Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	If a charged spherical conductor of radius 10 cm has potential V at a point distance 5 cm from its centre, then the potential at a point distance 15 cm from the centre will be	A. 1/3 V B. 2/3 V C. 3/2 V D. 3V
2	Pressure may be define as _____ per second per unit area:	A. Change in force B. Change in momentum C. Change in energy D. Work done
3	Compton shift refers to:	A. Photon B. Meson C. Proton D. Positron E. Both (B) and (D)
4	A disc rolls down a hill and its speed at bottom is found to be 11.4 m/sec. Height of the hill is then nearly:	A. 10 m B. 12 m C. 13 m D. 15 m
5	Aerodynamics is a branch of:	A. Hydrodynamics B. Thermodynamics C. Both of them D. Statics
6	In series RC circuit when $R=X_C$, then the phase angle is	A. $0°$ B. $90°$ C. $70°$ D. $45°$
7	Conversion of A.C. into D.C. is called:	A. Reftification B. Amplification C. Electric induction D. Magnetic induction E. None of these
8	The nucleous of uranium -235 differs from a nucleous of a uranium -238 in that the later contains	A. 3 more neutrons B. 3 more electrons C. 3 more protons D. 3 more ions
9	The root mean square voltage for alternating current is	D. All of these
10	Centripetal acceleration is also called _____ acceleration	A. Tangential B. Radial C. Angular D. None of them
11	If volume of wire is 'AL' and there are 'n' numbers of charge carriers per unit volume, then the total number of charge carriers are	A. n/AL B. Al/n C. nAL D. nA/L
12	The electric field will be uniform	A. Near a positive point charge B. Near a negative point charge C. Between two oppositely charged parallel metal plates D. None of above
13	A car is turning around a corner at 10 m/sec as it travels along an arc of 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
14	For normal operation of transistor, the batteries	A. V_{CC} is of much lower value than V_{BB} B. V_{CC} is of much higher value than V_{BB} C. V_{CC} is equal to V_{BB}

		D. none of these
15	A magnetic force on an electron travelling with $10^8 ms^{-1}$ parallel to a field of strength 1 Wb m^{-2} is	A. Zero B. 10^5 m C. 10^{-10} N D. 10^8 N
16	A dirty carpet is to be cleaned by heating. This is in according with_____law of motion.	A. First B. Second C. Third D. None of these
17	The counter, which also provides the power to the G.M. tube is called:	A. Thin mica window B. thin glass window C. Airy window D. Wooden window E. None of these
18	A real gas can be approximated to an ideal gas at	A. Low density B. High pressure C. High density D. Low temperature
19	When a constant potential difference is applied across the conductor, the drift velocity of electrons:	A. Increases B. Decreases C. Remains the constant D. Either of these E. None of these
20	An angle of 180° in circular motion is equivalent to _____ in SHM.	A. Half the vibration B. One vibration C. 3/4th of a vibration D. None of these