



Solution of Questions For Short Answer

Chapter 36 : Permanent Magnets

Ans. 1.

No we cannot have single pole magnet.
A magnet always has two poles.

Ans. 2.

No, in a magnetic dipole there are only two distinct poles that are at the ends.

Ans. 3.

When a iron needle is attracted to towards a magnet. one pole of magnet induces other pole on the nearest side of needle thus making iron needle it self a magnet thus needle is attracted to one side of the magnet.

Ans. 4.

The direction of magnetic field is same in both cases as in solenoid magnetic field lines are directed from on end to other end internally and thus externally. so as in magnet.

Ans. 5.

As in loop magnetic field lines pass thorough the center but in case of magnet dipole the magnetic field lines does not pass through center or even meet at center point.

Ans. 6.

Yes it contradicts as force is always perpendicular to magnetic field. but in case other force is very far distant then the magnetic field can be parallel to force.

Ans. 7.

As the magnet come closer to each other thus magnetic fields of lines are more dense and thus more is the force applying to each other. as force increases thus kinetic energy increases.

Ans. 8.

Yes we can have magnetic potential scalar in this case.



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Ans. 9.

The magnetic lines of force at the poles of Earth are vertical due to which the magnetic needle becomes vertical. the needle dips vertically.

Ans. 10

The angle of dip at the magnetic poles of Earth is 90° .

Ans. 11.

Tan theta can be different at different positions.

As by multiplying tan Theta of the place we can obtain right value so we do not need to take manual back to factory we only need to calculate angle of nepal w.r.t. equator.

