

Critical Reasoning from GMAT Prep

Compiled from GMAT Prep

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The answers can be found at the end of the document. Explanations from the MGMAT forums or GMAT Club forums wherever necessary can be accessed by clicking on the link with the Question. The letter in the parenthesis at the right side of the Question indicates the Question Type.

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Question 1:

(W)

Insect Infestations in certain cotton growing regions of the world have caused dramatic increases of cotton on the world market. Knowing that cotton plants mature quickly, many soybean growers in Ortovia plan to cease growing soybeans, the price of which has long been stable and to begin raising cotton instead, thereby taking advantage of the high price of cotton to increase their income significantly over the next several years.

Which of the following, if true, most calls into question the reasoning on which the plan is based?

- A. The cost of raising soybeans has increased significantly over the past several years and is expected to continue to climb.
- B. Tests of a newly developed, inexpensive pesticide have shown it to be both environmentally safe and effective against the insects that have infected the cotton crops.
- C. In the past several years, there has been no sharp increase in the demand for cotton, and for goods made out of cotton.
- D. Many consumers consider cotton cloth a necessity rather than a luxury and would be willing to pay significantly higher prices for cotton goods than they are currently paying
- E. The species of insect that has infested the cotton plants has never been known to infest soybean plants

Question 2:

(W)

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

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

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

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

Question 3:

(W)

Although fullerenes - spherical molecules made entirely of carbon - were first found in the laboratory, they have since been found in nature, formed in fissures of the rare mineral shungite. Since laboratory synthesis of fullerenes requires distinctive conditions of temperature and pressure, this discovery should give geologists a test case for evaluating hypothesis about the state of the Earth's crust at the time these naturally occurring fullerenes were formed.

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

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

Question 4:

(I)

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

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

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

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

Question 5:

(W)

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

Which of the following, if true, most threatens the plan's prospects for success?

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

Question 6:

(S)

Until now only injectable vaccines against influenza have been available. They have been primarily used by older adults who are at risk for complications from influenza. A new vaccine administered in a nasal spray form has proven effective in preventing influenza in children. Since children are significantly more likely than adults to contract and spread influenza, making the new vaccine widely available for children will greatly reduce the spread of influenza across the population.

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

- A. If a person receives both the nasal spray and the injectable vaccine, they do not interfere with each other.
- B. The new vaccine uses the same mechanism to ward off influenza as injectable vaccines do.
- C. Government subsidies have kept the injectable vaccines affordable for adults.
- D. Of the older adults who contract influenza, relatively few contract it from children with influenza.
- E. Many parents would be more inclined to have their children vaccinated against influenza if it did not involve an injection.

Question 7:

(S)

In parts of South America, vitamin-A deficiency is a serious health problem, especially among children. In one region, agriculturists hope to improve nutrition by encouraging farmers to plant a new variety of sweet potato called SPK004 that is rich in betacarotene, which the body converts into vitamin A. The plan has good chances of success, since sweet potato is a staple of the region's diet and agriculture, and the varieties currently grown contain little beta-carotene.

Which of the following, if true, most strongly supports the prediction that the plan will succeed?

- A. There are other vegetables currently grown in the region that contain more beta-carotene than the currently cultivated varieties of sweet potato do.
- B. The flesh of SPK004 differs from that of the currently cultivated sweet potatoes in colors and textures, so traditional foods would look somewhat different when prepared from SPK004.
- C. For successful cultivation of SPK004, a soil significantly richer in nitrogen is needed than is needed for the varieties of sweet potato currently cultivated in the region.
- D. There are no other varieties of sweet potato that are significantly richer in beta-carotene than SPK004 is.
- E. The currently cultivated varieties of sweet potato contain no important nutrients that SPK004 lacks.

Question 8:

(W)

For several years, per capita expenditure on prescription drugs in Voronia rose by fifteen percent or more annually. In order to curb these dramatic increases, the ministry of health prohibited drug manufacturers from raising any of their products' prices. Even though use of prescription drugs did not expand after this price freeze, per capita expenditure for prescription drugs continued to increase by a substantial percentage each year.

Which of the following, if true, most helps to explain why the ministry's action did not achieve its goal?

- A. After price increases were prohibited, drug manufacturers concentrated on producing new medications to replace existing products
- B. The population of Voronia rose steadily throughout the period.
- C. Improvements in manufacturing processes enable drug manufacturers to maintain high profit levels on drugs despite the price freeze.
- D. In addition to imposing a price freeze, the government encouraged doctors to prescribe generic versions of common drugs instead of the more expensive brand-name versions
- E. After price increases were prohibited, some foreign manufacturers of expensive drugs ceased marketing them in Voronia.

Question 9:

(I)

When people engage in activities that help others, their brain releases endorphins, the brain's natural opiates, which induce in people a feeling of well-being. It has been suggested that regular release of endorphins increases people's longevity. And a statistic on adults who regularly engage in volunteer work helping others shows that they live longer, on average, than adults who do not volunteer. However, that statistic would be what we would expect even if volunteering does not boost longevity, because _____

Which of the following most logically completes the argument?

- A. In the communities studied, women were much more likely to do regular volunteer work than men were, and women tend to live longer than men do.
- B. The number of young adults who do regular volunteer work is on the increase
- C. The feelings of well-being induced by endorphins can, at least for a time, mask the symptoms of various conditions and diseases, provided the symptoms are mild.
- D. It is rare for a person to keep up a regular schedule of volunteer work throughout his or her life.
- E. Some people find that keeping a commitment to do regular volunteer work becomes a source of stress in their lives.

Question 10:

(I)

United Lumber will use trees from its forest for two products. The tree trunks will be used for lumber and the branches converted into wood chips to make fiberboard. The cost of this conversion would be the same whether done at logging site, where the trees are debranched, or at the United's factory. However, wood chips occupy less than half the volume of the branches from which they are made.

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

- A. Converting the branches into wood chips at the logging site would require transporting a fully assembled wood-chipping machine to and from the site.
- B. It would be more economical to debranch the trees at the factory where the fiberboard is manufactured.
- C. The debranching of trees and the conversion of the branches into chips are the only stages in the processing of branches that would be in the economic advantage to perform at the logging site.
- D. Transportation costs from the logging site to the factory that are determined by volume of the cargo would be lower if the conversion into chips is done at the logging site rather than at the factory.
- E. In the wood- processing industry, branches are used only for the production of wood chips for fibre board.

Question 11:

(W)

It is theoretically possible that bacteria developed on Mars early in its history and that some were carried to Earth by a meteorite. However, strains of bacteria from different planets would probably have substantial differences in protein structure that would persist over time, and no two bacterial strains on Earth are different enough to have arisen on different planets. So, even if bacteria did arrive on Earth from Mars, they must have died out.

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

- A. It fails to establish whether bacteria actually developed on Mars.
- B. It fails to establish how likely it is that Martian bacteria were transported to Earth.
- C. It fails to consider whether there were means other than meteorites by which Martian bacteria could have been carried to Earth.
- D. It fails to consider whether all bacteria now on Earth could have arisen from transported Martian bacteria.
- E. It fails to consider whether there could have been strains of bacteria that originated on Earth and later died out.

Question 12:

(A)

In response to mounting public concern, an airplane manufacturer implemented a program with the well-publicized goal of reducing by half the total yearly amount of hazardous waste generated by its passenger-jet division. When the program began in 1994, the division's hazardous waste output was 90 pounds per production worker; last year it was 40 pounds per production worker. Clearly, therefore, charges that the manufacturer's program has not met its goal are false.

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

- A. The amount of nonhazardous waste generated each year by the passenger-jet division has not increased significantly since 1994.
- B. At least as many passenger jets were produced by the division last year as had been produced in 1994.
- C. Since 1994, other divisions in the company have achieved reductions in hazardous waste output that are at least equal to that achieved in the passenger-jet division.
- D. The average number of weekly hours per production worker in the passenger-jet division was not significantly greater last year than it was in 1994.
- E. The number of production workers assigned to the passenger-jet division was not significantly less in 1994 than it was last year.

Question 13:

(B)

A prominent investor who holds a large stake in the Burton Tool company has recently claimed that the company is mismanaged, citing as evidence the company's failure to slow production in response to a recent rise in its inventory of finished products. It is doubtful whether an investor's sniping at management can ever be anything other than counterproductive, **but in this case it is clearly not justified**. It is true that an increased inventory of finished products often indicates that production is outstripping demand, but in **Burton's case it indicates no such thing**. Rather, the increase in inventory is entirely attributable to products that have already been assigned to orders received from customers.

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

- A. The first provides evidence to support the conclusion of the argument as a whole; the second states the conclusion.
- B. The 1st states the conclusion of the argument as a whole; the second states an intermediate conclusion that is drawn in order to support that conclusion
- C. The 1st is the position that the argument as a whole opposes; the second provides evidence against the position being opposed.
- D. The first states an intermediate conclusion that is drawn in order to support the conclusion of the argument as a whole; the 2nd states the conclusion of the argument as a whole
- E. The first and second both state intermediate conclusions that are drawn in order to support jointly the conclusions of the argument as a whole.

Question 14:

(W)

Kate: The recent decline in numbers of the Tennessee warbler, a North American songbird that migrates each fall to coffee plantations in South America, is due to the elimination of dense tree cover that formerly was a feature of most South American coffee plantations.

Scott: The population of the spruce budworm, the warbler's favorite prey in North America, has been dropping. This is a more likely explanation of the warbler's decline.

Which of the following, if true, most seriously calls Scott's hypothesis into question?

- A. The numbers of the Baltimore oriole, a songbird that does not eat budworms but is as dependent on South America coffee plantations as is the Tennessee warbler, are declining.
- B. The spruce budworm population has dropped because of a disease that can infect budworms but not Tennessee warblers.
- C. The drop in the population of the spruce budworm is expected to only be temporary.
- D. Many Tennessee warblers have begun migrating in the fall to places other than traditional coffee plantations.
- E. Although many North American songbirds have declined in numbers, no other species has experienced as great a decline as has the Tennessee warbler

Question 15:

(B)

One of the limiting factors in human physical performance is the amount of oxygen that is absorbed by the muscles from the bloodstream. Accordingly, entrepreneurs have begun selling at gymnasiums and health clubs bottles of drinking water, labeled "SuperOXY," that has extra oxygen dissolved in the water. Such water would be useless in improving physical performance, however, since **the amount of oxygen in the blood of people who are exercising is already more than the muscle can absorb.**

Which of the following, if true, would serve the same function in the argument as the statement in boldface?

