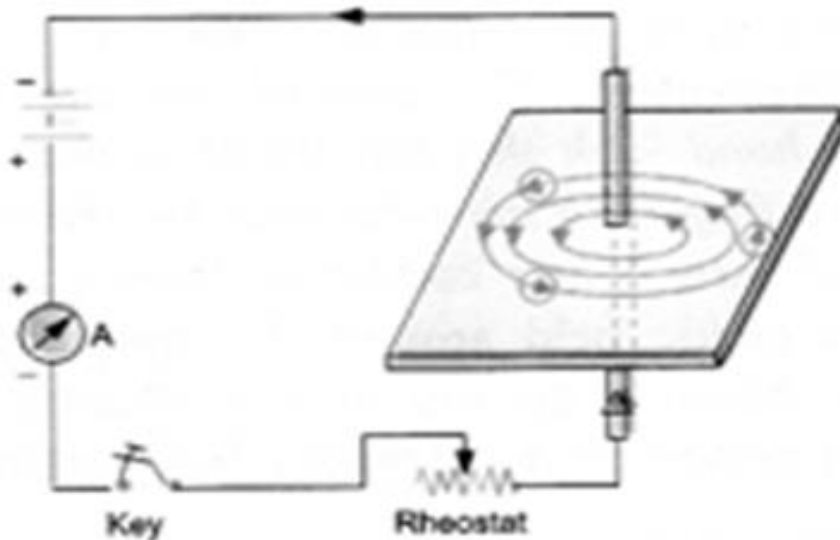


CHAPTER 2. (MAGNETIC EFFECTS OF AN ELECTRIC CURRENT) (BASED ON NCERT PATTERN)

## Magnetic field produced by straight conductor



### Characteristics:-

- (a) Magnetic lines are concentric circles.
- (b) The direction of magnetic lines reverses as we reverse the direction of the current.  
When current flows upward, the direction of magnetic lines is anticlockwise.  
When current flows downward, the direction of magnetic lines is clockwise.

- (c) The Magnetic field produced is directly proportional to the current & inversely proportional to the distance from the conductor.
- (d) To know the direction of magnetic field around a straight conductor, we have different sets of rules as given below:

**Right hand thumb rule:** Suppose you grasp the conductor in your right hand such that the thumb points in the direction of the current, then the direction in which your fingers curl gives the direction of the magnetic field.

