

Health and Physical Education: Content Knowledge (0856)

Test at a Glance

Test Name	Health and Physical Education: Content Knowledge (0856)		
Test Code	0856		
Time	2 hours		
Number of Questions	120		
Format	Multiple-choice questions		
	Content Categories	Approximate Number of Questions	Approximate Percentage of Examination
	Health		
	I. Personal Health Care	19	16%
	II. Family Living and Sex Education	16	14%
	III. Community Health/Diseases and Disorders	15	12%
	Physical Education		
	IV. Fundamental Movements, Motor Development, and Motor Learning	22	18%
V. Movement Forms	23	19%	
VI. Fitness and Exercise Science	25	21%	

About This Test

The Health and Physical Education test is designed for prospective teachers of health and physical education. Examinees typically have completed a bachelor's degree program in health and physical education, or have prepared themselves through some alternative certification program. Approximately 50 of the 120 test questions focus on studies of health, and approximately 70 focus on studies of and experiences in physical education.

This test may contain some questions that will not count toward your score.

Topics Covered

Representative descriptions of topics covered in each category are provided below.

Health

I. Personal Health Care

- Nutrition: dietary goals and guidelines, the food pyramid, nutrients, metabolism, calories, fad diets, and the relationship between diet and exercise
- Mental and emotional health: self-concept/self-esteem, personality development, defense mechanisms
- Consumer health: quackery, advertising, importance of regular checkups, personal responsibility for healthy behavior, and health “myths”
- Drug use and abuse: alcohol, tobacco, over-the-counter drugs, prescription drugs, illegal substances, “non-drug drugs” such as caffeine, causes for the use and abuse of substances, alternate coping skills, physical and psychological effects, treatment and recovery
- Safety and injury prevention: general and specific safety considerations for all movement activities; fitness-related safety considerations, such as warm-up/cool down, harmful exercise techniques, and environmental conditions; health-related fitness appraisals; personal goal-setting and assessment, such as Physical Best, President’s Challenge, and Fitnessgram; handling accidents and illnesses: personal safety, the safety risks, first aid techniques such as CPR and the Heimlich maneuver, water safety certification; legal aspects of equipment and class organization
- Methods, strategies, and resources for evaluating students’ health behaviors and effecting appropriate changes and meeting a pluralistic society’s needs for health education relative to differing socioeconomic, cultural, and ethnic backgrounds

II. Family Living and Sex Education

- Reproductive anatomy and physiology: growth and development of the male and female reproductive systems, family planning, pregnancy and childbirth
- Psychosocial development: family structure relationships, peer relationships, values and decision-making, understanding of bodily changes, and personal growth and development

- Dating and marriage: readiness, responsibility, communication, and assertiveness
- Parenting: responsibilities, child-rearing practices, and communication
- Family and societal problems: conflict resolution, domestic violence, rape, incest, teen pregnancy, and divorce
- Gerontology: relation of lifestyle to health maintenance, services for older citizens, dealing with pain and infirmity
- Death and dying: acceptance, dealing with grief, services and facilities for the ill, and planning for death

III. Community Health/Diseases and Disorders

- Environmental issues: population, resources, pollution, and urban-rural considerations
- Health agencies: public and private agencies, services provided, cost considerations, and health care delivery systems
- Health careers: types of occupational positions, educational requirements prior to training, and formal training required
- Communicable diseases: infectious diseases, including sexually transmitted diseases (STDs)
- Chronic diseases: cardiovascular and neurological diseases, cancer, diabetes, and other major illnesses
- Genetic: Tay-Sachs, sickle cell anemia, cystic fibrosis, Down syndrome
- Mental and emotional illness: depression, anxiety disorders, schizophrenia, and suicide
- Causes, prevention, control, treatment, and counseling for communicable diseases; chronic diseases; genetic disorders; and mental illness, particularly related to teenage depression and suicide