- A. world-class athletes turn in record performance without such water
- B. frequent physical exercise increases the body's ability to take in and use oxygen
- C. the only way to get oxygen into the bloodstream so that it can be absorbed by the muscles is through the lungs
- D. lack of oxygen is not the only factor limiting human physical performance
- E. the water lost in exercising can be replaced with ordinary tap water

Question 16:

(S)

Traces of cultivated emmer wheat have been found among the earliest agricultural remains of many archaeological sites in Europe and Asia. The only place where the wild form of emmer wheat has been found growing is a relatively narrow strip of southwest Asia. Since the oldest remains of cultivated emmer wheat yet found are from village sites in the same narrow strip, it is clear that emmer wheat was first domesticated somewhere in that strip.

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

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

Question 17:

(B)

A product that represents a clear technological advance over competing products can generally command a high price. Because **technological advances tend to be quickly surpassed** and companies want to make large profits while they still can, **many companies charge the greatest price the market will bear when they have such a product**. But large profits on the new product will give competitors a strong incentive to quickly match the new product's capabilities. Consequently, the strategy to maximize overall profit from a new product is to charge less than the greatest possible price.

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

- A. The first is an assumption that forms the basis for a course of action that the argument criticizes; the second presents the course of action endorsed by the argument.
- B. The first is a consideration raised to explain the appeal of a certain strategy; the second is a consideration raised to call into question the wisdom of adopting that strategy.
- C. The first is an assumption that has been used to justify a certain strategy; the second is a consideration that is used to cast doubt on that assumption.
- D. The first is a consideration raised in support of a strategy the argument endorses; the second presents grounds in support of that consideration.
- E. The first is a consideration raised to show that adopting a certain strategy is unlikely to achieve the intended effect; the second is presented to explain the appeal of that strategy.

Question 18:

(A)

Radio stations with radio data system (RDS) technology broadcast special program information that only radios with an RDS feature can receive. Between 1994 and 1996, the number of RDS radio stations in Verdland increased from 250 to 600. However, since the number of RDS-equipped radios in Verdland was about the same in 1996 as in 1994, the number of Verlanders receiving the special program information probably did not increase significantly.

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

- A. Few if any of the RDS radio stations that began broadcasting in Verdland after 1994 broadcast to people with RDS-equipped radios living in areas not previously reached by RDS stations.
- B. In 1996 most Verlanders who lived within the listening area of an RDS station already had a radio equipped to receive RDS.
- C. Equipping a radio station with RDS technology does not decrease the station's listening area.
- D. In 1996 Verlanders who did not own radios equipped to receive RDS could not receive any programming from the RDS radio stations that began broadcasting in Verdland after 1994.
- E. The RDS radio stations in Verdland in 1996 did not all offer the same type of programming.

Question 19:

(S)

To improve the long-term savings rate of the citizens of Levaska, the country's legislature decided to implement a plan that allows investors to save up to \$1,000 per year in special accounts without paying taxes on the interest earned unless withdrawals are made before the investor reaches age sixty-five. Withdrawals from these accounts prior to age sixty-five would result in the investor's having to pay taxes on all the accumulated interest at the time of withdrawal.

Which of the following, if true, most strongly supports the prediction that the legislature's plan will have its intended effect?

- A. The money saved in the tax-free savings accounts will be deposited primarily in those banks and financial institutions that supported the legislation instituting the plan.
- B. The majority of people choosing to take advantage of the tax-free savings accounts will withdraw their money prior to age sixty-five.
- C. A significant number of the citizens of Levaska will invest in the tax-free savings accounts well before they reach the age of sixty-five.
- D. During the ten years prior to implementation of the plan, Levaskans deposited an increasingly smaller percentage of their annual income in long-term savings accounts.
- E. People who are not citizens of Levaska are not eligible to invest in the tax-free savings accounts, even if their income is taxable in Levaska.

Question 20:

(I)

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

If the statements above are true, which of the following is most strongly supported by them?

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

Question 21:

(E)

The emission of sulfur dioxide when high-sulfur coal is burned is restricted by law. New coal-burning plants usually comply with the law by installing expensive equipment to filter sulfur dioxide from their emissions. These new plants could save money by installing instead less expensive cleaning equipment that chemically removes most sulfur from coal before combustion.

Which of the following, if known, would be most relevant to evaluating the claim above about how new coal-burning plants could save money?

- A. Whether existing oil-burning plants are required to filter sulfur dioxide from their emissions
- B. Whether the expense of installing the cleaning equipment in a new plant is less than the expense of installing the cleaning equipment in an older plant
- C. Whether the process of cleaning the coal is more expensive than the process of filtering the emissions
- D. Whether lawful emissions of sulfur dioxide from coal-burning plants are damaging the environment
- E. Whether existing plants that use the filtering equipment could replace this equipment with the cleaning equipment and still compete with new plants that install the cleaning equipment.

Question 22:

(A)

The ancient Nubians inhabited an area in which typhus occurs, yet surprisingly few of their skeletons show the usual evidence of this disease. The skeletons do show deposits of tetracycline, an antibiotic produced by a bacterium common in Nubian soil. This bacterium can flourish on the dried grain used for making two staples of Nubian diet, beer and bread. Thus, tetracycline in their food probably explains the low incidence of typhus among ancient Nubians.

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

- A. Infectious diseases other than typhus to which the ancient Nubians were exposed are unaffected by tetracycline.
- B. Tetracycline is not rendered ineffective as an antibiotic by exposure to the process involved in making bread and beer.
- C. Typhus cannot be transmitted by ingesting bread or beer contaminated with the infectious agents of this disease.
- D. Bread and beer were the only items in the diet of the ancient Nubians which could have contained tetracycline.
- E. Typhus is generally fatal.

Question 23:

(P)

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

Which of the following if true, most helps to explain the increase in accident rate?

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

Question 24:

(W)

In the United States, of the people who moved from one state to another when they retired, the percentage who retired to Florida has decreased by three percentage points over the past ten years. Since many local businesses in Florida cater to retirees, this decline is likely to have a noticeable negative economic effect on these businesses.

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

- A. Florida attracts more people who move from one state to another when they retire than does any other state.
- B. The number of people who move out of Florida to accept employment in other states has increased over the past ten years.
- C. There are more local businesses in Florida that cater to tourists than there are local businesses that cater to retirees.
- D. The total number of people who retired and move to another state fro their retirement has increased significantly over the past ten years.
- E. The number of people who left Florida when they retired to live in another state was greater last year than it was ten years ago.

Question 25:

(S)

In Arumville, among those young children with elevated levels lead in their blood, few leave in houses containing lead-based paint, but many leave in areas where vehicular traffic is heavy. These children's elevated blood-lead levels probably result from lead added to gas, since, although gasoline sold in and around Arumville has been lead-free since 1990, lead from vehicle exhaust remains in the soil for many years.

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

- A. Sale of lead-based paint for use in homes was banned in Arumville in 1977.
- B. Vehicle traffic in most residential areas of Arumville is heavier today than it was twenty years ago.
- C. Some lead in the soil comes from deteriorating lead-based paint on the exterior of buildings.
- D. In Arumville, children's blood-lead levels typically rise during the warm summer months when children frequently play outdoors but not in the winter when children spend more time indoors.
- E. If improperly carried out, the removal of lead-based paint from older houses can significantly the risk that children living in such houses will ingest lead dust.

Question 26:

(A)

Excavations of the Roman city of Sepphoris have uncovered numerous detailed mosaics depicting several readily identifiable animal species: a hare, a partridge, and various Mediterranean fish. Oddly, most of the species represented did not live in the Sepphoris region when these mosaics were created. Since identical motifs appear in mosaics found in other Roman cities, however, the mosaics of Sepphoris were very likely created by traveling artisans from some other part of the Roman Empire.

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

- A. The Sepphoris mosaics are not composed exclusively of types of stones found naturally in the Sepphoris area.
- B. There is no single region to which all the species depicted in the Sepphoris mosaics native
- C. No motifs appear in the Sepphoris mosaics that do not also appear in the mosaics of some other Roman city
- D. All of the animal figures in the Sepphoris mosaics are readily identifiable as representation of known species
- E. There was not a common repertory of mosaic designs with which artisans who lived in various parts of the Roman empire were familiar

Question 27:

(W)

A city plans to attract new citizens with new housing and new facilities such as parks, recreation centers and libraries. One component of the city's plans is to require that development seeking permission is to build this new housing to provide these additional facilities at no cost to the city.

Which of the following, if true, would point to a possible flaw in the city's plan?

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

Question 28:

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The cotton farms of Country Q became so productive that the market could not absorb all that they produced. Consequently, cotton prices fell. The government tried to boost cotton prices by offering farmers who took 25% of their cotton acreage out of production direct support payments up to a specified maximum per farm. The government's program, if successful, will not be a net burden on the budget.

Which of the following, if true, is the basis for the best explanation of how this is so?

- A. Depressed cotton prices meant operating losses for cotton farms, and the government lost revenue from taxes on farm profits.
- B. Cotton production in several counties other than Q declined slightly the year that the support-payment program went into effect in Q.
- C. The first year that the support-payment program was in effect, cotton acreage in Q was 5% below its level in the base year for the program.
- D. The specified maximum per farm meant that for very large cotton farms the support payments were less per acre for those acres that were withdrawn from production than they were for smaller farms.
- E. Farmers who wished to qualify for support payments could not use the cotton acreage that was withdrawn from production to grow any other crop.

Question 29:

(E)

In a certain wildlife park, park rangers are able to track the movements of many rhinoceroses because those animals wear radio collars. When, as often happens, a collar slips off, it is put back on. Putting a collar on a rhinoceros involves immobilizing the animal by shooting it with a tranquilizer dart. Female rhinoceroses that have been frequently recollared have significant lower fertility rate than uncollared females. Probably, therefore, some substances in the tranquilizer inhibit fertility.

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

- A. Whether there are more collared female rhinoceroses than uncollared female rhinoceroses in the park.
- B. How the tranquilizer that is used for immobilizing rhinoceroses differs, if at all, from tranquilizers used in working with other large mammals.
- C. How often park rangers need to use tranquilizer dart to immobilize rhinoceroses for reasons other than attaching radio collars.
- D. Whether male rhinoceroses in the wild park lose their collar any more often than the park's female rhinoceroses do
- E. Whether radio collar is the only practical means that park rangers have for tracking the movements of rhinoceroses in the park.

Question 30:

(W)

Environmentalist: Snowmobiles in the park north of Milville create unacceptable levels of air pollution and should be banned.

