21/7/2020
TUESDAY

PHYSICS

STD - X
class - 10

Assignment

- Current is passed from south to north through a conductor placed below a freely pivoted needle.

a) To which direction will the north pole of the magnetic needle turn?

b) which is the rule used to arrive at this inference?

c) State the rule.

d) If the current flows in the conductor in the East-West direction, what do you guess about the deflection of the magnetic needle? Explain.

Ans) a) To left [north to south] Or To west

b) Maxwell's Right hand thumb rule.

c) Imagine you are holding a current carrying conductor with the right hand in such a way, that the thumb points in the direction of the current. The direction in which the other fingers encircle the conductor gives the direction of the magnetic field.

d) To right [west to East] Or TO North

If the North end of the compass needle is pointing towards your magnet, if it attract you have found the south pole of the magnet

When a current carrying conductor passes over a magnetic needle from south to north it deflects towards the west. It is known that the magnetic lines of force around the conductor is circular as according to the right hand thumb rule.

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