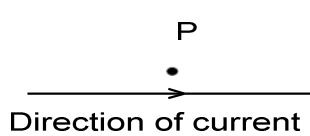
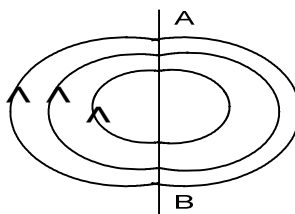


CBSE TEST PAPER-02

CLASS - X Science (Magnetic effects of electric current)

1. A current carrying conductor placed in magnetic field experiences a force. The displacement of the conductor in magnetic field can be increased by (1)
 - (a) Decreasing the magnetic field.
 - (b) Decreasing the current in the conductor.
 - (c) Increasing the magnetic field.
 - (d) None of the above.
 2. A positively charged particle say an alpha particle projected towards west is deflected toward north by a magnetic field. The direction of the magnetic field is (1)
 - (a) Upward
 - (b) downward
 - (c) towards south
 - (d) towards east.
 3. Which of the following properties of a proton can change when it moves freely in a magnetic field (1)
 - (a) mass
 - (b) speed
 - (c) velocity
 - (d) momentum
 4. The direction of the magnetic field at a point P above the wire carrying current as shown in the figure is (1)
 - (a) Down the page
 - (b) up the page
 - (c) into the page
 - (d) out of the page
- 
5. Concentric circles with arrows centred at the wire AB are shown in figure. (1)
 - (a) No current in AB
 - (b) current flows from B to A
 - (c) current – flows from A to B
 - (d) none of these
- 

6. Draw magnetic field lines around a bar magnet? Give one point of difference between uniform and non- uniform magnetic field. (2)
7. Why do not two magnetic field lines intersect each other? (2)
8. Name and state rule used to determine the direction of magnetic field produced around a straight conductor carrying current? (2)
9. What is electric fuse? Where it is connected in a circuit? (2)
10. What is a solenoid? Draw magnetic field lines showing the magnetic field inside and outside the current carrying solenoid? (3)
11. (a) Name four appliances wherein an electric motor is used as an important component. In what respect it is different from generator? (3)
(b) Define the terms used in the generator
 - (i) armature
 - (ii) slip rings
 - (iii) brushes
12. (a) What is the standard colour code followed for (3)
 - (i) live
 - (ii) neutral and
 - (iii) earth wires used in electric circuits?
(b) Which part of an electric appliance is earthed and why?
13. (a) What is short circuiting? (3)
(b) What is overloading? How can you avoid overloading?
14. Explain the principle, construction and working of an electric motor with a help of labelled diagram? (5)