Milville Business Spokesperson: Snowmobiling brings many out-of-towners to Milville in the winter months, to the great direct financial benefit of many local residents. In addition, the money the town collects in fees for the recreational use of the park indirectly benefits all Milville residents. So, it is basic economics for us to put up with the pollution.

Which of the following, if true, could best be used by the environmentalist to counter the business spokesperson's argument?

- A. A great many cross-country skiers are now kept from visiting Milville by the noise and pollution that snowmobiles generate.
- B. Not all of the people who go snowmobiling in the vicinity of Milville are from out of town.
- C. Snowmobiles, because they run on two-cycle engines, emit greater amounts of hydrocarbons and particulate matters than cars do.
- D. Industrial pollution in Milville has been significantly reduced in the past few years without any adverse effect on the town's economy.
- E. Many Milville residents object to having to pay fees for recreational use of the park in the winter.

Question 31:

(S)

Wolves generally avoid human settlements. For this reason, domestic sheep, though essentially easy prey for wolves, are not usually attacked by them. In Hylantia prior to 1910, farmers nevertheless lost considerable numbers of sheep to wolves each year. Attributing this to the large number for wolves, in 1910 the government began offering rewards to hunters for killing wolves. From 1910 to 1915, large numbers of wolves were killed. Yet wolf attacks on sheep increased significantly.

Which of the following, if true, most helps to explain the increase in wolf attacks on sheep?

- A. Populations of deer and other wild animals that wolves typically prey on increased significantly in numbers from 1910 to 1915.
- B. Prior to 1910, there were no legal restrictions in Hylantia on the hunting of wolves.
- C. After 1910 hunters shot and wounded a substantial number of wolves, thereby greatly diminishing these wolves' ability to prey on wild animals.
- D. Domestic sheep are significantly less able than most wild animals to defend themselves against wolf attacks.
- E. The systematic hunting of wolves encouraged by the program drove many wolves in Hylantia to migrate to remote mountain areas uninhabited by humans.

Question 32:

(I)

Among people who experience migraine headaches, some experience what doctors call "common" migraines, whereas others experience "classical" migraines. Siblings and spouses of common migraine sufferers are themselves twice as likely as the general population to experience common migraines. Siblings of classical migraine sufferers are four times more likely than the general population to experience classical migraines, whereas spouses of classical migraine sufferers are no more likely than the general population to experience such headaches.

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

- A. Susceptibility to classical migraines is more dependent on hereditary factors than is susceptibility to common migraines.
- B. Unmarried adults are more likely to suffer from classical migraines than they are to suffer from common migraines.
- C. People who do not experience migraine headaches are unlikely to have spouses who are migraine headache sufferers.
- D. Children of people who suffer from common migraines are not more likely than the general population to experience a common migraine.
- E. Between one-quarter and one-half of the general population suffer from either common or classical migraine headaches.

Question 33:

(S)

When a new restaurant, Martin's Cafe, opened in Riverville last year, many people predicted that business at the Wildflower Inn, Riverville's only other restaurant, would suffer from the competition. Surprisingly, however, in the year since Martin's Cafe opened, the average number of meals per night served at the Wildflower Inn has increased significantly.

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

- A. Unlike the Wildflower Inn, Martin's Cafe serves considerably more meals on weekends than it does on weekdays.
- B. Most customers of Martin's Cafe had never dined in Riverville before this restaurant opened, and on most days Martin's Cafe attracts more customers than it can seat.
- C. The profit per meal is higher, on average, for meals served at Martin's Cafe than for those served at the Wildflower Inn.
- D. The Wildflower Inn is not open on Sundays, and hence Riverville residents who choose to dine out then must either eat at Martin's Cafe or to neighboring towns to eat.
- E. A significant proportion of the staff at Martin's Cafe are people who formerly worked at the Wildflower Inn and were hired away by the owner of Martin's Café

Question 34:

(S)

Yeasts capable of leavening bread are widespread, and in the many centuries during which the ancient Egyptians made only unleavened bread, such yeasts must frequently have been mixed into bread dough accidentally. The Egyptians, however, did not discover leavened bread until about 3000 B. C. That discovery roughly coincided with the introduction of a wheat variety that was preferable to previous varieties because its edible kernel could be removed from the husk without first toasting the grain.

Which of the following, if true, provides the strongest evidence that the two developments were causally related?

- A. Even after the ancient Egyptians discovered leavened bread and the techniques for reliably producing it were well known, unleavened bread continued to be widely consumed.
- B. Only when the Egyptians stopped the practice of toasting grain were their stone lined grain-toasting pits available for baking bread.
- C. Heating a wheat kernel destroys its gluten, a protein that must be present in order for yeast to leaven bread dough.
- D. The new variety of wheat, which had a more delicate flavor because it was not toasted, was reserved for the consumption of high officials when it first began to be grown.
- E. Because the husk of the new variety of wheat was more easily removed, flour made from it required less effort to produce.

Question 35:

(P)

Twenty years ago, Balzania put in place regulations requiring operators of surface mines to pay for the reclamation of mined-out land. Since then, reclamation technology has not improved. Yet, the average reclamation cost for a surface coal mine being reclaimed today is only four dollars per ton of coal that the mine produced, less than half what it cost to reclaim surface mines in the years immediately after the regulations took effect.

Which of the following, if true, most helps to account for the drop in reclamation costs described?

- A. Even after Balzania began requiring surface mine operators to pay reclamation costs, coal mines in Balzania continued to be less expensive to operate than coal mines in almost any other country.
- B. In the twenty years since the regulations took effect, the use of coal as a fuel has declined from the level it was at in the previous twenty years.
- C. Mine operators have generally ceased surface mining in the mountainous areas of Balzania because reclamation costs per ton of coal produced are particularly high for mines in such areas.
- D. Even after Balzania began requiring surface mine operators to pay reclamation costs, surface mines continued to produce coal at a lower total cost than underground mines.
- E. As compared to twenty years ago, a greater percentage of the coal mined in Balzania today comes from surface mines.

Question 36:

(W)

In the nation of Partoria, large trucks currently account for 6 percent of miles driven on Partoria's roads but are involved in 12 percent of all highway fatalities. The very largest trucks those with three trailers had less than a third of the accident rate of single and double trailer trucks. Clearly, therefore, one way for Partoria to reduce highway deaths would be to reduce shippers to increase their use of triple trucks.

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

- A. No matter what changes Partoria makes in the regulation of trucking, it will have to keep some smaller roads off limits to all of larger trucks.
- B. So far only the best, most experienced drivers for Partorian trucking companies have been driving triple trailer trucks.
- C. Very few fatal collisions involving trucks in Partoria are collisions between two trucks.
- D. In Partoria, the safety record of trucking industry as a whole has improved slightly over the past ten years.
- E. In Partoria, the maximum legal payload of a trailer truck is less than three times the maximum legal payload of the largest of the single trailer trucks.

Question 37:

(S)

Every fall Croton's jays migrate south. The jays always join flocks of migrating crookbeaks with which they share the same summer and winter territories. If a jay from the crookbeaks it is accompanying, it wanders until it comes across another flock of crookbeaks. Clearly, therefore, Croton's jays lack the navigational ability to find their way south on their own.

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

- A. Croton's jays lay their eggs in the nests of crookbeaks which breed upon completing their southern migration.
- B. The three species most closely related to crookbeaks do not migrate at all.
- C. In the spring, Croton's jays migrate north in the company of Tattersall warblers.
- D. Species other than Croton's jays occasionally accompany flocks of migrating crookbeaks.
- E. In the spring, crookbeaks migrate north before croton's jays do.

Question 38:

(A)

The general availability of high-quality electronic scanners and color printers for computers has made the counterfeiting of checks much easier. In order to deter such counterfeiting, several banks plan to issue to their corporate customers checks that contain dots too small to be accurately duplicated by any electronic scanner currently available; when such checks are scanned and printed, the dots seem to blend together in such a way that the word "VOID" appears on the check.

A questionable assumption of the plan is that:

- A. In the territory served by the banks the proportion of counterfeit checks that are made using electronic scanners has remained approximately constant over the past few years.
- B. Most counterfeiters who use electronic scanners counterfeit checks only for relatively large amounts of money
- C. The smallest dots on the proposed checks cannot be distinguished visually except under strong magnification.
- D. Most corporations served by these banks will not have to pay more for the new checks than for traditional checks.
- E. The size of the smallest dots that generally available electronic scanners are able to reproduce accurately will not decrease significantly in the near future.

Question 39:

(E)

It is illegal to advertise prescription medications in Hedland except directly to physicians, either by mail or in medical journals. A proposed law would allow general advertising of prescription medications. Opponents object that the general population lacks the specialized knowledge to evaluate such advertisements and might ask their physicians for inappropriate medications. But since physicians have the final say as to whether to prescribe a medication for a patient, inappropriate prescriptions would not become more common.

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

- A. Whether advertising for prescription medications might alert patients to the existence of effective treatments for minor ailments that they had previously thought to be untreatable
- B. Whether some people might go to a physician for no reason other than ask for a particular medication they have seen advertised
- C. Whether the proposed law requires prescription-medication advertisements directed to the general public to provide the same information as do advertisements directed to physicians.
- D. Whether advertisements for prescription medications are currently an important source of information about newly available medications for physicians
- E. Whether physicians would give in to patients' demands for prescription medication they chose when the one originally prescribed by the physician fails to perform.

Question 40:

(I)

That the application of new technology can increase the productivity of existing coal mines is demonstrated by the case of Tribnia's coal industry. Coal output per miner in Tribnia is double what it was five years ago, even though no new mines have opened.

Which of the following can be properly concluded from the statement about coal output per miner in the passage?

- A. If the number of miners working in Tribnian coal mines has remained constant in the past five years, Tribnia's total coal production has doubled in that period of time.
- B. Any individual Tribnian coal mine that achieved an increase in overall output in the past five years has also experienced an increase in output per miner.
- C. If any new coal mines had opened in Tribnia in the past five years, then the increase in output per miner would have been even greater than it actually was.
- D. If any individual Tribnian coal mine has not increased its output per miner in the past five years, then that mine's overall output has declined or remained constant.
- E. In Tribnia the cost of producing a given quantity of coal has declined over the past five years.

