INDIAN SCHOOL MUSCAT
SENIOR SECTION
DEPARTMENT OF PHYSICS
CLASS X
MAGNETIC EFFECTS OF CURRENT

1) Why is alternating current considered to be advantageous over direct current for long range transmission of electric power?

2) Why don't two magnetic lines of force intersect each other?

3) What is the frequency for a.c (alternating current) in India?

4) With the help of a neat-diagram, describe how you can generate induced current in a circuit.

5) Explain briefly two different ways to induce current in a coil. State the rule which determines direction of induced current.

6) On what factors does the direction of force experienced by a current carrying conductor when placed in a magnetic field depends?

7) Describe with a neat diagram an activity to show that a straight conductor

8) carrying direct current produces a magnetic field around it. State the rule

9) which determines the direction of magnetic field thus produced

10) State the rule to determine the direction of magnetic field produced around a current carrying conductor?

11) Why do we connect earth wire in a house? Give reasons.

12) A current carrying conductor in a magnetic field experiences a force. Write the condition for this force to be maximum.

13) Name and state the rule that helps to find the induced current in electromagnetic Induction.

14) What is the role of fuse, used in series with any electrical appliance? Why should a fuse with defined rating not be replaced by one with a larger rating?

15) What is the principle of (i) electric motor (ii) generator?

16) An electric oven of 2 kW is operated in a domestic electric circuit (220 V) that has a current rating of 5 A. What result do you expect? Explain.

17) Two circular coils A and B are placed closed to each other. If the current in the coil A is changed, will some current be induced in the coil B? Give reason.