

Sports Science Fundamentals

Sports Science · Practice Test · 8 Questions

1. Which energy system provides the primary fuel for high-intensity, short-duration activities like a 100-metre sprint?

- A) Aerobic system
- B) ATP-PCr system
- C) Glycolytic system
- D) Krebs cycle

2. What is the primary function of the body's 'Type I' muscle fibres?

- A) Rapid explosive power
- B) Short bursts of speed
- C) Endurance and aerobic capacity
- D) Fatigue resistance with high force

3. In biomechanics, which term describes the measure of an object's resistance to change in its rotational motion?

- A) Moment of inertia
- B) Angular momentum
- C) Torque
- D) Centripetal force

4. Which physiological process is responsible for the 'burning' sensation in muscles during intense, prolonged physical activity?

- A) Dehydration
- B) Lactic acid accumulation
- C) Increased body temperature
- D) Reduced oxygen intake

5. What is the primary role of the Golgi tendon organ in the muscular system?

- A) Stimulating muscle contraction
- B) Regulating blood flow to muscles
- C) Detecting changes in muscle tension to prevent injury
- D) Improving joint flexibility

6. Which heart rate measurement represents the lowest number of beats per minute when the body is in a state of complete rest?

- A) Maximum heart rate
- B) Target heart rate
- C) Resting heart rate
- D) Recovery heart rate

7. What is the principle of 'SAID' in sports training, which dictates how the body adapts to stress?

- A) Specific Adaptation to Imposed Demands
- B) Standard Aerobic Intensity Development
- C) Systemic Athletic Internal Development
- D) Strengthening All Integrated Dynamics

8. Which plane of motion divides the human body into left and right sides, commonly used to describe forward and backward movements?

- A) Transverse plane
- B) Frontal plane
- C) Sagittal plane
- D) Coronal plane