

Name: _____ Date: _____

Answer Key: Periodization & Performance: Your Senior Year Fitness Strategy Quiz

Metabolic demands, hypertrophy, and the FITT principle—the science behind peak performance. Evaluate your understanding of high-level individual training methodologies.

1. When training for a triathlon, which principle suggests that your body will specifically adapt to the unique cardiovascular demands of open-water swimming versus cycling?

Answer: A) The Principle of Specificity

Specificity (or the SAID principle) states that the body adapts to the specific type of stress placed upon it, meaning swim training clarifies swimming-specific physiological adaptations.

2. In a long-term periodization plan, the 'Macrocycle' typically refers to an entire year of training leading up to a peak performance goal.

Answer: A) True

A macrocycle is the largest block in a training plan, usually spanning a competitive season or a full year, composed of mesocycles and microcycles.

3. In resistance training, focusing on _____ occurs when a lifter performs a high volume of repetitions (8-12) at a moderate intensity to increase muscle size.

Answer: B) Hypertrophy

Hypertrophy is the scientific term for the enlargement of skeletal muscle fibers, typically achieved through specific volume and intensity parameters.

4. Which of these individual athletes would most likely utilize 'Plyometric' training to improve their explosive power?

Answer: C) A high jumper

Plyometric training involves explosive movements like jumping to improve the stretch-shortening cycle, which is essential for event-specific power in high jumping.

5. Static stretching is considered the most effective way to warm up the nervous system immediately before a high-intensity 100-meter dash.

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Answer: B) False

Dynamic stretching is preferred before intensive activity because it improves blood flow and muscle temperature without temporarily decreasing power output.

6. The FITT principle is a foundational acronym used to design workouts; the 'I' in FITT stands for ____.

Answer: C) Intensity

FITT stands for Frequency, Intensity, Time, and Type; Intensity refers to how hard the body is working during the physical activity.

7. Which energy system is primarily responsible for fueling a short, maximum-effort activity such as a 50-meter freestyle swim sprint?

Answer: D) ATP-CP (Anaerobic) system

The ATP-CP system provides immediate energy for high-intensity, short-duration activities lasting approximately 10-15 seconds.

8. To avoid a plateau in a personal fitness routine, an individual should use 'Progressive Overload' by gradually increasing the weight, frequency, or number of repetitions.

Answer: A) True

Progressive Overload is the practice of continually increasing the demands on the musculoskeletal system to make gains in muscle size, strength, and endurance.

9. A mountain biker who focuses on core stability exercises to maintain balance on technical trails is working on ____, which helps control body position during movement.

Answer: A) Proprioception

Proprioception is the body's ability to sense its location, movements, and actions, which is vital for balance and coordination in individual sports.

10. Which of the following describes 'Active Recovery' for an individual athlete?

Answer: B) Low-intensity movement like walking to help clear metabolic waste

Active recovery involves performing light exercises to stimulate blood flow and assist in the repair of muscles without adding significant stress.