Question 41:

(I)

Due to a sharp rise in the price of gasoline, commuters who drive to work in the center of the city are facing a large increase in transportation expenses that will limit the funds they have available to spend in other areas. In order to forestall a slowdown in the local economy, the city council has decided that fares on all forms of public transportation will be suspended for the next three months. Clearly, if commuters can get to work more cheaply, they will have more money left over to spend in other sectors of the economy, and the city's finances on the whole will not be negatively affected by higher gasoline prices.

If all of the statements above are true, which of the following is most likely to be damaged by the city council's plan?

- A. A local chain of service stations, which will see fewer customers during the daily commute.
- B. Members of the bus drivers' union, who will be forced to add more routes and work longer hours.
- C. The city council's budget, which will be unbalanced after receiving no revenue from transit fares for three months.
- D. Commuters who already use public transportation daily and who will face crowded conditions and travel delays.
- E. Commuters who do not live near public transportation routes and will not be able to take advantage of the suspended fares.

Question 42:

(I)

Which of the following most logically completes the passage?

Concerned about the well-being of its elderly citizens, the government of Runagia decided two years ago to increase by 20 percent the government-provided pension paid to all Runagians over 65. Inflation in the intervening period has been negligible, and the increase has been duly received by all eligible Runagians. Nevertheless, many of them are no better off financially than they were before the increase, in large part because _____.

- A. They rely entirely on the government pension for their income.
- B. Runagian banks are so inefficient that it can take up to three weeks to cash a pension check.
- C. They buy goods whose prices tend to rise especially fast in times of inflation.
- D. The pension was increased when the number of elderly Runagians below the poverty level reached an all-time high.
- E. In Runagia children typically supplement the income of elderly parents, but only by enough to provide them with a comfortable living

Question 43:

(S)

Although exposure to asbestos is the primary cause for mesothelioma, a slow-developing cancer, researchers believe that infection by the SV40 virus is a contributing case, since in the US 60 percent of tissue samples from mesotheliomas, but none from healthy tissue, contain SV40. SV40 is a monkey virus; however, in 1960 some polio vaccine was contaminated with the virus. Researchers hypothesize that this vaccine was the source of the virus found in mesotheliomas decades later.

Which of the following, if true, most strongly supports the researchers' hypothesis?

- A. SV40 is widely used as a research toll in cancer laboratories.
- B. Changes in the technique of manufacturing the vaccine now prevent contamination with SV40.
- C. Recently discovered samples of the vaccine dating from 1960 still show traces of the virus.
- D. In a small percentage of cases of mesothelioma, there is no history of exposure to asbestos.
- E. In Finland, where the polio vaccine was never contaminated, samples from mesotheliomas do not contain SV40.

Question 44:

(W)

Though sucking zinc lozenges has been promoted as treatment for the common cold, research has revealed no consistent effect. Recently, however, a zinc gel applied nasally has been shown to greatly reduce the duration of colds. Since the gel contains zinc in the same form and concentration as the lozenges, the greater the effectiveness of the gel must be due to the fact that cold virus tend to concentrate in the nose, not the mouth.

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

- A. Experimental subjects who used the zinc gel not only had colds of shorter duration but also had less severe symptoms than did those who used a gel that did not contain zinc.
- B. The mechanism by which zinc effects the viruses that caused the common cold has not been conclusively established.
- C. To make them palatable, zinc lozenges generally contains other ingredients, such as citric acid,, that can interfere with the chemical activity of zinc.
- D. No Zinc based remedy can have any effect unless it is taken or applied within 48 hrs of the onset of cold symptoms.
- E. Drug company researchers experimenting with nasal spray based on zinc have found that it has much the same effect on colds as the gel does.

Question 45:

(W)

Unlike the wholesale price of raw wool, the wholesale price of raw cotton has fallen considerably in the last year. Thus, although the retail price of cotton clothing at retail clothing stores has not yet fallen, it will inevitably fall.

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

- A. The cost of processing raw cotton for cloth has increased during the last year.
- B. The wholesale price is typically higher than that of the same volume of raw cotton.
- C. The operating costs of the average retail clothing store have remained constant during the last year.
- D. Changes in retail prices always lag behind changes in wholesale prices.
- E. The cost of harvesting raw cotton has increased in the last year.

Question 46:

(I)

The violent crime rate (number of violent crimes per 1,000 residents) in Meadowbrook is 60 percent higher now than it was four years ago. The corresponding increase for Parkdale is only 10 percent. These figures support the conclusion that residents of Meadowbrook are more likely to become victims of violent crime than are residents of Parkdale.

The argument above is flawed because it fails to take into account

- A. Changes in the population density of both Parkdale and Meadowbrook over the past four years.
- B. How the rate of population growth in Meadowbrook over the past four years compares to the corresponding rate for Parkdale.
- C. The ratio of violent to nonviolent crimes committed during the past four years in Meadowbrook and Parkdale.
- D. The violent crime rates in Meadowbrook and Parkdale four years ago.
- E. How Meadowbrook's expenditures for crime prevention over the past four years compare to Parkdale's expenditures.

Question 47:

(A)

In a study conducted in Pennsylvania, servers in various restaurants wrote "Thank you" on randomly selected bills before presenting the bills to their customers. Tips on these bills were an average of three percentage points higher than tips on bills without the message. Therefore, if servers in Pennsylvania regularly wrote "Thank you" on restaurant bills, their average income from tips would be significantly higher than it otherwise would have been.

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

- A. The "Thank you" messages would have the same impact on regular patrons of a restaurant as they would on occasional patrons of the same restaurant.
- B. Regularly seeing "Thank you" written on their bills would not lead restaurant patrons to revert to their earlier tipping habits.
- C. The written "Thank you" reminds restaurant patrons that tips constitute a significant part of the income of many food servers.
- D. The rate at which people tip food servers in Pennsylvania does not vary with how expensive a restaurant is.
- E. Virtually all patrons of the Pennsylvania restaurants in the study who were given a bill with "Thank you" written on it left a larger tip than they otherwise would have.

Question 48:

(W)

Because postage rates are rising, Home Decorator magazine plans to maximize its profits by reducing by one half the number of issues it publishes each year. The quality of articles, the number of articles published per year, and the subscription price will not change. Market research shows that neither subscribers nor advertisers will be lost if the magazine's plan is instituted.

Which of the following, if true, provides the strongest evidence that the magazine's profits are likely to decline if the plan is instituted?

- A. With the new postage rates, a typical issue under the proposed plan would cost about one-third more to mail than a typical current issue would.
- B. The majority of the magazine's subscribers are less concerned about a possible reduction in the quantity of the magazine's articles than about a possible loss of the current high quality of its articles.
- C. Many of the magazine's long-time subscribers would continue their subscriptions even if the subscription price were increased.
- D. Most of the advertisers that purchase advertising space in the magazine will continue to spend the same amount on advertising per issue as they have in the past.
- E. Production costs for the magazine are expected to remain stable.

Question 49:

(W)

Two computer companies, Garnet and Renco, each pay Salcor to provide health insurance for their employees. Because early treatment of high cholesterol can prevent strokes that would otherwise occur several years later, Salcor encourages Garnet employees to have their cholesterol levels tested and to obtain early treatment for high cholesterol. Renco employees generally remain with Renco only for a few years, however. Therefore, Salcor lacks any financial incentive to provide similar encouragement to Renco employees.

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

- A. Early treatment of high cholesterol does not eliminate the possibility of a stroke later in life.
- B. People often obtain early treatment for high cholesterol on their own.
- C. Garnet hires a significant number of former employees of Renco.
- D. Renco and Garnet have approximately the same number of employees.
- E. Renco employees are not, on average, significantly younger than Garnet employees.

Question 50:

(B)

Museums that house Renaissance oil paintings typically store them in environments that are carefully kept within narrow margins of temperature and humidity to inhibit any deterioration. Laboratory tests have shown that the kind of oil paint used in these paintings actually adjusts to climatic changes quite well. If, as some museum directors believe, **paint is the most sensitive substance in these works**, then by relaxing the standards for temperature and humidity control, **museums can reduce energy costs without risking damage to these paintings**. Museums would be rash to relax those standards, however, since results of preliminary tests indicate that gesso, a compound routinely used by Renaissance artists to help paint adhere to the canvas, is unable to withstand significant variations in humidity.

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

- A. The first is an objection that has been raised against the position taken by the argument; the second is the position taken by the argument.
- B. The first is the position taken by the argument; the second is the position that the argument calls into question.
- C. The first is a judgment that has been offered in support of the position that the argument calls into question; the second is a circumstance on which that judgment is, in part, based.
- D. The first is a judgment that has been offered in support of the position that the argument calls into question; the second is that position.
- E. The first is a claim that the argument calls into question; the second is the position taken by the argument.

Question 51:

(W)

Corporate Officer: Last year was an unusually poor one for our chemical division, which has traditionally contributed about 60 percent of the corporation's profits. It is therefore encouraging that there is the following evidence that the pharmaceutical division is growing stronger: it contributed 45 percent of the corporation's profits, up from 20 percent the previous year.

On the basis of the facts stated which of the following is the best critique of the evidence presented above?

- A. The increase in the pharmaceutical division's contribution to corporation profits could have resulted largely from the introduction of single, important new product.
- B. In multidivisional corporations that have pharmaceutical divisions, over half of the corporation's profits usually come from the pharmaceuticals.
- C. The percentage of the corporation's profits attributable to the pharmaceutical division could have increased even if that division's performance had not improved.
- D. The information cited does not make it possible to determine whether the 20 percent share of profits cited was itself an improvement over the year before.
- E. The information cited does not make it possible to compare the performance of the chemical and pharmaceutical divisions in of the percent of total profits attributable to each.

Question 52:

(I)

Using new detection techniques, researchers have found trace amounts of various medicinal substances in lakes and rivers. Taken in large quantities, these substances could have serious health effects, but they are present in quantities far too low to cause any physiological response in people who drink the water or bathe in it. Nevertheless, medical experts contend that eliminating these trace amounts from the water will have public health benefits, since _____.

- A. Some of the medicinal substances found in lakes and rivers are harmless to humans in large quantities.
- B. Some of the medicinal substances found in lakes and rivers can counteract possible harmful effects of other such substances found there.
- C. People who develop undesirable side effects when being treated with medicines that contain these substances generally have their treatment changed
- D. Most medicinal substances that reach lakes or rivers rapidly break down into harmless substances
- E. Disease-causing bacteria exposed to low concentrations of certain medicinal substances can become resistant to them.

Question 53:

(S)

In many corporations, employees are being replaced by automated equipment in order to save money. However, many workers who lose their jobs to automation will need government assistance to survive, and the same corporations that are laying people off will eventually pay for that assistance through increased taxes and unemployment insurance payments.

