



SECTION 2

TEST I SAMPLE QUESTIONS

This section of the Georgia Assessments for the Certification of Educators® (GACE™) Preparation Guide provides sample selected-response questions with an annotated answer key for you to review as part of your preparation for the test. The sample selected-response questions are designed to illustrate the nature of the test questions. Work through the questions carefully before referring to the annotated answer key, which follows the sample selected-response questions. The answer key provides the correct response to each question, describes why each correct response is the best answer, and lists the objective within the test framework to which each question is linked.

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QUESTIONS

- Which of the following describes a significant physical change in males that begins at puberty?
 - Skeletal muscle mass begins to increase.
 - Skin begins to thicken and lose its elasticity.
 - A layer of subcutaneous fat begins to be deposited.
 - Growth plates in bones begin to calcify.
- The endocrine system of the human body is best described as a system of:
 - organs responsible for the elimination of water and toxic compounds from the body.
 - glands located throughout the body responsible for the production of hormones.
 - structures responsible for getting oxygen into the body's tissues and removing carbon dioxide.
 - tissues and chemicals responsible for protecting the body from pathogens.
- Which of the following approaches is likely to be most effective in controlling acne among teenagers?
 - wiping affected areas several times a day with a cotton pad moistened with acetyl alcohol
 - avoiding candy and other foods that have a high sugar content
 - taking daily dietary supplements that are high in vitamin K
 - washing affected areas gently a few times a day with mild soap and warm water
- In order to properly plan meals based on the guidelines for healthy eating in the USDA's MyPyramid Plan, it would be most important to determine which of the following?
 - the type and duration of the processes used to prepare the optimal foods in each major food group
 - the caloric content and types of foods that tend to best complement each other
 - the basic nutritional needs of individuals and the amounts and types of food that meet those needs
 - the lengths of time that foods in each of the major food groups take to become completely digested

5. Which of the following criteria is most important when distinguishing between healthy and unhealthy food choices?
- A. total calories per serving based on fats, carbohydrates, and proteins
 - B. amount of caloric content derived from protein
 - C. number of grams of carbohydrates and total grams in serving or package
 - D. daily value percentage of each nutrient or ingredient
6. A 16-year-old member of the soccer team participates in progressive resistance training three times each week to maintain muscular strength. At the current resistance level on the leg-strengthening machine, the student is able to consistently do five sets of eight repetitions. To continue to make gains in leg strength, this student should apply the principle of progression in which of the following ways?
- A. Increase the load being resisted on each set of repetitions by 5 to 10 percent.
 - B. Increase the number of repetitions in each set to 15 to 20 at the same load.
 - C. Increase the load being resisted on each set of repetitions by 20 to 25 percent.
 - D. Increase the number of sets to 7 to 10 at the same load and same number of repetitions.
7. For which of the following disorders is administration of antibiotics most likely to be effective?
- A. viral meningitis
 - B. influenza
 - C. herpes simplex
 - D. strep throat
8. Which of the following best describes how infection with the HIV/AIDS virus affects the human body?
- A. The HIV/AIDS virus attacks and damages the liver and pancreas, making it difficult to properly digest food and causing severe weight loss.
 - B. The HIV/AIDS virus concentrates in the nervous tissue, causing plaque to be deposited and leading to irreversible brain damage.
 - C. The HIV/AIDS virus attacks and gradually destroys the immune system, making the individual more susceptible to other infections.
 - D. The HIV/AIDS virus concentrates in the lungs, causing the tissue to become less elastic and clogging narrow airways.

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9. Which of the following effects of tobacco use is most likely to be a factor in the increased risk of stroke among smokers?
- A. increased levels of carbon monoxide in the blood
 - B. decreased motility of cilia in the lungs
 - C. decreased level of certain neurotransmitters
 - D. increased constriction of the arteries
10. Television commercials for alcoholic beverages commonly seek to appeal to the viewer by portraying situations in which drinking is associated with:
- A. independence and creativity.
 - B. high economic status.
 - C. courage and leadership.
 - D. amusement and sociability.

