Differences between electromagnet and parmanent magnet.

	Electromagnet		Parmanent magnet
1.	It is temporary magnet i.e it can be demagnetised by stopping the current.	1.	It can't be demagnetised easily.
2.	It gives strong magnetic field.	2.	It gives comparatively weak magnetic field.
3.	Strength of its magnetic field can be increased or decreased by changing the amount of current or by changing no. of turns.	3.	The strength of it can't be changed.
4.	The polarity of it can be changed by changing the direction of current.	4.	It can't be changed.

Force on a current carrying conductor placed in a magnetic field -

* Force on a current carrying conductor placed in a magnetic field :-

When a current carrying conductor placed in a magnetic field, a force is created on the conductor which can make the conductor move.

The direction of force on a current carrying conductor placed in a magnetic field can be reversed by reversing the direction of the current flowing through the conductor.

If the direction of the current and magnetic field are known the direction of force acting on the can be found out by using Fleming left Hand Rule.

* Fleming Left hand Rule :-

According to this rule, stretch the forefinger, middle finger and thumb of left hand in such a way that they are mutually perpendicular.

If the forefinger gives the direction of magnetic field and middle finger gives the direction of current then thumb will gives the direction

of force acting on the conductor

The direction of force acting on a conductor placed in a magnetic field is perpendicular to the direction of current and perpendicular to the ~~the~~ direction of magnetic field.

We can say that the force, magnetic field and current are right angle to one another.