Name: _____ **Date:** _____

Built for the Long Haul? 10th Grade Fitness Analysis Quiz

Examine how physiological systems synchronize to optimize athletic output and metabolic health in high-performance settings.

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1. A marathoner hits 'the wall' during a race due to glycogen depletion. Which component of fitness primarily dictates the efficiency of glycogen sparing through aerobic metabolism?

A. Muscular Hypertrophy
B. Cardiovascular Endurance
C. Reaction Time
D. Static Flexibility

2. Body composition is an assessment of the ratio of fat-free mass (muscle, bone, organs) to fat mass, rather than just total body weight.

A. True
B. False

3. To increase _____, an athlete would perform a 1-Repetition Maximum (1RM) test to measure the highest level of force an isolated muscle group can produce.

A. Muscular Endurance
B. Cardiovascular Power
C. Muscular Strength
D. Agility

4. Which specific physiological adaptation occurs when a student focuses on improving their flexibility through Proprioceptive Neuromuscular Facilitation (PNF)?

A. Increased bone density
B. Increased stroke volume
C. Inhibition of the stretch reflex
D. Fast-twitch fiber conversion

5. When an individual transitions from a sedentary lifestyle to regular aerobic exercise, their _____ typically decreases due to a more efficient stroke volume.

A. Resting Heart Rate
B. Tidal Volume
C. Fat-free Mass
D. Joint Laxity

6. High-intensity interval training (HIIT) is primarily designed to improve muscular strength rather than cardiovascular endurance.

A. True

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B. False

7. A student athlete wants to improve their body composition. Which combination of strategies would be most effective for increasing basal metabolic rate (BMR)?

A. Caloric restriction and static stretching
B. Resistance training and increased protein intake
C. Long-distance walking and vitamin supplements
D. Hydration and sleep hygiene only

8. Unlike dynamic stretching, _____ stretching involves holding a position for 15-60 seconds to lengthen the muscle and improve long-term range of motion.

A. Ballistic
B. Standard
C. Static
D. Reactive

9. If a rower maintains a high intensity over a 2,000-meter race, they are demonstrating a high capacity for which health-related component?

A. Muscular Strength
B. Body Composition
C. Cardiovascular Endurance
D. Flexibility

10. Developing flexibility can lead to better posture and a reduced risk of chronic lower back pain.

A. True
B. False