

Conclusion / Inference / Must be true / Most Supported

1. The percentage of households with an annual income of more than \$40,000 is higher in Merton County than in any other county. However, the percentage of households with an annual income of \$60,000 or more is higher in Sommer County. **If the statements above are true, which of the following must also be true?**
 - (A) The percentage of households with an annual income of \$80,000 is higher in Sommer County than in Merton County.
 - (B) Merton County has the second highest percentage of households with an annual income of \$60,000 or more.
 - (C) Some households in Merton County have an annual income between \$40,000 and \$60,000.
 - (D) The number of households with an annual income of more than \$40,000 is greater in Merton County than in Sommer County.
 - (E) Average annual household income is higher in Sommer County than in Merton County.

2. Cheever College offers several online courses via remote computer connection, in addition to traditional classroom-based courses. A study of student performance at Cheever found that, overall, the average student grade for online courses matched that for classroom-based courses. In this calculation of the average grade, course withdrawals were weighted as equivalent to a course failure, and the rate of withdrawal was much lower for students enrolled in classroom-based courses than for students enrolled in online courses. **If the statements above are true, which of the following must also be true of Cheever College?**
 - (A) Among students who did not withdraw, students enrolled in online courses got higher grades, on average, than students enrolled in classroom-based courses.
 - (B) The number of students enrolled per course at the start of the school term is much higher, on average, for the online courses than for the classroom-based courses.
 - (C) There are no students who take both an online and a classroom-based course in the same school term.
 - (D) Among Cheever College students with the best grades, a significant majority take online, rather than classroom-based, courses.
 - (E) Courses offered online tend to deal with subject matter that is less challenging than that of classroom-based courses.

3. When a polygraph test is judged inconclusive, this is no reflection on the examinee. Rather, such a judgment means that the test has failed to show whether the examinee was truthful or untruthful. Nevertheless, employers will sometimes refuse to hire a job applicant because of an inconclusive polygraph test result. **Which of the following conclusions can most properly be drawn from the information above?**
 - (A) Most examinees with inconclusive polygraph test results are in fact untruthful.
 - (B) Polygraph tests should not be used by employers in the consideration of job applicants.
 - (C) An inconclusive polygraph test result is sometimes unfairly held against the examinee.
 - (D) A polygraph test indicating that an examinee is untruthful can sometimes be mistaken.
 - (E) Some employers have refused to consider the results of polygraph tests when evaluating job applicants.

4. A company's two divisions performed with remarkable consistency over the past three years: in each of those years, the pharmaceuticals division has accounted for roughly 20 percent of dollar sales and 40 percent of profits, and the chemicals division for the balance. **Which of the following can properly be inferred regarding the past three years from the statement above?**
 - (A) Total dollar sales for each of the company's divisions have remained roughly constant.
 - (B) The pharmaceuticals division has faced stiffer competition in its markets than has the chemicals division.
 - (C) The chemicals division has realized lower profits per dollar of sales than has the pharmaceuticals division.
 - (D) The product mix offered by each of the company's divisions has remained unchanged.
 - (E) Highly profitable products accounted for a higher percentage of the chemicals division's sales than those of the pharmaceuticals division's.

5. Advertisement: Today's customers expect high quality. Every advance in the quality of manufactured products raises customer expectations. The company that is satisfied with the current quality of its products will soon find that its customers are not. At MegaCorp, meeting or exceeding customer expectations is our goal. **Which of the following must be true on the basis of the statements in the advertisement above?**
 - (A) MegaCorp's competitors will succeed in attracting customers only if those competitors adopt MegaCorp's goal as their own.
 - (B) A company that does not correctly anticipate the expectations of its customers is certain to fail in advancing the quality of its products.
 - (C) MegaCorp's goal is possible to meet only if continuing advances in product quality are possible.
 - (D) If a company becomes satisfied with the quality of its products, then the quality of its products is sure to decline.
 - (E) MegaCorp's customers are currently satisfied with the quality of its products.

6. The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than the lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions. **If the statements above are true, which of the following must be true?**
 - (A) Some lawyers who now advertise will charge more for specific services if they do not have to specify fee arrangements in the advertisements.
 - (B) More consumers will use legal services if there are fewer restrictions on the advertising of legal services.
 - (C) If the restriction against advertisements that do not specify fee arrangements is removed, more lawyers will advertise their services.
 - (D) If more lawyers advertise lower prices for specific services, some lawyers who do not advertise will also charge less than they currently charge for those services.
 - (E) If the only restrictions on the advertising of legal services were those that apply to every type of advertising, most lawyers would advertise their services.

7. Neither a rising standard of living nor balanced trade, by itself, establishes a country's ability to compete in the international marketplace. Both are required simultaneously since standards of living can rise because of growing trade deficits and trade can be balanced by means of a decline in a country's standard of living. **If the facts stated in the passage above are true, a proper test of a country's ability to be competitive is its ability to**
- (A) balance its trade while its standard of living rises
 - (B) balance its trade while its standard of living falls
 - (C) increase trade deficits while its standard of living rises
 - (D) decrease trade deficits while its standard of living falls
 - (E) keep its standard of living constant while trade deficits rise
8. To protect certain fledgling industries, the government of Country Z banned imports of the types of products those industries were starting to make. As a direct result, the cost of those products to the buyers, several export-dependent industries in Z, went up, sharply limiting the ability of those industries to compete effectively in their export markets. **Which of the following conclusions about Country Z's adversely affected export-dependent industries is best supported by the passage?**
- (A) Profit margins in those industries were not high enough to absorb the rise in costs mentioned above.
 - (B) Those industries had to contend with the fact that other countries banned imports from Country Z.
 - (C) Those industries succeeded in expanding the domestic market for their products.
 - (D) Steps to offset rising materials costs by decreasing labor costs were taken in those industries.
 - (E) Those industries started to move into export markets that they had previously judged unprofitable.
9. Although aspirin has been proven to eliminate moderate fever associated with some illnesses, many doctors no longer routinely recommend its use for this purpose. A moderate fever stimulates the activity of the body's disease-fighting white blood cells and also inhibits the growth of many strains of disease-causing bacteria. **If the statements above are true, which of the following conclusions is most strongly supported by them?**
- (A) Aspirin, an effective painkiller, alleviates the pain and discomfort of many illnesses.
 - (B) Aspirin can prolong a patient's illness by eliminating moderate fever helpful in fighting some diseases.
 - (C) Aspirin inhibits the growth of white blood cells, which are necessary for fighting some illnesses.
 - (D) The more white blood cells a patient's body produces, the less severe the patient's illness will be.
 - (E) The focus of modern medicine is on inhibiting the growth of disease-causing bacteria within the body.
10. Environmentalist: The commissioner of the Fish and Game Authority would have the public believe that increases in the number of marine fish caught demonstrate that this resource is no longer endangered. This is a specious argument, as unsound as it would be to assert that the ever-increasing rate at which rain forests are being cut down demonstrates a lack of danger to that resource. The real cause of the increased fish-catch is a greater efficiency in using technologies that deplete resources. **The environmentalist's statements, if true, best support which of the following as a conclusion?**
- (A) The use of technology is the reason for the increasing encroachment of people on nature.
 - (B) It is possible to determine how many fish are in the sea in some way other than by catching fish.
 - (C) The proportion of marine fish that are caught is as high as the proportion of rain forest trees that are cut down each year.
 - (D) Modern technologies waste resources by catching inedible fish.
 - (E) Marine fish continue to be an endangered resource.
11. For a trade embargo against a particular country to succeed, a high degree of both international accord and ability to prevent goods from entering or leaving that country must be sustained. A total blockade of Patria's ports is necessary to an embargo, but such an action would be likely to cause international discord over the embargo. **The claims above, if true, most strongly support which of the following conclusions?**
- (A) The balance of opinion is likely to favor Patria in the event of a blockade.
 - (B) As long as international opinion is unanimously against Patria, a trade embargo is likely to succeed.
 - (C) A naval blockade of Patria's ports would ensure that no goods enter or leave Patria.
 - (D) Any trade embargo against Patria would be likely to fail at some time.
 - (E) For a blockade of Patria's ports to be successful, international opinion must be unanimous.
12. The cost of producing radios in Country Q is 10 percent less than the cost of producing radios in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a company to import radios from Country Q to Country Y than to produce radios in Country Y. **The statements above, if true, best support which of the following assertions?**
- (A) Labor costs in Country Q are 10 percent below those in Country Y.
 - (B) Importing radios from Country Q to Country Y will eliminate 10 percent of the manufacturing jobs in Country Y.
 - (C) The tariff on a radio imported from Country Q to Country Y is less than 10 percent of the cost of manufacturing the radio in Country Y.
 - (D) The fee for transporting a radio from Country Q to Country Y is more than 10 percent of the cost of manufacturing the radio in Country Q.
 - (E) It takes 10 percent less time to manufacture a radio in Country Q than it does in Country Y.

Passage / Argument Completion

13. **Which of the following best completes the passage below?**
- Some batches of polio vaccine used around 1960 were contaminated with SV40, a virus that in monkeys causes various cancers. Some researchers now claim that this contamination caused some cases of a certain cancer in humans, mesothelioma. This claim is not undercut by the fact that a very careful survey made in the 1960s of people who had received the contaminated vaccine found no elevated incidence of any cancer, since _____.
- (A) most cases of mesothelioma are caused by exposure to asbestos
 - (B) in some countries, there was no contamination of the vaccine
 - (C) SV40 is widely used in laboratories to produce cancers in animals
 - (D) mesotheliomas take several decades to develop
 - (E) mesothelioma was somewhat less common in 1960 than it is now

14. Which of the following best completes the passage below?

People buy prestige when they buy a premium product. They want to be associated with something special. Mass-marketing techniques and price-reduction strategies should not be used because _____.

- (A) affluent purchasers currently represent a shrinking portion of the population of all purchasers
- (B) continued sales depend directly on the maintenance of an aura of exclusivity
- (C) purchasers of premium products are concerned with the quality as well as with the price of the products
- (D) expansion of the market niche to include a broader spectrum of consumers will increase profits
- (E) manufacturing a premium brand is not necessarily more costly than manufacturing a standard brand of the same product

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

Ferber's syndrome, a viral disease that frequently affects cattle, is transmitted to these animals through infected feed. Even though chickens commercially raised for meat are often fed the type of feed identified as the source of infection in cattle, Ferber's syndrome is only rarely observed in chickens. This fact, however, does not indicate that most chickens are immune to the virus that causes Ferber's syndrome, since _____.

- (A) chickens and cattle are not the only kinds of farm animal that are typically fed the type of feed liable to be contaminated with the virus that causes Ferber's syndrome
- (B) Ferber's syndrome has been found in animals that have not been fed the type of feed liable to be contaminated with the virus that can cause the disease
- (C) resistance to some infectious organisms such as the virus that causes Ferber's syndrome can be acquired by exposure to a closely related infectious organism
- (D) chickens and cattle take more than a year to show symptoms of Ferber's syndrome, and chickens commercially raised for meat, unlike cattle, are generally brought to market during the first year of life
- (E) the type of feed liable to be infected with the virus that causes Ferber's syndrome generally constitutes a larger proportion of the diet of commercially raised chickens than of commercially raised cattle

16. Which of the following best completes the passage below?

The computer industry's estimate that it loses millions of dollars when users illegally copy programs without paying for them is greatly exaggerated. Most of the illegal copying is done by people with no serious interest in the programs. Thus, the loss to the industry is quite small, because _____.

- (A) many users who illegally copy programs never find any use for them
- (B) most people who illegally copy programs would not purchase them even if purchasing them were the only way to obtain them
- (C) even if the computer industry received all the revenue it claims to be losing, it would still be experiencing financial difficulties
- (D) the total market value of all illegal copies is low in comparison to the total revenue of the computer industry
- (E) the number of programs that are frequently copied illegally is low in comparison to the number of programs available for sale

17. Which of the following best completes the passage below?

When the products of several competing suppliers are perceived by consumers to be essentially the same, classical economics predicts that price competition will reduce prices to the same minimal levels and all suppliers' profits to the same minimal levels. Therefore, if classical economics is true, and given suppliers' desire to make as much profit as possible, it should be expected that _____.

- (A) in a crowded market widely differing prices will be charged for products that are essentially the same as each other
- (B) as a market becomes less crowded as suppliers leave, the profits of the remaining suppliers will tend to decrease
- (C) each supplier in a crowded market will try to convince consumers that its product differs significantly from its competitors' products.
- (D) when consumers are unable to distinguish the products in a crowded market, consumers will judge that the higher-priced products are of higher quality
- (E) suppliers in crowded markets will have more incentive to reduce prices and thus increase sales than to introduce innovations that would distinguish their product from their competitors' products

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

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

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

19. Which of the following most logically completes the argument given below?

People in isolated rain-forest communities tend to live on a largely vegetarian diet, and they eat little salt. Few of them suffer from high blood pressure, and their blood pressure does not tend to increase with age, as is common in industrialized countries. Such people often do develop high blood pressure when they move to cities and adopt high-salt diets. Though suggestive, these facts do not establish salt as the culprit in high blood pressure, however, because _____.

- (A) genetic factors could account for the lack of increase of blood pressure with age among such people
- (B) people eating high-salt diets and living from birth in cities in industrialized societies generally have a tendency to have high blood pressure
- (C) it is possible to have a low-salt diet while living in a city in an industrialized country
- (D) there are changes in other aspects of diet when such people move to the city
- (E) salt is a necessity for human life, and death can occur when the body loses too much salt

20. 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 foods' 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

Weaken

21. Vasquez-Morrell Assurance specializes in insuring manufacturers. Whenever a policyholder makes a claim, a claims adjuster determines the amount that Vasquez-Morrell is obligated to pay. Vasquez-Morrell is cutting its staff of claims adjusters by 15 percent. To ensure that the company's ability to handle claims promptly is affected as little as possible by the staff cuts, consultants recommend that Vasquez-Morrell lay off those adjusters who now take longest, on average, to complete work on claims assigned to them. **Which of the following, if true, most seriously calls into question the consultants' criterion for selecting the staff to be laid off?**

- (A) If the time that Vasquez-Morrell takes to settle claims increases significantly, it could lose business to other insurers.
- (B) Supervisors at Vasquez-Morrell tend to assign the most complex claims to the most capable adjusters.
- (C) At Vasquez-Morrell, no insurance payments are made until a claims adjuster has reached a final determination on the claim.
- (D) There are no positions at Vasquez-Morrell to which staff currently employed as claims adjusters could be reassigned.
- (E) The premiums that Vasquez-Morrell currently charges are no higher than those charged for similar coverage by competitors.

