

Physics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	A sun rise or sun set, the sun looks reddish because.	A. The sun is coldest at these times B. Of the effects of reflection and refraction C. The sun is hottest at these times D. Of the scattering of light
2	The velocity v of a particle at time t is given by: $v = at + b / t + c$ The dimensional formula of a, b and c care respectively:	A. $L^{2/2}$; T and $L^{2/2}$ B. $L^{2/2}$; L and L C. <math>L^{2/2}</math> ; L and T D. L ; L and T
3	Which one of the following is a simple harmonic motion?	A. Wave moving through a string fixed at both ends. B. Earth spinning about its own axis C. Ball bouncing between two rigid vertical walls D. Particle moving in a circle with uniform speed.
4	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC
5	The magnetic moment of a circular coil carrying current is	A. Directly proportional to the length of the wire in the coil B. Inversely proportional to the length of the wire in the coil C. Directly proportional to the square of the length of the wire in the coil D. Inversely proportional to the square of the length of the wire in the coil
6	The time period of a simple pendulum is 2 seconds if its length is increased by 4 times then its period becomes	A. 16 s B. 12 s C. 8 s D. 4 s
7	The de broglie wave corresponding to a particle of mass m and velocity v has a wavelength associated with it	A. h/mv B. $hm v$ C. mh/v D. m/hv
8	For obtaining appreciable extension the wire should be	A. Short and thin B. Long and thin C. Short and tick D. Long and thick
9	In which region of electromagnetic spectrum does the Lyman series of hydrogen atom lie	A. Ultraviolet B. Infra red C. Visible D. X-ray
10	Angular momentum is	A. Vector (axial) B. Vector (polar) C. Scalar D. None of these
11	A train of 150 m length is going towards north direction at a speed of 10 ms^{-1} A parrot flies at a speed of 5 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
12	Which of the following sources give discrete emission spectrum?	A. Incandescent electric bulb B. Sun C. Mercury vapour lamp D. Candle

13	When a Na ion and a Cl ion are placed in air a force F acts between them when they are separated by a distance of 1 cm from each other the permittivity of air and the dielectric constant of water are ϵ_0 and K respectively When a piece of salt is placed in water then the force between Na^+ and Cl^- ions separated by a distance of 1 cm will be	<p>A. F B. $F/K\epsilon^{<sub>0</sub>}$ C. $F/K\epsilon^{<sub>0</sub>}$ D. F/K</p>
14	Band spectrum is produced by	<p>A. H B. He C. $\text{H}^{<sub>2</sub>}$ D. Na</p>
15	The nuclear model of atom was proposed by	<p>A. J.J Thomson B. E.Rutherford C. Neil Bohr D. Sommerfeld</p>
16	The frequency of the incident light falling on a photosensitive metal plate is doubled the kinetic energy of the emitted photoelectrons is	<p>A. Double the earlier value B. Unchanged C. More than doubled D. Less than doubled</p>
17	An ideal choke (used along with fluorescent tube) would be	<p>A. A pure resistor B. A pure capacitor C. A pure inductor D. A combination of an inductor and a capacitor</p>
18	The essential distinction between X-rays and y-rays is that	<p>A. y-rays have smaller wavelength than X-rays B. y-rays emanate from nucleus while X-rays emanate from outer part of the atom C. y-rays have greater ionizing power than X-rays D. y-rays are more penetrating than X-rays</p>
19	What remains constant when the earth revolves around the sun?	<p>A. Angular momentum B. Linear momentum C. Angular kinetic energy D. Linear kinetic energy</p>
20	Quantity that remains unchanged in a transformer is	<p>A. Voltage B. Current C. Frequency D. None of these</p>