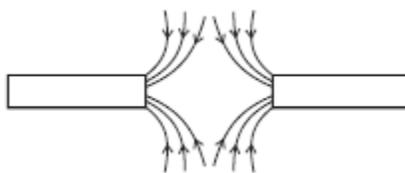


1 State the observation made by Oersted on the basis of his experiment with current carrying conductors. 1

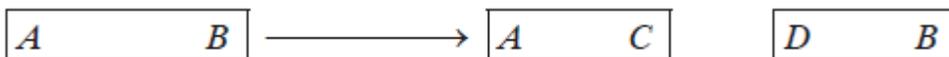
2 Name the device which is used to draw magnetic field lines. 1

3 1



Identify the poles of the magnet in the given figure.

4 A magnet AB is broken into two pieces. What is the polarity of A, B, C and D? 1



5 What is the direction of magnetic field lines inside and outside of a bar magnet? 1

6 A magnetic needle deflects when it's brought near a current carrying conductor. Why? 1

7 Suggest one way of discriminating a wire carrying current from a wire carrying no current. 1

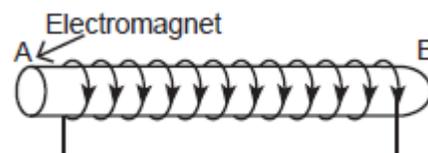
8 State the conclusions that can be drawn from the observation that a current carrying wire deflects a magnetic needle placed near it. 1

9 How can you show that the magnetic field produced by a given electric current in the wire decreases as the distance from the wire increases? 1

10 A current carrying straight wire held perpendicular to the plane of paper and current passes through this conductor in the vertically upward direction. What is the direction of magnetic field produced around it? 1

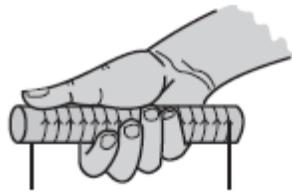
11 If the circular coil has n turns, the field produced is n times as large as that produced by a single turn. Justify it. 1

12 The diagram shows a coil of wire wound on a soft iron core forming an electromagnet. A current is passed through the coil in the direction



indicated by the arrows. Mark the N and S poles produced in the iron core. 1

13 How will you determine the direction of the magnetic field due to a current-carrying solenoid? 1



**Direction of magnetic field
produced by anticlockwise
current in a solenoid**

- 14 What will the polarity be of one end of a solenoid if the current appears to be flowing anticlockwise in it ? 1
- 15 Magnetic field inside the solenoid is uniform or non-uniform? 1