Physical Education

IV. Fundamental Movements, Motor Development, and Motor Learning

- Fundamental movements: locomotor, nonlocomotor, manipulative, and falling/landing movement skills; movement concepts such as body, space, effort, and relationship
- Growth and motor development: role of perception in motor development, such as in spatial movement relationships; neurophysiology of motor control; effects of maturation and experience on motor patterns; biological and environmental influences on gender differences in motor performances
- Motor learning: classical and current theories of motor learning; variables that affect learning and performance; effects of individual differences on learning and performance

V. Movement Forms

- Dance and rhythmic activities: dance forms, such as folk, square, and aerobic dancing; skill analysis of dance movements
- Gymnastics: stunts and tumbling, use of gymnastic apparatus, movement themes in educational gymnastics
- Games: game forms, including invasion games; cooperative and competitive games; analysis of skills, rules, and strategies of particular games
- Individual/dual/team sports: analysis of skills, injury prevention and safety, rules and strategies, facilities and equipment, lifetime activities and recreational pursuits, adventure and outdoor pursuits, and the martial arts; emphasis is on basketball, soccer, softball, tennis, track and field, and volleyball

VI. Fitness and Exercise Science

- Components: cardiorespiratory and muscular endurance, body composition, flexibility
- Conditioning practices and principles: frequency, intensity, time/duration, the role of exercise
- Human biology: anatomy and physiology, including identification of major muscles, bones, and systems of the human body and their functions; exercise physiology, including terminology, components of fitness, principles of exercise, roles of body systems in exercise, short and long-term effects of physical training, relationship between nutrition and fitness
- Biomechanics: terminology: mass, force, friction; basic principles of movement: summation of forces, center of gravity, force/speed relations, torque; application of basic principles to sports skills; methods of analyzing movement; analysis of basic movement patterns: overhand throw, underhand throw, kick

Sample Test Questions

The sample questions that follow illustrate the kinds of questions in the test. They are not, however, representative of the entire scope of the test in either content or difficulty. Answers with explanations follow the questions.

Directions: Each of the questions or statements below is followed by four suggested answers or completions. Select the one that is best in each case.

- Which of the following accurately describes the correct sequence of procedures one should follow when administering the ABC's of cardiopulmonary resuscitation (CPR)?
 - Open airway, supply two full breaths, check pulse
 - Check pulse, supply two full breaths, check breathing
 - Check pulse and breathing, open airway, supply two quick breaths
 - Supply two quick breaths, check pulse and breathing, open airway
- Which two of the following are the faults most commonly exhibited by beginning swimmers who are learning the breast stroke?
 - Failure to relax
 - Moving the arms too fast
 - Pulling the arms back too far
 - Carrying the arms too high in the recovery
 - Improper timing between movements of the legs and the arms
 - I and IV
 - II and IV
 - II and III
 - III and V
- The exercise system known as "plyometrics" was designed to meet which of the following objectives?
 - Cardiovascular fitness
 - Explosive power training
 - Improved flexibility
 - Muscular endurance
- Which of the following is the reduction in daily calorie intake required to lose three pounds in two weeks?
 - 1,050 calories
 - 750 calories
 - 450 calories
 - 150 calories
- The speed of an object thrown overhand is most affected by which of the following?
 - Wrist flexion
 - Hip rotation
 - Grip-release
 - Hand-head proximity
- An increase in the risk of heart disease is associated with an increase in all of the following EXCEPT
 - blood pressure
 - serum cholesterol
 - low-density lipoprotein
 - high-density lipoprotein
- Which of the following activities is most aerobically demanding in relation to kcal/hour burned?
 - Bowling
 - Volleyball
 - Walking
 - Cross-country skiing
- In which of the following locomotor skills does each foot have two tasks to complete before the weight is transferred to the other foot?
 - Galloping
 - Running
 - Walking
 - Skipping

