**Special Placement Training 2021**

**Career Development Centre**

**Critical Reasoning Worksheet**

**Read the argument and answer the question that follows.**

1. 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.

2. 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 be 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.

**3.** Five years ago, the town of Bayside, in the Katonic River Valley, had catastrophic flooding one spring, and consequently, most insurers now refuse to write flood insurance for houses in Bayside.  The town of Dryadia, in the Phemptic River Valley, is much like Bayside in its proximity to a similar river at an almost identical point in the river valley.   We can conclude that the only reason the same insurers do not write flood insurance for houses in Dryadia either is its similarity to Bayside in terms of where it is situated in the river valley.

**Which of the following, if true, would most seriously undermine the argument?**

(A) A small number of independent insurers will write flood insurance for at least some houses in each of the two towns.  
(B) It is hard for a homeowner to buy flood insurance if a large proportion of other houses in the same town have been flooded in recent years.  
(C) In many other towns in the Katonic River Valley, it is hard for home-owners to buy flood insurance.  
(D) The town of Dryadia has some flooding most springs.  
(E) Flooding from spring surges in rivers is only one of the ways in which a home can become flooded

4. Between 1960 and 1970, ivory poachers in the African nation of Zinbaku killed over 6,500 elephants. During that period, the total elephant population in Zinbaku fell from about 35,000 to just under 30,000. In 1970, new anti-poaching measures were implemented in Zinbaku, and between 1970 and 1980 over 800 poachers were arrested and expelled from the country. Nevertheless, by 1980, the elephant population in Zinbaku had fallen to about 21,000.

**Which of the following, if true, would best help to explain the apparent contradiction presented above?**

A. The poachers arrested in Zinbaku between 1970 and 1980 were rarely sentenced to long prison term.

B. Because of highly publicized campaigns against the slaughter of elephants, demand for ivory fell between 1970 and 1980

C. The elephant population in neighbouring Mombasa rose slightly between 1970 and 1980

D. In Zinbaku, between 1970 and 1980, thousands of acres of forest, the elephant's natural habitat, were cleared for farming

5. Unlike juvenile diabetes, which is a genetic condition present from birth, type 2 diabetes is acquired later in life, generally as a result of obesity and inactivity. The number of cases of type 2 diabetes has been steadily increasing in the United States since 1970, indicating to many researchers that the U.S. population is becoming increasingly heavy and sedentary. If the government wishes to stem the spread of the disease, it should educate the public about the dangers of an inactive, calorie-laden lifestyle and promote healthful diets and exercise.

**Which of the following, if true, provides the strongest reason to believe that the proposed education program will not be effective?**

(A) School health programs already educate middle-school students about the issue.

(B) The public already has access to this information through the Internet.

(C) Food companies encourage the public to indulge in unhealthful snacks.

(D) The government has not set aside money for such a program.

(E) Healthful foods and exercise programs are beyond the financial means of many people.

6. To prevent overcrowding, last month the town zoning board limited the number of new buildings that can be constructed in the town in any given year. The board claims that doing so will preserve open spaces and lessen the strain on municipal resources such as schools and garbage disposal. Critics of the changes argue that the plan will harm the community or, at the very least, will fail in its purpose.

**Which of the following, if true, most supports the claims of the critics of the plan?**

(A) Other towns have had mixed success with similar zoning plans.

(B) No new schools have been built in the town in ten years.

(C) Property taxes in the town are higher than in neighboring towns.

(D) Under the zoning plan, new apartment buildings would be exempt from the limits on new construction.

(E) The nearest garbage dump is several miles away from the town.

7. A new electronic security system will only allow a single person at a time to pass through a secure door. A computer decides whether or not to unlock a secure door on the basis of visual clues, which it uses to identify people with proper clearance. The shape of the head, the shape and color of the eyes, the shape and color of the lips, and other characteristics of a person’s head and face are analyzed to determine his or her identity. Only if the person trying to open a secure door has the required clearance will the door unlock. Because this new system never fails, an unauthorized person can never enter a secure door equipped with the system.

I**f the statements above are true, which of the following conclusions can be most properly drawn?**

(A) The new system is sure to be enormously successful and revolutionize the entire security industry.

(B) The new system can differentiate between people who are seeking to open a secure door and people passing by a secure door.

(C) No two people have any facial features that are identical, for example, identical lips.

(D) High costs will not make the new security system economically unviable.

(E) The new computer system is able to identify some slight facial differences between people who look very similar, such as identical twins.

8. Bottom trawling is a type of deep-sea fishing that involves dragging a large net along the bottom of the ocean, and it results in catching and killing many unintended species, some of which are endangered. Environmental advocates, concerned for these endangered marine species, have recommended that commercial fishers use a new set of nets, each designed specifically for the size and shape and pheromones (chemical attractors) of an individual marine species targeted by the commercial fishers. Environmentalists hope use of these new nets will protect the endangered marine species without interrupting commercial deep-sea fishing.