Which of the following, if true, most strengthens the author's argument?

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

Question 54:

(S)

Lyme disease is caused by a bacterium transmitted to humans by deer ticks. Generally deer ticks pick up the bacterium while in the larval stage from feeding on infected white footed mice. However, certain other species on which the larvae feed do not harbor the bacterium. Therefore, if the population of these other species were increased, the number of ticks acquiring the bacterium and hence the number of people contracting Lyme disease would likely decline.

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

- A. Ticks do not suffer any adverse consequences from carrying the bacterium that causes Lyme disease in humans.
- B. There are no known cases of a human's contracting Lyme disease through contact with white-footed mice.
- C. A deer tick feeds only once while in the larval stage.
- D. A single host animal can be the source of bacteria for many tick larvae.
- E. None of the other species on which deer tick larvae feed harbor other bacteria that

Question 55:

(A)

With a record number of new companies starting up in Derderia and with previously established companies adding many jobs, a record number of new jobs were created last year in the Derderian economy. This year, previously established companies will not be adding as many new jobs overall as such companies added last year. Therefore, unless a record number of companies start up this year, Derderia will not break its record for the new jobs created.

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

- A. Each year, new companies starting up create more new jobs overall than do previously established companies.
- B. Companies established last year will not add a greater number of jobs overall this year than they did last year.
- C. This year, the new companies starting up will not provide substantially more jobs per company than did new companies last year.
- D. This year, the overall number of jobs created by previously established companies will be less than the overall number of jobs lost at those companies.
- E. The number of jobs created in the Derderian economy last year was substantially larger than the number of jobs lost last year.

Question 56:

(I)

Which of the following most logically completes the argument?

Researchers recently asked dozens of shoppers, chosen at random coming out of a FoodBasket supermarket, what they had purchased. The prices of the very same items at the nearest ShopperKing supermarket were totaled and compared with the FoodBasket total. The ShopperKing totals averaged five percent higher than the FoodBasket totals. Nevertheless, this result does not necessarily show that shoppers at ShopperKing would save money overall by shopping at FoodBasket instead, since _____.

- A. Shoppers who shop regularly at a given supermarket generally choose that store for the low prices offered on the items that they purchase most often.
- B. For shoppers with more than 20 items, the ShopperKing totals averaged more than five percent higher than the FoodBasket totals.
- C. Many shoppers consider factors other than price in choosing the supermarket at which they shop most regularly.
- D. There is little variation from month to month in the overall quantity of purchases made at supermarkets by a given shopper.
- E. None of the people who conducted the research were employees of the FoodBasket supermarket

Question 57:

(W)

In the past year, Harborville has had an unusually high rate of new cases of a certain disease. An investigation revealed that over the past five years Harborville's public water supply has had a high level of pollutants. Medical researchers have hypothesized that Harborville's water is responsible for the high rate of new cases of the disease.

Each of the following provides additional support for the researcher's hypothesis EXCEPT:

- A. Most of the people afflicted with new cases of the disease had regularly drunk larger quantities of Harborville's water than had other Harborville residents.
- B. The same types of pollutants that have been found in Harborville's water have been independently linked to occurrences in other towns of the high rates of this disease.
- C. Some of the people with newly diagnosed cases of this disease began to develop the disease before Harborville's water became polluted.
- D. The rate of new cases of diseases among Harborville's residents who get their water from private sources is not unusually high.
- E. Towns with geographic and demographic characteristics similar to those of Harborville, but without polluted water do not have a high rate of the disease.

Question 58:

(W)

Unless tiger hunting decreases, tigers will soon be extinct in the wild. The countries in which the tigers' habitats are located are currently debating joint legislation that would ban tiger hunting. Thus, if these countries can successfully enforce this legislation, the survival of tigers in the wild will be ensured.

The reasoning in the argument is most vulnerable to criticism on the grounds that the argument:

- A. Assumes without sufficient warrant that a ban on tiger hunting could be successfully enforced.
- B. Considers the effects of hunting on tigers without also considering the effects of hunting on other endangered animal species.
- C. Fails to take into account how often tiger hunters are unsuccessful in their attempts to kill tigers.
- D. Neglects to consider the results of governmental attempts in the past to limit tiger hunting.
- E. Takes the removal of an impediment to the tigers' survival as a guarantee of their survival

Question 59:

(S)

A study followed a group of teenagers who had never smoked and tracked whether they took up smoking and how their mental health changed. After one year, the incidence of depression among those who had taken up smoking was four times as high as it was among those who had not. Since nicotine in cigarettes changes brain chemistry, perhaps thereby affecting mood, it is likely that smoking contributes to depression in teenagers.

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

- A. Participants who were depressed at the start of the study were no more likely to be smokers after one year than those who were not depressed.
- B. The study did not distinguish between participants who smoked only occasionally and those who were heavy smokers.
- C. Few, if any, of the participants in the study were friends or relatives of other participants.
- D. Some participants entered and emerged from a period of depression within the year of the study.
- E. The researchers did not track use of alcohol by the teenagers.

Question 60:

(I)

Which of the following most logically completes the argument?

The growing popularity of computer-based activities was widely predicted to result in a corresponding decline in television viewing. Recent studies have found that, in the United States, people who own computers watch, on average, significantly less television than people who do not own computers. In itself, however, this finding does very little to show that computer use tends to reduce television viewing time, since _____.

- A. Many people who watch little or no television do not own a computer.
- B. Even though most computer owners in the United States watch significantly less television than the national average, some computer owners watch far more television than the national average.
- C. Computer owners in the United States predominately belong to a demographic group that have long been known to spend less time watching television than the population as a whole does.
- D. Many computer owners in the United States have enough leisure time that spending significant amounts of time on the computer still leaves ample time for watching television.
- E. Many people use their computers primarily for tasks such as correspondence that can be done more rapidly on the computer, and doing so leaves more leisure time for watching television.

Question 61:

(W)

Offshore oil-drilling operations entail an unavoidable risk of an oil spill, but importing oil on tankers presently entails an even greater such risk per barrel of oil. Therefore, if we are to reduce the risk of an oil spill without curtailing our use of oil, we must invest more in offshore operations and import less oil on tankers.

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

- A. Tankers can easily be redesigned so that their use entails less risk of an oil spill.
- B. Oil spills caused by tankers have generally been more serious than those caused by offshore operations.
- C. The impact of offshore operations on the environments can be controlled by careful management.
- D. Offshore operations usually damage the ocean floor, but tankers rarely cause such damage.
- E. Importing oil on tankers is currently less expensive than drilling for it offshore.

Question 62:

(W)

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

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

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

Question 63:

(A)

In the year following an 8-cent increase in the federal tax on a pack of cigarettes, sales of cigarettes fell 10%. In contrast, in the year prior to the tax increase, sales had fallen 1%. The volume of cigarette sales is therefore strongly related to the after-tax price of a pack of cigarettes.

The argument above requires which of the following assumptions?

- A. During the year following the tax increase, the pretax price of a pack of cigarettes did not increase by as much as it had during the year prior to the tax increase.
- B. The one percent fall in cigarette sales in the year prior to tax increase was due to a smaller tax increase.
- C. The pretax price of a pack of cigarettes gradually decreased throughout the year before and the year after the tax increase.
- D. For the year following the tax increase, the pretax price of a pack of cigarettes were not eight or more cents lower than it had been the previous year.
- E. As the after-tax price of a pack of cigarettes rises, the pretax price also rises.

Question 64:

(W)

In Kravonia, the average salary for jobs requiring a college degree has always been higher than the average salary for jobs that do not require a degree. Over the last few years, the number of Kravonians enrolled in college has been growing steadily. Therefore, the number of Kravonians entering the job market who have at least the qualification of a college degree will eventually be significantly higher than it has been over the last few years.

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

- A. Kravonians with more than one college degree earn little more, on average, than do Kravonians with only one college degree.
- B. The average numbers of years Kravonian college students remain enrolled before completing a degree has been increasing over the past several years.
- C. Despite the increase in the number of Kravonians attending college, the percentage of the population attending college is lower in Kravonia than in most other countries.
- D. In recent years, employers have been requiring college degrees for workers in jobs that were previously performed successfully by Kravonians who did not have college degrees.
- E. For many years, employers in Kravonia have had difficulty finding enough college graduates to fill the high-paying jobs that were available.

Question 65:

(S)

The pharmaceutical industry argues that because new drugs will not be developed unless heavy development costs can be recouped in later sales, the current 20 years of protection provided by patents should be extended in the case of newly developed drugs. However, in other industries new-product development continues despite high development costs, a fact that indicates that the extension is unnecessary.

Which of the following, if true, most strongly supports the pharmaceutical industry's argument against the challenge made above?

- A. No industries other than the pharmaceutical industry have asked for an extension of the 20-year limit on patent protection.
- B. Clinical trials of new drugs, which occur after the patent is granted and before the new drug can be marketed, often now take as long as 10 years to complete.
- C. There are several industries in which the ratio of research and development costs to revenues is higher than it is in the pharmaceutical industry.
- D. An existing patent for a drug does not legally prevent pharmaceutical companies from bringing to market alternative drugs, provided they are sufficiently dissimilar to the patented drug.
- E. Much recent industrial innovation has occurred in products---for ex., in the computer and electronics industries, for which patent protection is often very ineffective.

Question 66:

(S/W)

Tiger beetles are such fast runners that they can capture virtually any non-flying insect. However, when running toward an insect, a tiger beetle will intermittently stop and then, a moment later, resume its attack. Perhaps the beetles cannot maintain their pace and must pause for a moment's rest; but an alternative hypothesis is that while running, tiger beetles are unable to adequately process the resulting rapidly changing visual information and so quickly go blind and stop.

Which of the following, if discovered in experiments using artificially moved prey insects, would support one of the two hypotheses and undermine the other?

- A. When a prey insect is moved directly toward a beetle that has been chasing it, the beetle immediately stops and runs away without its usual intermittent stopping.
- B. In pursuing a swerving insect, a beetle alters its course while running and its pauses become more frequent as the chase progresses.
- C. In pursuing a moving insect, a beetle usually responds immediately to changes in the insect's direction, and it pauses equally frequently whether the chase is up or down an incline.
- D. If, when a beetle pauses, it has not gained on the insect it is pursuing, the beetle generally ends its pursuit.
- E. The faster a beetle pursues an insect fleeing directly away from it, the more frequently the beetle stops.

