INDIAN SCHOOL NIZWA - WORKSHEET

PHYSICS

CH: 4 Electricity: magnetic and heating effect

Name: _____ Date:_____ Class: VIII Sec: _

1. Which material inside a coil makes it a stronger magnet?

   A. Wood
   B. Plastic
   C. Copper
   D. Soft iron

2. In which of the following situations is the heating effect of electric current not useful?

   A. Electric kettle
   B. Electric iron
   C. Fuse wire
   D. Mobile charger

3. Which material is commonly used as heating element in electric irons and toasters?

   A. Aluminium
   B. Copper
   C. Nichrome
   D. Steel

4. In a dry cell, which part act as the positive terminal?

   A. Zinc casing
   B. Iron pin
   C. Carbon rod with metal cap
   D. Electrolyte paste

5. Why is dry cell more suitable for every day used than voltaic cell?

   A. It is heavier
   B. It is filled with water
   C. It is compact and easy to carry
   D. It can melt objects

The following question consists of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below:

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, and R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

6. Assertion: An electromagnet becomes stronger when an iron rod is inserted inside the coil

   Reason: Iron is a good conductor of electricity.

7. Assertion: A magnetic compass placed near a current carrying wire shows deflection.

   Reason: Electric current produces a magnetic field around the wire.

8. Assertion: Lithium ion battery are widely used in mobile phones.

   Reason: They are light weight, rechargeable and can store large amount of energy.

9. Maya saw a crane lifting scrap metal using a large magnet at a junkyard. What kind of magnet was used in the crane?

10. What change in the coil can be made to increase the strength of the electromagnet?

11. What happens to the heat produced if we increase the electric current in the wire?

12. State one difference between a bar magnet and an electromagnet.

13. What is the difference between a voltaic cell and dry cell in terms of its design.

14. Why is it important to switch off the battery connection when the electromagnet is not in use?

15. Explain why the heating element inside the iron box gets hot, but the wire doesn't.