22. In the past, most children who went sledding in the winter snow in Verland used wooden sleds with runners and steering bars. Ten years ago, smooth plastic sleds became popular; they go faster than wooden sleds but are harder to steer and slow. The concern that plastic sleds are more dangerous is clearly borne out by the fact that the number of children injured while sledding was much higher last winter than it was 10 years ago. **Which of the following, if true in Verland, most seriously undermines the force of the evidence cited?**

- (A) A few children still use traditional wooden sleds.
- (B) Very few children wear any kind of protective gear, such as helmets, while sledding.
- (C) Plastic sleds can be used in a much wider variety of snow conditions than wooden sleds can.
- (D) Most sledding injuries occur when a sled collides with a tree, a rock, or another sled.
- (E) Because the traditional wooden sleds can carry more than one rider, an accident involving a wooden sled can result in several children being injured.

23. Motorists in a certain country frequently complain that traffic congestion is much worse now than it was 20 years ago. No real measure of how much traffic congestion there was 20 years ago exists, but the motorists' complaints are almost certainly unwarranted. The country's highway capacity has tripled in the last twenty years, thanks to a vigorous highway construction program, whereas the number of automobiles registered in the country has increased by only 75 percent. **Which of the following, if true, most seriously weakens the argument?**

- (A) Most automobile travel is local, and the networks of roads and streets in the country's settled areas have changed little over the last twenty years.
- (B) Gasoline prices are high, and miles traveled per car per year have not changed much over the last 20 years.
- (C) The country's urban centers have well-developed public transit systems that carry most of the people who commute into those centers.
- (D) The average age of automobiles registered in the country is lower now than it was 20 years ago.
- (E) Radio stations have long been broadcasting regular traffic reports that inform motorists about traffic congestion.

24. Tiger beetles are such fast runners that they can capture virtually any nonflying 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.

25. Guillemots are birds of Arctic regions. They feed on fish that gather beneath thin sheets of floating ice, and they nest on nearby land. Guillemots need 80 consecutive snow-free days in a year to raise their chicks, so until average temperatures in the Arctic began to rise recently, the guillemots' range was limited to the southernmost Arctic coast. Therefore, if the warming continues, the guillemots' range will probably be enlarged by being extended northward along the coast. **Which of the following, if true, most seriously weakens the argument?**
- (A) Even if the warming trend continues, there will still be years in which guillemot chicks are killed by an unusually early snow.
 - (B) If the Arctic warming continues, guillemots' current predators are likely to succeed in extending their own range farther north.
 - (C) Guillemots nest in coastal areas, where temperatures are generally higher than in inland areas.
 - (D) If the Arctic warming continues, much of the thin ice in the southern Arctic will disappear.
 - (E) The fish that guillemots eat are currently preyed on by a wider variety of predators in the southernmost Arctic regions than they are farther north.
26. A physically active lifestyle has been shown to help increase longevity. In the Wistar region of Bellaria, the average age at death is considerably higher than in any other part of the country. Wistar is the only mountainous part of Bellaria. A mountainous terrain makes even such basic activities as walking relatively strenuous; it essentially imposes a physically active lifestyle on people. Clearly, this circumstance explains the long lives of people in Wistar. **Which of the following, if true, most seriously weakens the argument?**
- (A) In Bellaria all medical expenses are paid by the government, so that personal income does not affect the quality of health care a person receives.
 - (B) The Wistar region is one of Bellaria's least populated regions.
 - (C) Many people who live in the Wistar region have moved there in middle age or upon retirement.
 - (D) The many opportunities for hiking, skiing, and other outdoor activities that Wistar's mountains offer make it a favorite destination for vacationing Bellarians.
 - (E) Per capita spending on recreational activities is no higher in Wistar than it is in other regions of Bellaria.
27. A year ago, Dietz Foods launched a yearlong advertising campaign for its canned tuna. Last year Dietz sold 12 million cans of tuna compared to the 10 million sold during the previous year, an increase directly attributable to new customers brought in by the campaign. Profits from the additional sales, however, were substantially less than the cost of the advertising campaign. Clearly, therefore, the campaign did nothing to further Dietz's economic interests. **Which of the following, if true, most seriously weakens the argument?**
- (A) Sales of canned tuna account for a relatively small percentage of Dietz Foods' profits.
 - (B) Most of the people who bought Dietz's canned tuna for the first time as a result of the campaign were already loyal customers of other Dietz products.
 - (C) A less expensive advertising campaign would have brought in significantly fewer new customers for Dietz's canned tuna than did the campaign Dietz Foods launched last year.
 - (D) Dietz made money on sales of canned tuna last year.
 - (E) In each of the past five years, there was a steep, industry-wide decline in sales of canned tuna.
28. "Life expectancy" is the average age at death of the entire live-born population. In the middle of the nineteenth century, life expectancy in North America was 40 years, whereas now it is nearly 80 years. Thus, in those days, people must have been considered old at an age that we now consider the prime of life. **Which of the following, if true, undermines the argument above?**
- (A) In the middle of the nineteenth century, the population of North America was significantly smaller than it is today.
 - (B) Most of the gains in life expectancy in the last 150 years have come from reductions in the number of infants who die in their first year of life.
 - (C) Many of the people who live to an advanced age today do so only because of medical technology that was unknown in the nineteenth century.
 - (D) The proportion of people who die in their seventies is significantly smaller today than is the proportion of people who die in their eighties.
 - (E) More people in the middle of the nineteenth century engaged regularly in vigorous physical activity than do so today.
29. Cable-television spokesperson: Subscriptions to cable television are a bargain in comparison to "free" television. Remember that "free" television is not really free. It is consumers, in the end, who pay for the costly advertising that supports "free" television. **Which of the following, if true, is most damaging to the position of the cable-television spokesperson?**
- (A) Consumers who do not own television sets are less likely to be influenced in their purchasing decisions by television advertising than are consumers who own television sets.
 - (B) Subscriptions to cable television include access to some public-television channels, which do not accept advertising.
 - (C) For locations with poor television reception, cable television provides picture quality superior to that provided by free television.
 - (D) There is as much advertising on many cable-television channels as there is on "free" television channels.
 - (E) Cable-television subscribers can choose which channels they wish to receive.
30. A conservation group in the United States is trying to change the long-standing image of bats as frightening creatures. The group contends that bats are feared and persecuted solely because they are shy animals that are active only at night. **Which of the following, if true, would cast the most serious doubt on the accuracy of the group's contention?**
- (A) Bats are steadily losing natural roosting places such as caves and hollow trees and are thus turning to more developed areas for roosting.
 - (B) Bats are the chief consumers of nocturnal insects and thus can help make their hunting territory more pleasant for humans.
 - (C) Bats are regarded as frightening creatures not only in the United States but also in Europe, Africa, and South America.
 - (D) Raccoons and owls are shy and active only at night, yet they are not generally feared and persecuted.
 - (E) People know more about the behavior of other greatly feared animal species, such as lions, alligators, and snakes, than they do about the behavior of bats.

31. A drug that is highly effective in treating many types of infection can, at present, be obtained only from the bark of the ibora, a tree that is quite rare in the wild. It takes the bark of 5,000 trees to make one kilogram of the drug. It follows, therefore, that continued production of the drug must inevitably lead to the ibora's extinction. **Which of the following, if true, most seriously weakens the argument above?**
- (A) The drug made from ibora bark is dispensed to doctors from a central authority.
 - (B) The drug made from ibora bark is expensive to produce.
 - (C) The leaves of the ibora are used in a number of medical products.
 - (D) The ibora can be propagated from cuttings and grown under cultivation.
 - (E) The ibora generally grows in largely inaccessible places.
32. Robot satellites relay important communications and identify weather patterns. Because the satellites can be repaired only in orbit, astronauts are needed to repair them. Without repairs, the satellites would eventually malfunction. Therefore, space flights carrying astronauts must continue. **Which of the following, if true, would most seriously weaken the argument above?**
- (A) Satellites falling from orbit because of malfunctions burn up in the atmosphere.
 - (B) Although satellites are indispensable in the identification of weather patterns, weather forecasters also make some use of computer projections to identify weather patterns.
 - (C) The government, responding to public pressure, has decided to cut the budget for space flights and put more money into social welfare programs.
 - (D) Repair of satellites requires heavy equipment, which adds to the amount of fuel needed to lift a spaceship carrying astronauts into orbit.
 - (E) Technical obsolescence of robot satellites makes repairing them more costly and less practical than sending new, improved satellites into orbit.
33. Last year the rate of inflation was 1.2 percent, but for the current year it has been 4 percent. We can conclude that inflation is on an upward trend and the rate will be still higher next year. **Which of the following, if true, most seriously weakens the conclusion above?**
- (A) The inflation figures were computed on the basis of a representative sample of economic data rather than all of the available data.
 - (B) Last year a dip in oil prices brought inflation temporarily below its recent stable annual level of 4 percent.
 - (C) Increases in the pay of some workers are tied to the level of inflation, and at an inflation rate of 4 percent or above, these pay raises constitute a force causing further inflation.
 - (D) The 1.2 percent rate of inflation last year represented a 10-year low.
 - (E) Government intervention cannot affect the rate of inflation to any significant degree.
34. 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 environment 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.
35. In the last decade there has been a significant decrease in coffee consumption. During this same time, there has been increasing publicity about the adverse long-term effects on health of the caffeine in coffee. Therefore, the decrease in coffee consumption must have been caused by consumers' awareness of the harmful effects of caffeine. **Which of the following, if true, most seriously calls into question the explanation above?**
- (A) On average, people consume 30 percent less coffee today than they did 10 years ago.
 - (B) Heavy coffee drinkers may have mild withdrawal symptoms, such as headaches, for a day or so after significantly decreasing their coffee consumption.
 - (C) Sales of specialty types of coffee have held steady as sales of regular brands have declined.
 - (D) The consumption of fruit juices and caffeine-free herbal teas has increased over the past decade.
 - (E) Coffee prices increased steadily in the past decade because of unusually severe frosts in coffee-growing nations.
36. Some anthropologists study modern-day societies of foragers in an effort to learn about our ancient ancestors who were also foragers. A flaw in this strategy is that forager societies are extremely varied. Indeed, any forager society with which anthropologists are familiar has had considerable contact with modern, non-forager societies. **Which of the following, if true, would most weaken the criticism made above of the anthropologists' strategy?**
- (A) All forager societies throughout history have had a number of important features in common that are absent from other types of societies.
 - (B) Most ancient forager societies either dissolved or made a transition to another way of life.
 - (C) All anthropologists study one kind or another of modern-day society.
 - (D) Many anthropologists who study modern-day forager societies do not draw inferences about ancient societies on the basis of their studies.
 - (E) Even those modern-day forager societies that have not had significant contact with modern societies are importantly different from ancient forager societies.

37. Red blood cells in which the malarial-fever parasite resides are eliminated from a person's body after 120 days. Because the parasite cannot travel to a new generation of red blood cells, any fever that develops in a person more than 120 days after that person has moved to a malaria-free region is not due to the malarial parasite. **Which of the following, if true, most seriously weakens the conclusion above?**
- (A) The fever caused by the malarial parasite may resemble the fever caused by flu viruses.
 - (B) The anopheles mosquito, which is the principal insect carrier of the malarial parasite, has been eradicated in many parts of the world.
 - (C) Many malarial symptoms other than the fever, which can be suppressed with antimalarial medication, can reappear within 120 days after the medication is discontinued.
 - (D) In some cases, the parasite that causes malarial fever travels to cells of the spleen, which are less frequently eliminated from a person's body than are red blood cells.
 - (E) In any region infested with malaria-carrying mosquitoes, there are individuals who appear to be immune to malaria.
38. In comparison to the standard typewriter keyboard, the EFCO keyboard, which places the most-used keys nearest the typist's strongest fingers, allows faster typing and results in less fatigue. Therefore, replacement of standard keyboards with the EFCO keyboard will result in an immediate reduction of typing costs. **Which of the following, if true, would most weaken the conclusion drawn above?**
- (A) People who use both standard and EFCO keyboards report greater difficulty in the transition from the EFCO keyboard to the standard keyboard than in the transition from the standard keyboard to the EFCO keyboard.
 - (B) EFCO keyboards are no more expensive to manufacture than are standard keyboards and require less frequent repair than do standard keyboards.
 - (C) The number of businesses and government agencies that use EFCO keyboards is increasing each year.
 - (D) The more training and experience an employee has had with the standard keyboard, the more costly it is to train that employee to use the EFCO keyboard.
 - (E) Novice typists can learn to use the EFCO keyboard in about the same amount of time that it takes them to learn to use the standard keyboard.
39. An overly centralized economy, not the changes in the climate, is responsible for the poor agricultural production in Country X since its new government came to power. Neighboring Country Y has experienced the same climatic conditions, but while agricultural production has been falling in Country X, it has been rising in Country Y. **Which of the following, if true, would most weaken the argument above?**
- (A) Industrial production also is declining in Country X.
 - (B) Whereas Country Y is landlocked, Country X has a major seaport.
 - (C) Both Country X and Country Y have been experiencing drought conditions.
 - (D) The crops that have always been grown in Country X are different from those that have always been grown in Country Y.
 - (E) Country X's new government instituted a centralized economy with the intention of ensuring an equitable distribution of goods.
40. When demand for a factory's products is high, more money is spent at the factory for safety precautions and machinery maintenance than when demand is low. Thus the average number of on-the-job accidents per employee each month should be lower during periods when demand is high than when demand is low and less money is available for safety precautions and machinery maintenance. **Which of the following, if true about a factory when demand for its products is high, casts the most serious doubt on the conclusion drawn above?**
- (A) Its employees ask for higher wages than they do at other times.
 - (B) Its management hires new workers but lacks the time to train them properly.
 - (C) Its employees are less likely to lose their jobs than they are at other times.
 - (D) Its management sponsors a monthly safety award for each division in the factory.
 - (E) Its old machinery is replaced with modern, automated models.
41. Journalist: In physics journals, the number of articles reporting the results of experiments involving particle accelerators was lower last year than it had been in previous years. Several of the particle accelerators at major research institutions were out of service the year before last for repairs, so it is likely that the low number of articles was due to the decline in availability of particle accelerators. **Which of the following, if true, most seriously undermines the journalist's argument?**
- (A) Every article based on experiments with particle accelerators that was submitted for publication last year actually was published.
 - (B) The average time scientists must wait for access to a particle accelerator has declined over the last several years.
 - (C) The number of physics journals was the same last year as in previous years.
 - (D) Particle accelerators can be used for more than one group of experiments in any given year.
 - (E) Recent changes in the editorial policies of several physics journals have decreased the likelihood that articles concerning particle-accelerator research will be accepted for publication.
42. 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, these declines are likely to have a noticeably negative economic effect on these businesses and therefore on the economy of Florida. **Which of the following, if true, most seriously weakens the argument given?**
- (A) People who moved from one state to another when they retired moved a greater distance, on average, last year than such people did ten years ago.
 - (B) People were more likely to retire to North Carolina from another state last year than people were ten years ago.
 - (C) The number of people who moved from one state to another when they retired has increased significantly over the past ten years.
 - (D) 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.
 - (E) Florida attracts more people who move from one state to another when they retire than does any other state.

