Physics Worksheet
Magnetic effect of Electric Current

1. Describe any 5 safety measures that should be taken while dealing with appliances connected in domestic circuit.
2. State the rule which is used to find the direction of force exerted on a current carrying conductor when placed in a magnetic field.
3. A charged particle experiences minimum force when it travels-

   (a) parallel to the magnetic field (c) at 450 to the field

   (b) normal to the magnetic field (d) at 750 to the field
4. The magnetic field due to a long straight conductor carrying current is independent of

   (a) the current (b) distance of the conductor from the point

   (c) length of the conductor (d) none
5. Give the difference between a.c. and d.c.
6. Give a few applications/uses of electromagnets in daily life.
7. What is electromagnetic induction?
8. State the rule which is used to find the direction of induced current.
9. How can current be inducted in a coil? (State different ways of inducing current in a coil)
10. A bar magnet is moved towards a solenoid whose ends are connected to a galvanometer? State your observations and give reason for the same.
11. Give one advantage of a.c. over d.c.
12. Give the energy transformation taking place in a (a) generator (b) electric motor
13. In India, what is the potential difference between neutral and live wire?
14. What is the current rating for

    (i) circuit consisting of bulbs, fans in the household

    (ii) circuit used for air conditioners, geysers?

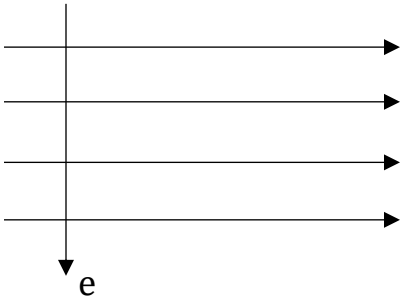
15. State the colour of insulation used for - live wire, earth wire, neutral wire; used in the household circuit.

16. Give the function of 'earth wire'.

17. What is (i) overloading (ii) short circuit?

18. How is the household circuit protected from damage due to sudden hike in supply voltage?

19. Two coils P and S are wound over the same iron core. Coil P is connected to battery and key while Coil S is connected to galvanometer. Write your observations when-



a. Current in the coil P is started by closing the key.

b. Current continues to flow in coil P.

20. Show with the help of an activity that a force is exerted on the current carrying conductor when it is placed in a magnetic field.

21. Direction of current (a.c.) changes after every $^{1}/_{100}$ second. What is its frequency?

22. Differentiate between an electromagnet and an ordinary bar magnet.

23. Where do we connect a fuse, with a live wire or with a neutral wire? What happens if the fuse wire is connected to neutral wire?