

MULTIPLE CHOICE QUESTIONS (MCQs)

Class-XI

Physics:

1. The dimensions of kinetic energy is

- (a) $[M^2 L^2 T]$ (b) $[ML^2 T]$
(c) $[ML^2 T^{-2}]$ (d) $[ML^2 T^{-1}]$

2. The velocity of a particle is $v = v_0 + gt + ft^2$. If its position is $x=0$ at $t=0$, then displacement after time $(t=1)$ is (a) $v_0 + g^2 + f$ (b) $v_0 + 2g + 3f$ (c) $v_0 + g^2 + f^3$ (d) $v_0 + g + f$

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3. The dimensions of kinetic energy is same as that of

- (a) force (b) pressure
(c) work (d) momentum

4. What is the dimensional formula of magnetic field?

- (a) $MT^{-2}A^{-1}$ (b) $MT^{-1}A^{-2}$
(c) $M^{-1}L^{-2}TA^{-1}$ (d) $M^{-1}LTA^{-2}$

5. The mass and volume of a body are 4.237 g and 2.5 cm^3 respectively. The density of the material of the body in correct significant figures is:

- a) 1.6048 g/cm^3
b) 1.69 g/cm^3
c) 1.7 g/cm^3
d) 1.695 g/cm^3

6. The length and breadth of a rectangular sheet are 16.2 cm and 10.1 cm respectively. The area of the sheet in appropriate significant figures and error is:

- a) $164 \pm 3 \text{ cm}^2$
b) $163.62 \pm 2.6 \text{ cm}^2$
c) $163.6 \pm 2.6 \text{ cm}^2$

d) $163.62 \pm 3 \text{ cm}^2$

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8. $\frac{d}{dx}(2\sin x + x)$

(a) $2\cos x + 1$

(b) $\sin 2x - 1$

(c) $2\cos x - 1$

(d) $\sin 2x$

9. Electron volt is a unit of

(a) charge (b) potential difference

(c) energy (d) magnetic force

10. Which one of the following represents the correct dimensions of the coefficient of viscosity?

(a) $[ML^{-1}T^{-2}]$

(b) $[MLT^{-1}]$

(c) $[ML^{-1}T^{-1}]$

(d) $[ML^{-2}T^{-2}]$