## Magnetic Effects of Electric Current

## À TRY YOURSELF

## ANSWERS

- 1. (b): Permanent magnetism
- 2. (c) : Point towards the South pole.

**3. (b) :** The magnitude of magnetic field due to a current carrying straight conductor is directly proportional to the current flowing through i.e.,  $B \propto I$ .

**4.** (a) : The magnitude of magnetic field due to straight current carrying conductor is inversely proportional to the distance between source and point of observation.  $B \propto \frac{1}{r}$  So, the field decrease with increase in distance and the separation between the field lines increases.

**5. (c)** : According to right hand thumb rule the direction of current in this face of the circular conductor is anticlockwise.

**6.** The magnetic field lines are nearly circular concentric due to circular carrying current.

- 7. (a) : Increases.
- 8. Inside solenoid magnetic field is uniform.

**9.** The end of the solenoid at which current flows in anticlockwise direction acts as a North pole, while the end at which current flows in clockwise direction acts as a south pole.

**10.** A moving charge produces an electric current which in turn causes the magnetic field.

- **11.** The particle has a positive charge.
- 12. Fuse should be connected to the live wires.
- **13.** It is the symbol of an electric fuse.

**14.** The direction and magnitude of AC change periodically whereas in case of DC, these remain constant.

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