

## Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
2	A train of 150 m length is going towards north direction at a speed of $10 \text{ ms}^{-1}$ A parrot flies at a speed of $5 \text{ ms}^{-1}$ towards south direction parallel to the railway track, The time taken by the parrot to cross the train is equal to	A. 12 s B. 8 s C. 15 s D. 10 s
3	At a certain instant a stationary transverse wave is found to have maximum kinetic energy the appearance of string of that instant is:	A. Sinusoidal shape with amplitude $A/3$ B. Sinusoidal shape with amplitude $A/2$ C. Sinusoidal shape with amplitude $A$ D. Straight line
4	Two forces of 10N and 15N are acting simultaneously on an object in the same direction. Their resultant is	A. Zero B. 5N C. 25N D. 150N
5	What is the average energy of $N$ molecules of monoatomic gas?	A. $1/2 NkT$ B. $NkT$ C. $3/2 NkT$ D. $5/2 NkT$
6	A voltmeter has resistance of 2000 ohms and it can measure up to 2V. If we want to increase its range to 10V then required resistance in series will be	A. $2000\Omega$ B. $4000\Omega$ C. $6000\Omega$ D. $8000\Omega$
7	A body moves a distance of 10 m along a straight line under the action of a force of 5 Newtons, if the work done is 25 joules the angle which the force takes with the direction of motion of the body is:	A. $0^\circ$ B. $30^\circ$ C. $60^\circ$ D. $90^\circ$
8	In which region of electromagnetic spectrum does the Lyman series of hydrogen atom lie	A. Ultraviolet B. Infra red C. Visible D. X-ray
9	The direction of induced current is such that it opposes the very cause that has produced it This is the law of	A. Lenz B. Faraday C. Kirchoff D. Fleming
10	Shunt required in an ammeter of resistance $R$ to decrease its deflection from 30 ampere to 10 ampere is	A. $R/4$ B. $R/3$ C. $R/2$ D. $R$
11	Two bodies of masses $m_1$ and $m_2$ have equal momentum their kinetic energies $E_1$ and $E_2$ are in the ratio	A. $\sqrt{m_1}/\sqrt{m_2}$ B. $14.4444465637207$ C. $14.4444465637207$ D. $14.4444465637207$
12	The dot product of two vectors is negative when	A. They are parallel vectors B. They are anti-parallel vectors C. They are perpendicular vectors

13	The part of a transistor which is heavily doped to produce large number of majority carriers is	A. Emitter B. Base C. Collector D. Any of the above depending on nature of transistor.
14	A 2 kg body and a 3 kg body have equal momentum if the kinetic energy of 3 kg body is 10 j, the KE of 2 kg body will be	A. 6.66 j B. 15 j C. 22.5 j D. 45 j
15	Two masses of 1 g and 4 g are moving with equal kinetic energies. The ratio of the magnitudes of their linear momenta is:	A. 4 : 1 B. $\sqrt{2} : 1$ C. 1 : 2 D. 1 : 16
16	In an AC circuit a resistance of $R$ ohm is connected in series with an inductance $L$ if phase angle between voltage and current be $45^\circ$ the value of inductive reactance will be	A. $R/4$ B. $R/2$ C. $R$
17	Two point charges A and B separated by a distance $R$ attract each other with a force of $12 \times 10^{-3}$ N. The force between A and B when the charges on them are doubled and distance is halved	A. 1.92 N B. 19.2 N C. 12 N D. 0.192 N
18	At constant volume temperature is increased then	A. Collision on walls will be less B. Number of collisions per unit time will increase C. Collisions will be in straight lines D. Collisions will not change
19	What is the ratio of r.m.s velocity for $O_2$ to $H_2$ ?	A. 1/4 B. 4 C. $\sqrt{4} : 1$ D. 1 : $\sqrt{4}$
20	The percentage errors in the measurements of mass and speed are 2% and 3% respectively. How much estimate of the kinetic energy obtained by measuring mass and speed	A. 11% B. 8% C. 5% D. 1%