9. Which of the following is a problem most characteristic of the primitive stage of forward rolling?
- (A) Keeping the chin tucked
 - (B) Keeping the knees and hips flexed
 - (C) Losing the curl
 - (D) Using the hands to cushion the head contact
10. All of the following are characteristics of a correct mature form for striking a ball with a racquet EXCEPT
- (A) taking a forward step with the foot opposite to the striking arm
 - (B) coiling and rotating the body forward as the racquet is swung
 - (C) putting weight on the back foot and then shifting to the front foot as the racquet is swung
 - (D) stopping the racquet at the point of contact with the ball
11. When dribbling a soccer ball in a restricted space, the player should attempt to do all of the following EXCEPT
- (A) keep the ball close to the feet
 - (B) stay in a slightly crouched position
 - (C) use body feints and changes of speed
 - (D) use only the dominant foot for better control
12. It is reputed that Milo of Greece lifted a newborn bull onto his shoulders each day until the bull became fully mature. Milo followed what two principles of modern muscle strength and endurance conditioning?
- (A) Progression and overload
 - (B) Variable resistance and overload
 - (C) Frequency and progression
 - (D) Intensity and retention
13. In which of the following lists is each physiological factor linearly (proportionately) related to oxygen consumption?
- (A) Cardiac output, diastolic blood pressure, heart rate
 - (B) Cardiac output, heart rate, work rate
 - (C) Core temperature, red blood cell count, work rate
 - (D) Minute ventilation, red blood cell count, respiration rate
14. Angular motion is represented by which of the following?
- I. The knees of a cyclist
 - II. The legs of a runner
 - III. The arms of a swimmer
- (A) I only
 - (B) III only
 - (C) I and II only
 - (D) I, II, and III
15. The correct racing posture of a swimmer, a cyclist, or a downhill skier minimizes the effect of
- (A) lift
 - (B) propulsion
 - (C) drag
 - (D) gravity
16. Which of the following practice alternatives would best promote motor learning and safety for potentially injurious sports such as pole vaulting and downhill skiing?
- (A) Whole
 - (B) Part
 - (C) Progressive-part
 - (D) Distributed

17. All of the following are direct physiological consequences of warm-down (cool-down) activities following vigorous physical activity EXCEPT
- (A) preventing blood from pooling in the legs
 - (B) increasing the rate of lactic acid removal from the blood and skeletal muscle
 - (C) promoting the reduction of cholesterol in the blood
 - (D) reducing the risk of cardiac irregularities
18. Swimming one-half mile four times a week is most likely to develop which of the following?
- (A) Aerobic fitness
 - (B) Balance
 - (C) Flexibility
 - (D) Agility
19. Which of the following accurately represents the number of extra calories a pregnant woman will need to consume per day to prepare for a healthy birth?
- (A) 200–300
 - (B) 1,000–1,200
 - (C) 1,500–2,000
 - (D) Double her normal caloric intake
20. Which of the following represents the correct sequence of stages during normal vaginal childbirth?
- (A) Expulsion, dilation, placental, contractions
 - (B) Dilation, expulsion, contractions, placental
 - (C) Contractions, dilation, expulsion, placental
 - (D) Placental, contractions, dilation, expulsion
21. Which of the following is the respiratory condition characterized by inflammation, excessive mucus production, and the constriction of the bronchi?
- (A) Hay fever
 - (B) Emphysema
 - (C) Sleep apnea
 - (D) Asthma

Answers

1. The correct answer is A. The ABC's of CPR, according to the American Heart Association, are a series of steps. A stands for airway, B for breathing, and C for circulation. The steps necessary for an unconscious victim are as follows:

1. open airway with jaw thrust
2. if victim is not breathing, begin artificial breathing with two quick breaths
3. check carotid pulse, and
4. if victim's pulse is absent, begin artificial circulation.

2. The correct answer is D. The swimmer's arms should not be drawn back beyond the shoulders, making III a common fault. The pull, kick, glide sequence must also be executed in proper order, making V the second most common fault.

3. The correct answer is B. Exercise training drills termed plyometrics, or explosive jump training, are used for football, volleyball, sprinting, and basketball.

4. The correct answer is B. A pound of body fat equals 3,500 calories. By reducing intake of food as in dieting, an individual wishing to lose three pounds would restrict the intake of 10,500 calories ($3 \times 3,500 = 10,500$). To accomplish this over a period of fourteen days would require the reduction of 750 calories per day ($10,500 \div 14 = 750$).

