

BRAIN INTERNATIONAL SCHOOL

CLASS-X

APRIL-MAY 2018

CURRENT ELECTRICITY AND MAGNETIC EFFECT OF CURRENT

- 1) Define electric current and also write its unit.
- 2) What is the lowest resistance that can be obtained by combining four coils of resistance of 4Ω , 8Ω , 12Ω and 24Ω .
- 3) Out of two, a fan of 1 KW and an electric heater of 2KW which has greater resistance .
- 4) Derive the relation $R=R_1+R_2+R_3$ when resistors are joined in series.
- 5) Derive the relation $1/R = 1/R_1 + 1/R_2 + 1/R_3$ when resistors are joined in parallel.
- 6) An electric iron has a rating of 750W ,220V. Calculate
 - 1)current passing through it.
 - 2)Its resistance when in use .
- 7) List ant two methods of producing magnetic fields .
- 8) How does solenoid behave like a magnet? Can you determine the north and south poles of a current carrying solenoid with the help of a bar magnet? Explain.
- 9) How will the magnetic field around a current carrying straight conductor be affected on
 - 1)increasing the current through the conductor.
 - 2)changing the direction of flow of current in the conductor.
- 10) No two magnetic field lines can intersect each other . Explain.