Question 67:

(W)

Of patients over 65 years old who survived coronary bypass surgery – a procedure widely prescribed for people with heart disease – only 75 percent benefited from the surgery. Thus it appears that for one in four such patients, the doctors who advised them to undergo this surgery, with its attendant risks and expense, were more interested in an opportunity to practice their skills and in their fee than in helping the patient.

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

- A. Many of the patients who received coronary bypass surgery are less than 55 years old.
- B. Possible benefits of coronary bypass surgery include both relief from troubling symptoms and prolongation of life.
- C. Most of the patients in the survey decided to undergo coronary bypass surgery because they were advised that the surgery would reduce their risk of future heart attacks
- D. The patients over 65 years old who did not benefit from the coronary bypass surgery were as fully informed as those who did benefit from the surgery as to the risks of the surgery prior to undergoing it
- E. The patients who underwent coronary bypass surgery but who did not benefit from it were medically indistinguishable, prior to their surgery, from the patients who did benefit.

Question 68:

(S)

For the first time in history, more televisions than people can be found in American households. According to recent research, the average household has 2.55 residents and 2.73 televisions. However, by employing costly manufacturing processes like plasma technology and flat screens, televisions are becoming too expensive for the typical consumer. As a result, the average number of residents per household will again surpass the number of televisions.

Which of the following, if true, most strongly supports the argument above?

- A. House parties at which numerous individuals gather to view popular television shows on one television set have increased three hundred percent during the past year.
- B. More than one million legal immigrants enter the United States each year.
- C. New devices such as video-enabled personal digital assistants and music players are increasingly purchased for use as a primary source of information and entertainment.
- D. As new technologies become more commonplace, manufacturing and retail costs normally decline.
- E. As a result of technological advances, new televisions are increasingly enabled with some features, such as Internet browsing, traditionally associated with other household devices.

Question 69:

(P)

A diet high in saturated fats increases a person's risk of developing heart disease. Regular consumption of red wine reduces that risk. Per-capita consumption of saturated fats is currently about the same in France as in the United States, but there is less heart disease there than in the United States because consumption of red wine is higher in France. The difference in regular red-wine consumption has been narrowing, but no similar convergence in heart disease rates has occurred.

Which of the following, if true, most helps to account for the lack of convergence noted above?

- A. Consumption of saturated fats is related more strongly to the growth of fatty deposits on artery walls, which reduce blood flow to the heart, than it is to heart disease directly.
- B. Over the past 30 years, per-capita consumption of saturated fats has remained essentially unchanged in the United States but has increased somewhat in France.
- C. Reports of the health benefits of red wine have led many people in the United States to drink red wine regularly.
- D. Cigarette smoking, which can also contribute to heart disease, is only slightly more common in France than in the United States.
- E. Regular consumption of red wine is declining dramatically among young adults in France, and heart disease typically does not manifest itself until middle age.

Question 70:

(S)

Excavation of the ancient city of Kourion on the island of Cyprus revealed a pattern of debris and collapsed buildings typical of towns devastated by earthquakes. Archaeologists have hypothesized that the destruction was due to a major earthquake known to have occurred near the island in A.D.365.

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

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

Question 71:

(A)

Early in the twentieth century, Lake Konfa became very polluted. Recently fish populations have recovered as release of industrial pollutants has declined and the lake's waters have become cleaner. Fears are now being voiced that the planned construction of an oil pipeline across the lake's bottom might revive pollution and cause the fish population to decline again. However, a technology for preventing leaks is being installed. Therefore, provided this technology is effective, those fears are groundless.

The argument depends on assuming which of the following?

- A. Apart from development related to the pipeline, there will be no new industrial development around the lake that will create renewed pollution in its waters.
- B. There is no reason to believe that the leak-preventing technology would be ineffective when installed in the pipeline in Lake Konfa.
- C. The bottom of the lake does not contain toxic remnants of earlier pollution that will be stirred into the water by pipeline construction.
- D. Damage to the lake's fish populations would be the only harm that a leak of oil from the pipeline would cause.
- E. The species of fish that are present in Lake Konfa now are the same as those that were in the lake before it was affected by pollution.

Question 72:

(P)

Nitrogen dioxide is a pollutant emitted by automobiles. Catalytic converters, devices designed to reduce nitrogen dioxide emissions, have been required in all new cars in Donia since 1993 and as a result, nitrogen dioxide emissions have been significantly reduced throughout most of the country. Yet although the proportion of new cars in Donia's capital city has always been comparatively high, nitrogen dioxide emissions there have showed only an insignificant decline since 1993.

Which of the following, if true, most helps to explain the insignificant decline in nitrogen dioxide emissions in Donia's capital city?

- A. More of the cars in Donia's capital city were made before 1993 than after 1993.
- B. The number of new cars sold per year in Donia has declined slightly since 1993.
- C. Pollutants other than nitrogen dioxide that are emitted by automobiles have also been significantly reduced in Donia since 1993.
- D. Many Donians who own cars made before 1993 have had catalytic converters installed in their cars.
- E. Most car trips in Donia's capital city are too short for the catalytic converter to reach its effective working temperature.

Question 73:

(I)

Comcorp Shipping Clerk: Last week, no shipments of building supplies were sent out on Friday. The five specially ordered shipments sent out last week were sent out on Thursday, and each of those specially ordered shipments consisted entirely of building supplies. Four shipments were sent to Truax Construction last week, none of which consisted of building supplies.

If the shipping clerk's statements are true, which of the following must also be true?

- A. All of Comcorp's shipments of building supplies last week were specially ordered.
- B. None of Comcorp's shipments sent on Friday of last week was sent to Truax Construction.
- C. None of the shipments sent by Comcorp by Truax Construction last week was specially ordered.
- D. None of Comcorp's shipments sent on Thursday of last week was sent to Truax Construction.
- E. All of Comcorp's shipments of building supplies last week were sent out on Thursday.

Question 74:

(P)

Denoma, a major consumer-electronics maker, had a sizeable decline in sales revenue for its most recent fiscal year. This result appears surprising, because electronics retailers report that although their overall sales were considerably lower than in the previous year, their sales revenue from Denoma models actually grew, largely thanks to some innovative and popular models that Denoma introduced.

Which of the following, if true, does most to explain the apparently surprising result?

- A. Because of the need to educate the public about its new models' capabilities, Denoma's advertising spending was higher than normal over the period.
- B. For the period at issue, Denoma's major competitors reported declines in revenue that were, in percentage terms, greater than Denoma's.
- C. A significant proportion of Denoma's revenue comes from making components for other consumer-electronics manufacturers.
- D. Unlike some of its major competitors, Denoma has no lines of business outside consumer electronics to provide revenue when retail sales of consumer electronics are weak.
- E. During the period, consumer-electronics retailers sold remaining units of Denoma's superseded models at prices that were deeply discounted from those models' original prices.

Question 75:

(B)

Journalist: **Every election year at this time the state government releases the financial disclosures that potential candidates must make in order to be eligible to run for office.** Among those making the required financial disclosure this year is prominent local businessman, Arnold Bergeron. There has often been talk in the past of Mr. Bergeron's running for governor, not least from Mr. Bergeron himself. **This year it is likely he finally will,** since those who have discounted the possibility of a Bergeron candidacy have always pointed to the necessity of making financial disclosure as the main obstacle to such a candidacy.

In the journalist's argument the boldfaced portions play which of the following roles?

- A. The first provides information without which the argument lacks force; the second states the main conclusion of the argument.
- B. The first provides information without which the argument lacks force; the second states an intermediate conclusion that is used to support a further conclusion.
- C. The first sites a practice that the journalist seeks to defend; the second sites a likely consequence of this practice.
- D. The first states evidence bearing against the main conclusion of the argument; the second is that main conclusion.
- E. Each provides evidence in support of an intermediate conclusion that supports a further conclusion stated in the argument.

Question 76:

(E)

Urban air contains more sulfur dioxide than does rural air, and plants in cities typically grow more slowly than do plants in rural areas. In an experiment to see how much of the difference in growth is due to sulfur dioxide, classes in an urban and a rural school grew plants in greenhouses at their schools and filtered the greenhouse air to eliminate sulfur dioxide. Plants in the urban greenhouse grew more slowly than those in the rural greenhouse.

Which of the following, if true, would it be most important to take into account in evaluating the result?

- A. The urban school was located in a part of the city in which levels of sulfur dioxide in the air were usually far lower than is typical for urban areas.
- B. At both schools, the plants in the greenhouses grew much more quickly than did plants planted outdoors in plots near the greenhouses.
- C. The urban class conducting the experiment was larger than the rural class conducting the experiment.
- D. Heavy vehicular traffic such as is found in cities constantly deposits grime on greenhouse windows, reducing the amount of light that reaches the plants inside.
- E. Because of the higher levels of sulfur dioxide in the air at the urban school, the air filters for the urban school's greenhouse were changed more frequently than were those at the rural school.

Question 77:

(W)

In Morigia the average age of cars that are still in use has historically been seven years, but now it is nearly nine years. Car manufacturers claim that the current poor economy has forced people to put off buying new cars, and thus when the economy improves, the average age of cars will return to former levels.

Which of the following, if true, most seriously calls into question the car manufacturers' prediction?

- A. Fewer cars per year are now being manufactured in Morigia than were being manufactured there five years ago.
- B. When the threat of job loss is particularly strong, people are reluctant to commit themselves to expensive purchases.
- C. The older a car is, the greater the amount of upkeep it requires.
- D. The air-pollution control devices now being used in cars manufactured in Morigia cost less than those that were used seven years ago.
- E. Most people in Morigia now believe that replacing an old car with a new one has very undesirable ecological consequences.

Question 78:

(S)

It is true of both men and women that those who marry as young adults live longer than those who never marry. This does not show that marriage causes people to live longer, since, as compared with other people of the same age, young adults who are about to get married have fewer of the unhealthy habits that can cause a person to have a shorter life, most notably smoking and immoderate drinking of alcohol.

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

- A. Marriage tends to cause people to engage less regularly in sports that involve risk of bodily harm.
- B. A married person who has an unhealthy habit is more likely to give up that habit than a person with the same habit who is unmarried.
- C. A person who smokes is much more likely than a nonsmoker to marry a person who smokes at the time of marriage, and the same is true for people who drink alcohol immoderately.
- D. Among people who marry as young adults, most of those who give up an unhealthy habit after marriage do not resume the habit later in life.
- E. Among people who, as young adults neither drink alcohol immoderately nor smoke, those who never marry live as long as those who marry.

