

Magnetic Effects of Electric Current

Note: Write in your fair Notebook

MAGNET

A substance which attracts small pieces of iron, cobalt, nickel etc. & which have directive properties.

Proper

② N-S

Properties of a Magnet:

✓ A magnet has two ends called as poles. (i.e. North Pole and South Pole)

③ N-S

~~✓ When a bar magnet is suspended freely, it always points in N-S direction.~~

✓ Unlike poles attract whereas like magnetic poles repel each other.

✓ Magnetic poles always exist in pairs.

✓ (ii) When a bar magnet is suspended freely, it always point in North-south direction

Electric

The property of attracting small pieces of iron is known as magnetism.

✓ MAGNETIC FIELD :

The space or region around a magnet in which magnetic force of a magnet can be experienced is called magnetic field.

✓ MAGNETIC FIELD LINES (Or Magnetic Lines of Force) :

These are the lines drawn in a magnetic field along which the magnetic NORTH-Pole would move.

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Free
② N-S
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Electric

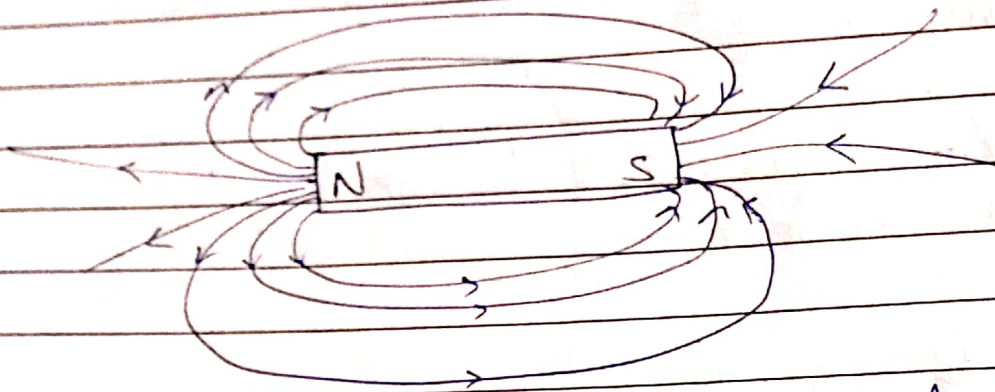
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1) Properties of magnetic field lines:



- 1) They have both direction and magnitude.
- 2) They are closed and continuous curve.
- 3) Outside the magnet, they emerge from North-pole and merge at South-pole whereas inside the magnet, direction is from South-pole to north-pole.
- 4) They are crowded near the pole where magnetic field is strong and they are wider at other places of magnet where the magnetic field is weak.
- 5) Two magnetic field lines can never intersect each other because at the point of intersection, the compass needle would point towards two directions, which is not possible.