Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The temperature of gas is produced by	A. At potential energy of its molecules B. The kinetic energy of its molecules C. The attractive force between its molecules D. The repulsive force between its molecules
2	The electric flux through any surface depends upon:	A. Intensity of electric field<o:p></o:p> B. Area of the surface<o:p></o:p> C. Angle between intensity and area<o:p></o:p> D. All of these<o:p></o:p> E. None of these<o:p></o:p>
3	When an object moves with a uniform angular velocity, then its instantaneous angular velocity is equal to:	A. Zero B. Its average velocity C. Its angular displacement D. None of these
4	A car is turning around a corner at 10 m/sec as it travels along an arc of a circle. If value of centripetal acceleration is 10 m/sec^2 in this case, find radius of the circular path:	A. 1 m B. 5 m C. 10 m D. 15 m
5	A circuit has a resistance of 11Ω an inductive reactance of 25Ω and a capacitance reactance of 18Ω. It is connected to an a.c. source of 200 V and 50 Hz. The current through the circuit (in amperes) is	A. 11 B. 15 C. 18 D. 20
6	The modulus of elasticity can be written as	A. stress x strain B. strain/stress C. 1/2 x stress x strain D. stress/strain
7	A real gas can be approximated to an ideal gas at	A. Low density B. High pressure C. High density D. Low temperature
8	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
9	In SHM, the acceleration is _____ when velocity is _____:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
		A. Dry writing<o:p></o:p> B. <span style="font-family: "Times New

10	Xerography means:	Roman", serif; font-size: 12pt;">Wet writing <o:p></o:p> C. Poor writing<o:p></o:p> D. Excellent writing<o:p></o:p> E. Both (A) and (B)<o:p></o:p>
11	The phenomenon of generation of induced emf is called:	A. Electrostatic induced B. Magnetic induced C. Electromagnetic induced D. Electric induced E. Both A and C
12	When brakes are applied to a fast moving car, the passenger will be thrown:	A. Forward B. Backward C. Downward D. none of these
13	The SI unit of electric flux is	A. Weber B. Nm²C⁻¹ C. NmC⁻¹ D. Nm⁻²C
14	The whole shape of the black body spectrum for all wavelengths was explained by the formula proposed by	A. Max plank B. Newton C. Einstein D. J.J. Thomson
15	In the doping process, the ratio of the doping atoms to the semi conductor atom is	A. 1 to 10 B. 1 to 10³ C. 1 to 10⁶ D. 1 to 10⁹
16	Which of the following four statements is false?	A. A body can have zero velocity and still be accelerated B. A body can have a constant velocity and still have a varying speed C. A body can have a constant speed and still have a varying velocity D. The direction of the velocity of a body can change when its acceleration is constant
17	Recently a complex crystalline structure known as Yetrium Barium Copper Oxide have been reported to become superconductor at	A. 125 K B. 25 K C. 263 K D. 163 K
18	When two spherical conducting balls at different potentials are joined by metallic wire, the current starts:	A. Decreasing from zero to maximum<o:p></o:p> B. Increasing from zero to maximum<o:p></o:p> C. Decreasing from maximum to zero<o:p></o:p> D. Increasing from maximum to zero<o:p></o:p> E. <span style="font-family: "Times New

		Roman", serif; font-size: 12pt; text-align: justify;">Both (A) and (D) <o:p></o:p>
19	Most ideal gas at room temperature is.	A. CO2 B. SO2 C. NH3 D. H2
20	If a force of 0.05 N produces an elongation of 20 mm in a string, then its spring constant will be:	A. 250 N m⁻¹ B. 25 N m⁻¹ C. 2.5 N m⁻¹ D. None of these