ANNOTATED ANSWER KEY

For question	The correct response is	Reason	Test Objective
1	A	A significant characteristic of physical growth and development in males is the substantial increase in skeletal muscle mass during puberty. Muscle development occurs mainly during the latter stages of puberty, and by the end of the growth spurt, males typically have nearly twice as much skeletal muscle mass as they did prior to entering puberty. Peak bone mass is also achieved during this period of growth.	0001
2	B	In the human body, the endocrine system is responsible for hormone production. It is a collection of glands and secretory organs that includes the pancreas, thyroid, parathyroid, pineal, adrenals, pituitary, and testes or ovaries. The glands produce and release hormones directly into the bloodstream, which transports the hormones to organs and tissues throughout the body. Necessary for normal bodily functions, the hormones act as chemical messengers that regulate metabolism, growth, and sexual development.	0002
3	D	An important aspect of promoting personal care and hygiene among students is increasing their awareness of how to care for the skin. Acne is caused by inflammation of the oil or sebaceous glands located just beneath the skin. During the teenage years, the sebaceous glands secrete more oil. Cells near the openings of the glands block the pores and create a build-up of oil; as a result bacteria multiply and cause surrounding tissue to become inflamed. Washing affected areas gently with mild soap and warm water removes bacteria and oil from the pores, minimizes sensitivity and irritation, and helps allow the skin to recover.	0003
4	C	The USDA's MyPyramid Plan provides guidance to help implement the recommendations of the <i>2005 Dietary Guidelines for Americans</i> , which are the basis of the federal nutrition policy. The MyPyramid Plan identifies what and how much food an individual should eat for health based on age, gender, and level of physical activity. Specific amounts are suggested in categories such as grains, vegetables, fruits, milk, and meat and beans. The MyPyramid Plan can be used to plan meals based on the nutritional needs of individuals and family members, and to choose types and amounts of food to meet those needs and maintain a healthy diet.	0004

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For question	The correct response is	Reason	Test Objective
5	A	<p>Knowledge of factors that affect food choices and eating patterns is essential for maintaining a nutritionally sound diet and a healthy body composition. When choosing foods, the most important factor to consider is the total number of calories per serving and the percentage of those calories that are derived from fats, carbohydrates, and proteins. This combination of factors provides a quick analysis of both overall caloric content and the general makeup of the food, allowing one to distinguish junk food from healthier foods. Although fats, carbohydrates, and proteins are the body's sources for energy, moderation is key, and calories from saturated fats and added sugars should be limited.</p>	0005
6	A	<p>This question requires an understanding of health-related fitness procedures, specifically, how to manipulate the intensity or level of exercise using the principle of progression. To adjust exercise intensity, the student should increase the load or amount being resisted on each repetition in each set by 5 to 10 percent. For example, if the student successfully and consistently resists 80 pounds on the leg-strengthening machine, it is appropriate to increase the resistance weight by 4 to 8 pounds. This allows the student to improve leg strength according to the principle of progressive overload, which states that placing greater-than-usual exercise demands on the body increases fitness. Progression must be gradual to be safe; increasing muscular workload in small increments of 5 to 10 percent is particularly appropriate for teenagers.</p>	0006
7	D	<p>Strep throat is a communicable disease that is common in childhood and often found in the school setting. Caused by the streptococcal bacterium, the infection is typically passed through sneezing, coughing, or sharing of contaminated objects. An antibiotic, from the class of drugs including penicillin that are highly effective in targeting and destroying bacteria, would be used to treat strep throat. Antibiotics are effective in eradicating bacterial infections, but they are of no use in treating viral infections such as viral meningitis, influenza, or herpes simplex.</p>	0007

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For question	The correct response is	Reason	Test Objective
8	C	HIV, the human immunodeficiency virus, attacks the body's immune system, weakening its ability to fight off disease, and causes AIDS, acquired immunodeficiency syndrome. The retrovirus HIV targets helper T lymphocytes, or T4 cells, and to some extent, macrophages. T4 cells recognize antigens; antibodies bind the antigens and deactivate or destroy them. But HIV binds to receptors on the surfaces of T4 cells and some macrophages, destroying them. As a result, the immune system is seriously impaired, leaving an infected individual susceptible to opportunistic infections and cancers, such as severe pneumonia, Kaposi's sarcoma, and lymphomas. Although scientists have developed drug therapies to help those infected live longer, HIV/AIDS remains fatal.	0008
9	D	Smoking tobacco causes damaging physiological effects, including constriction of the arteries due to thickening of the arterial walls. The most common cause of a stroke is blockage of an artery by a thrombosis, or clot. A clot typically forms in a small blood vessel that has been previously narrowed due to long-term effects of cardiovascular disease, such as atherosclerosis (hardening of the arteries), a major risk factor of smoking. Studies have shown that even after years of smoking cessation, levels of atherosclerosis are significantly higher in ex-smokers than in those who never smoked.	0009
10	D	Young people are surrounded by media messages that try to communicate that drinking alcohol is a normal activity. Television commercials for alcoholic beverages portray fun-loving, successful, attractive, and physically fit people enjoying alcohol at social gatherings and outdoor events. Beer and wine are often presented in the context of "good clean fun." An analysis of such advertisements reveals that they seek to reinforce drinking behaviors by associating drinking with amusement and sociability.	0010