

1. Toughened hiring standards have not been the primary cause of the present staffing shortage in public schools. The shortage of teachers is primarily caused by the fact that in recent years teachers have not experienced any improvements in working conditions and their salaries have not kept pace with salaries in other professions.

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

- (A) Many teachers already in the profession would not have been hired under the new hiring standards.
- (B) Today more teachers are entering the profession with a higher educational level than in the past.
- (C) Some teachers have cited higher standards for hiring as a reason for the current staffing shortage.
- (D) Many teachers have cited low pay and lack of professional freedom as reasons for their leaving the profession.
- (E) Many prospective teachers have cited the new hiring standards as a reason for not entering the profession.

2. A proposed ordinance requires the installation in new homes of sprinklers automatically triggered by the presence of a fire. However, a home builder argued that because more than ninety percent of residential fires are extinguished by a household member, residential sprinklers would only marginally decrease property damage caused by residential fires.

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

- (A) Most individuals have no formal training in how to extinguish fires.
- (B) Since new homes are only a tiny percentage of available housing in the city, the new ordinance would be extremely narrow in scope.
- (C) The installation of smoke detectors in new residences costs significantly less than the installation of sprinklers.
- (D) In the city where the ordinance was proposed, the average time required by the fire department to respond to a fire was less than the national average.
- (E) The largest proportion of property damage that results from residential fires is caused by fires that start when no household member is present.

3. 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.

4. Increases in the level of high-density lipoprotein (HDL) in the human bloodstream lower bloodstream-cholesterol levels by increasing the body's capacity to rid itself of excess cholesterol. Levels of HDL in the bloodstream of some individuals are significantly increased by a program of regular exercise and weight reduction.

Which of the following can be correctly inferred from the statements above?

- (A) Individuals who are underweight do not run any risk of developing high levels of cholesterol in the bloodstream.
- (B) Individuals who do not exercise regularly have a high risk of developing high levels of cholesterol in the bloodstream late in life.
- (C) Exercise and weight reduction are the most effective methods of lowering bloodstream cholesterol levels in humans.
- (D) A program of regular exercise and weight reduction lowers cholesterol levels in the bloodstream of some individuals.
- (E) Only regular exercise is necessary to decrease cholesterol levels in the bloodstream of individuals of average weight.

5. When limitations were in effect on nuclear-arms testing, people tended to save more of their money, but when nuclear-arms testing increased, people tended to spend more of their money. The perceived threat of nuclear catastrophe, therefore, decreases the willingness of people to postpone consumption for the sake of saving money.

The argument above assumes that

- (A) the perceived threat of nuclear catastrophe has increased over the years.
- (B) most people supported the development of nuclear arms
- (C) people's perception of the threat of nuclear catastrophe depends on the amount of nuclear-arms testing being done
- (D) the people who saved the most money when nuclear-arms testing was limited were the ones who supported such limitations
- (E) there are more consumer goods available when nuclear-arms testing increases

6. 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

7. A cost-effective solution to the problem of airport congestion is to provide high-speed ground transportation between major cities lying 200 to 500 miles apart. The successful implementation of this plan would cost far less than expanding existing airports and would also reduce the number of airplanes clogging both airports and airways.

Which of the following, if true, could proponents of the plan above most appropriately cite as a piece of evidence for the soundness of their plan?

(A) An effective high-speed ground-transportation system would require major repairs to many highways and mass-transit improvements.

(B) One-half of all departing flights in the nation's busiest airport head for a destination in a major city 225 miles away.

(C) The majority of travelers departing from rural airports are flying to destinations in cities over 600 miles away.

(D) Many new airports are being built in areas that are presently served by high-speed ground-transportation systems.

(E) A large proportion of air travelers are vacationers who are taking long-distance flights.

Questions 8-9 are based on the following.

If there is an oil-supply disruption resulting in higher international oil prices, domestic oil prices in open-market countries such as the United States will rise as well, whether such countries import all or none of their oil.

8. If the statement above concerning oil-supply disruptions is true, which of the following policies in an open-market nation is most likely to reduce the long-term economic impact on that nation of sharp and unexpected increases in international oil prices?

