Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	When the temperature of source and sink of a heat engine become equal entropy change will be	A. Zero B. Max C. Min D. -ve
2	The number if neutrons in the nucleus of $_{92}U^{235}$ are	A. Infinite B. 92 C. 235 D. 143
3	Plan of a coil makes an angle of 20° with the lines of magnetic field. The angle between B and vector area of plane of coil is:	A. Also 20° <o:p></o:p> B. 70° <o:p></o:p> C. 90° <o:p></o:p> D. 180° <o:p></o:p> E. None of these
4	The charge carries in the electrolyte are:	A. Positive ions<o:p></o:p> B. Negative ions<o:p></o:p> C. Either (A) or (B)<o:p></o:p> D. Both (A) and (B)<o:p></o:p> E. Neither (A) nor (B)<o:p></o:p>
		A. Cell<o:p></o:p> B. Voltmeter<o:p>

5	Two dissimilar metals joined at their ends kept at constant temperature constitute:	</o:p> C. Thermocouple<o:p></o:p> D. Potentiometer<o:p> </o:p> E. None of these
6	According to the electromagnetic wave theory of light, increasing the intensity of incident light should increase the	A. number of photoelectrons B. size of the photoelectrons C. charge on photoelectrons D. K.E of photoelectrons
7	A ball falls on the surface from 10 m height and rebounds to 2.5 m. if the duration of contact with the floor is 0.01 seconds then the average acceleration during contact is	A. 2100 m/s² B. 1400 m/s² C. 700 m/s² D. 400 m/s²
8	10^6electrons are moving through a wire per second, the current developed is	A. 1.6 x 10⁻¹⁹ B. 1 A C. 1.6 x 10⁻¹⁵A D. 10⁶A
9	The minimum wavelength of X-rays produced of 1KV potential difference is applied across the anode and cathode of the tube is	A. 1.24 x 10⁻¹⁰m B. 7.92 x 10⁻²⁰m C. 2.78 x 10⁻¹⁴m D. 3.88 x 10⁻¹¹m
10	A body moving with uniform velocity has	A. positive acceleration B. negative acceleration C. infinite acceleration D. zero acceleration
11	A hole in p-type my be due to:	A. Trivalent impurity B. Breking of some covalent bond C. Pentavalent impurity D. Germanium E. Either (A) or (B)
12	Calculate the amount of charge flowing in 2 minutes in a wire of resistance $10\Omega$when a potential difference of 20 V is applied between its ends	A. 120 C B. 240 C C. 20 C D. 4 C
13	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
14	In wilson cloud chamber, the air becomes saturated with:	A. Alcohol vapours B. Water C. Helium gas D. Nitrogen gas E. None of these
15	Tick the correct pair when M denotes the molecular mass and other symbols carry usual meanings:	A. N = nN_Am = MN_A B. n = N N_A, M = mN_A C. M = N_A/N , N_A= m/n D. N = nN_A, M = mN_A
16	The concept of direction is purely:	A. Absolute B. Relative C. Relative to stars always D. Relative to the sun always E. None of these
17	The electric field lines start from	A. Positive charge B. Negative charge C. Either A or B D. Neutron E. An atom
18	The contrast in the fringes in an interference pattern depends upon	A. Fringe width B. Relative difference intensities of the two sources C. Distance between the slits D. Wavelength
19	A force of 5 n is acting Y-axis. Its component along X-axis is:	A. 7 N B. 5 N C. Zero

		D. 10 N
20	Which one of the following is correct?	A. V_o= 1.414 V_{rms} B. I_{ams}= 1.414 I_o C. VO = 10.70 Vrms D. Both a and b