43. Businesses are suffering because of a lack of money available for development loans. To help businesses, the government plans to modify the income-tax structure in order to induce individual taxpayers to put a larger portion of their incomes into retirement savings accounts, because as more money is deposited in such accounts, more money becomes available to borrowers. **Which of the following, if true, raises the most serious doubt regarding the effectiveness of the government's plan to increase the amount of money available for development loans for businesses?**
- (A) When levels of personal retirement savings increase, consumer borrowing always increases correspondingly.
 - (B) The increased tax revenue the government would receive as a result of business expansion would not offset the loss in revenue from personal income taxes during the first year of the plan.
 - (C) Even with tax incentives, some people will choose not to increase their levels of retirement savings.
 - (D) Bankers generally will not continue to lend money to businesses whose prospective earnings are insufficient to meet their loan repayment schedules.
 - (E) The modified tax structure would give all taxpayers, regardless of their incomes, the same tax savings for a given increase in their retirement savings.
44. A new law gives ownership of patents—documents providing exclusive right to make and sell an invention—to universities, not the government, when those patents result from government-sponsored university research. Administrators at Logos University plan to sell any patents they acquire to corporations in order to fund programs to improve undergraduate teaching. **Which of the following, if true, would cast the most doubt on the viability of the college administrators' plan described above?**
- (A) Profit-making corporations interested in developing products based on patents held by universities are likely to try to serve as exclusive sponsors of ongoing university research projects.
 - (B) Corporate sponsors of research in university facilities are entitled to tax credits under new federal tax-code guidelines.
 - (C) Research scientists at Logos University have few or no teaching responsibilities and participate little if at all in the undergraduate programs in their field.
 - (D) Government-sponsored research conducted at Logos University for the most part duplicates research already completed by several profit-making corporations.
 - (E) Logos University is unlikely to attract corporate sponsorship of its scientific research.
45. Although the discount stores in Goreville's central shopping district are expected to close within five years as a result of competition from a SpendLess discount department store that just opened, those locations will not stay vacant for long. In the five years since the opening of Colson's, a nondiscount department store, a new store has opened at the location of every store in the shopping district that closed because it could not compete with Colson's. **Which of the following, if true, most seriously weakens the argument?**
- (A) Many customers of Colson's are expected to do less shopping there than they did before the SpendLess store opened.
 - (B) Increasingly, the stores that have opened in the central shopping district since Colson's opened have been discount stores.
 - (C) At present, the central shopping district has as many stores operating in it as it ever had.
 - (D) Over the course of the next five years, it is expected that Goreville's population will grow at a faster rate than it has for the past several decades.
 - (E) Many stores in the central shopping district sell types of merchandise that are not available at either SpendLess or Colson's.
46. The difficulty with the proposed high-speed train line is that a used plane can be bought for one-third the price of the train line, and the plane, which is just as fast, can fly anywhere. The train would be a fixed linear system, and we live in a world that is spreading out in all directions and in which consumers choose the free-wheel systems (cars, buses, aircraft), which do not have fixed routes. Thus a sufficient market for the train will not exist. **Which of the following, if true, most severely weakens the argument presented above?**
- (A) Cars, buses, and planes require the efforts of drivers and pilots to guide them, whereas the train will be guided mechanically.
 - (B) Cars and buses are not nearly as fast as the high-speed train will be.
 - (C) Planes are not a free-wheel system because they can fly only between airports, which are less convenient for consumers than the high-speed train's stations would be.
 - (D) The high-speed train line cannot use currently underutilized train stations in large cities.
 - (E) For long trips, most people prefer to fly rather than to take ground-level transportation.
47. **Guidebook writer:** I have visited hotels throughout the country and have noticed that in those built before 1930 the quality of the original carpentry work is generally superior to that in hotels built afterward. Clearly carpenters working on hotels before 1930 typically worked with more skill, care, and effort than carpenters who have worked on hotels built subsequently. **Which of the following, if true, most seriously weakens the guidebook writer's argument?**
- (A) The quality of original carpentry in hotels is generally far superior to the quality of original carpentry in other structures, such as houses and stores.
 - (B) Hotels built since 1930 can generally accommodate more guests than those built before 1930.
 - (C) The materials available to carpenters working before 1930 were not significantly different in quality from the materials available to carpenters working after 1930.
 - (D) The better the quality of original carpentry in a building, the less likely that building is to fall into disuse and be demolished.
 - (E) The average length of apprenticeship for carpenters has declined significantly since 1930.

48. Caterpillars of all species produce an identical hormone called "juvenile hormone" that maintains feeding behavior. Only when a caterpillar has grown to the right size for pupation to take place does a special enzyme halt the production of juvenile hormone. This enzyme can be synthesized and will, on being ingested by immature caterpillars, kill them by stopping them from feeding. **Which of the following, if true, most strongly supports the view that it would NOT be advisable to try to eradicate agricultural pests that go through a caterpillar stage by spraying croplands with the enzyme mentioned above?**
- (A) Most species of caterpillar are subject to some natural predation.
 - (B) Many agricultural pests do not go through a caterpillar stage.
 - (C) Many agriculturally beneficial insects go through a caterpillar stage.
 - (D) Since caterpillars of different species emerge at different times, several sprayings would be necessary.
 - (E) Although the enzyme has been synthesized in the laboratory, no large-scale production facilities exist as yet.
49. Firms adopting "profit-related-pay" (PRP) contracts pay wages at levels that vary with the firm's profits. In the metalworking industry last year, firms with PRP contracts in place showed productivity per worker on average 13 percent higher than that of their competitors who used more traditional contracts. **If, on the basis of the evidence above, it is argued that PRP contracts increase worker productivity, which of the following, if true, would most seriously weaken that argument?**
- (A) Results similar to those cited for the metalworking industry have been found in other industries where PRP contracts are used.
 - (B) Under PRP contracts costs other than labor costs, such as plant, machinery, and energy, make up an increased proportion of the total cost of each unit of output.
 - (C) Because introducing PRP contracts greatly changes individual workers' relationships to the firm, negotiating the introduction of PRP contracts is complex and time-consuming.
 - (D) Many firms in the metalworking industry have modernized production equipment in the last five years, and most of these introduced PRP contracts at the same time.
 - (E) In firms in the metalworking industry where PRP contracts are in place, the average take-home pay is 15 percent higher than it is in those firms where workers have more traditional contracts.
50. The earliest Mayan pottery found at Colha, in Belize, is about 3,000 years old. Recently, however, 4,500-year-old stone agricultural implements were unearthed at Colha. These implements resemble Mayan stone implements of a much later period, also found at Colha. Moreover, the implements' designs are strikingly different from the designs of stone implements produced by other cultures known to have inhabited the area in prehistoric times. Therefore, there were surely Mayan settlements in Colha 4,500 years ago. **Which of the following, if true, most seriously weakens the argument?**
- (A) Ceramic ware is not known to have been used by the Mayan people to make agricultural implements.
 - (B) Carbon-dating of corn pollen in Colha indicates that agriculture began there around 4,500 years ago.
 - (C) Archaeological evidence indicates that some of the oldest stone implements found at Colha were used to cut away vegetation after controlled burning of trees to open areas of swampland for cultivation.
 - (D) Successor cultures at a given site often adopt the style of agricultural implements used by earlier inhabitants of the same site.
 - (E) Many religious and social institutions of the Mayan people who inhabited Colha 3,000 years ago relied on a highly developed system of agricultural symbols.
51. Outsourcing is the practice of obtaining from an independent supplier a product or service that a company has previously provided for itself. Since a company's chief objective is to realize the highest possible year-end profits, any product or service that can be obtained from an independent supplier for less than it would cost the company to provide the product or service on its own should be outsourced. **Which of the following, if true, most seriously weakens the argument?**
- (A) If a company decides to use independent suppliers for a product, it can generally exploit the vigorous competition arising among several firms that are interested in supplying that product.
 - (B) Successful outsourcing requires a company to provide its suppliers with information about its products and plans that can fall into the hands of its competitors and give them a business advantage.
 - (C) Certain tasks, such as processing a company's payroll, are commonly outsourced, whereas others, such as handling the company's core business, are not.
 - (D) For a company to provide a product or service for itself as efficiently as an independent supplier can provide it, the managers involved need to be as expert in the area of that product or service as the people in charge of that product or service at an independent supplier are.
 - (E) When a company decides to use an independent supplier for a product or service, the independent supplier sometimes hires members of the company's staff who formerly made the product or provided the service that the independent supplier now supplies.

Flaw

52. Homeowners aged 40 to 50 are more likely to purchase ice cream and are more likely to purchase it in larger amounts than are members of any other demographic group. The popular belief that teenagers eat more ice cream than adults must, therefore, be false. **The argument is flawed primarily because the author**
- (A) fails to distinguish between purchasing and consuming
 - (B) does not supply information about homeowners in age groups other than 40 to 50
 - (C) depends on popular belief rather than on documented research findings
 - (D) does not specify the precise amount of ice cream purchased by any demographic group
 - (E) discusses ice cream rather than more nutritious and healthful foods

53. According to a prediction of the not-so-distant future published in 1940, electricity would revolutionize agriculture. Electrodes would be inserted into the soil, and the current between them would kill bugs and weeds and make crop plants stronger. **Which of the following, if true, most strongly indicates that the logic of the prediction above is flawed?**
- (A) In order for farmers to avoid electric shock while working in the fields, the current could be turned off at such times without diminishing the intended effects.
- (B) If the proposed plan for using electricity were put into practice, farmers would save on chemicals now being added to the soil.
- (C) It cannot be taken for granted that the use of electricity is always beneficial.
- (D) Since weeds are plants, electricity would affect weeds in the same way as it would affect crop plants.
- (E) Because a planting machine would need to avoid coming into contact with the electrodes, new parts for planting machines would need to be designed.
54. **Physician:** The hormone melatonin has shown promise as a medication for sleep disorders when taken in synthesized form. Because the long-term side effects of synthetic melatonin are unknown, however, I cannot recommend its use at this time.
Patient: Your position is inconsistent with your usual practice. You prescribe many medications that you know have serious side effects, so concern about side effects cannot be the real reason you will not prescribe melatonin.
The patient's argument is flawed because it fails to consider that
- (A) the side effects of synthetic melatonin might be different from those of naturally produced melatonin
- (B) it is possible that the physician does not believe that melatonin has been conclusively shown to be effective
- (C) sleep disorders, if left untreated, might lead to serious medical complications
- (D) the side effects of a medication can take some time to manifest themselves
- (E) known risks can be weighed against known benefits, but unknown risks cannot
55. Rye sown in the fall and plowed into the soil in early spring leaves a residue that is highly effective at controlling broad-leaved weeds, but unfortunately for only about forty-five days. No major agricultural crop matures from seed in as little as forty-five days. Synthetic herbicides, on the other hand, although not any longer-lasting, can be reapplied as the crop grows. Clearly, therefore, for major agricultural crops, plowing rye into the soil can play no part in effective weed control. **The argument is most vulnerable to the objection that it fails to**
- (A) consider that there might be minor, quick-growing crops that do mature in forty-five days or less
- (B) identify any alternative method of weed control that could be used instead of the method it rejects
- (C) distinguish among the various kinds of synthetic herbicides
- (D) allow for the possibility of combining the two weed-control methods it mentions
- (E) allow for the possibility that plants other than rye, handled the same way, might have the same effect
56. When hypnotized subjects are told that they are deaf and are then asked whether they can hear the hypnotist, they reply, "No." Some theorists try to explain this result by arguing that the selves of hypnotized subjects are dissociated into separate parts, and that the part that is deaf is dissociated from the part that replies. **Which of the following challenges indicates the most serious weakness in the attempted explanation described above?**
- (A) Why does the part that replies not answer, "Yes"?
- (B) Why are the observed facts in need of any special explanation?
- (C) Why do the subjects appear to accept the hypnotist's suggestion that they are deaf?
- (D) Why do hypnotized subjects all respond the same way in the situation described?
- (E) Why are the separate parts of the self the same for all subjects?
57. The average normal infant born in the United States weighs between 12 and 14 pounds at the age of three months. Therefore, if a three-month-old child weighs only 10 pounds, its weight gain has been below the United States average. **Which of the following indicates a flaw in the reasoning above?**
- (A) Weight is only one measure of normal infant development.
- (B) Some three-month-old children weigh as much as 17 pounds.
- (C) It is possible for a normal child to weigh 10 pounds at birth.
- (D) The phrase "below average" does not necessarily mean insufficient.
- (E) Average weight gain is not the same as average weight.
58. Correctly measuring the productivity of service workers is complex. Consider, for example, postal workers: they are often said to be more productive if more letters are delivered per postal worker. But is this really true? What if more letters are lost or delayed per worker at the same time that more are delivered? **The objection implied above to the productivity measure described is based on doubts about the truth of which of the following statements?**
- (A) Postal workers are representative of service workers in general.
- (B) The delivery of letters is the primary activity of the postal service.
- (C) Productivity should be ascribed to categories of workers, not to individuals.
- (D) The quality of services rendered can appropriately be ignored in computing productivity.
- (E) The number of letters delivered is relevant to measuring the productivity of postal workers.

