Objective Type Questions & Answers

Select the correct answer from the following choices:

1) The change in position of a body from its initial position to final position is called.

a. speed b. velocity c. acceleration d. displacement

2) A body moving with uniform velocity has acceleration.

a. zero b. positive c. negative d. Infinite

3) The velocity-time graph is parallel to time axis; the acceleration of the moving body is.

a. maximum b. negative c. positive d. zero

4) If a car moves with uniform acceleration, then the area between the velocity time graph and the time axis is equal to.

a. force b. velocity c. acceleration d. distance covered

5) When the value of average velocity and instantaneous velocity are equal, then the body is said to be moving with,

a. average acceleration b. uniform acceleration

c. negative acceleration d. positive acceleration

6) Acceleration of bodies of different masses, allowed to fall freely is,

a. variable b. the same

c. different for different heights d. different for different bodies

7) Distance covered by freely falling body in 2 seconds is,

a. 4.9 m b. 19.6m c. 39.2 m d. 44.1 m

8) The property of the body due to which it opposes its state of rest or of uniform motion is called.

a. momentum b. torque c. weight d. inertia

9) Pull of Earth on a mass of 20 kg on the surface of Earth is,

a. 19.6 N b. 196N c. 392N d. 1960 N

10) A force of 500 N acts on a body for 10 seconds. What will be the change in momentum?

a. 250 N b. 500 N c. 750 N d. 1000 N

11) A body is thrown vertically upward with an initial velocity 9.8 ms^{-2}. It will reach the height.

a. 4.9 m b. 9.8 m c. 19 8 m d. 29.4 m

12) The path of the projectile is,

a. straight line b. circle c. parabola d. hyperbola

13) Motion of the projectile is,

a. one dimensional b. two dimensional

c. three dimensional d. four dimensional

14) A bomber drops its bomb when it is vertically above the target. It misses the target due to,

a. horizontal component b. vertical component of the velocity

c. air resistance d. pull of gravity

15) The time of flight of a projectile is,

a. $\frac{v_i^2 \sin^2\theta}{g}$ b. $\frac{v_i^2 \cos^2\theta}{g}$ c. $\frac{v_i^2 \sin^2\theta}{2g}$ d. $\frac{2v_i \sin^2\theta}{g}$

16) The horizontal range of the projectile is maximum when it is projected at an angle of,

a. 30° b. 45° c. 60° d. 90°

17) The maximum vertical height is,

a. $\frac{v_i^2 \sin^2\theta}{g}$ b. $\frac{v_i \sin\theta}{2g}$ c. $\frac{v_i^2 \cos^2\theta}{g}$ d. $\frac{v_i^2 \sin^2\theta}{2g}$

18) To improve the span of the jump, one should jump at an angle of,

a. 30° b. 45° c. 60° d 90°

19) The horizontal component of a projectile moving with initial velocity 500 ms^{-1} at an angle of 60° with x-axis is equal to,

a. zero b. 250 ms^{-1} c. 500 ms^{-1} d. 1000 ms^{-1}

20) In a projectile motion, the horizontal range depends upon,

a. initial velocity b. angle of projection

c. both initial velocity and angle of projection d. none of these

21) Dimensions of impulse is unguided missile is called a,

a. work b. force c. torque d. momentum

22) An unpowered and unguided missile is called a,

a. simple missile b. plastic missile

c. ballistic missile d. unguided missile

23) The ballistic missiles are used only for,

a. long ranges b. short ranges c. medium ranges d. none of these