

## MDCAT Physics Chapter 8 Electromagnetism Online Test

Sr	Questions	Answers Choice
1	The magnetic field due to the electric current in a conducting wire is:	A. Towards the centre of the conducting wire <b>B. Circular around the conducting wire</b> C. In the direction of the electric current D. In the direction opposite to the electric current
2	The magnetic field of a solenoid is quite similar to that of a:	A. Straight conductor B. A horse shoe magnet C. Any magnet <b>D. A bar magnet</b>
3	The magnetic field produced due to the current in a straight wire is proportional to the :	<b>A. Electric current</b> B. Conducting material C. Length of the wire D. Diameter of the wire
4	If an electron vertically downwards, then the horizontal component of the earth's magnetic field will deflect it to wards	<b>A. West</b> B. East C. North D. North
5	A tritium and alpha particle enter the magnetic field with same kinetic energy, what will be the ratio of their radii?	A. 3:4 <b>B. <math>\sqrt{3}</math>: 1</b> C. $\sqrt{3}$ : 4 D. $\sqrt{3}$ : $\sqrt{2}$
6	An electron and a proton are projected at right angles to a uniform magnetic field with	A. the electron trajectory will be less curved than proton's trajectory B. the electron trajectory will be more curved than proton's trajectory <b>C. ) both trajectories will be equally curved</b> D. ) both particles continue to move along a straight line
7	The direction of force experienced by a moving in a magnetic field will be:	A. Parallel to the field B. Opposite to the field C. Parallel to its direction of motion <b>D. Perpendicular to both the field and the velocity vector</b>
8	Charge to mass ratio (e/m) of a charge particle is also called its:	<b>A. Specific charge</b> B. Specific Force C. Gyro-magnetic ratio D. Magneto-mechanical ratio
9	A positively charged particle is moving perpendicular to a uniform magnetic field. The magnetic force makes the particle to move along:	A. An elliptical path <b>B. A circular path</b> C. A parabolic path D. None of these
10	Which one of the following particles projected perpendicular to a uniform magnetic field with the same velocity will be deflected least?	A. Electron <b>B. Proton</b> C. Deuteron D. None of these
11	A magnetic field	A. Always exerts a force on a charged particle B. Never exerts a force on a charged particle <b>C. Exerts a force on a charged particle if it is moving across the magnetic lines of force</b> D. Exerts a force on a charged particle if it is moving along the magnetic lines of force.
12	A straight current carrying conductor experiences maximum forces in a uniform magnetic field when it is placed:	A. Parallel to the field <b>B. Perpendicular to the field</b> C. At an angle of 45 to the field D. None of these

13	A long solenoid has 20 turns/ cm. The current necessary to produce a magnetic field of 20 millites inside the solenoid is approximately:	A. 1A B. 2A C. 4A D. 8A
14	Magnetic field inside a solenoid is:	A. ) Directly proportional to current B. Inversely proportional to current C. Directly proportional to its length D. Inversely proportional to total no of turns
15	A source of a magnetic field is:	A. An isolated magnetic B. A static electric charge C. A moving electric charge D. None of these