Strengthen

59. Prolonged spells of hot, dry weather at the end of the grape-growing season typically reduce a vineyard's yield, because the grapes stay relatively small. In years with such weather, wine producers can make only a relatively small quantity of wine from a given area of vineyards. Nonetheless, in regions where wine producers generally grow their own grapes, analysts typically expect a long, hot, dry spell late in the growing season to result in increased revenues for local wine producers. **Which of the following, if true, does most to justify the analysts' expectation?**
- (A) The lower a vineyard's yield, the less labor is required to harvest the grapes.
 - (B) Long, hot, dry spells at the beginning of the grape-growing season are rare, but they can have a devastating effect on a vineyard's yield.
 - (C) Grapes grown for wine production are typically made into wine at or near the vineyard in which they were grown.
 - (D) When hot, dry spells are followed by heavy rains, the rains frequently destroy grape crops.
 - (E) Grapes that have matured in hot, dry weather make significantly better wine than ordinary grapes.
60. For years the beautiful Renaissance buildings in Palitito have been damaged by exhaust from the many tour buses that come to the city. There has been little parking space, so most buses have idled at the curb during each stop on their tour, and idling produces as much exhaust as driving. The city has now provided parking that accommodates a third of the tour buses, so damage to Palitito's buildings from the buses' exhaust will diminish significantly. **Which of the following, if true, most strongly supports the argument?**
- (A) The exhaust from Palitito's few automobiles is not a significant threat to Palitito's buildings.
 - (B) Palitito's Renaissance buildings are not threatened by pollution other than engine exhaust.
 - (C) Tour buses typically spend less than one-quarter of the time they are in Palitito transporting passengers from one site to another.
 - (D) More tourists come to Palitito by tour bus than by any other single means of transportation.
 - (E) Some of the tour buses that are unable to find parking drive around Palitito while their passengers are visiting a site.
61. Wood smoke contains dangerous toxins that cause changes in human cells. Because wood smoke presents such a high health risk, legislation is needed to regulate the use of open-air fires and wood-burning stoves. **Which of the following, if true, provides the most support for the argument above?**
- (A) The amount of dangerous toxins contained in wood smoke is much less than the amount contained in an equal volume of automobile exhaust.
 - (B) Within the jurisdiction covered by the proposed legislation, most heating and cooking is done with oil or natural gas.
 - (C) Smoke produced by coal-burning stoves is significantly more toxic than smoke from wood-burning stoves.
 - (D) No significant beneficial effect on air quality would result if open-air fires were banned within the jurisdiction covered by the proposed legislation.
 - (E) In valleys where wood is used as the primary heating fuel, the concentration of smoke results in poor air quality.
62. In Swartkans territory, archaeologists discovered charred bone fragments dating back one million years. Analysis of the fragments, which came from a variety of animals, showed that they had been heated to temperatures no higher than those produced in experimental campfires made from branches of white stinkwood, the most common tree around Swartkans. **Which of the following, if true, would, together with the information above, provide the best basis for the claim that the charred bone fragments are evidence of the use of fire by early hominids?**
- (A) The white stinkwood tree is used for building material by the present-day inhabitants of Swartkans.
 - (B) Forest fires can heat wood to a range of temperatures that occur in campfires.
 - (C) The bone fragments were fitted together by the archaeologists to form the complete skeletons of several animals.
 - (D) Apart from the Swartkans discovery, there is reliable evidence that early hominids used fire as many as 500,000 years ago.
 - (E) The bone fragments were found in several distinct layers of limestone that contained primitive cutting tools known to have been used by early hominids.
63. In Washington County, attendance at the movies is just large enough for the cinema operators to make modest profits. The size of the county's population is stable and is not expected to increase much. Yet there are investors ready to double the number of movie screens in the county within five years, and they are predicting solid profits both for themselves and for the established cinema operators. **Which of the following, if true about Washington County, most helps to provide a justification for the investors' prediction?**
- (A) Over the next ten years, people in their teenage years, the prime moviegoing age, will be a rapidly growing proportion of the county's population.
 - (B) As distinct from the existing cinemas, most of the cinemas being planned would be located in downtown areas, in hopes of stimulating an economic revitalization of those areas.
 - (C) Spending on video purchases, as well as spending on video rentals, has been increasing modestly each year for the past ten years.
 - (D) The average number of screens per cinema is lower among existing cinemas than it is among cinemas still in the planning stages.
 - (E) The sale of snacks and drinks in cinemas accounts for a steadily growing share of most cinema operators' profits.

64. Male bowerbirds construct elaborately decorated nests, or bowers. Basing their judgment on the fact that different local populations of bowerbirds of the same species build bowers that exhibit different building and decorative styles, researchers have concluded that the bowerbirds' building styles are a culturally acquired, rather than a genetically transmitted, trait. **Which of the following, if true, would most strengthen the conclusion drawn by the researchers?**
- (A) There are more common characteristics than there are differences among the bower-building styles of the local bowerbird population that has been studied most extensively.
 - (B) Young male bowerbirds are inept at bower-building and apparently spend years watching their elders before becoming accomplished in the local bower style.
 - (C) The bowers of one species of bowerbird lack the towers and ornamentation characteristic of the bowers of most other species of bowerbird.
 - (D) Bowerbirds are found only in New Guinea and Australia, where local populations of the birds apparently seldom have contact with one another.
 - (E) It is well known that the song dialects of some songbirds are learned rather than transmitted genetically.
65. The Plexis Corporation, a leading computer chip manufacturer, is currently developing a new chip, which is faster and more efficient than any computer chip currently in use. The new chip will be released for sale in twelve months. Plexis' market research has shown that initial sales of the new chip would be maximized by starting to advertise it now, but the company has decided to wait another six months before doing so. **Which of the following, if true, provides the Plexis Corporation with the best reason for postponing advertising its new chip?**
- (A) Some computer users are reluctant to purchase new computer products when they are first released.
 - (B) The cost of an advertising campaign capable of maximizing initial sales of the new chip would be no greater than campaigns previously undertaken by Plexis.
 - (C) Advertising the new chip now will significantly decrease sales of Plexis' current line of computer chips.
 - (D) Plexis' major rivals in the computer chip manufacturing business are developing a chip with capabilities that are comparable to those of Plexis' new chip.
 - (E) Taking full advantage of the capacities of the new chip will require substantial adjustments in other segments of the computer industry.
66. Many breakfast cereals are fortified with vitamin supplements. Some of these cereals provide 100 percent of the recommended daily requirement of vitamins. Nevertheless, a well-balanced breakfast, including a variety of foods, is a better source of those vitamins than are such fortified breakfast cereals alone. **Which of the following, if true, would most strongly support the position above?**
- (A) In many foods, the natural combination of vitamins with other nutrients makes those vitamins more usable by the body than are vitamins added in vitamin supplements.
 - (B) People who regularly eat cereals fortified with vitamin supplements sometimes neglect to eat the foods in which the vitamins occur naturally.
 - (C) Foods often must be fortified with vitamin supplements because naturally occurring vitamins are removed during processing.
 - (D) Unprocessed cereals are naturally high in several of the vitamins that are usually added to fortified breakfast cereals.
 - (E) Cereals containing vitamin supplements are no harder to digest than similar cereals without added vitamins.
67. The Eurasian ruffe, a fish species inadvertently introduced into North America's Great Lakes in recent years, feeds on the eggs of lake whitefish, a native species, thus threatening the lakes' natural ecosystem. To help track the ruffe's spread, government agencies have produced wallet-sized cards about the ruffe. The cards contain pictures of the ruffe and explain the danger they pose; the cards also request anglers to report any ruffe they catch. **Which of the following, if true, would provide most support for the prediction that the agencies' action will have its intended effect?**
- (A) The ruffe has spiny fins that make it unattractive as prey.
 - (B) Ruffe generally feed at night, but most recreational fishing on the Great Lakes is done during daytime hours.
 - (C) Most people who fish recreationally on the Great Lakes are interested in the preservation of the lake whitefish because it is a highly prized game fish.
 - (D) The ruffe is one of several nonnative species in the Great Lakes whose existence threatens the survival of lake whitefish populations there.
 - (E) The bait that most people use when fishing for whitefish on the Great Lakes is not attractive to ruffe.
68. Crowding on Mooreville's subway frequently leads to delays, because it is difficult for passengers to exit from the trains. Subway ridership is projected to increase by 20 percent over the next 10 years. The Mooreville Transit Authority plans to increase the number of daily train trips by only 5 percent over the same period. Officials predict that this increase is sufficient to ensure that the incidence of delays due to crowding does not increase. **Which of the following, if true, provides the strongest grounds for the officials' prediction?**
- (A) By changing maintenance schedules, the Transit Authority can achieve the 5 percent increase in train trips without purchasing any new subway cars.
 - (B) The Transit Authority also plans a 5 percent increase in the number of bus trips on routes that connect to subways.
 - (C) For most commuters who use the subway system, there is no practical alternative public transportation available.
 - (D) Most of the projected increase in ridership is expected to occur in off-peak hours when trains are now sparsely used.
 - (E) The 5 percent increase in the number of train trips can be achieved without an equal increase in Transit Authority operational costs.

69. One variety of partially biodegradable plastic beverage container is manufactured from small bits of plastic bound together by a degradable bonding agent such as cornstarch. Since only the bonding agent degrades, leaving the small bits of plastic, no less plastic refuse per container is produced when such containers are discarded than when comparable nonbiodegradable containers are discarded. **Which of the following, if true, most strengthens the argument above?**
- (A) Both partially biodegradable and nonbiodegradable plastic beverage containers can be crushed completely flat by refuse compactors.
 - (B) The partially biodegradable plastic beverage containers are made with more plastic than comparable nonbiodegradable ones in order to compensate for the weakening effect of the bonding agents.
 - (C) Many consumers are ecology-minded and prefer to buy a product sold in the partially biodegradable plastic beverage containers rather than in nonbiodegradable containers, even if the price is higher.
 - (D) The manufacturing process for the partially biodegradable plastic beverage containers results in less plastic waste than the manufacturing process for nonbiodegradable plastic beverage containers.
 - (E) Technological problems with recycling currently prevent the reuse as food or beverage containers of the plastic from either type of plastic beverage container.
70. Most employees in the computer industry move from company to company, changing jobs several times in their careers. However, Summit Computers is known throughout the industry for retaining its employees. Summit credits its success in retaining employees to its informal, nonhierarchical work environment. **Which of the following, if true, most strongly supports Summit's explanation of its success in retaining employees?**
- (A) Some people employed in the computer industry change jobs if they become bored with their current projects.
 - (B) A hierarchical work environment hinders the cooperative exchange of ideas that computer industry employees consider necessary for their work.
 - (C) Many of Summit's senior employees had previously worked at only one other computer company.
 - (D) In a nonhierarchical work environment, people avoid behavior that might threaten group harmony and thus avoid discussing with their colleagues any dissatisfaction they might have with their jobs.
 - (E) The cost of living near Summit is relatively low compared to areas in which some other computer companies are located.
71. 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 A.D. 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.
72. Several industries have recently switched at least partly from older technologies powered by fossil fuels to new technologies powered by electricity. It is thus evident that less fossil fuel is being used as a result of the operations of these industries than would have been used if these industries had retained their older technologies. **Which of the following, if true, most strengthens the argument above?**
- (A) Many of the industries that have switched at least partly to the new technologies have increased their output.
 - (B) Less fossil fuel was used to manufacture the machinery employed in the new technologies than was originally used to manufacture the machinery employed in the older technologies.
 - (C) More electricity is used by those industries that have switched at least partly to the new technologies than by those industries that have not switched.
 - (D) Some of the industries that have switched at least partly to the new technologies still use primarily technologies that are powered by fossil fuels.
 - (E) The amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount that would have been used to power the older technologies.
73. The local board of education found that, because the current physics curriculum has little direct relevance to today's world, physics classes attracted few high school students. So to attract students to physics classes, the board proposed a curriculum that emphasizes principles of physics involved in producing and analyzing visual images. **Which of the following, if true, provides the strongest reason to expect that the proposed curriculum will be successful in attracting students?**
- (A) Several of the fundamental principles of physics are involved in producing and analyzing visual images.
 - (B) Knowledge of physics is becoming increasingly important in understanding the technology used in today's world.
 - (C) Equipment that a large producer of photographic equipment has donated to the high school could be used in the proposed curriculum.
 - (D) The number of students interested in physics today is much lower than the number of students interested in physics 50 years ago.
 - (E) In today's world the production and analysis of visual images is of major importance in communications, business, and recreation.

