

Sports Science Fundamentals

Sports Science · Answer Key · 12 Questions

1. Which primary energy system is used for short, high-intensity activities like sprinting?

- A) Aerobic System
- B) Phosphagen System**
- C) Glycolytic System
- D) Oxidative System

2. What is the main function of red blood cells in the body?

- A) Fighting infection
- B) Transporting oxygen**
- C) Clotting blood
- D) Producing energy

3. Which type of muscle fiber is primarily responsible for explosive power and speed?

- A) Slow-twitch (Type I)
- B) Fast-twitch (Type IIa)
- C) Fast-twitch (Type IIx)**
- D) All muscle fibers equally

4. What is the process by which the body converts food into usable energy?

- A) Respiration
- B) Digestion
- C) Metabolism**
- D) Photosynthesis

5. Which component of fitness refers to the ability of a muscle to exert force against resistance?

- A) Endurance
- B) Flexibility
- C) Strength**
- D) Power

6. What is the primary role of carbohydrates in the athlete's diet?

- A) Muscle repair
- B) Energy source**
- C) Hormone production
- D) Vitamin absorption

7. Which type of stretching involves holding a stretch for a period of time?

- A) Dynamic stretching
- B) Ballistic stretching
- C) Static stretching**
- D) Proprioceptive stretching

8. What is the main role of the cardiovascular system during exercise?

- A) Digesting food
- B) Transporting oxygen and nutrients**
- C) Filtering waste products
- D) Regulating body temperature

9. Which of the following is a major role of protein in the body?

- A) Providing immediate energy
- B) Building and repairing tissues**
- C) Acting as a primary fuel for the brain
- D) Aiding in hydration

10. What is the scientific study of human movement called?

- A) Physiology
- B) Psychology
- C) Anatomy
- D) Biomechanics**

11. Which vital sign measures the force of blood pushing against the walls of arteries?

- A) Heart rate
- B) Respiratory rate
- C) Body temperature
- D) Blood pressure**

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

- A) Lactate threshold
- B) Anaerobic threshold
- C) VO2 max**
- D) Resting heart rate