Question 79:

(A)

Researchers have found that when very overweight people, who tend to have relatively low metabolic rates, lose weight primarily through dieting, their metabolisms generally remain unchanged. They will thus burn significantly fewer calories at the new weight than do people whose weight is normally at that level. Such newly thin persons will, therefore, ultimately regain weight until their body size again matches their metabolic rate.

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

- A. Relatively few very overweight people who have dieted down to a new weight tend to continue to consume substantially fewer calories than do people whose normal weight is at that level.
- B. The metabolisms of people who are usually not overweight are much more able to vary than the metabolisms of people who have been very overweight.
- C. The amount of calories that a person usually burns in a day is determined more by the amount that is consumed that day than by the current weight of the individual.
- D. Researchers have not yet determined whether the metabolic rates of formerly very overweight individuals can be accelerated by means of chemical agents.
- E. Because of the constancy of their metabolic rates, people who are at their usual weight normally have as much difficulty gaining weight as they do losing it.

Question 80:

(W)

Kernland imposes a high tariff on the export of unprocessed cashew nuts in order to ensure that the nuts are sold to domestic processing plants. If the tariff were lifted and unprocessed cashews were sold at world market prices, more farmers could profit by growing cashews. However, since all the processing plants are in urban areas, removing the tariff would seriously hamper the government's effort to reduce urban unemployment over the next five years.

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

- A. Some of the byproducts of processing cashews are used for manufacturing paints and plastics.
- B. Other countries in which cashews are processed subsidize their processing plants.
- C. More people in Kernland are engaged in farming cashews than in processing them.
- D. Buying unprocessed cashews at lower than world-market prices enable cashew processors in Kernland to sell processed nuts at competitive prices.
- E. A lack of profitable crops is driving an increasing number of small farmers in Kernland off their land and into the cities.

Question 81:

(W)

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

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

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

Question 82:

(E)

TrueSave is a mail-order company that ships electronic products from its warehouses to customers worldwide. The company's shipping manager is proposing that customer orders be packed with newer, more expensive packing materials that virtually eliminate damage during shipping. The manager argues that overall costs would essentially remain unaffected, since the extra cost of the new packing materials roughly equals the current cost of replacing products returned by customers because they arrived in damaged condition.

Which of the following would it be most important to ascertain in determining whether implementing the shipping manager's proposal would have the argued-for effect on costs?

- A. Whether the products shipped by TrueSave are more vulnerable to incurring damage during shipping than are typical electronic products.
- B. Whether electronic products are damaged more frequently in transit than are most other products shipped by mail-order companies.
- C. Whether a sizable proportion of returned items are returned because of damage already present when those items were packed for shipping.
- D. Whether there are cases where customers blame themselves for product damage that, though present on arrival, isn't discovered until later.
- E. Whether TrueSave continually monitors the performance of the shipping companies it uses to ship products to its customers

Question 83:

(W)

Editor: Articles in Gardening Magazine often spur sales of the plants they describe, particularly among people new to gardening. Accordingly, we will no longer publish articles or accept advertisements praising the beauty of rare wildflowers. Most such plants sold to gardeners have been difficult to propagate under cultivation, so plant sellers often collect them in the wild. Our new policy is part of our efforts to half this yearly plundering of our native plant populations.

Which of the following, if true, casts the most doubt on the wisdom of the magazine's new policy as a way of pursuing the intended effect?

- A. When people new to gardening buy plants, they often fail to take adequate care of the plants that they buy and become discouraged from buying those varieties again.
- B. Plant sellers who sell rare wildflowers have no reasonably inexpensive alternate way to offer their wares directly to new gardens.
- C. The demand for rare wildflowers rarely exceeds the number of such plants that can be collected in the wild by plant sellers.
- D. The propagation of rare wildflowers often depends on the plant's interaction with other organisms in their environment such as plants that create suitable soil conditions or insects and birds that disperse seeds.
- E. Revenues from sales of plants collected in the wild are supporting the discovery of new low-cost techniques enabling rare wildflowers to be readily propagated in nurseries.

Question 84:

(E)

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

In evaluating the columnist's position, it would be most useful to determine which of the following?

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

Question 85:

(W)

Industrialists from the country Distopia were accused of promoting the Distopian intervention in the Arcadian civil war merely to insure that the industrialists' facilities in Arcadia made substantial profits during the war. Yet this cannot be the motive since, as the Distopians foresaw, Distopia's federal expenses for the intervention were eight billion dollars, whereas, during the war, profits from the Distopian industrialists' facilities in Arcadia totaled only four billion dollars.

Which of the following, if true, weakens the argument made in the second sentence above?

- A. During the Arcadian war, many Distopian industrialists with facilities located in Arcadia experienced a significant rise in productivity in their facilities located in Distopia.
- B. The largest proportion of Distopia's federal expenses is borne by those who receive no significant industrial profits.
- C. Most Distopian industrialists' facilities located in Arcadia are expected to maintain the level of profits they achieved during the war.
- D. Distopian industrialists' facilities in Arcadia made substantial profits before the events that triggered the civil war.
- E. Many Distopians expressed concern over the suffering that Arcadians underwent during the civil war.

Question 86:

(S)

Smithtown University's fund-raisers succeeded in getting donations from 80 percent of the potential donors they contacted. This success rate, exceptionally high for university fund-raisers, does not indicate that they were doing a good job. On the contrary, since the people most likely to donate are those who have donated in the past, good fundraisers constantly try less-likely prospects in an effort to expand the donor base. The high success rate shows insufficient canvassing effort.

Which of the following, if true, provides more support for the argument?

- A. Smithtown University's fund-raisers were successful in their contacts with potential donors who had never given before about as frequently as were fundraisers for other universities in their contacts with such people.
- B. This year the average size of the donations to Smithtown University from new donors when the university's fund-raisers had contacted was larger than the average size of donations from donors who had given to the university before.
- C. This year most of the donations that came to Smithtown University from people who had previously donated to it were made without the university's fund-raisers having made any contact with the donors.
- D. The majority of the donations that fund-raisers obtained for Smithtown University this year were from new donors.
- E. More than half of the money raised by Smithtown University's fund-raisers came from donors who had never previously donated to the university.

Question 87:

(P)

Technological improvements and reduced equipment costs have made converting solar energy directly into electricity far more cost-efficient in the last decade. However, the threshold of economic viability for solar power (that is, the price per barrel to which oil would have to rise in order for new solar power plants to be more economical than new oil-fired power plants) is unchanged at thirty-five dollars.

Which of the following, if true, does most to help explain why the increased cost-efficiency of solar power has not decreased its threshold of economic viability?

- A. The cost of oil has fallen dramatically.
- B. The reduction in the cost of solar-power equipment has occurred despite increased raw material costs for that equipment.
- C. Technological changes have increased the efficiency of oil-fired power plants.
- D. Most electricity is generated by coal-fired or nuclear, rather than oil-fired, power plants.
- E. When the price of oil increases, reserves of oil not previously worth exploiting become economically viable.

Question 88:

(I)

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

Which of the following conclusions can properly be drawn from the information above?

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

Question 89:

(P)

When Bob's Bistro opened in the town of Montrose last year, the proprietors of Andrew's Eatery, the only other restaurant in town, feared that their business would suffer. Surprisingly though, in the past year the average number of meals per day served at Andrew's Eatery has actually increased significantly.

Which of the following, if true, provides the best explanation for this occurrence?

- A. The meals at Andrew's Eatery are substantially lower in price than those offered at Bob's Bistro.
- B. Bob's Bistro is closed on Sundays, and so for Sunday brunch residents of Montrose would either go to Andrew's Eatery or venture to a neighboring town.
- C. The profit per meal is higher, on average, at Bob's Bistro than it is at Andrew's Eatery.
- D. Bob's Bistro attracts a large number of patrons that had never dined in Montrose before, and on many days Bob's Bistro attracts more customers than it can seat.
- E. Andrew's Eatery serves considerably more meals on weekends than it does on weekdays, which is not the case at Bob's Bistro.

Question 90:

(P)

According to a review of 61 studies of patients suffering from severely debilitating depression, a large majority of the patients reported that missing a night's sleep immediately lifted their depression. Yet sleep-deprivation is not used to treat depression even though the conventional treatments, which use drugs and electric shocks, often have serious side effects.

Which of the following, if true, best explains the fact that sleep-deprivation is not used as a treatment for depression?

- A. For a small percentage of depressed patients, missing a night's sleep induces a temporary sense of euphoria.
- B. Keeping depressed patients awake is more difficult than keeping awake people who are not depressed.
- C. Prolonged loss of sleep can lead to temporary impairment of judgment comparable to that induced by consuming several ounces of alcohol.
- D. The dramatic shifts in mood connected with sleep and wakefulness have not been traced to particular changes in brain chemistry.
- E. Depression returns in full force as soon as the patient sleeps for even a few minutes.

Question 91:

(I)

A popular beach has long had a dolphin feeding program in which fish are given to dolphins several times a day; many dolphins get as much as half of their food each day there. Although dolphins that first benefit from the program as adults are healthy and long-lived, their offspring have a lower life expectancy than offspring of dolphins that feed exclusively in the wild.

Which of the following, if true, most helps to explain the lower life expectancy of offspring of dolphins feeding at the beach compared to other young dolphins?

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

Question 92:

(W)

Citizens of Parktown are worried by the increased frequency of serious crimes committed by local teenagers. In response, the city government has instituted a series of measures designed to keep teenagers at home in the late evening. Even if the measures succeed in keeping teenagers at home, however, they are unlikely to affect the problem that concerns citizens, since most crimes committed by local teenagers take place between 3pm and 6pm.

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

- A. Similar measures adopted in other place have failed to reduce the no of teenagers in the late evening.
- B. Crimes committed by teenagers in afternoon are mostly small thefts and inconsequential vandalism.
- C. Teenagers are much less likely to commit serious crimes when they are at home than when they are not at home.
- D. Any decrease in the need for police patrols in late evening would not mean that there could be more intensive patrolling in the afternoon.
- E. The schools in Parktown have introduced a number of after school programs that will be available to teenagers until 6pm on weekday afternoons

Question 93:

(B)

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

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

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

Question 94:

(E)

Following several years of declining advertising sales, the Greenville Times reorganized its advertising sales force two years ago. Before the reorganization, the sales force was organized geographically, with some sales representatives concentrating on city-center businesses and others, on different outlying regions. The reorganization attempted to increase the sales representatives' knowledge of clients' businesses by having each sales representative deal with only one type of industry or of retailing. After the reorganization, advertising sales increased.