74. A sudden increase in the production of elephant ivory artifacts on the Mediterranean coast of North Africa occurred in the tenth century. Historians explain this increase as the result of an area opening up as a new source of ivory and argue on this basis that the important medieval trade between North Africa and East Africa began at this period. **Each of the following, if true, provides some support for the historians' account described above EXCEPT:**
- (A) In East Africa gold coins from Mediterranean North Africa have been found at a tenth-century site but at no earlier sites.
 - (B) The many surviving letters of pre-tenth-century North African merchants include no mention of business transactions involving East Africa.
 - (C) Excavations in East Africa reveal a tenth-century change in architectural style to reflect North African patterns.
 - (D) Documents from Mediterranean Europe and North Africa that date back earlier than the tenth century show knowledge of East African animals.
 - (E) East African carvings in a style characteristic of the tenth century depict seagoing vessels very different from those used by local sailors but of a type common in the Mediterranean.
75. Studies in restaurants show that the tips left by customers who pay their bill in cash tend to be larger when the bill is presented on a tray that bears a credit-card logo. Consumer psychologists hypothesize that simply seeing a credit-card logo makes many credit-card holders willing to spend more because it reminds them that their spending power exceeds the cash they have immediately available. **Which of the following, if true, most strongly supports the psychologists' interpretation of the studies?**
- (A) The effect noted in the studies is not limited to patrons who have credit cards.
 - (B) Patrons who are under financial pressure from their credit-card obligations tend to tip less when presented with a restaurant bill on a tray with a credit-card logo than when the tray has no logo.
 - (C) In virtually all of the cases in the studies, the patrons who paid bills in cash did not possess credit cards.
 - (D) In general, restaurant patrons who pay their bills in cash leave larger tips than do those who pay by credit card.
 - (E) The percentage of restaurant bills paid with a given brand of credit card increases when that credit card's logo is displayed on the tray with which the bill is presented.
76. One way to judge the performance of a company is to compare it with other companies. This technique, commonly called "benchmarking," permits the manager of a company to discover better industrial practices and can provide a justification for the adoption of good practices. **Any of the following, if true, is a valid reason for benchmarking the performance of a company against companies with which it is not in competition rather than against competitors EXCEPT:**
- (A) Comparisons with competitors are most likely to focus on practices that the manager making the comparisons already employs.
 - (B) Getting "inside" information about the unique practices of competitors is particularly difficult.
 - (C) Since companies that compete with each other are likely to have comparable levels of efficiency, only benchmarking against noncompetitors is likely to reveal practices that would aid in beating competitors.
 - (D) Managers are generally more receptive to new ideas that they find outside their own industry.
 - (E) Much of the success of good companies is due to their adoption of practices that take advantage of the special circumstances of their products or markets.
77. Springfield Fire Commissioner: The vast majority of false fire alarms are prank calls made anonymously from fire alarm boxes on street corners. Since virtually everyone has access to a private telephone, these alarm boxes have outlived their usefulness. Therefore, we propose to remove the boxes. Removing the boxes will reduce the number of prank calls without hampering people's ability to report a fire. **Which of the following, if true, most strongly supports the claim that the proposal, if carried out, will have the announced effect?**
- (A) The fire department traces all alarm calls made from private telephones and records where they came from.
 - (B) Maintaining the fire alarm boxes costs Springfield approximately \$5 million annually.
 - (C) A telephone call can provide the fire department with more information about the nature and size of a fire than can an alarm placed from an alarm box.
 - (D) Responding to false alarms significantly reduces the fire department's capacity for responding to fires.
 - (E) On any given day, a significant percentage of the public telephones in Springfield are out of service.
78. 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 example, in the computer and electronics industries—for which patent protection is often very ineffective.

79. 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.
80. Codex Berinensis, a Florentine copy of an ancient Roman medical treatise, is undated but contains clues to when it was produced. Its first 80 pages are by a single copyist, but the remaining 20 pages are by three different copyists, which indicates some significant disruption. Since a letter in handwriting identified as that of the fourth copyist mentions a plague that killed many people in Florence in 1148, Codex Berinensis was probably produced in that year. **Which of the following, if true, most strongly supports the hypothesis that Codex Berinensis was produced in 1148?**
- (A) Other than Codex Berinensis, there are no known samples of the handwriting of the first three copyists.
 (B) According to the account by the fourth copyist, the plague went on for 10 months.
 (C) A scribe would be able to copy a page of text the size and style of Codex Berinensis in a day.
 (D) There was only one outbreak of plague in Florence in the 1100s.
 (E) The number of pages of Codex Berinensis produced by a single scribe becomes smaller with each successive change of copyist.
81. The spacing of the four holes on a fragment of a bone flute excavated at a Neanderthal campsite is just what is required to play the third through sixth notes of the diatonic scale—the seven-note musical scale used in much of Western music since the Renaissance. Musicologists therefore hypothesize that the diatonic musical scale was developed and used thousands of years before it was adopted by Western musicians. **Which of the following, if true, most strongly supports the hypothesis?**
- (A) Bone flutes were probably the only musical instrument made by Neanderthals.
 (B) No musical instrument that is known to have used a diatonic scale is of an earlier date than the flute found at the Neanderthal campsite.
 (C) The flute was made from a cave-bear bone and the campsite at which the flute fragment was excavated was in a cave that also contained skeletal remains of cave bears.
 (D) Flutes are the simplest wind instrument that can be constructed to allow playing a diatonic scale.
 (E) The cave-bear leg bone used to make the Neanderthal flute would have been long enough to make a flute capable of playing a complete diatonic scale.

Evaluate

82. Metal rings recently excavated from seventh-century settlements in the western part of Mexico were made using the same metallurgical techniques as those used by Ecuadorian artisans before and during that period. These techniques are sufficiently complex to make their independent development in both areas unlikely. Since the people of these two areas were in cultural contact, archaeologists hypothesize that the metallurgical techniques used to make the rings found in Mexico were learned by Mexican artisans from Ecuadorian counterparts. **Which of the following would it be most useful to establish in order to evaluate the archaeologists' hypothesis?**
- (A) Whether metal objects were traded from Ecuador to western Mexico during the seventh century
 (B) Whether travel between western Mexico and Ecuador in the seventh century would have been primarily by land or by sea
 (C) Whether artisans from western Mexico could have learned complex metallurgical techniques from their Ecuadorian counterparts without actually leaving western Mexico
 (D) Whether metal tools were used in the seventh-century settlements in western Mexico
 (E) Whether any of the techniques used in the manufacture of the metal rings found in western Mexico are still practiced among artisans in Ecuador today
83. Following several years of declining advertising sales, the Greenville Times reorganized its advertising sales force. Before reorganization, the sales force was organized geographically, with some sales representatives concentrating on city-center businesses and others concentrating 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, revenue from advertising sales increased. **In assessing whether the improvement in advertising sales can properly be attributed to the reorganization, it would be most helpful to find out which of the following?**
- (A) What proportion of the total revenue of the Greenville Times is generated by advertising sales?
 (B) Has the circulation of the Greenville Times increased substantially in the last two years?
 (C) Among all the types of industry and retailing that use the Greenville Times as an advertising vehicle, which type accounts for the largest proportion of the newspaper's advertising sales?
 (D) Do any clients of the sales representatives of the Greenville Times have a standing order with the Times for a fixed amount of advertising per month?
 (E) Among the advertisers in the Greenville Times, are there more types of retail business or more types of industrial business?

84. The Hazelton coal-processing plant is a major employer in the Hazelton area, but national environmental regulations will force it to close if it continues to use old, polluting processing methods. However, to update the plant to use newer, cleaner methods would be so expensive that the plant will close unless it receives the tax break it has requested. In order to prevent a major increase in local unemployment, the Hazelton government is considering granting the plant's request. **Which of the following would be most important for the Hazelton government to determine before deciding whether to grant the plant's request?**
- (A) Whether the company that owns the plant would open a new plant in another area if the present plant were closed
 - (B) Whether the plant would employ far fewer workers when updated than it does now
 - (C) Whether the level of pollutants presently being emitted by the plant is high enough to constitute a health hazard for local residents
 - (D) Whether the majority of the coal processed by the plant is sold outside the Hazelton area
 - (E) Whether the plant would be able to process more coal when updated than it does now
85. Scientists propose placing seismic stations on the floor of the Pacific Ocean to warn threatened coastal communities on the northwestern coast of the United States of approaching tidal waves caused by earthquakes. Since forewarned communities could take steps to evacuate, many of the injuries and deaths that would otherwise occur could be avoided if the government would implement this proposal. **The answer to which of the following questions would be most important in determining whether implementing the proposal would be likely to achieve the desired result?**
- (A) When was the last time that the coastal communities were threatened by an approaching tidal wave?
 - (B) How far below sea level would the stations be located?
 - (C) Would there be enough time after receiving warning of an approaching tidal wave for communities to evacuate safely?
 - (D) How soon after a tidal wave hits land is it safe for evacuees to return to their communities?
 - (E) Can the stations be equipped to collect and relay information about phenomena other than tidal waves caused by earthquakes?
86. Traverton's city council wants to minimize the city's average yearly expenditures on its traffic signal lights and so is considering replacing the incandescent bulbs currently in use with arrays of light-emitting diodes (LEDs) as the incandescent bulbs burn out. Compared to incandescent bulbs, LED arrays consume significantly less energy and cost no more to purchase. Moreover, the costs associated with the conversion of existing fixtures so as to accept LED arrays would be minimal. **Which of the following would it be most useful to know in determining whether switching to LED arrays would be likely to help minimize Traverton's yearly maintenance costs?**
- (A) Whether the expected service life of LED arrays is at least as long as that of the currently used incandescent bulbs
 - (B) Whether any cities have switched from incandescent lights in their traffic signals to lighting elements other than LED arrays
 - (C) Whether the company from which Traverton currently buys incandescent bulbs for traffic signals also sells LED arrays
 - (D) Whether Traverton's city council plans to increase the number of traffic signal lights in Traverton
 - (E) Whether the crews that currently replace incandescent bulbs in Traverton's traffic signals know how to convert the existing fixtures so as to accept LED arrays
87. A certain automaker aims to increase its market share by deeply discounting its vehicles' prices for the next several months. The discounts will cut into profits, but because they will be heavily advertised the manufacturer hopes that they will attract buyers away from rival manufacturers' cars. In the longer term, the automaker envisions that customers initially attracted by the discounts may become loyal customers. **In assessing the plan's chances of achieving its aim, it would be most useful to know which of the following?**
- (A) Whether the automaker's competitors are likely to respond by offering deep discounts on their own products
 - (B) Whether the advertisements will be created by the manufacturer's current advertising agency
 - (C) Whether some of the automaker's models will be more deeply discounted than others
 - (D) Whether the automaker will be able to cut costs sufficiently to maintain profit margins even when the discounts are in effect
 - (E) Whether an alternative strategy might enable the automaker to enhance its profitability while holding a constant or diminishing share of the market
88. For similar cars and comparable drivers, automobile insurance for collision damage has always cost more in Greatport than in Fairmont. Police studies, however, show that cars owned by Greatport residents are, on average, slightly less likely to be involved in a collision than cars in Fairmont. Clearly, therefore, insurance companies are making a greater profit on collision-damage insurance in Greatport than in Fairmont. **In evaluating the argument, it would be most useful to compare**
- (A) the level of traffic congestion in Greatport with the level of traffic congestion in Fairmont
 - (B) the cost of repairing collision damage in Greatport with the cost of repairing collision damage in Fairmont
 - (C) the rates Greatport residents pay for other forms of insurance with the rates paid for similar insurance by residents of Fairmont
 - (D) the condition of Greatport's roads and streets with the condition of Fairmont's roads and streets
 - (E) the cost of collision-damage insurance in Greatport and Fairmont with that in other cities

89. The growing popularity of computer-based activities was widely expected to result in a decline in television viewing, since it had been assumed that people lack sufficient free time to maintain current television-viewing levels while spending increasing amounts of free time on the computer. That assumption, however, is evidently false: In a recent mail survey concerning media use, a very large majority of respondents who report increasing time spent per week using computers report no change in time spent watching television. **Which of the following would it be most useful to determine in order to evaluate the argument?**
- (A) Whether a large majority of the survey respondents reported watching television regularly
 - (B) Whether the amount of time spent watching television is declining among people who report that they rarely or never use computers
 - (C) Whether the type of television programs a person watches tends to change as the amount of time spent per week using computers increases
 - (D) Whether a large majority of the computer owners in the survey reported spending increasing amounts of time per week using computers
 - (E) Whether the survey respondents' reports of time spent using computers included time spent using computers at work
90. Trancorp currently transports all its goods to Burland Island by truck. The only bridge over the channel separating Burland from the mainland is congested, and trucks typically spend hours in traffic. Trains can reach the channel more quickly than trucks, and freight cars can be transported to Burland by barges that typically cross the channel in an hour. Therefore, to reduce shipping time, Trancorp plans to switch to trains and barges to transport goods to Burland. **Which of the following would be most important to know in determining whether Trancorp's plan, if implemented, is likely to achieve its goal?**
- (A) Whether transportation by train and barge would be substantially less expensive than transportation by truck
 - (B) Whether there are boats that can make the trip between the mainland and Burland faster than barges can
 - (C) Whether loading the freight cars onto barges is very time consuming
 - (D) Whether the average number of vehicles traveling over the bridge into Burland has been relatively constant in recent years
 - (E) Whether most trucks transporting goods into Burland return to the mainland empty
91. Certain genetically modified strains of maize produce a powerful natural insecticide. The insecticide occurs throughout the plant, including its pollen. Maize pollen is dispersed by the wind and frequently blows onto milkweed plants that grow near maize fields. Caterpillars of monarch butterflies feed exclusively on milkweed leaves. When these caterpillars are fed milkweed leaves dusted with pollen from modified maize plants, they die. Therefore, by using genetically modified maize, farmers put monarch butterflies at risk. **Which of the following would it be most useful to determine in order to evaluate the argument?**
- (A) Whether the natural insecticide is as effective against maize-eating insects as commercial insecticides typically used on maize are
 - (B) Whether the pollen of genetically modified maize contains as much insecticide as other parts of these plants
 - (C) Whether monarch butterfly caterpillars are actively feeding during the part of the growing season when maize is releasing pollen
 - (D) Whether insects that feed on genetically modified maize plants are likely to be killed by insecticide from the plant's pollen
 - (E) Whether any maize-eating insects compete with monarch caterpillars for the leaves of milkweed plants growing near maize fields
92. Scientists have modified feed corn genetically, increasing its resistance to insect pests. Farmers who tried out the genetically modified corn last season applied less insecticide to their corn fields and still got yields comparable to those they would have gotten with ordinary corn. Ordinary corn seed, however, costs less, and what these farmers saved on insecticide rarely exceeded their extra costs for seed. Therefore, for most feed-corn farmers, switching to genetically modified seed would be unlikely to increase profits. **Which of the following would it be most useful to know in order to evaluate the argument?**
- (A) Whether there are insect pests that sometimes reduce feed-corn yields, but against which commonly used insecticides and the genetic modification are equally ineffective
 - (B) Whether the price that farmers receive for feed corn has remained steady over the past few years
 - (C) Whether the insecticides typically used on feed corn tend to be more expensive than insecticides typically used on other crops
 - (D) Whether most of the farmers who tried the genetically modified corn last season applied more insecticide than was actually necessary
 - (E) Whether, for most farmers who plant feed corn, it is their most profitable crop
93. Community activist: If Morganville wants to keep its central shopping district healthy, it should prevent the opening of a huge SaveAll discount department store on the outskirts of Morganville. Records from other small towns show that whenever SaveAll has opened a store outside the central shopping district of a small town, within five years the town has experienced the bankruptcies of more than a quarter of the stores in the shopping district. **The answer to which of the following would be most useful for evaluating the community activist's reasoning?**
- (A) Have community activists in other towns successfully campaigned against the opening of a SaveAll store on the outskirts of their towns?
 - (B) Do a large percentage of the residents of Morganville currently do almost all of their shopping at stores in Morganville?
 - (C) In towns with healthy central shopping districts, what proportion of the stores in those districts suffer bankruptcy during a typical five-year period?
 - (D) What proportion of the employees at the SaveAll store on the outskirts of Morganville will be drawn from Morganville?
 - (E) Do newly opened SaveAll stores ever lose money during their first five years of operation?

