ECAT Physics Online Test

Sr	Questions	Answers Choice
1	In a resonance situation the amplitude of the motion may become extra ordinarily large, if	A. the driving force is large B. the driving force is zero C. the driving force may be feeble D. all of them
2	Nucleus of a hydrogen atom may contain:	A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Aany of above E. One proton only
3	When a horse pulls a cart, the force that makes the horse run forward is the force exerted by	A. The horse on the ground B. The horse on the cart C. The ground on the horse D. The ground on the cart
4	The chemical properties of an element depends upon the number of	A. electron B. position C. photons D. neutrons
5	If the value of galvanometer constant k = C/BAN is made small, the galvanometer can be made	A. Sensitive B. Accurate C. Stable D. None of these
6	the current is pass through the straight wire. The magnetic field established around it has its lines of force:	A. Circular and endless<o:p></o:p> B. Oval in shape and endless<o:p></o:p> C. Straight<o:p></o:p> D. Parabolic<o:p></o:p> E. All are true
7	The total charge of any nucleus is given as	A. Ze² B. Z²e C. Z/e D. Ze
8	The wave motion set up in any medium depends upon:	A. Elasticity B. Inertia C. Density D. All of these
9	Which one of the following causes production of heat when current is set up in a wire?	A. Fall of electrons from higher orbits to lower orbits B. Inter-atomic collisions C. Inter-electron collisions D. Collisions of conduction electron with atoms
10	Which of the following medium/media can transmit both transverse and longitudinal waves:	A. Solids B. Liquids C. Gases D. All of them
11	The value of electrical constant of proportionality k is	A. 9 x 10⁹Nm²C⁻² B. 9 x 10⁻⁹Nm²C⁻² C. 9 x 10¹⁰Nm²C²

		D. 9.85 x 10⁻¹²N⁻¹C⁻²
12	Gaussian surface is always:	A. <span style="font-size:12.0pt;line-height:107%;font-family:"Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Rectangular<o:p></o:p> B. <span style="font-size:12.0pt;line-height:107%;font-family:"Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Spherical<o:p></o:p> C. <span style="font-size:12.0pt;line-height:107%;font-family:"Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Cylindrical<o:p></o:p> D. <span style="font-size:12.0pt;line-height:107%;font-family:"Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Box shape<o:p></o:p> E. <span style="font-size:12.0pt;line-height:107%;font-family:"Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Any of these<o:p></o:p>
13	As compared to the distance measured by an observer on Earth, the distance from Earth to a star measured by an observer in a moving spaceship would seem:	A. Smaller B. Lerger C. Same D. Much larger E. None of these
14	If R is gas constant for 1 gram mole, $C_p$and $C_v$are specific heat for a solid then	A. C_p- C_v= R B. C_p- C_{v < R} C. C_p- C_{v = 0} D. C_p- C_{v > R}
15	A uniform resistance wire of Length L and diameter d has a resistance R. Another wire of same material has length, 4L and diameter 2d, the resistance will be	A. 2 R B. R C. R/2 D. R/4
16	Michael Faraday is known by his work on	A. Nuclear strong force B. Gravitational force C. Nuclear weak force D. Electric force E. None of these
17	As the current flows through the wire	A. It generates heat in the wire B. It produces sound in the wire C. Resistance of the wire decrease D. Voltage across the ends is the increase E. None of these
18	The diameter of an atom is of the order	A. 10⁻¹²⁵m B. 10⁻¹¹m C. 10⁻¹⁰m D. 10⁻⁹m
19	The Instantaneous value of alternative current maybe:	A. The same as its RMS value B. Greater than its Rms value C. The same as its peak value D. Any of these E. None of these
20	The temperature at which the vibrations become so great that structure of the Crystal breaks up, is called:	A. Critical temparature B. Temperature of vaporization C. Melting point D. Both (A) and (C) E. Both (A) and (B)