

ECAT Physics Chapter 14 Electromagnetism

Sr	Questions	Answers Choice
1	When a suitable small resistance is put in parallel with the galvanometer coil, it is converted into	A. Voltmeter B. Avometer C. Ammeter D. None of these
2	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
3	The magnetic field outside the solenoid due to current is	A. strong B. zero C. weak D. uniform
4	Charge to mass ratio (e/m) of an electron is given by the relation	A. $e/m = 2V/Br^2$ B. $e/m = 2V/B^2r$ C. $e/m = 2V/B^2r^2$ D. $e/m = V/2B^2r^2$
5	Electron gun consist of	A. three anodes B. heating cathode C. three anodes D. three anodes , heating cathode, grid
6	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
7	Strength of magnetic field is measured in SI units, in:	A. N B. N/Am C. Am/N D. Nm/A E. None of these
8	The SI unit of magnetic induction is tesla which is equal to	A. Newton/ampere-meter or N/A-m B. $\text{Newton/ampere}^2\text{-meter}$ or $\text{N/A}^2\text{-m}$ C. $\text{Newton/ampere}^2\text{-meter}^2$ or $\text{N/A}^2\text{-m}^2$ D. $\text{Newton/ampere}^2\text{-meter}^2$ or $\text{N/A}^2\text{-m}^2$
9	The straight current carrying conductor experiences maximum force in a uniform magnetic field when it is placed	A. parallel to the field B. Perpendicular to the field C. At an angle of 45 to the field D. None of the above
10	Ammeter is used to measure	A. voltage B. resistance C. voltage and current D. current
11	The SI unit of flux density is.	A. Tesla B. Weber C. Gaun D. Weber/meter
12	In order to make a voltmeter, high resistance is connected with galvanometer, in	A. perpendicular B. may be paralld or pendicular C. series D. none of these
13	The SI unit of magnetic permeability is	A. $\text{WB A}^{-1}\text{m}^{-1}$ B. WB mA^{-1} C. WB Am^{-1} D. None of these

14	The unit of magnetic flux is	A. Weber- m^2 B. Weber- m^3 C. Henry D. Weber
15	The most suitable material for permanent magnet is	A. cobalt B. iron C. steel D. aluminium
16	The e/m of an electron moving in a circular path in a magnetic field is equal to	A. V/Br B. $V/B^2 r^2$ C. V^2/Br^2 D. V^2/Br
17	Method "lamp and scale arrangement" used to measure the	A. angle of deflection B. restoring torque C. magnetic field strength D. current
18	'K' is the proportionality constant of force experienced by conductor. What is the value of 'K' in SI units?	A. 0 B. 1 C. 0.5 D. -1
19	The galvanometer can be made sensitive if the value of the factor C/BAN is	A. constant B. small C. large D. none of these
20	In a straight current carrying conductor, the direction of magnetic field can be found by	A. right hand rule B. left hand rule C. head to tail rule D. none of these