**Which of the following, if true, most strongly supports the claim that the use of the new nets will have the intended effects?**

(A) The pheromones that would most attract the food species sought by commercial fishers indicate the presence of a dangerous threat to most of the endangered marine species

(B) Some endangered marine species are particularly large, as large any species targeted by commercial deep-sea fishing.

(C) Most of the newly designed nets are not significantly more expensive than a typical bottom trawling system.

(D) Catching unintended, endangered species adds nothing to the profits of a commercial deep- sea fishing company.

(E) Freshwater fishers often increase the odds of catching a desired fish, and avoid catching unintended species, by the specific design of the fishing hook.

9. The school board has responded to the new school lunch guidelines by replacing fried potatoes with fruit in a standard meal option that used to consist of a hamburger, fried potatoes, and milk. However, the guidelines specifically require that vegetables, not fruits, be included in every meal.

**The information above most strongly supports which of the following conclusions?**

(A) Fruit provides just as much health value to students as vegetables.

(B) Students are more likely to eat fruit than vegetables.

(C) The school board is not following the new school guidelines.

(D) The school board is responsible for the health of the student population.

(E) The new school lunch guidelines are unnecessarily strict.

10. Inorganic pesticides remain active on the surfaces of fruits and vegetables for several days after spraying, while organic pesticides dissipate within a few hours after application, leaving the surface of the sprayed produce free of pesticide residue. Therefore, when purchasing from a farm that uses inorganic pesticides, one must be careful to wash the produce thoroughly before eating it to prevent the ingestion of toxins. But one need not worry about ingesting pesticides when purchasing from farms that use only organic pesticides.

**The argument above assumes which of the following?**

(A) All produce that has been treated with inorganic pesticides must be labeled as such at the point of sale.

(B) Produce from farms that use organic pesticides reaches the consumer within hours after it is picked or harvested.

(C) No farm uses both organic and inorganic pesticides.

(D) Organic pesticides are incapable of penetrating the skin of a fruit or vegetable.

(E) The use of either type of pesticide does not increase the cost of produce.

11. At a movie theatre in Bangalore, last year, the proprietor decided to sell about one-third of his total balcony capacity on the internet. The response was tremendous. On every new release, the entire online capacity was sold out. Today, there are at least 2 million educated and well-heeled consumers in India who are ordering everything from cinema tickets to paan and tennis racquets to shirts from the comfort of their offices or homes.

**Which of the following can be inferred from the above passage?**

A. There is a growing breed of computer-savvy consumers in Bangalore.

B. It is more comfortable to purchase movie tickets through the internet.

C. A retailing revolution is underway in India with the advent of the internet.

D. The proprietor of the theatre can profitably, decide to sell all the balcony tickets through the internet

12. Company A, the second-largest supplier of triple blade razors, saw its sales of triple blade razors decrease from 150,000 units in 1983 to 100,000 units in 1986. From 1980 to 1986, Company A steadily decreased the percentage of its marketing budget that it dedicated to promoting those razors from 50% to 30%. During this same six year period, Company B, the leading manufacturer of triple blade razors, consistently spent 60% of its marketing budget on promoting its triple blade razor, while Company C, an up-and-coming competitor in the triple blade razor market, increased the percentage of its marketing budget allocated to promoting its razors to 25%.

**Which of the following conclusions is best supported by the information above?**

(A) There is a direct relationship between the amount of money that a company spends on marketing its triple blade razors and that company's sales of its razors.

(B) Company B is the leading manufacturer of triple blade razors because it spends the largest amount of money on the promotion of its razors.

(C) Company C will soon surpass Company A as the second largest supplier of triple blade razors.

(D) Companies A and B supply more than 2/3 of the triple blade razors.

(E) Between 1980 and 1986, Company A consistently dedicated a larger percentage of its marketing budget to the promotion of its triple blade razors than Company C.

13. A detailed lab analysis of a meteorite recently discovered in Antarctica revealed that the meteorite has geological characteristics common to the planet Mars. To date, scientists have not found these characteristics anywhere other than on Mars. Using a technique called “acid-etching”, scientists found that the meteorite contained fossilized remains of single-cell life forms.

**The statements above, if true, best support which of the following as a conclusion?**

(A) The fossilized remains indicate that life exist on Mars.

(B) The scientists have evidence to support a hypothesis that the meteorite came from Mars.

(C) The meteorite represents a substantial step forward in human knowledge of the development of life in the solar system.

(D) Undiscovered meteorites currently exist in Antarctica.

14. To prevent some conflicts of interest, Congress could prohibit high-level government officials from accepting positions as lobbyists for three years after such officials leave government service. One such official concluded, however, that such a prohibition would be unfortunate because it would prevent high-level government officials from earning a livelihood for three years.

**The official's conclusion logically depends on which of the following assumptions?**

A. Laws should not restrict the behavior of former government officials.

B. Lobbyists are typically people who have previously been high-level government officials.

C. Low-level government officials do not often become lobbyists when they leave government service.

D. High-level government officials who leave government service are capable of earning a livelihood only as lobbyists.

E. High-level government officials who leave government service are currently permitted to act as lobbyists for only three years.

15. Increase 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.