ECAT Physics Chapter 14 Electromagnetism

Sr	Questions	Answers Choice
1	In order to make a voltmeter, high resistance is connected with galvanometer, in	A. perpendicular B. may be paralled or pendicular C. series D. none of these
2	The force acting as one meter length of the conductor placed at right angle to the magnetic field, when one A current is passing through it, defines the	A. magnetic flux B. magnetic induction C. magnetic field D. self inductance
3	F = I(L x B) is a	A. vector B. scalar C. unit vector D. none of these
4	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
5	When charged particle is projected perpendicular to a uniform magnetic field its trajectory is	A. circular B. elliptical C. cycloid D. straight line
6	The force experienced by a single charge carrier moving with velocity 'v' i magnetic field of strength 'B' is given by	A. $F = q(v/B)$ B. $F = q^2(v \times B)$ C. $F = q(v \times B)$ D. $F = v \times B$
7	The SI unit of magnetic flux is	A. NmA^{-2} B. NmA^{-1} C. NAm^{-1} D. Nm^2A^{-1}
8	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
9	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
10	A current carrying conductor is placed at right angle to the magnetic field. The magnetic force experienced by the conductor is	A. minimum B. maximum C. zero D. none of these
11	A long wire wound tightly on a cylindrical core is called:	A. Potentiometer B. Solenoid C. Toroid D. Wheat and stone bridge E. None of these
12	The SI unit of flux density is	A. Newton/Amp-meter B. Newton-m/Ampere C. Newton-m/Amp^2 D. Newton-Amp/meter
13	The force experienced by an electron projected in a magnetic field B with a velocity V is given by	A. $F = e(V \times B)$ B. $F = -e(V \times B)$ C. $F = e(B \times V)$ D. Both a and c
		A. <p class="MsoNormal" style="text-align:justify">Closed path<o:p></o:p></p> B. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:"Times New

#	Question	Options
14	Amperean path is a:	B. Rectangular path C. Circular path **D. Any of above** E. Broken path
15	If current through conductor is 1 A and length of conductor is 1m placed at right angle to the magnetic field, then the strength of magnetic field is	A. $F = B^2$ B. $F = 0$ **C. $F = B$** D. $F = B/2$
16	A full-scale deflection is obtained in a galvanometer with a current of few	A. ampere B. volts **C. milliampere** D. ohm
17	The field around a moving charge is called	**A. magnetic field** B. conservative field C. non-conservative field D. none of these
18	if the field is directed along the normal to the area, then flux is:	A. Maximum B. Equal to zero C. Equal to BA D. Minimum **E. Both (A) and (C)**
19	Galvanometer is a device used for the detection of	A. voltage **B. current** C. temperature D. pressure
20	When an electron enters in a magnetic field right angle to its motion, the magnitude of its velocity will be	A. changed B. zero **C. unchanged** D. none of these