In assessing whether the improvement in advertising sales can properly be attributed to the reorganization, it would be helpful to find out each of the following EXCEPT:

- A. Two years ago, what proportion of the Greenville Times' total revenue was generated by advertising sales?
- B. Has the circulation of the Greenville Times increased substantially in the last two years?
- C. Has there been a substantial turnover in personnel in the advertising sales force over the last two years?
- D. Before the reorganization, had sales representatives found it difficult to keep up with relevant developments in all types of businesses to which they are assigned?
- E. Has the economy in Greenville and the surrounding regions been growing rapidly over the last two years?

Question 95:

(W)

The geese that gather at the pond of a large corporation create a hazard for executives who use the corporate helicopter, whose landing site is 40 feet away from the pond. To solve the problem, the corporation plans to import a large number of herding dogs to keep the geese away from the helicopter.

Which of the following, if a realistic possibility, would cast the most serious doubt on the prospects for success of the corporation's plan?

- A. The dogs will form an uncontrollable pack.
- B. The dogs will require training to learn to herd the geese.
- C. The dogs will frighten away foxes that prey on old and sick geese.
- D. It will be necessary to keep the dogs in quarantine for 30 days after importing them.
- E. Some of the geese will move to the pond of another corporation in order to avoid being herded by the dogs.

Question 96:

(E)

Most of the world's supply of uranium currently comes from the mines. It is possible to extract uranium from seawater, but the cost of doing so is greater than the price that Uranium fetches on the world market. Therefore, until the cost of extracting uranium from seawater can somehow be reduced, this method of obtaining uranium is unlikely to be commercially viable.

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

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

Question 97:

(W)

Small-business groups are lobbying to defeat proposed federal legislation that would substantially raise the federal minimum wage. This opposition is surprising since the legislation they oppose would, for the first time, exempt all small businesses from paying any minimum wage.

Which of the following, if true, would best explain the opposition of small-business groups to the proposed legislation?

- A. Under the current federal minimum-wage law, most small businesses are required to pay no less than the minimum wage to their employees.
- B. In order to attract workers, small companies must match the wages offered by their larger competitors, and these competitors would not be exempt under the proposed laws.
- C. The exact number of companies that are currently required to pay no less than the minimum wage but that would be exempt under the proposed laws is unknown.
- D. Some states have set their own minimum wages---in some cases, quite a bit above the level of the minimum wage mandated by current federal law - for certain key industries.
- E. Service companies make up the majority of small businesses and they generally employ more employees per dollar of revenues than do retail or manufacturing businesses.

Question 98:

(S)

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

Which of the following, if true, most strongly supports the argument?

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

Question 99:

(W)

Northern Air has dozens of flights daily into and out of Belleville Airport, which is highly congested. Northern Air depends for its success on economy and quick turnaround and consequently is planning to replace its large planes with Skybuses, whose novel aerodynamic design is extremely fuel efficient. The Skybus' fuel efficiency results in both lower fuel costs and reduced time spent refueling.

Which of the following, if true, could present the most serious disadvantage for Northern Air in replacing their large planes with Skybuses?

- A. The Skybus would enable Northern Air to schedule direct flights to destinations that currently require stops for refueling.
- B. Aviation fuel is projected to decline in price over the next several years.
- C. The fuel efficiency of the Skybus would enable Northern Air to eliminate refueling at some of its destinations, but several mechanics would lose their jobs.
- D. None of Northern Air's competitors that use Belleville Airport are considering buying Skybuses.
- E. The aerodynamic design of the Skybus causes turbulence behind it when taking off that forces other planes on the runway to delay their takeoffs.

Question 100:

(I)

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

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

Sharon's argument is structured to lead to which of the following as a conclusion?

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

Question 101:

Which of the following most logically completes the argument?

Although the pesticide TDX has been widely used by fruit growers since the early 1960's, a regulation in force since 1960 has prohibited sale of fruit on which any TDX residue can be detected. That regulation is about to be replaced by one that allows sale of fruit on which trace amounts of TDX residue are detected. In fact, however, the change will not allow more TDX on fruit than was allowed in the 1960's, because _____.

- A. Pre-1970 techniques for detecting TDX residue could detect it only when it was present on fruit in more than the trace amounts allowed by the new regulations.
- B. Many more people today than in the 1960's habitually purchase and eat fruit without making an effort to clean residues off the fruit.
- C. People today do not individually consume any more pieces of fruit, on average, than did the people in the 1960's.
- D. At least a small fraction of the fruit sold each year since the early 1960's has had on it greater levels of TDX than the regulation allows.
- E. The presence of TDX on fruit in greater than trace amounts has not been shown to cause any harm even to children who eat large amounts of fruit.

Question 102:

(I)

The figures in portraits by the Spanish painter El Greco (1541-1614) are systematically elongated. In El Greco's time, the intentional distortion of the human figures was unprecedented in European Painting. Consequently, some critics have suggested that El Greco had astigmatism, a type of visual impairment that resulted in people appearing to him in the distorted way that is characteristic of his paintings. However, this suggestion cannot be the explanation, because _____

- A. Several twentieth century artists have consciously adopted from El Greco's paintings the systematic elongation of the human form.
- B. Some people do have elongated bodies somewhat like those depicted in El Greco's portraits.
- C. If El Greco had astigmatism, then, relative to how people looked to him, the elongated figures in his paintings would have appeared to him to be distorted.
- D. Even if El Greco had astigmatism, there would have been no correction for it available in the period in which he lived.
- E. There were non-European artists even in El Greco's time who included in their works human figures that were intentionally distorted.

Question 103:

(W)

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 non-discount 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.

Question 104:

(I)

Which of the following most logically completes the argument?

The irradiation of food kills bacteria and thus retards spoilage. However, it also lowers the nutritional value of many foods. For example, irradiation destroys a significant percentage of whatever vitamin B1 a food may contain. Proponents of irradiation, point out that irradiation is no worse in this respect than cooking. However, this fact is either beside the point, since much irradiated food is eaten raw, or else misleading, since _____

- A. Many of the proponents of irradiation are food distributors who gain from food's having a longer shelf life.
- B. It is clear that killing bacteria that may be present on food is not the only effect that irradiation has.
- C. Cooking is usually the final step in preparing food for consumption, whereas irradiation serves to ensure a longer shelf life for perishable foods.
- D. Certain kinds of cooking are, in fact, even more destructive of vitamin B1 than carefully controlled irradiation is.
- E. For food that is both irradiated and cooked, the reduction of vitamin B1 associated with either process individually is compounded

Question 105:

(I)

Which of the following most logically completes the argument?

According to experts on shopping behavior, more shoppers would shop at Jerrod's department store if they were offered the convenience of shopping carts. In fact, even if the amount spent by these **additional customers** only **just covered the cost of providing the carts**, providing carts would still probably increase Jerrod's profits, since _____.

- A. The layout of Jerrod's is open enough to accommodate shopping carts comfortably.
- B. Several department stores that compete with Jerrod's have begun to make shopping carts available to their customers.
- C. There are some potential customers who would not be enticed to shop at Jerrod's by the availability of shopping carts.
- D. Stores that make shopping carts available to customers usually have to hire people to retrieve them from parking areas
- E. A customer with a shopping cart buys more, on average, than a customer without a cart.

Question 106:

(E)

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

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

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

Question 107:

(B)

City Official: At City Hospital, uninsured patients tend to have shorter stays and fewer procedures performed than do insured patients, even though insured patients, on average, have slightly less serious medical problems at the time of admission to the hospital than uninsured patients have. Critics of the hospital have concluded that the **uninsured patients are most receiving proper medical care**. However, **this conclusion is almost certainly false**. Careful investigation has recently shown two things: insured patients have much longer stays in the hospital than necessary, and they tend to have more procedures performed than are medically necessary.

In the city official's argument, the two boldface portions play which of the following roles?

- A. The first states the conclusion of the city official's argument; the second provides support for that conclusion.
- B. The first is used to support the conclusion of the city official's argument; the second states that conclusion.
- C. The first was used to support the conclusion drawn by hospital critics; the second states the position that the city official's argument opposes.
- D. The first was used to support the conclusion drawn by hospital critics; the second provides support for the conclusion of the city official's argument.
- E. The first states the position that the city official's argument opposes; the second states the conclusion of the city official's argument.

Question 108:

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

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

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

Answer Key:

| Question | OA |
|----------|----|
| 1 | B |
| 2 | E |
| 3 | D |
| 4 | E |
| 5 | B |
| 6 | E |
| 7 | E |
| 8 | A |
| 9 | A |
| 10 | D |
| 11 | D |
| 12 | E |
| 13 | B |
| 14 | A |
| 15 | C |
| 16 | D |
| 17 | B |
| 18 | A |
| 19 | C |
| 20 | D |
| 21 | C |
| 22 | B |
| 23 | E |
| 24 | D |
| 25 | D |
| 26 | E |
| 27 | A |
| 28 | A |
| 29 | C |
| 30 | A |
| 31 | C |
| 32 | A |
| 33 | B |
| 34 | C |
| 35 | C |
| 36 | B |
| 37 | C |
| 38 | E |
| 39 | E |
| 40 | A |
| 41 | C |
| 42 | E |

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|----|---|
| 43 | E |
| 44 | C |
| 45 | A |
| 46 | D |
| 47 | B |
| 48 | D |
| 49 | C |
| 50 | D |
| 51 | C |
| 52 | E |
| 53 | A |
| 54 | C |
| 55 | C |
| 56 | A |
| 57 | C |
| 58 | E |
| 59 | A |
| 60 | C |
| 61 | A |
| 62 | D |
| 63 | D |
| 64 | B |
| 65 | B |
| 66 | C |
| 67 | E |
| 68 | C |
| 69 | E |
| 70 | B |
| 71 | C |
| 72 | E |
| 73 | C |
| 74 | C |
| 75 | A |
| 76 | D |
| 77 | E |
| 78 | D |
| 79 | A |
| 80 | E |
| 81 | A |
| 82 | C |
| 83 | E |
| 84 | A |
| 85 | B |
| 86 | A |

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|-----|---|
| 87 | C |
| 88 | A |
| 89 | D |
| 90 | E |
| 91 | E |
| 92 | B |
| 93 | C |
| 94 | A |
| 95 | A |
| 96 | A |
| 97 | B |
| 98 | C |
| 99 | E |
| 100 | A |
| 101 | A |
| 102 | C |
| 103 | B |
| 104 | E |
| 105 | E |
| 106 | E |
| 107 | E |
| 108 | E |