

Advanced Physical Education Theory

Physical Education · Answer Key · 8 Questions

1. Which principle of biomechanics states that an object in motion stays in motion unless acted upon by an external force?

- A) Newton's First Law (Inertia)**
- B) Newton's Second Law (Acceleration)
- C) The Bernoulli Principle
- D) The Magnus Effect

2. In the context of energy systems, what is the primary byproduct of anaerobic glycolysis during high-intensity exercise?

- A) Adenosine Triphosphate
- B) Lactic Acid**
- C) Oxygen
- D) Creatine Phosphate

3. According to Fitts and Posner's model of motor learning, which stage is characterized by high cognitive activity and frequent errors?

- A) Autonomous stage
- B) Associative stage
- C) Cognitive stage**
- D) Fixation stage

4. Which component of fitness is best measured by the Wingate Anaerobic Test?

- A) Aerobic capacity
- B) Muscular endurance
- C) Peak anaerobic power**
- D) Flexibility

5. What is the function of the Golgi tendon organ in the human body?

- A) To initiate the stretch reflex
- B) To measure muscle tension and prevent injury**
- C) To increase blood flow to skeletal muscles
- D) To facilitate rapid twitch fiber recruitment

6. In biomechanics, what does the term 'moment of inertia' describe?

- A) The force exerted by a joint
- B) The resistance of a body to rotational acceleration**
- C) The distance between the centre of gravity and the base of support
- D) The velocity of a projectile at release

7. Which type of muscle contraction occurs when the muscle length changes while tension is maintained against resistance?

- A) Isometric
- B) Isokinetic
- C) Isotonic**
- D) Eccentric

8. What is the primary role of the SAID principle in sports training theory?

- A) Specific Adaptation to Imposed Demands**
- B) Standardized Aerobic Interval Development
- C) Systematic Analysis of Injury Dynamics
- D) Structural Alignment in Development