94. In the past the country of Malvernia has relied heavily on imported oil. Malvernia recently implemented a program to convert heating systems from oil to natural gas. Malvernia currently produces more natural gas each year than it uses, and oil production in Malvernian oil fields is increasing at a steady pace. If these trends in fuel production and usage continue, therefore, Malvernian reliance on foreign sources for fuel is likely to decline soon. **Which of the following would it be most useful to establish in evaluating the argument?**
- (A) When, if ever, will production of oil in Malvernia outstrip production of natural gas?
 - (B) Is Malvernia among the countries that rely most on imported oil?
 - (C) What proportion of Malvernia's total energy needs is met by hydroelectric, solar, and nuclear power?
 - (D) Is the amount of oil used each year in Malvernia for generating electricity and fuel for transportation increasing?
 - (E) Have any existing oil-burning heating systems in Malvernia already been converted to natural-gas-burning heating systems?
95. Although custom prosthetic bone replacements produced through a new computer-aided design process will cost more than twice as much as ordinary replacements, custom replacements should still be cost-effective. Not only will surgery and recovery time be reduced, but custom replacements should last longer, thereby reducing the need for further hospital stays. **Which of the following must be studied in order to evaluate the argument presented above?**
- (A) The amount of time a patient spends in surgery versus the amount of time spent recovering from surgery
 - (B) The amount by which the cost of producing custom replacements has declined with the introduction of the new technique for producing them
 - (C) The degree to which the use of custom replacements is likely to reduce the need for repeat surgery when compared with the use of ordinary replacements
 - (D) The degree to which custom replacements produced with the new technique are more carefully manufactured than are ordinary replacements
 - (E) The amount by which custom replacements produced with the new technique will drop in cost as the production procedures become standardized and applicable on a larger scale

Assumptions

96. Gortland has long been narrowly self-sufficient in both grain and meat. However, as per capita income in Gortland has risen toward the world average, per capita consumption of meat has also risen toward the world average, and it takes several pounds of grain to produce one pound of meat. Therefore, since per capita income continues to rise, whereas domestic grain production will not increase, Gortland will soon have to import either grain or meat or both. **Which of the following is an assumption on which the argument depends?**
- (A) The total acreage devoted to grain production in Gortland will soon decrease.
 - (B) Importing either grain or meat will not result in a significantly higher percentage of Gortlanders' incomes being spent on food than is currently the case.
 - (C) The per capita consumption of meat in Gortland is increasing at roughly the same rate across all income levels.
 - (D) The per capita income of meat producers in Gortland is rising faster than the per capita income of grain producers.
 - (E) People in Gortland who increase their consumption of meat will not radically decrease their consumption of grain.
97. In recent years, many cabinetmakers have been winning acclaim as artists. But since furniture must be useful, cabinetmakers must exercise their craft with an eye to the practical utility of their product. For this reason, cabinetmaking is not art. **Which of the following is an assumption that supports drawing the conclusion above from the reason given for that conclusion?**
- (A) Some furniture is made to be placed in museums, where it will not be used by anyone.
 - (B) Some cabinetmakers are more concerned than others with the practical utility of the products they produce.
 - (C) Cabinetmakers should be more concerned with the practical utility of their products than they currently are.
 - (D) An object is not an art object if its maker pays attention to the object's practical utility.
 - (E) Artists are not concerned with the monetary value of their products.
98. The technological conservatism of bicycle manufacturers is a reflection of the kinds of demand they are trying to meet. The only cyclists seriously interested in innovation and willing to pay for it are bicycle racers. Therefore, innovation in bicycle technology is limited by what authorities will accept as standard for purposes of competition in bicycle races. **Which of the following is an assumption made in drawing the conclusion above?**
- (A) The market for cheap, traditional bicycles cannot expand unless the market for high-performance competition bicycles expands.
 - (B) High-performance bicycles are likely to be improved more as a result of technological innovations developed in small workshops than as a result of technological innovations developed in major manufacturing concerns.
 - (C) Bicycle racers do not generate a strong demand for innovations that fall outside what is officially recognized as standard for purposes of competition.
 - (D) The technological conservatism of bicycle manufacturers results primarily from their desire to manufacture a product that can be sold without being altered to suit different national markets.
 - (E) The authorities who set standards for high-performance bicycle racing do not keep informed about innovative bicycle design.
99. Installing scrubbers in smokestacks and switching to cleaner-burning fuel are the two methods available to Northern Power for reducing harmful emissions from its plants. Scrubbers will reduce harmful emissions more than cleaner-burning fuels will. Therefore, by installing scrubbers, Northern Power will be doing the most that can be done to reduce harmful emissions from its plants. **Which of the following is an assumption on which the argument depends?**
- (A) Switching to cleaner-burning fuel will not be more expensive than installing scrubbers.
 - (B) Northern Power can choose from among various kinds of scrubbers, some of which are more effective than others.
 - (C) Northern Power is not necessarily committed to reducing harmful emissions from its plants.
 - (D) Harmful emissions from Northern Power's plants cannot be reduced more by using both methods together than by the installation of scrubbers alone.
 - (E) Aside from harmful emissions from the smokestacks of its plants, the activities of Northern Power do not cause significant air pollution.

100. If the county continues to collect residential trash at current levels, landfills will soon be overflowing and parkland will need to be used in order to create more space. Charging each household a fee for each pound of trash it puts out for collection will induce residents to reduce the amount of trash they create; this charge will therefore protect the remaining county parkland. **Which of the following is an assumption made in drawing the conclusion above?**
- (A) Residents will reduce the amount of trash they put out for collection by reducing the number of products they buy.
 - (B) The collection fee will not significantly affect the purchasing power of most residents, even if their households do not reduce the amount of trash they put out.
 - (C) The collection fee will not induce residents to dump their trash in the parklands illegally.
 - (D) The beauty of county parkland is an important issue for most of the county's residents.
 - (E) Landfills outside the county's borders could be used as dumping sites for the county's trash.
101. Although computers can enhance people's ability to communicate, computer games are a cause of underdeveloped communication skills in children. After-school hours spent playing computer games are hours not spent talking with people. Therefore, children who spend all their spare time playing these games have less experience in interpersonal communication than other children have. **The argument depends on which of the following assumptions?**
- (A) Passive activities such as watching television and listening to music do not hinder the development of communication skills in children.
 - (B) Most children have other opportunities, in addition to after-school hours, in which they can choose whether to play computer games or to interact with other people.
 - (C) Children who do not spend all of their after-school hours playing computer games spend at least some of that time talking with other people.
 - (D) Formal instruction contributes little or nothing to children's acquisition of communication skills.
 - (E) The mental skills developed through playing computer games do not contribute significantly to children's intellectual development.
102. Even though most universities retain the royalties from faculty members' inventions, the faculty members retain the royalties from books and articles they write. Therefore, faculty members should retain the royalties from the educational computer software they develop. **The conclusion above would be more reasonably drawn if which of the following were inserted into the argument as an additional premise?**
- (A) Royalties from inventions are higher than royalties from educational software programs.
 - (B) Faculty members are more likely to produce educational software programs than inventions.
 - (C) Inventions bring more prestige to universities than do books and articles.
 - (D) In the experience of most universities, educational software programs are more marketable than are books and articles.
 - (E) In terms of the criteria used to award royalties, educational software programs are more nearly comparable to books and articles than to inventions.
103. **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 one out of 20 workers unemployed. So at any given time if a person knows approximately 50 workers, one or more will very likely be unemployed.
Sharon's argument relies on the assumption that
- (A) normal levels of unemployment are rarely exceeded
 - (B) unemployment is not normally concentrated in geographically isolated segments of the population
 - (C) the number of people who each know someone who is unemployed is always higher than 90 percent of the population
 - (D) Roland is not consciously distorting the statistics he presents
 - (E) knowledge that a personal acquaintance is unemployed generates more fear of losing one's job than does knowledge of unemployment statistics
104. Because no employee wants to be associated with bad news in the eyes of a superior, information about serious problems at lower levels is progressively softened and distorted as it goes up each step in the management hierarchy. The chief executive is, therefore, less well informed about problems at lower levels than are his or her subordinates at those levels. **The conclusion drawn above is based on the assumption that**
- (A) problems should be solved at the level in the management hierarchy at which they occur
 - (B) employees should be rewarded for accurately reporting problems to their superiors
 - (C) problem-solving ability is more important at higher levels than it is at lower levels of the management hierarchy
 - (D) chief executives obtain information about problems at lower levels from no source other than their subordinates
 - (E) some employees are more concerned about truth than about the way they are perceived by their superiors
105. A recent report determined that although only 3 percent of drivers on Maryland highways equipped their vehicles with radar detectors, 33 percent of all vehicles ticketed for exceeding the speed limit were equipped with them. Clearly, drivers who equip their vehicles with radar detectors are more likely to exceed the speed limit regularly than are drivers who do not. **The conclusion drawn above depends on which of the following assumptions?**
- (A) Drivers who equip their vehicles with radar detectors are less likely to be ticketed for exceeding the speed limit than are drivers who do not.
 - (B) Drivers who are ticketed for exceeding the speed limit are more likely to exceed the speed limit regularly than are drivers who are not ticketed.
 - (C) The number of vehicles that were ticketed for exceeding the speed limit was greater than the number of vehicles that were equipped with radar detectors.
 - (D) Many of the vehicles that were ticketed for exceeding the speed limit were ticketed more than once in the time period covered by the report.
 - (E) Drivers on Maryland highways exceeded the speed limit more often than did drivers on other state highways not covered in the report.

106. Many people suffer an allergic reaction to certain sulfites, including those that are commonly added to wine as preservatives. However, since there are several winemakers who add sulfites to none of the wines they produce, people who would like to drink wine but are allergic to sulfites can drink wines produced by these winemakers without risking an allergic reaction to sulfites. **Which of the following is an assumption on which the argument depends?**
- (A) These winemakers have been able to duplicate the preservative effect produced by adding sulfites by means that do not involve adding any potentially allergenic substances to their wine.
 (B) Not all forms of sulfite are equally likely to produce the allergic reaction.
 (C) Wine is the only beverage to which sulfites are commonly added.
 (D) Apart from sulfites, there are no substances commonly present in wine that give rise to an allergic reaction.
 (E) Sulfites are not naturally present in the wines produced by these winemakers in amounts large enough to produce an allergic reaction in someone who drinks these wines.
107. Commentator: The theory of trade retaliation states that countries closed out of any of another country's markets should close some of their own markets to the other country in order to pressure the other country to reopen its markets. If every country acted according to this theory, no country would trade with any other. **The commentator's argument relies on which of the following assumptions?**
- (A) No country actually acts according to the theory of trade retaliation.
 (B) No country should block any of its markets to foreign trade.
 (C) Trade disputes should be settled by international tribunal.
 (D) For any two countries, at least one has some market closed to the other.
 (E) Countries close their markets to foreigners to protect domestic producers.
108. Although parapsychology is often considered a pseudoscience, it is in fact a genuine scientific enterprise, for it uses scientific methods such as controlled experiments and statistical tests of clearly stated hypotheses to examine the questions it raises. **The conclusion above is properly drawn if which of the following is assumed?**
- (A) If a field of study can conclusively answer the questions it raises, then it is a genuine science.
 (B) Since parapsychology uses scientific methods, it will produce credible results.
 (C) Any enterprise that does not use controlled experiments and statistical tests is not genuine science.
 (D) Any field of study that employs scientific methods is a genuine scientific enterprise.
 (E) Since parapsychology raises clearly statable questions, they can be tested in controlled experiments.
109. Kale has more nutritional value than spinach. But since collard greens have more nutritional value than lettuce, it follows that kale has more nutritional value than lettuce. **Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:**
- (A) Collard greens have more nutritional value than kale.
 (B) Spinach has more nutritional value than lettuce.
 (C) Spinach has more nutritional value than collard greens.
 (D) Spinach and collard greens have the same nutritional value.
 (E) Kale and collard greens have the same nutritional value.
110. The average hourly wage of television assemblers in Vernland has long been significantly lower than that in neighboring Borodia. Since Borodia dropped all tariffs on Vernlandian televisions three years ago, the number of televisions sold annually in Borodia has not changed. However, recent statistics show a drop in the number of television assemblers in Borodia. Therefore, updated trade statistics will probably indicate that the number of televisions Borodia imports annually from Vernland has increased. **Which of the following is an assumption on which the argument depends?**
- (A) The number of television assemblers in Vernland has increased by at least as much as the number of television assemblers in Borodia has decreased.
 (B) Televisions assembled in Vernland have features that televisions assembled in Borodia do not have.
 (C) The average number of hours it takes a Borodian television assembler to assemble a television has not decreased significantly during the past three years.
 (D) The number of televisions assembled annually in Vernland has increased significantly during the past three years.
 (E) The difference between the hourly wage of television assemblers in Vernland and the hourly wage of television assemblers in Borodia is likely to decrease in the next few years.

