

**Class X**

**Time : 2.30 h**

**Date – 24.03..2010**

**Subject : Science**

**Max. Marks : 60**

**Section – A**

**General Instructions:**

- (i) The question paper comprises of two sections A & B. You have to attempt both the sections.
- (ii) All questions are compulsory.
- (iii) In section A Q No 1-6 are of one mark each.
- (iv) Q.No 7-10 are of 2 marks each
- (v) Q.No 11-14 are 3 marks each.
- (vi) Q.No 15-16 are 5 marks each.
- (vii) In section B Q.No17-18 are 1 mark each.
- (viii) Q.No 19-22 are 2 marks each.
- (ix) Q.No 23-25 are 3 marks each.
- (x) Q.No 26 is of 5 marks

**Section-A**

1. Name the cell of retina which respond to the intensity of light and color of the object.
2. Define resistivity.
3. State Modern Periodic Law.
4. Why does the colour of  $\text{CuSO}_4$  solution change when an iron nail is dipped in it?
5. How can it be shown that a magnetic field exist around a wire through which a direct electric current is passing?
6. The molecular formula of an ester is  $\text{C}_2\text{H}_5\text{COOC}_3\text{H}_7$ . Write the molecular formula of alcohol and the acid from which it is formed.
7. What will be the focal length of a lens whose power is given as +2.0 D?
8. Write the equation to show the reaction between Plaster of Paris and Water.
9. An electric iron of resistance  $20\Omega$  takes a current of 5A. Calculate the heat developed in 30sec.
10. State two ways to prevent the rusting of iron.
11. (a) Why do we have two eyes for vision and not just one?  
(b) Out of animals of prey and predators which have their eyes on the opposite side of their Head?
12. In the Electrolytic refining of a metal 'M', What would you take as the anode, the cathode and the electrolyte?

13. State the factors on which the strength of magnetic field produced by a current carrying solenoid depends.
14. Nitrogen(at no 7) and phosphorous(at no15) belong to group 15 of the periodic table. Write the electronic configuration of these two elements. Which of these will be more electronegative ? and Why?
15. With the help of a labelled diagram describe two common defects of vision in human eye with their main causes. What type of lenses are used in spectacles to correct their defects?
16. Give reasons for the following
  - (a) Platinum, Gold and Silver are used to make jewellery.
  - (b) Sodium, Potassium and Lithium are stored under oil.
  - (c) Copper is used to make hot water tanks and not steel.
  - (d) Solder( An alloy of Tin and Lead) is used for welding electric wire together.
  - (e) Aluminium is highly reactive metal, yet it is used to make utensils for cooking.

### **Section- B**

17. What is food web?
18. Which part of the brain maintains posture and equilibrium of the body?
19. Write the full form of HIV and IUCD.
20. (a) Which are the two main type of reproduction in living organism?  
(b) Classify the following under these two:-  
Amoeba, Frog, Earthworm and Hydra
21. What is meant by biodegradable waste? Which of the following are/ is biodegradable?  
Agricultural waste, Plastic, Insecticide and sewage
22. How can you help in reducing the problem of waste disposal? Give any two methods.
23. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?
24. What are tropic levels? Give an example of a food chain and state the different tropic level in
25. What measures should be taken to conserve forest and wild life?
26. Explain with the help of neat and labelled diagram of different parts of human brain and also write functions of each part.