

Yakeen NEET 2.0 2026

Physics By Saleem Sir

Units and Measurements

DPP: 11

- Q1** The physical quantity which has dimensional formula as that of $\frac{\text{Energy}}{\text{Mass} \times \text{Length}}$ is
 (A) Force (B) Power
 (C) Pressure (D) Acceleration
- Q2** Find the dimensions of $G\epsilon_0$ (G = Universal Gravitational constant, ϵ_0 = permittivity in vacuum)
 (A) $M^{-2} L^2 T^1$
 (B) $M^1 L^1 T^{-2}$
 (C) $M^{-1} L^{-1} T^{-2}$
 (D) $M^{-2} A^2 T^2$
- Q3** The equation of a wave is given by $y = A \sin \omega \left(\frac{x}{v} - t \right)$ where x is the position of a particle ω is the angular velocity and v is the linear velocity. The dimension of t is:
 (A) LT (B) T
 (C) T^{-1} (D) T^2
- Q4** In a vernier callipers, ten smallest divisions of the vernier scale are equal to nine smallest division on the main scale. If the smallest division on the main scale is half millimeter, then the vernier constant is
 (A) 0.5 mm
 (B) 0.1 mm
 (C) 0.05 mm
 (D) 0.005 mm
- Q5** Which pair has the same dimensions
 (A) Work and power
 (B) Density and relative density
 (C) Momentum and impulse
 (D) Stress and strain
- Q6** Which of the following group of physical quantity can be considered as a group of fundamental physical quantity?
 (A) Mass, momentum, velocity
 (B) Displacement, time, velocity
 (C) Force, mass, acceleration
 (D) Time, force, velocity
- Q7** In a vernier calipers, one main scale division is x cm and n division of the vernier scale coincide with $(n - 1)$ divisions of the main scale. The least count (in cm) of the calipers is:
 (A) $\left(\frac{n-1}{n} \right) x$
 (B) $\left(\frac{nx}{n-1} \right)$
 (C) $\frac{x}{n}$
 (D) $\left(\frac{x}{n-1} \right)$
- Q8** The period of oscillation of a simple pendulum in the experiment is recorded as 2.63 s, 2.56 s, 2.42 s, 2.71 s and 2.80 s respectively. The average absolute error is
 (A) 0.1 s
 (B) 0.11 s
 (C) 0.01 s
 (D) 1.0 s
- Q9** The time period of oscillation of a body is given by

$$T = 2\pi \sqrt{\frac{mgA}{K}}$$
 K : Represents the kinetic energy, m mass, g acceleration due to gravity and A is unknown. If $[A] = M^x L^y T^z$
 Then what is the value of $x + y + z$?
 (A) 0 (B) 1
 (C) 2 (D) 3



- Q10** Velocity of a body is given as $c = at^2 + \beta t + \gamma$.
Here α , β and γ are constants. c is velocity in S.I.
and t is time in S.I. Then unit of
- (A) γ is m s^{-1}
 - (B) α is m s^{-1}
 - (C) β is m s^{-1}
 - (D) α , β and γ is same



Answer Key

Q1 (D)

Q2 (D)

Q3 (B)

Q4 (C)

Q5 (C)

Q6 (D)

Q7 (C)

Q8 (B)

Q9 (D)

Q10 (A)



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