

## Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	Which of the following lists of physical quantities consists only of vectors:	A. Time,temperature,velocity B. Force,volume,momentum C. Velocity,acceleration,mass D. Force,acceleration,velocity
2	Two points 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
3	If the amplitude of sound is doubled and the frequency reduced to one-fourth the intensity of sound at the same point will be	A. Increasing by a factor of 2 B. Decreasing by a factor of 2 C. Decreasing by a factor of 4 D. Unchanged
4	If the period of oscillation of mass (M) suspended from a spring is 2s, then the period of mass 4M will be	A. 1 s B. 2 s C. 3 s D. 4 s
5	If a diamagnetic substance is brought near north or south pole of a bar magnet it is	A. Attracted by the poles B. Repelled by the poles C. Repelled by north pole and attracted by the south pole D. Attracted by the north pole and repelled by the south pole
6	The velocity of a particle at an instant is 10 m/s and after 5 s the velocity of the particle is 20 m/s. The velocity 3s before in m/s is:	A. 8 B. 4 C. 6 D. 7
7	The henry is the unit for	A. Resistance B. Magnetic flux C. Magnetic field D. Inductance
8	A body is dropped from a tower with zero velocity reaches ground in 4s. The height of the tower is about	A. 80 m B. 20 m C. 160 m D. 40 m
9	Which of the following is a scalar quantity	A. Density B. Displacement C. Torque D. Weight
10	Choose the correct statement	A. Both an ammeter and voltmeter should have small resistance B. Both an ammeter and a voltmeter should have large resistance C. An ammeter should have large resistance and a voltmeter should have small resistance D. An ammeter should have small resistance and a voltmeter should have large resistance
11	What remains constant when the earth revolves around the sun?	A. Angular momentum B. Linear momentum C. Angular kinetic energy D. Linear kinetic energy
12	Boyle's law is applicable in	A. Isochoric process B. Isothermal process C. Isobaric process D. Isotonic process
13	Two point charges placed at distance of 20 cm in air repel each other with a certain force. When a dielectric slab of thickness 8 cm and dielectric constant K is introduced between these point charges force of interaction becomes half of its previous value. Then K is approximately.	A. 2 B. 4 C. $\sqrt{2}$ D. 1
14	A force of 10N is acting along v-axis its component along x-axis is	A. 10N B. 20N

15	The sieman is the SI unit of	A. Resistance B. Specific Resistance C. Conductance D. Inductance
16	When sound waves travel from air to water which of these remains constant?	A. Velocity B. Frequency C. Wavelength D. All the above
17	A p-n junction has a thickness of the order of	A. 1 cm B. 1 mm C. $10^{-6}$ cm D. $10^{-12}$ cm
18	In a Millikan's oil drop experiment the charge on an oil drop is calculated to be $6.35 \times 10^{-19}$ C. The number of excess electrons on the drop is	A. 3.9 B. 4 C. 4.2 D. 6
19	Band spectrum is produced by	A. H B. He C. $H_{\alpha}$ D. Na
20	The twinkling of stars is due to	A. The fact that stars do not emit light continuously B. The refractive index of the earth's atmosphere fluctuates C. Intermittent absorption of star light by its own atmosphere D. None of them