

ECAT Physics Online Test

Sr	Questions	Answers Choice
1	If 42 J heat is transferred to the system and the work done by the system is 32 J then what will be the change in internal energy	A. 0 J B. 2 J C. 5 J D. 10 J
2	The waves produced in a microwave oven have wavelength.	A. 12 mm B. 12 cm C. 12 m D. 12 mm
3	The pressure will change in the pipe, as the fluid moves through that pipe of varying	A. cross-section B. height C. none of them D. both of them
4	The restoring force always directed towards the	A. extreme position B. mean position C. both of them D. none of them
5	Distance traveled by a body falling from rest in the first, second and third second is in the ration of	A. 1 : 2 : 3 B. 1 : 3 : 5 C. 1 : 4 : 9 D. None of the above
6	The CRO deflects the beam of electrons, when they passes through uniform	A. electric field B. gravitational field C. magnetic flax D. magnetic field
7	When the shear stress and shear stain are involved, then their ratio is called	A. Young's modulus B. Bulk modulus C. Shear modulus D. all of them
8	The wave form of alternating voltage is the graph between:	A. Voltage across X-axis and time across y-axis B. Current and time C. Voltage along y-axis and time along x-axis D. Voltage and current E. Either (B) or (D)
9	Max Planck received the Nobel Prize for his discovery of energy quants in:	A. 1718 AD B. 1918 AH C. 1818 AD D. 1918 AD E. None of these
10	In gases, the charge carriers are:	A. Electrons B. Positive ions C. Negative ions D. Both A and C E. Both A and B
11	Depletion region contains:	A. Protons B. Positive ions C. Negative ions D. Both (B) and (C) E. Both (A) and (C)
12	Mechanical waves on the surface of a liquid are	A. Transverse B. Longitudinal C. Torsional D. both transverse and longitudinal
13	At a given instant, a photon moves in +x direction in a region where there magnetic field in -z direction. The magnetic force on the proton will be the:	A. -y direction B. +y direction C. +z direction D. -z direction E. None of these
14		A. Absolute B. Relative C. Relative

14	The concept of direction is purely:	<p>C. Relative to stars always D. Relative to the sun always E. None of these</p>
15	The strength of magnetic field at certain points around a wire depends upon:	<p>A. $\propto \frac{1}{r}$ Value of current passing B. $\propto r$ Distance from the current element C. $\propto \frac{1}{r^2}$ Color of the material D. $\propto \frac{1}{r^2}$ Both (A) and (B) E. $\propto \frac{1}{r^2}$ Both (B) and (C)</p>
16	Melting point of ice	<p>A. Increases with increasing pressure B. Decreases with increasing pressure C. Is independent of pressure D. Is proportional to pressure</p>
17	On the compression stroke of the petrol engine, the inlet valve is closed and the mixture is compressed	<p>A. adiabatically B. isothermally C. isochorically D. isobarically</p>
18	In the Compton's effect, it is found that the wavelength of incident x-rays is	<p>A. greater than the wavelength of scattered x-rays B. equal to the wavelength of scattered x-rays C. less than the wavelength of scattered x-rays D. any one of these</p>
19	Shock absorber of the car is an example of	<p>A. resonance B. forced oscillations C. interference D. damped oscillations</p>
20	Progressive waves of frequency 300 Hz are superimposed to produce a system of stationary waves in which adjacent nodes are 1.5 m apart. What is the speed of the progressive waves?	<p>A. 100 ms⁻¹ B. 200 ms⁻¹ C. 450 ms⁻¹ D. 900 ms⁻¹</p>