Foundational Physical Education Knowledge

Physical Education · Practice Test · 18 Questions

1. Which physiological adaptation is primarily responsible for an athlete's improved cardiovascular efficiency during endurance training, leading to a lower resting heart rate?

A) Hypertrophy of skeletal muscle fibers
B) Increased lactate threshold
C) Increased stroke volume of the heart
D) Enhanced anaerobic glycolysis

2. The 'FITT' principle in exercise prescription stands for Frequency, Intensity, Time, and what other crucial component?

A) Technique
B) Training
C) Type
D) Tolerance

3. In biomechanics, what is the term for the imaginary line about which a body or object rotates?

A) Force vector
B) Momentum axis
C) Center of gravity
D) Axis of rotation

4. Which of the following energy systems provides the primary fuel source for short, high-intensity activities lasting approximately 10-30 seconds, such as a sprint?

A) Aerobic respiration
B) Oxidative phosphorylation
C) Phosphagen system (ATP-PCr)
D) Glycolysis

5. What is the main goal of a proper warm-up routine before strenuous physical activity?

A) To deplete glycogen stores
B) To increase muscle elasticity and prepare the body for exertion
C) To induce fatigue to improve later performance
D) To slow down heart rate

6. The law of effect, often applied in learning and conditioning, suggests that behaviors followed by satisfying consequences are more likely to be repeated. Who is credited with formulating this principle?

A) Ivan Pavlov
B) B.F. Skinner
C) Edward Thorndike
D) Albert Bandura

7. Which macronutrient is the body's primary source of immediate energy during moderate to high-intensity exercise?

A) Proteins
B) Fats
C) Vitamins
D) Carbohydrates

8. What is the term for the maximum amount of oxygen an individual can utilise during intense exercise?

A) Anaerobic threshold
B) Lactate threshold
C) VO2 max
D) Cardiac output

9. In the context of exercise, 'specificity' refers to the principle that training should be relevant and matched to the demands of the activity. This is part of which broader principle?

A) Overload
B) Progression
C) Reversibility
D) Training principles

10. Which type of muscle contraction occurs when the muscle lengthens under tension, such as the lowering phase of a bicep curl?

A) Isometric
B) Concentric
C) Eccentric
D) Isokinetic

11. The 'somatotype' refers to the classification of body types. Which of the following is one of the three primary somatotypes identified by William Sheldon?

A) Cardiovascular
B) Mesomorph
C) Metabolic
D) Neuromuscular

12. What is the primary function of the myelin sheath in nerve cells that transmit motor commands to muscles?

A) To absorb neurotransmitters
B) To insulate the axon and speed up nerve impulse transmission
C) To produce energy for neuronal activity
D) To regulate blood flow to the brain

13. Which historical period is often considered the birthplace of modern organized sport, with the revival of the Olympic Games in 1896?

A) Ancient Greece
B) The Renaissance
C) The Enlightenment
D) The Victorian Era

14. In the context of physical activity, 'proprioception' refers to the body's ability to sense its position, movement, and balance in space. Which sensory system is most closely associated with proprioception?

A) Visual system
B) Auditory system
C) Vestibular system
D) Olfactory system

15. What is the general term for the process by which the body uses oxygen to break down nutrients to release energy?

A) Anabolism
B) Catabolism
C) Metabolism
D) Respiration

16. Which of the following is a key component of a balanced cool-down routine after exercise?

A) High-intensity interval training
B) Static stretching to improve flexibility
C) Immediate caffeine intake
D) Increasing heart rate further

17. The concept of 'periodisation' in training involves systematically varying training variables over time to optimise performance and prevent overtraining. What is the primary benefit of periodisation?

A) Maximising short-term gains without long-term planning
B) Preventing boredom by constant variation
C) Achieving peak performance at specific times and reducing injury risk
D) Minimising the need for rest and recovery

18. What is the primary role of red blood cells in the context of physical activity?

A) To carry glucose to muscles
B) To transport oxygen from the lungs to the tissues
C) To remove carbon dioxide from the brain
D) To facilitate muscle contraction