Yakeen NEET 2.0 2026

Physics By Saleem Sir

Units and Measurements

DPP:10

Q1 Time intervals measured by a clock give the following readings : $1.25\text{sec}, 1.24\text{sec}, 1.27\text{sec}, 1.21\text{sec}$ and 1.28sec. What is the percentage relative error of the observations?
(A) 2%
(B) 4%
(C) 16%
(D) 1.6%

Q2 A physical quantity P is given by $P = \frac{A^3 B^{\frac{1}{2}}}{C^{-4} D^{\frac{3}{2}}}$. The quantity which brings in the maximum percentage error in P is:
(A) A
(B) B
(C) C
(D) D

Q3 If volume is written as, $V = KG^x c^y h^z$. Here, K is dimensionless constant and G, c, h are gravitational constant, speed of light and Planck's constant, respectively. Find the value of x/z.
(A) 1 (B) 2
(C) $\frac{3}{2}$ (D) 4

Q4 During measurement of kinetic energy T, the percentage error in measurement of mass of particle and momentum of particle are 6% and 1% respectively. The percentage error in measurement of kinetic energy is $n\%$. Find the value of n.
(A) 6 (B) 7
(C) 8 (D) 4

Q5 If v stands for velocity of sound, E is modulus of elasticity and d the density, then find x in the equation $v = \left(\frac{d}{E}\right)^x$
(A) 2 (B) $-\frac{1}{2}$
(C) $\frac{1}{2}$ (D) 1

Q6 Young's modulus of steel is $19 \times 10^{10} \text{Nm}^{-2}$ its value dyne cm^{-2} is
(A) 19×10^{11}
(B) 19×10^{17}
(C) 19×10^{13}
(D) 19×10^{21}

Q7 1 Pascal = _____ C. G. S units (or) gram $\text{cm}^{-1}\ \text{s}^{-2}$
(A) 10 (B) $\frac{1}{10}$
(C) 100 (D) 1000

Q8 The physical quantities not having same dimensions are
(A) Speed and $(\mu_0 \varepsilon_0)^{-1/2}$
(B) Torque and work
(C) Momentum and Planck's constant
(D) Stress and Young's modules

Q9 If $'m'$ is the mass of a body, $'a'$ is amplitude of vibration, and 'ω' is the angular frequency, $\frac{1}{2}ma^2\omega^2$ has same dimensional formula as
(A) Impulse
(B) Angular momentum
(C) Moment of inertia
(D) Moment of force

Q10 If C is the capacitance of the capacitor, V is the potential difference, the energy stored in a capacitor is given by $E = \frac{1}{2}CV^2$. The power of time in dimension of CV^2 is:
(A) -2
(B) 2
(C) 1

(D) -1

Answer Key

Q1	(D)	Q6	(A)
Q2	(C)	Q7	(A)
Q3	(A)	Q8	(C)
Q4	(C)	Q9	(D)
Q5	(B)	Q10	(A)