Paradox

111. During the 1980s and 1990s, the annual number of people who visited the Sordellian Mountains increased continually, and many new ski resorts were built. Over the same period, however, the number of visitors to ski resorts who were caught in avalanches decreased, even though there was no reduction in the annual number of avalanches in the Sordellian Mountains. **Which of the following, if true in the Sordellian Mountains during the 1980s and 1990s, most helps to explain the decrease?**
- (A) Avalanches were most likely to happen when a large new snowfall covered an older layer of snow.
 (B) Avalanches destroyed at least some buildings in the Sordellian Mountains in every year.
 (C) People planning new ski slopes and other resort facilities used increasingly accurate information about which locations are likely to be in the path of avalanches.
 (D) The average length of stay for people visiting the Sordellian Mountains increased slightly.
 (E) Construction of new ski resorts often led to the clearing of wooded areas that had helped prevent avalanches.

112. A report that many apples contain a cancer-causing preservative called Alar apparently had little effect on consumers. Few consumers planned to change their apple-buying habits as a result of the report. Nonetheless, sales of apples in grocery stores fell sharply in March, a month after the report was issued. **Which of the following, if true, best explains the reason for the apparent discrepancy described above?**
- (A) In March, many grocers removed apples from their shelves in order to demonstrate concern about their customers' health.
 - (B) Because of a growing number of food-safety warnings, consumers in March were indifferent to such warnings.
 - (C) The report was delivered on television and also appeared in newspapers.
 - (D) The report did not mention that any other fruit contains Alar, although the preservative is used on other fruit.
 - (E) Public health officials did not believe that apples posed a health threat because only minute traces of Alar were present in affected apples.
113. In order to reduce the number of items damaged while in transit to customers, packaging consultants recommended that the TrueSave mail-order company increase the amount of packing material so as to fill any empty spaces in its cartons. Accordingly, TrueSave officials instructed the company's packers to use more packing material than before, and the packers zealously acted on these instructions and used as much as they could. Nevertheless, customer reports of damaged items rose somewhat. **Which of the following, if true, most helps to explain why acting on the consultants' recommendation failed to achieve its goal?**
- (A) The change in packing policy led to an increase in expenditure on packing material and labor.
 - (B) When packing material is compressed too densely, it loses some of its capacity to absorb shock.
 - (C) The amount of packing material used in a carton does not significantly influence the ease with which a customer can unpack the package.
 - (D) Most of the goods that TrueSave ships are electronic products that are highly vulnerable to being damaged in transit.
 - (E) TrueSave has lost some of its regular customers as a result of the high number of damaged items they received.
114. In Asia, where palm trees are nonnative, the trees' flowers have traditionally been pollinated by hand, which has kept palm fruit productivity unnaturally low. When weevils known to be efficient pollinators of palm flowers were introduced into Asia in 1980, palm fruit productivity increased—by up to 50 percent in some areas—but then decreased sharply in 1984. **Which of the following statements, if true, would best explain the 1984 decrease in productivity?**
- (A) Prices for palm fruit fell between 1980 and 1984 following the rise in production and a concurrent fall in demand.
 - (B) Imported trees are often more productive than native trees because the imported ones have left behind their pests and diseases in their native lands.
 - (C) Rapid increases in productivity tend to deplete trees of nutrients needed for the development of the fruit-producing female flowers.
 - (D) The weevil population in Asia remained at approximately the same level between 1980 and 1984.
 - (E) Prior to 1980 another species of insect pollinated the Asian palm trees, but not as efficiently as the species of weevil that was introduced in 1980.
115. **Plan:** Concerned about the welfare of its senior citizens, the government of Runagia decided two years ago to increase by 20 percent the government-provided pension paid to all Runagians age sixty-five and older.
Result: Many Runagian senior citizens are no better off financially now than they were before the increase. Further information: The annual rate of inflation since the pension increase has been below 5 percent, and the increased pension has been duly received by all eligible Runagians.
In light of the further information, which of the following, if true, does most to explain the result that followed implementation of the plan?
- (A) The majority of senior citizens whose financial position has not improved rely entirely on the government pension for their income.
 - (B) The Runagian banking system is so inefficient that cashing a pension check can take as much as three weeks.
 - (C) The prices of goods and services that meet the special needs of many senior citizens have increased at a rate much higher than the rate of inflation.
 - (D) The pension increase occurred at a time when the number of Runagians age sixty-five and older who were living below the poverty level was at an all-time high.
 - (E) The most recent pension increase was only the second such increase in the last ten years.
116. Contrary to earlier predictions, demand for sugarcane has not increased in recent years. Yet, even though prices and production amounts have also been stable during the last three years, sugarcane growers last year increased their profits by more than 10 percent over the previous year's level. **Any of the following statements, if true about last year, helps to explain the rise in profits EXCEPT:**
- (A) Many countries that are large consumers of sugarcane increased their production of sugarcane-based ethanol, yet their overall consumption of sugarcane decreased.
 - (B) Sugarcane growers have saved money on wages by switching from paying laborers an hourly wage to paying them by the amount harvested.
 - (C) The price of oil, the major energy source used by sugarcane growers in harvesting their crops, dropped by over 20 percent.
 - (D) Many small sugarcane growers joined together to form an association of sugarcane producers and began to buy supplies at low group rates.
 - (E) Rainfall in sugarcane-growing regions was higher than it had been during the previous year, allowing the growers to save money on expensive artificial irrigation.

117. In order to withstand tidal currents, juvenile horseshoe crabs frequently burrow in the sand. Such burrowing discourages barnacles from clinging to their shells. When fully grown, however, the crabs can readily withstand tidal currents without burrowing, and thus they acquire substantial populations of barnacles. Surprisingly, in areas where tidal currents are very weak, juvenile horseshoe crabs are found not to have significant barnacle populations, even though they seldom burrow. **Which of the following, if true, most helps to explain the surprising finding?**
- (A) Tidal currents do not themselves dislodge barnacles from the shells of horseshoe crabs.
 - (B) Barnacles most readily attach themselves to horseshoe crabs in areas where tidal currents are weakest.
 - (C) The strength of the tidal currents in a given location varies widely over the course of a day.
 - (D) A very large barnacle population can significantly decrease the ability of a horseshoe crab to find food.
 - (E) Until they are fully grown, horseshoe crabs shed their shells and grow new ones several times a year.
118. When there is less rainfall than normal, the water level of Australian rivers falls and the rivers flow more slowly. Because algae whose habitat is river water grow best in slow-moving water, the amount of algae per unit of water generally increases when there has been little rain. By contrast, however, following a period of extreme drought, algae levels are low even in very slow-moving river water. **Which of the following, if true, does most to explain the contrast described above?**
- (A) During periods of extreme drought, the populations of some of the species that feed on algae tend to fall.
 - (B) The more slowly water moves, the more conducive its temperature is to the growth of algae.
 - (C) When algae populations reach very high levels, conditions within the river can become toxic for some of the other species that normally live there.
 - (D) Australian rivers dry up completely for short intervals in periods of extreme drought.
 - (E) Except during periods of extreme drought, algae levels tend to be higher in rivers in which the flow has been controlled by damming than in rivers that flow freely.
119. Products sold under a brand name used to command premium prices because, in general, they were superior to nonbrand rival products. Technical expertise in product development has become so widespread, however, that special quality advantages are very hard to obtain these days and even harder to maintain. As a consequence, brand-name products generally neither offer higher quality nor sell at higher prices. Paradoxically, brand names are a bigger marketing advantage than ever. **Which of the following, if true, most helps to resolve the paradox outlined above?**
- (A) Brand names are taken by consumers as a guarantee of getting a product as good as the best rival products.
 - (B) Consumers recognize that the quality of products sold under invariant brand names can drift over time.
 - (C) In many acquisitions of one corporation by another, the acquiring corporation is interested more in acquiring the right to use certain brand names than in acquiring existing production facilities.
 - (D) In the days when special quality advantages were easier to obtain than they are now, it was also easier to get new brand names established.
 - (E) The advertising of a company's brand-name products is at times transferred to a new advertising agency, especially when sales are declining.
120. In the country of Veltria, the past two years' broad economic recession has included a business downturn in the clothing trade, where sales are down by about 7 percent as compared to two years ago. Clothing wholesalers have found, however, that the proportion of credit extended to retailers that was paid off on time fell sharply in the first year of the recession but returned to its prerecession level in the second year. **Which of the following, if true, most helps to explain the change between the first and the second year of the recession in the proportion of credit not paid off on time?**
- (A) The total amount of credit extended to retailers by clothing wholesalers increased between the first year of the recession and the second year.
 - (B) Between the first and second years of the recession, clothing retailers in Veltria saw many of their costs, rent and utilities in particular, increase.
 - (C) Of the considerable number of clothing retailers in Veltria who were having financial difficulties before the start of the recession, virtually all were forced to go out of business during its first year.
 - (D) Clothing retailers in Veltria attempted to stimulate sales in the second year of the recession by discounting merchandise.
 - (E) Relatively recession-proof segments of the clothing trade, such as work clothes, did not suffer any decrease in sales during the first year of the recession.

Situation (Commonsensical Reasoning)

121. A company is considering changing its policy concerning daily working hours. Currently, this company requires all employees to arrive at work at 8 a.m. The proposed policy would permit each employee to decide when to arrive—from as early as 6 a.m. to as late as 11 a.m. **The adoption of this policy would be most likely to decrease employees' productivity if the employees' job functions required them to**
- (A) work without interruption from other employees
 - (B) consult at least once a day with employees from other companies
 - (C) submit their work for a supervisor's eventual approval
 - (D) interact frequently with each other throughout the entire workday
 - (E) undertake projects that take several days to complete

122. The amount of time it takes for most of a worker's occupational knowledge and skills to become obsolete has been declining because of the introduction of advanced manufacturing technology (AMT). Given the rate at which AMT is currently being introduced in manufacturing, the average worker's old skills become obsolete and new skills are required within as little as five years. **Which of the following plans, if feasible, would allow a company to prepare most effectively for the rapid obsolescence of skills described above?**
- (A) The company will develop a program to offer selected employees the opportunity to receive training six years after they were originally hired.
 - (B) The company will increase its investment in AMT every year for a period of at least five years.
 - (C) The company will periodically survey its employees to determine how the introduction of AMT has affected them.
 - (D) Before the introduction of AMT, the company will institute an educational program to inform its employees of the probable consequences of the introduction of AMT.
 - (E) The company will ensure that it can offer its employees any training necessary for meeting their job requirements.
123. Insurance Company X is considering issuing a new policy to cover services required by elderly people who suffer from diseases that afflict the elderly. Premiums for the policy must be low enough to attract customers. Therefore, Company X is concerned that the income from the policies would not be sufficient to pay for the claims that would be made. **Which of the following strategies would be most likely to minimize Company X's losses on the policies?**
- (A) Attracting middle-aged customers unlikely to submit claims for benefits for many years
 - (B) Insuring only those individuals who did not suffer any serious diseases as children
 - (C) Including a greater number of services in the policy than are included in other policies of lower cost
 - (D) Insuring only those individuals who were rejected by other companies for similar policies
 - (E) Insuring only those individuals who are wealthy enough to pay for the medical services
124. Hotco oil burners, designed to be used in asphalt plants, are so efficient that Hotco will sell one to the Clifton Asphalt plant for no payment other than the cost savings between the total amount the asphalt plant actually paid for oil using its former burner during the last two years and the total amount it will pay for oil using the Hotco burner during the next two years. On installation, the plant will make an estimated payment, which will be adjusted after two years to equal the actual cost savings. **Which of the following, if it occurred, would constitute a disadvantage for Hotco of the plan described above?**
- (A) Another manufacturer's introduction to the market of a similarly efficient burner
 - (B) The Clifton Asphalt plant's need for more than one new burner
 - (C) Very poor efficiency in the Clifton Asphalt plant's old burner
 - (D) A decrease in the demand for asphalt
 - (E) A steady increase in the price of oil beginning soon after the new burner is installed
125. An experiment was done in which human subjects recognize a pattern within a matrix of abstract designs and then select another design that completes that pattern. The results of the experiment were surprising. The lowest expenditure of energy in neurons in the brain was found in those subjects who performed most successfully in the experiments. **Which of the following hypotheses best accounts for the findings of the experiment?**
- (A) The neurons of the brain react less when a subject is trying to recognize patterns than when the subject is doing other kinds of reasoning.
 - (B) Those who performed best in the experiment experienced more satisfaction when working with abstract patterns than did those who performed less well.
 - (C) People who are better at abstract pattern recognition have more energy-efficient neural connections.
 - (D) The energy expenditure of the subjects' brains increases when a design that completes the initially recognized pattern is determined.
 - (E) The task of completing a given design is more capably performed by athletes, whose energy expenditure is lower when they are at rest.
126. **Theater Critic:** The play *La Finestrina*, now at Central Theater, was written in Italy in the eighteenth century. The director claims that this production is as similar to the original production as is possible in a modern theater. Although the actor who plays Harlequin the clown gives a performance very reminiscent of the twentieth-century American comedian Groucho Marx, Marx's comic style was very much within the comic acting tradition that had begun in sixteenth-century Italy. **The considerations given best serve as part of an argument that**
- (A) modern audiences would find it hard to tolerate certain characteristics of a historically accurate performance of an eighteenth-century play
 - (B) Groucho Marx once performed the part of the character Harlequin in *La Finestrina*
 - (C) in the United States the training of actors in the twentieth century is based on principles that do not differ radically from those that underlay the training of actors in eighteenth-century Italy
 - (D) the performance of the actor who plays Harlequin in *La Finestrina* does not serve as evidence against the director's claim
 - (E) the director of *La Finestrina* must have advised the actor who plays Harlequin to model his performance on comic performances of Groucho Marx
127. 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's 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.

