade statistics will probably indicate that the number of televisions Borodia imports annually from Vernland has increased.

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

- (A) The number of television assemblers in Vernland has increased by at least as much as the number of television assemblers in Borodia has decreased.

- (B) Televisions assembled in Vernland have features that televisions assembled in Borodia do not have.
- (C) The average number of hours it takes a Borodian television assembler to assemble a television has not decreased significantly during the past three years.
- (D) The number of televisions assembled annually in Vernland has increased significantly during the past three years.
- (E) The difference between the hourly wage of television assemblers in Vernland and the hourly wage of television assemblers in Borodia is likely to decrease in the next few years.

658. Guidebook writer: I have visited hotels throughout the country and have noticed that in those built before 1930 the quality of the original carpentry work is generally superior to that in hotels built afterward. Clearly carpenters working on hotels before 1930 typically worked with more skill, care, and effort than carpenters who have worked on hotels built subsequently.

Which of the following, if true, most seriously weakens the guidebook writer's argument?

- (A) The quality of original carpentry in hotels is generally far superior to the quality of original carpentry in other structures, such as houses and stores.
- (B) Hotels built since 1930 can generally accommodate more guests than those built before 1930.
- (C) The materials available to carpenters working before 1930 were not significantly different in quality from the materials available to carpenters working after 1930.
- (D) The better the quality of original carpentry in a building, the less likely that building is to fall into disuse and be demolished.
- (E) The average length of apprenticeship for carpenters has declined significantly since 1930.

659. Scientists typically do their most creative work before the age of forty. It is commonly thought that this happens because aging by itself brings about a loss of creative capacity. However, studies show that **of scientists who produce highly creative work beyond the age of forty, a disproportionately large number entered their field at an older age than is usual**. Since by the age of forty the large majority of scientists have been working in their field for at least fifteen years, the studies' finding strongly suggests that the real reason why scientists over forty rarely produce highly creative work is not that they have aged but rather that **scientists over forty have generally spent too long in their field**.

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

- (A) The first is a claim, the accuracy of which is at issue in the argument; the second is a conclusion drawn on the basis of that claim.
- (B) The first is an objection that has been raised against a position defended in the argument; the second is that position.
- (C) The first is evidence that has been used to support an explanation that the argument challenges; the second is that explanation.
- (D) The first is evidence that has been used to support an explanation that the argument challenges; the second is a competing explanation that the argument favors.
- (E) The first provides evidence to support an explanation that the argument favors; the second is that explanation.

660. NorthAir charges low fares for its economy-class seats, but it provides very cramped seating and few amenities. Market research shows that economy passengers would willingly pay more for wider seating and better service, and additional revenue provided by these higher ticket prices would more than cover the additional cost of providing these amenities. Even though NorthAir is searching for ways to improve its profitability, it has decided not to make these improvements.

Which of the following, if true, would most help to explain NorthAir's decision in light of its objectives?

- (A) None of NorthAir's competitors offers significantly better seating and service to economy-class passengers than NorthAir does.
- (B) On many of the routes that NorthAir flies, it is the only airline to offer direct flights.
- (C) A few of NorthAir's economy-class passengers are satisfied with the service they receive, given the low price they pay.
- (D) Very few people avoid flying on NorthAir because of the cramped seating and poor service offered in economy class.
- (E) The number of people who would be willing to pay the high fares NorthAir charges for its business-class seats would decrease if its economy-class seating were more acceptable.

661. Which of the following most logically completes the argument given?

Asthma, a chronic breathing disorder, is significantly more common today among adult competitive swimmers than it is among competitive athletes who specialize in other sports. Although chlorine is now known to be a lung irritant and swimming pool water is generally chlorinated, it would be rash to assume that frequent exposure to chlorine is the explanation of the high incidence of asthma among these swimmers, since _____.

- (A) young people who have asthma are no more likely to become competitive athletes than are young people who do not have asthma
- (B) competitive athletes who specialize in sports other than swimming are rarely exposed to chlorine
- (C) competitive athletes as a group have a significantly lower incidence of asthma than do people who do not participate in competitive athletics
- (D) until a few years ago, physicians routinely recommended competitive swimming to children with asthma, in the belief that this form of exercise could alleviate asthma symptoms
- (E) many people have asthma without knowing they have it and thus are not diagnosed with the condition until they begin engaging in very strenuous activities, such as competitive athletics

662. In the country of Marut, the Foreign Trade Agency's records were reviewed in 1994 in light of information then newly available about neighboring Goro. The review revealed that in every year since 1963, the agency's projection of what Goro's gross national product (GNP) would be five years later was a serious underestimate. The review also revealed that in every year since 1963, the agency estimated Goro's GNP for the previous year—a Goro state secret—very accurately.

Of the following claims, which is most strongly supported by the statements given?

- (A) Goro's GNP fluctuated greatly between 1963 and 1994.
- (B) Prior to 1995, Goro had not released data intended to mislead the agency in making its five-year projections.
- (C) The amount by which the agency underestimated the GNP it projected for Goro tended to increase over time.
- (D) Even before the new information came to light, the agency had reason to think that at least some of the five-year projections it had made were inaccurate.
- (E) The agency's five-year projections of Goro's GNP had no impact on economic planning in Marut.

663. Vargonia has just introduced a legal requirement that student-teacher ratios in government-funded schools not exceed a certain limit. All Vargonian children are entitled to education, free of charge, in these schools. When a recession occurs and average incomes fall, the number of children enrolled in government-funded schools tends to increase. Therefore, though most employment opportunities contract in economic recessions, getting a teaching job in Vargonia's government-funded schools will not be made more difficult by a recession.

