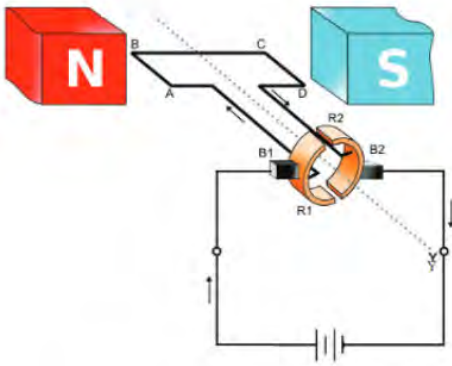


Qn No. 1

Chapter Name:2. vydhuthkanthika phalam

Qn.



Picture of an electric motor is given

- After observing the figure write down the parts represented by N,S,R1,R2,B1,B2,ABCD (2)
- If current is flown as shown in diagram, what will be the direction of rotation of armature? (1)
- What is the function of split ring commutator in electric motors ? (1)

Hint.
Hints:

a) N-S Field magnet.

R1,R2 split rings

B1,B2 brushes

ABCD armature

b) anticlockwise

c) To maintain rotation of armature the direction of flow of current in armature must be changed continuously. Split ring commutator helps to change the direction of current after each half rotation.

Marks :(4)

Hide Answer

Qn No. 2

Chapter Name:2. vydhuthkanthika phalam

Qn.

From the given list identify the correct statements related to Fleming's left hand rule

- Thumb indicates the direction of force
- forefinger indicates direction of current
- Centre finger indicates direction magnetic field
- other fingers that hold the conductor shows the direction of magnetic field

Hint.

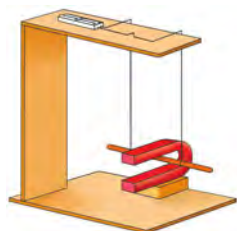
Hint: Thumb indicates the direction of force

Hide Answer

Qn No. 3

Chapter Name:2. vydhuthkanthika phalam

Qn.
A conductor is hung freely in between the poles of a 'U' shaped magnet as shown in figure. Observe it and answer the following questions.



- What happens to the conductor when electric current is passed through it?
- Explain the reason behind this.
- Which law helps you to explain this ?

Hint.
Hint:

- conductor moves
- a conductor kept in a magnetic field experience a force when electric current is passed through it.
- Fleming's left hand rule

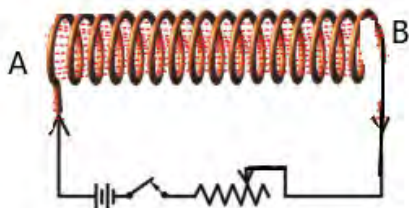
Marks :(3)

Hide Answer

Qn No. 4

Chapter Name:2. vydhuthkanthika phalam

Qn.
Observe the diagram and answer the following questions



- If the end A of the solenoid is wound in anticlockwise direction, which pole will be generated at that end?
- After reversing the current through solenoid, if south pole of a bar magnet is brought near A, will it attract? Explain

Hint.

- North pole
- Repulses. When current is reversed the end A becomes North pole.

Marks :(3)

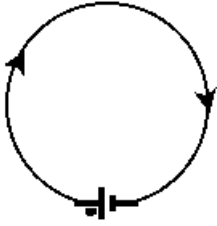
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Qn No. 5

Chapter Name:2. vydhuthkanthika phalam

Qn.

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Hint.

- a) Inward to the plane
- b) Right hand thumb rule
- c) Repels. Direction of current is clockwise - South pole.(Same poles repels)

Marks :(3)

Hide Answer