128. Last year all refuse collected by Shelbyville city services was incinerated. This incineration generated a large quantity of residual ash. In order to reduce the amount of residual ash Shelbyville generates this year to half of last year's total, the city has revamped its collection program. This year city services will separate for recycling enough refuse to reduce the number of truckloads of refuse to be incinerated to half of last year's number. **Which of the following is required for the revamped collection program to achieve its aim?**
- (A) This year, no materials that city services could separate for recycling will be incinerated.
 - (B) Separating recyclable materials from materials to be incinerated will cost Shelbyville less than half what it cost last year to dispose of the residual ash.
 - (C) Refuse collected by city services will contain a larger proportion of recyclable materials this year than it did last year.
 - (D) The refuse incinerated this year will generate no more residual ash per truckload incinerated than did the refuse incinerated last year.
 - (E) The total quantity of refuse collected by Shelbyville city services this year will be no greater than that collected last year.

Method of reasoning

129. **Thyrian lawmaker:** Thyria's Cheese Importation Board inspects all cheese shipments to Thyria and rejects shipments not meeting specified standards. Yet only 1 percent is ever rejected. Therefore, since the health consequences and associated economic costs of not rejecting that 1 percent are negligible, whereas the board's operating costs are considerable, for economic reasons alone the board should be disbanded.
Consultant: I disagree. The threat of having their shipments rejected deters many cheese exporters from shipping substandard product.
The consultant responds to the lawmaker's argument by
- (A) rejecting the lawmaker's argument while proposing that the standards according to which the board inspects imported cheese should be raised
 - (B) providing evidence that the lawmaker's argument has significantly overestimated the cost of maintaining the board
 - (C) objecting to the lawmaker's introducing into the discussion factors that are not strictly economic
 - (D) pointing out a benefit of maintaining the board, which the lawmaker's argument has failed to consider
 - (E) shifting the discussion from the argument at hand to an attack on the integrity of the cheese inspectors
130. **Journalist:** In late 1994, the present government of the Republic of Bellam came into power. Each year since then, about thirty journalists have been imprisoned for printing articles that criticize the government. In 1994, under the old government, only six journalists were imprisoned for criticizing the government. So the old government was more tolerant of criticism by the press than the new one is.
Politician: But in 1994 only six journalists criticized the government, and now journalists routinely do. **The politician challenges the journalist's argument by doing which of the following?**
- (A) Presenting data that extend further into the past than the journalist's data
 - (B) Introducing evidence that undermines an assumption of the journalist's argument
 - (C) Questioning the accuracy of the evidence presented in support of the journalist's conclusion
 - (D) Pointing out that the argument illegitimately draws a general conclusion on the basis of a sample of only a few cases
 - (E) Stating that the argument treats information about some members of a group as if it applied to all members of that group
131. Networks of blood vessels in bats' wings serve only to disperse heat generated in flight. This heat is generated only because bats flap their wings. Thus paleontologists' recent discovery that the winged dinosaur Sandactylus had similar networks of blood vessels in the skin of its wings provides evidence for the hypothesis that Sandactylus flew by flapping its wings, not just by gliding.
In the passage, the author develops the argument by
- (A) forming the hypothesis that best explains several apparently conflicting pieces of evidence
 - (B) reinterpreting evidence that had been used to support an earlier theory
 - (C) using an analogy with a known phenomenon to draw a conclusion about an unknown phenomenon
 - (D) speculating about how structures observed in present-day creatures might have developed from similar structures in creatures now extinct
 - (E) pointing out differences in the physiological demands that flight makes on large, as opposed to small, creatures
132. **Keith:** Compliance with new government regulations requiring the installation of smoke alarms and sprinkler systems in all theaters and arenas will cost the entertainment industry \$25 billion annually. Consequently, jobs will be lost and profits diminished. Therefore, these regulations will harm the country's economy.
Laura: The \$25 billion spent by some businesses will be revenue for others. Jobs and profits will be gained as well as lost.
Laura responds to Keith by
- (A) demonstrating that Keith's conclusion is based on evidence that is not relevant to the issue at hand
 - (B) challenging the plausibility of the evidence that serves as the basis for Keith's argument
 - (C) suggesting that Keith's argument overlooks a mitigating consequence
 - (D) reinforcing Keith's conclusion by supplying a complementary interpretation of the evidence Keith cites
 - (E) agreeing with the main conclusion of Keith's argument but construing that conclusion as grounds for optimism rather than for pessimism

Boldface

133. Hunter: **Many people blame hunters alone for the decline in Greenrock National Forest's deer population over the past ten years.** Yet clearly, black bears have also played an important role in this decline. In the past ten years, the forest's protected black bear population has risen sharply, and examination of black bears found dead in the forest during the deer hunting season showed that a number of them had recently fed on deer. **In the hunter's argument, the portion in boldface plays which of the following roles?**
- (A) It is the main conclusion of the argument.
(B) It is a finding that the argument seeks to explain.
(C) It is an explanation that the argument concludes is correct.
(D) It provides evidence in support of the main conclusion of the argument.
(E) It introduces a judgment that the argument opposes.
134. Last year a record number of new manufacturing jobs were created. Will this year bring another record? Well, a new manufacturing job is created either within an existing company or by the start-up of a new company. Within existing firms, new jobs have been created this year at well below last year's record pace. At the same time, there is considerable evidence that the number of new companies starting up will be no higher this year than it was last year, and surely **the new companies starting up this year will create no more jobs per company than did last year's start-ups.** Clearly, it can be concluded **that the number of new jobs created this year will fall short of last year's record.**
- In the argument given, the two portions in **boldface** play which of the following roles?
- (A) The first is a prediction that, if accurate, would provide support for the main conclusion of the argument; the second is that main conclusion.
(B) The first is a prediction that, if accurate, would provide support for the main conclusion of the argument; the second is a conclusion drawn in order to support that main conclusion.
(C) The first is an objection that the argument rejects; the second is the main conclusion of the argument.
(D) The first is an objection that the argument rejects; the second presents a conclusion that could be drawn if that objection were allowed to stand.
(E) The first is a claim that has been advanced in support of a position that the argument opposes; the second is a claim advanced in support of the main conclusion of the argument.
135. 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 states the position that the argument as a whole opposes; the second provides evidence to undermine the support for the position being opposed.
(B) The first states the position that the argument as a whole opposes; the second is evidence that has been used to support the position being opposed.
(C) The first states the position that the argument as a whole opposes; the second states the conclusion of the argument as a whole.
(D) The first is evidence that has been used to support a position that the argument as a whole opposes; the second provides information to undermine the force of that evidence.
(E) The first is evidence that has been used to support a position that the argument as a whole opposes; the second states the conclusion of the argument as a whole.
136. Although the earliest surviving Greek inscriptions written in an alphabet date from the eighth century B.C., **the fact that the text of these Greek inscriptions sometimes runs from right to left and sometimes from left to right** indicates that the Greeks adopted alphabetic writing at least two centuries before these inscriptions were produced. After all, the Greeks learned alphabetic writing from the Phoenicians, and presumably, along with the alphabet, they also adopted the then-current Phoenician practice with respect to the direction of text. **And although Phoenician writing was originally inconsistent in direction, by the eighth century B.C. Phoenician was consistently written from right to left and had been for about two centuries.**
- In the argument given, the two portions in **boldface** play which of the following roles?
- (A) The first and the second each describe evidence that has been used to challenge the position that the argument seeks to establish.
(B) The first is evidence that forms the basis for an objection to the position that the argument seeks to establish; the second is that position.
(C) The first is evidence that forms the basis for an objection to the position that the argument seeks to establish; the second is a consideration that is introduced to counter the force of that evidence.
(D) The first and the second each provide evidence in support of the position that the argument seeks to establish.
(E) The first provides evidence in support of the position that the argument seeks to establish; the second is that position.
137. **Delta Products Inc. has recently switched at least partly from older technologies using fossil fuels to new technologies powered by electricity.** The question has been raised whether it can be concluded that **for a given level of output Delta's operation now causes less fossil fuel to be consumed than it did formerly.** The answer, clearly, is yes, since the amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount needed to power the older technologies, provided level of output is held constant. **In the argument given, the two boldfaced portions play which of the following roles?**
- (A) The first identifies the content of the conclusion of the argument; the second provides support for that conclusion.
(B) The first provides support for the conclusion of the argument; the second identifies the content of that conclusion.
(C) The first states the conclusion of the argument; the second calls that conclusion into question.
(D) The first provides support for the conclusion of the argument; the second calls that conclusion into question.
(E) Each provides support for the conclusion of the argument.

138. In countries where automobile insurance includes compensation for whiplash injuries sustained in automobile accidents, reports of having suffered such injuries are twice as frequent as they are in countries where whiplash is not covered. Presently, no objective test for whiplash exists, so it is true that spurious reports of whiplash injuries cannot be readily identified. Nevertheless, these facts do not warrant the conclusion drawn by some commentators that in the countries with the higher rates of reported whiplash injuries, half of the reported cases are spurious. Clearly, **in countries where automobile insurance does not include compensation for whiplash, people often have little incentive to report whiplash injuries that they actually have suffered.**
- In the argument given, the two **boldfaced** portions play which of the following roles?
- (A) The first is a claim that the argument disputes; the second is a conclusion that has been based on that claim.
 (B) The first is a claim that has been used to support a conclusion that the argument accepts; the second is that conclusion.
 (C) The first is evidence that has been used to support a conclusion for which the argument provides further evidence; the second is the main conclusion of the argument.
 (D) The first is a finding whose implications are at issue in the argument; the second is a claim presented in order to argue against deriving certain implications from that finding.
 (E) The first is a finding whose accuracy is evaluated in the argument; the second is evidence presented to establish that the finding is accurate.
139. Since it has become known that **several of a bank's top executives have been buying shares in their own bank**, the bank's depositors, who had been worried by rumors that the bank faced impending financial collapse, have been greatly relieved. They reason that, since top executives evidently have faith in the bank's financial soundness, those worrisome rumors must be false. Such reasoning might well be overoptimistic, however, since **corporate executives have been known to buy shares in their own company in a calculated attempt to dispel negative rumors about the company's health.**
- In the argument given, the two **boldfaced** portions play which of the following roles?
- (A) The first describes evidence that has been taken as supporting a conclusion; the second gives a reason for questioning that support.
 (B) The first describes evidence that has been taken as supporting a conclusion; the second states a contrary conclusion that is the main conclusion of the argument.
 (C) The first provides evidence in support of the main conclusion of the argument; the second states that conclusion.
 (D) The first describes the circumstance that the argument as a whole seeks to explain; the second gives the explanation that the argument seeks to establish.
 (E) The first describes the circumstance that the argument as a whole seeks to explain; the second provides evidence in support of the explanation that the argument seeks to establish.
140. Scientists typically do their most creative work before the age of forty. It is commonly thought that this happens because aging by itself brings about a loss of creative capacity. However, studies **show that of scientists who produce highly creative work beyond the age of forty, a disproportionately large number entered their field at an older age than is usual.** Since by the age of forty the large majority of scientists have been working in their field for at least fifteen years, the studies' finding strongly suggests that the real reason why scientists over forty rarely produce highly creative work is not that they have aged but rather that **scientists over forty have generally spent too long in their field.**
- In the argument given, the two portions in **boldface** play which of the following roles?
- (A) The first is a claim, the accuracy of which is at issue in the argument; the second is a conclusion drawn on the basis of that claim.
 (B) The first is an objection that has been raised against a position defended in the argument; the second is that position.
 (C) The first is evidence that has been used to support an explanation that the argument challenges; the second is that explanation.
 (D) The first is evidence that has been used to support an explanation that the argument challenges; the second is a competing explanation that the argument favors.
 (E) The first provides evidence to support an explanation that the argument favors; the second is that explanation.
141. 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.

1. C
2. A
3. C
4. C
5. C
6. C
7. A
8. A
9. B
10. E
11. D
12. C
13. D
14. B
15. D
16. B
17. C
18. A
19. D
20. E
21. B
22. C
23. A
24. B
25. D
26. C
27. E
28. B
29. D
30. D
31. D
32. E
33. B
34. A
35. E
36. A
37. D
38. D
39. D
40. B
41. E
42. C
43. A
44. D
45. B
46. C
47. D
48. C
49. D
50. D
51. B
52. A
53. D
54. E
55. D

- 56. A
- 57. E
- 58. D
- 59. E
- 60. C
- 61. E
- 62. E
- 63. A
- 64. B
- 65. C
- 66. A
- 67. C
- 68. D
- 69. B
- 70. B
- 71. B
- 72. E
- 73. E
- 74. D
- 75. B
- 76. E
- 77. A
- 78. B
- 79. E
- 80. D
- 81. E
- 82. A
- 83. B
- 84. B
- 85. C
- 86. A
- 87. A
- 88. B
- 89. E
- 90. C
- 91. C
- 92. D
- 93. C
- 94. D
- 95. C
- 96. E
- 97. D
- 98. C
- 99. D
- 100. C
- 101. C
- 102. E
- 103. B
- 104. D
- 105. B
- 106. E
- 107. D
- 108. D
- 109. A
- 110. C

- 111. C
- 112. A
- 113. B
- 114. C
- 115. C
- 116. A
- 117. E
- 118. D
- 119. A
- 120. C
- 121. D
- 122. E
- 123. A
- 124. E
- 125. C
- 126. D
- 127. E
- 128. D
- 129. D
- 130. B
- 131. C
- 132. C
- 133. E
- 134. A
- 135. C
- 136. D
- 137. B
- 138. D
- 139. A
- 140. E
- 141. D