5. The correct answer is B. The speed of a thrown object is related to the amount of torque created by the rotation of the hips added to the arm action. The body as a whole, therefore, throws the object, hip rotation being a commonly observed attribute of the mature overhand throw.

6. The correct answer is D. High concentrations of low-density lipoprotein (LDL), especially under high (blood) pressure and in the presence of high serum cholesterol, are the major factors associated with the artery-narrowing process known as atherosclerosis. Whereas LDL carries cholesterol to the tissues of the body, high-density lipoprotein (HDL) is thought to act as a scavenger, gathering cholesterol from cells and returning it to the liver to be processed to bile. A high HDL ratio to LDL in overall serum cholesterol is a desirable trait.

7. The correct answer is D. For a 150-pound person, bowling would burn 140–280 kcal/hour; walking, 222–300 kcal/hour; and

cross-country skiing, 420–840 kcal/hour, making skiing the most demanding of the choices on one's aerobic capacity. Volleyball involves less energy expenditure than either walking or cross-country skiing.

8. In walking and running, each foot performs a single task before the other foot takes over. In galloping, each foot performs a single task, but one foot "walks" while the other foot "leaps." In skipping, each foot both "walks" and "hops" before the other foot takes over. Therefore, D is the correct answer.

9. Choices A, B, and D are all characteristic of intermediate or advanced levels of performing the forward roll. Choice C is characteristic of early or primitive stages of performing the forward roll and is the correct answer.

10. Choices A, B, and C are all generally accepted as essential elements of mature striking form. "Following through" with the swing is also an essential element, and thus D is the correct answer.

11. Although most players, even at fairly advanced levels, will have better control with the dominant foot than with the nondominant foot, it is still essential that practice in dribbling at every level emphasize use of both feet. D is the correct answer.

12. Choice A is the correct answer because *progression* and *overload* are the terms used in discussions of fitness that refer to adjusting the amount of exercise to a person's present capacity (overload) and gradually increasing the amount of exercise over time to improve the level of fitness (progression).

13. Choice B is the correct answer because it is the only option that does not include at least one item that does not increase in a linear fashion as oxygen consumption increases.

14. The definition of angular motion clearly covers all three of the movements listed; therefore, D is the correct answer.

15. All three activities require that their participants maintain a compact arrangement of the body so that it can move smoothly through the medium (air or water) that is involved. C is the correct answer, because the failure to observe this compact bodily arrangement would hinder movement by creating drag.

16. Choice C describes a method of practice that involves working on specific elements of a skill in isolation. Because this method allows those elements of a skill that present the greatest risk of injury to be mastered under controlled conditions before the skill is attempted “whole” and under real conditions, C is the correct answer.

17. This question is based on a standard textbook discussion of the rationale for warm-down following vigorous physical activity, which clearly establishes A, B, and D as real effects of proper warm-down procedures. C is not such an effect and is thus the correct answer.

18. The correct answer is A. Swimming a distance such as one-half mile would increase cardiovascular fitness just as distance running would. Swimming may help maintain flexibility but would not develop agility or balance.

19. The correct answer is A. During the course of a pregnancy, the fetus weighs anywhere from a few ounces to a few pounds. The mother’s body needs only between 200 and 300 extra calories per day during the pregnancy. That is about the amount in one cooked chicken breast, without the skin.

20. The correct answer is C. The end of the first trimester, called transition, is the process during which the cervix becomes fully dilated and the baby’s head begins to move into the vagina, or birth canal. This transition period starts the chain of childbirth. The second stage is the expulsion stage, during which the mother gets ready to give birth to the child. The cervix is fully dilated and the contractions become rhythmic, stronger, and more painful as the uterus works to push the baby through the birth canal. After the delivery of the baby, the mother continues into the third stage of labor, during which the placenta is expelled from the womb.

21. The correct answer is D. An asthma episode is a series of events that result in narrowed airways. These include: swelling of the lining, tightening of the muscle, and increased secretion of mucus in the airway. Hay fever is an allergy caused by the pollens of certain seasonal plants. Sleep apnea is a sleep disorder involving pauses in breathing during sleep. Emphysema is a pulmonary disease caused by exposure to toxic chemicals or tobacco smoke.



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