Which of the following would be most important to determine in order to evaluate the argument?

- (A) Whether in Vargonia there are any schools not funded by the government that offer children an education free of charge
- (B) Whether the number of qualified applicants for teaching positions in government-funded schools increases significantly during economic recessions

- (C) What the current student-teacher ratio in Vargonia's government-funded schools is
- (D) What proportion of Vargonia's workers currently hold jobs as teachers in government-funded schools
- (E) Whether in the past a number of government-funded schools in Vargonia have had student-teacher ratios well in excess of the new limit

664. In Colorado subalpine meadows, nonnative dandelions co-occur with a native flower, the larkspur. Bumblebees visit both species, creating the potential for interactions between the two species with respect to pollination. In a recent study, researchers selected 16 plots containing both species; all dandelions were removed from eight plots; the remaining eight control plots were left undisturbed. The control plots yielded significantly more larkspur seeds than the dandelion-free plots, leading the researchers to conclude that the presence of dandelions facilitates pollination (and hence seed production) in the native species by attracting more pollinators to the mixed plots.

Which of the following, if true, most seriously undermines the researchers' reasoning?

- (A) Bumblebees preferentially visit dandelions over larkspurs in mixed plots.
- (B) In mixed plots, pollinators can transfer pollen from one species to another to augment seed production.
- (C) If left unchecked, nonnative species like dandelions quickly crowd out native species.
- (D) Seed germination is a more reliable measure of a species' fitness than seed production.
- (E) Soil disturbances can result in fewer blooms, and hence lower seed production.

665. An experiment was done in which human subjects recognize a pattern within a matrix of abstract designs and then select another design that completes that pattern. The results of the experiment were surprising. The lowest expenditure of energy in neurons in the brain was found in those subjects who performed most successfully in the experiments.

Which of the following hypotheses best accounts for the findings of the experiment?

- (A) The neurons of the brain react less when a subject is trying to recognize patterns than when the subject is doing other kinds of reasoning.
- (B) Those who performed best in the experiment experienced more satisfaction when working with abstract patterns than did those who performed less well.
- (C) People who are better at abstract pattern recognition have more energy-efficient neural connections.
- (D) The energy expenditure of the subjects' brains increases when a design that completes the initially recognized pattern is determined.
- (E) The task of completing a given design is more capably performed by athletes, whose energy expenditure is lower when they are at rest.

666. With seventeen casinos, Moneyland operates the most casinos in a certain state. Although intent on expanding, it was outmaneuvered by Apex Casinos in negotiations to acquire the Eldorado chain. To complete its acquisition of Eldorado, Apex must sell five casinos to comply with a state law forbidding any owner to operate more than one casino per county. Since Apex will still be left operating twenty casinos in the state, it will then have the most casinos in the state.

Which of the following, if true, most seriously undermines the prediction?

- (A) Apex, Eldorado, and Moneyland are the only organizations licensed to operate casinos in the state.
- (B) The majority of Eldorado's casinos in the state will need extensive renovations if they are to continue to operate profitably.
- (C) Some of the state's counties do not permit casinos.
- (D) Moneyland already operates casinos in the majority of the state's counties.
- (E) Apex will use funds it obtains from the sale of the five casinos to help fund its acquisition of the Eldorado chain.

667. It is widely assumed that people need to engage in intellectual activities such as solving crossword puzzles or mathematics problems in order to maintain mental sharpness as they age. In fact, however, simply talking to other people—that is, participating in social interaction, which engages many mental and perceptual skills—suffices. Evidence to this effect comes from a study showing that the more social contact people report, the better their mental skills.

Which of the following, if true, most seriously weakens the force of the evidence cited?

- (A) As people grow older, they are often advised to keep exercising their physical and mental capacities in order to maintain or improve them.
- (B) Many medical conditions and treatments that adversely affect a person's mental sharpness also tend to increase that person's social isolation.
- (C) Many people are proficient both in social interactions and in solving mathematical problems.
- (D) The study did not itself collect data but analyzed data bearing on the issue from prior studies.
- (E) The tasks evaluating mental sharpness for which data were compiled by the study were more akin to mathematics problems than to conversation.

8.5 Answer Key

544. E	575. E	606. E	637. C
545. C	576. C	607. C	638. B
546. E	577. E	608. A	639. D
547. A	578. D	609. C	640. D
548. A	579. E	610. E	641. A
549. B	580. A	611. A	642. C
550. E	581. A	612. D	643. C
551. E	582. C	613. D	644. B
552. C	583. D	614. C	645. E
553. E	584. E	615. D	646. D
554. A	585. C	616. E	647. A
555. A	586. D	617. D	648. C
556. D	587. C	618. D	649. B
557. B	588. D	619. A	650. A
558. C	589. C	620. A	651. B
559. A	590. E	621. D	652. B
560. C	591. C	622. A	653. D
561. B	592. D	623. E	654. B
562. D	593. A	624. E	655. D
563. D	594. A	625. A	656. C
564. C	595. D	626. D	657. C
565. E	596. C	627. E	658. D
566. E	597. E	628. E	659. E
567. E	598. C	629. E	660. E
568. B	599. C	630. B	661. D
569. A	600. A	631. E	662. D
570. E	601. E	632. D	663. B
571. B	602. D	633. D	664. E
572. E	603. A	634. B	665. C
573. D	604. D	635. A	666. A
574. D	605. A	636. D	667. B