ECAT Physics Chapter 14 Electromagnetism Online Test

Sr	Questions	Answers Choice
1	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
2	In the expression of force experienced by electron, the direction of both $\underline{v}$ and $\underline{B}$ are	A. parallel B. zero C. perpendicular D. none of them
3	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
4	Lorentz force is defined as	A. $q(E + V \times B)$ B. $q(E \times B + V)$ C. $q(E \times V + B)$ D. $q(E \times B)$
5	The force experienced by charged particle is maximum, if it moves	A. parallel to magnetic field B. perpendicular to magnetic field C. opposite to the magnetic field D. none of these
6	41 The force experience, when proton projected in a magnetic field with velocity 'v' is	A. $+e(v \times B)$ B. $-C(V \times B)$ C. $+e^2(v \times B)$ D. $-e(v^2 \times B)$
7	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
8	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. $F= v \times B$
9	When current passes through a solenoid coil, it behaves like a	A. loop B. circle C. bar magnet D. none of these
10	The strength of magnetic field around the current conductor is	A. Smaller near the conductor B. Greater near the conductor C. Greater at the large distance from the conductor D. Constant near and away from the conductor
11	The magnetic field outside the solenoid due to current is	A. strong B. zero C. weak D. uniform
12	Which one of the following relations is correct?	A. $1\ Wb\text{-}m^2= Nm^{-1}A^{-1}$ B. 1 tesla = 104 gausses C. $1\ Wb\text{-}m^2= 1$ tesla D. All of the above
13	The magnetic field in the middle of a solenoid due to current is	A. weak B. strong and uniform C. none-uniform D. zero
14	The SI unit of magnetic permeability is	A. $WB\ A^{-1}m^{-1}$ B. $WB\ mA^{-1}$ C. $WB\ Am^{-1}$ D. None of these

15   Tesla is the unit of

A. Magnetic induction or flux density
B. Magnetic flux
C. Self inductance
D. None of these