- (A) Maintaining the quantity of oil imported at constant yearly levels
- (B) Increasing the number of oil tankers in its fleet
- (C) Suspending diplomatic relations with major oil-producing nations
- (D) Decreasing oil consumption through conservation
- (E) Decreasing domestic production of oil

9. Which of the following conclusions is best supported by the statement above?

- (A) Domestic producers of oil in open-market countries are excluded from the international oil market when there is a disruption in the international oil supply.
- (B) International oil-supply disruptions have little, if any, effect on the price of domestic oil as long as an open-market country has domestic supplies capable of meeting domestic demand.
- (C) The oil market in an open-market country is actually part of the international oil market, even if most of that country's domestic oil is usually sold to consumers within its borders.
- (D) Open-market countries that export little or none of their oil can maintain stable domestic oil prices even when international oil prices rise sharply.
- (E) If international oil prices rise, domestic distributors of oil in open-market countries will begin to import more oil than they export.

10. The average normal infant born in the United States weighs between twelve and fourteen pounds at the age of three months. Therefore, if a three-month-old child weighs only ten 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 seventeen pounds.
- (C) It is possible for a normal child to weigh ten pounds at birth.
- (D) The phrase “below average” does not necessarily mean insufficient.
- (E) Average weight gain is not the same as average weight.

11. 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.

12. Fact 1: Television advertising is becoming less effective: the proportion of brand names promoted on television that viewers of the advertising can recall is slowly decreasing.

Fact 2: Television viewers recall commercials aired first or last in a cluster of consecutive commercials far better than they recall commercials aired somewhere in the middle.

Fact 2 would be most likely to contribute to an explanation of fact 1 if which of the following were also true?

(A) The average television viewer currently recalls fewer than half the brand names promoted in commercials he or she saw.

(B) The total time allotted to the average cluster of consecutive television commercials is decreasing.

(C) The average number of hours per day that people spend watching television is decreasing.

(D) The average number of clusters of consecutive commercials per hour of television is increasing.

(E) The average number of television commercials in a cluster of consecutive commercials is increasing.

13. The number of people diagnosed as having a certain intestinal disease has dropped significantly in a rural county this year, as compared to last year, Health officials attribute this decrease entirely to improved sanitary conditions at water-treatment plants, which made for cleaner water this year and thus reduced the incidence of the disease.

Which of the following, if true, would most seriously weaken the health officials' explanation for the lower incidence of the disease?

(A) Many new water-treatment plants have been built in the last five years in the rural county.

(B) Bottled spring water has not been consumed in significantly different quantities by people diagnosed as having the intestinal disease, as compared to people who did not contract the disease.

(C) Because of a new diagnostic technique, many people who until this year would have been diagnosed as having the intestinal disease are now correctly diagnosed as suffering from intestinal ulcers.

(D) Because of medical advances this year, far fewer people who contract the intestinal disease

will develop severe cases of the disease.

(E) The water in the rural county was brought up to the sanitary standards of the water in neighboring counties ten years ago.

14. The price the government pays for standard weapons purchased from military contractors is determined by a pricing method called "historical costing." Historical costing allows contractors to protect their profits by adding a percentage increase, based on the current rate of inflation, to the previous year's contractual price.

Which of the following statements, if true, is the best basis for a criticism of historical costing as an economically sound pricing method for military contracts?

(A) The government might continue to pay for past inefficient use of funds.

(B) The rate of inflation has varied considerably over the past twenty years.

(C) The contractual price will be greatly affected by the cost of materials used for the products.

(D) Many taxpayers question the amount of money the government spends on military contracts.

(E) The pricing method based on historical costing might not encourage the development of innovative weapons.

15. Some who favor putting governmental enterprises into private hands suggest that conservation objectives would in general be better served if private environmental groups were put in charge of operating and financing the national park system, which is now run by the government.

Which of the following, assuming that it is a realistic possibility, argues most strongly against the suggestion above?

(A) Those seeking to abolish all restrictions on exploiting the natural resources of the parks might join the private environmental groups as members and eventually take over their leadership.

(B) Private environmental groups might not always agree on the best ways to achieve conservation objectives.

(C) If they wished to extend the park system, the private environmental groups might have to

seek contributions from major donors and the general public.

(D) There might be competition among private environmental groups for control of certain park areas.

(E) Some endangered species, such as the California condor, might die out despite the best efforts of the private environmental groups, even if those groups are not hampered by insufficient resources.

16. A recent spate of launching and operating mishaps with television satellites led to a corresponding surge in claims against companies underwriting satellite insurance. As a result, insurance premiums shot up, making satellites more expensive to launch and operate. This, in turn, has added to the pressure to squeeze more performance out of currently operating satellites.

Which of the following, if true, taken together with the information above, best supports the conclusion that the cost of television satellites will continue to increase?

(A) Since the risk to insurers of satellites is spread over relatively few units, insurance premiums are necessarily very high.

(B) When satellites reach orbit and then fail, the causes of failure are generally impossible to pinpoint with confidence.

(C) The greater the performance demands placed on satellites, the more frequently those satellites break down.

(D) Most satellites are produced in such small numbers that no economies of scale can be realized.

(E) Since many satellites are built by unwieldy international consortia, inefficiencies are inevitable.

17. Tocqueville, a nineteenth-century writer known for his study of democracy in the United States, believed that a government that centralizes power in one individual or institution is dangerous to its citizens. Biographers claim that Tocqueville disliked centralized government because he blamed Napoleon's rule for the poverty of his childhood in Normandy.

Which of the following, if true, would cast the most serious doubt on the biographers' claim?

- (A) Although Napoleon was popularly blamed at the time for the terrible living conditions in Normandy, historians now know that bad harvests were really to blame for the poor economic conditions.
- (B) Napoleon was notorious for refusing to share power with any of his political associates.
- (C) Tocqueville said he knew that if his father had not suffered ill health, his family would have had a steady income and a comfortable standard of living.
- (D) Although Tocqueville asserted that United States political life was democratic, the United States of the nineteenth century allowed political power to be concentrated in a few institutions.
- (E) Tocqueville once wrote in a letter that, although his childhood was terribly impoverished, it was not different from the experience of his friends and neighbors in Normandy.

18. Radio interferometry is a technique for studying details of celestial objects that combines signals intercepted by widely spaced radio telescopes. This technique requires ultraprecise timing, exact knowledge of the locations of the telescopes, and sophisticated computer programs. The successful interferometric linking of an Earth-based radio telescope with a radio telescope on an orbiting satellite was therefore a significant technological accomplishment.

Which of the following can be correctly inferred from the statements above?

- (A) Special care was taken in the launching of the satellite so that the calculations of its orbit would be facilitated.
- (B) The signals received on the satellite are stronger than those received by a terrestrial telescope.
- (C) The resolution of detail achieved by the satellite-Earth interferometer system is inferior to

that achieved by exclusively terrestrial systems.

(D) The computer programs required for making use of the signals received by the satellite required a long time for development.

(E) The location of an orbiting satellite relative to locations on Earth can be well enough known for interferometric purposes.

19. Recent estimates predict that between 1982 and 1995 the greatest increase in the number of people employed will be in the category of low-paying service occupations. This category, however, will not increase its share of total employment, whereas the category of high-paying service occupations will increase its share.

If the estimates above are accurate, which of the following conclusions can be drawn?

(A) In 1982 more people were working in low-paying service occupations than were working in high-paying service occupations.

(B) In 1995 more people will be working in high-paying service occupations than will be working in low-paying service occupations.

(C) Nonservice occupations will account for the same share of total employment in 1995 as in 1982.

(D) Many of the people who were working in low-paying service occupations in 1982 will be working in high-paying service occupations by 1995.

(E) The rate of growth for low-paying service occupations will be greater than the overall rate of employment growth between 1982 and 1995.

20. For a local government to outlaw all strikes by its workers is a costly mistake, because all its labor disputes must then be settled by binding arbitration, without any negotiated public-sector labor settlements guiding the arbitrators. Strikes should be outlawed only for categories of public-sector workers for whose services no acceptable substitute exists.

The statements above best support which of the following conclusions?

- (A) Where public-service workers are permitted to strike, contract negotiations with those workers are typically settled without a strike.
- (B) Where strikes by all categories of public-sector workers are outlawed, no acceptable substitutes for the services provided by any of those workers are available.
- (C) Binding arbitration tends to be more advantageous for public-service workers where it is the only available means of settling labor disputes with such workers.
- (D) Most categories of public-sector workers have no counterparts in the private sector.
- (E) A strike by workers in a local government is unlikely to be settled without help from an arbitrator.