CHEMISTRY CHAPTER 4:

(LIQUIDS AND SOLIDS)

Short Questions:

1. What are dipole-dipole forces of attraction? Explain with examples.
2. What are Debye forces?
3. Ice occupies more space than water. Give reason.
4. Water and ethanol can mix in all proportions. Give reason.
5. Lower alcohols are soluble into water but hydrocarbons not. Give reason.
6. Write a brief note on solubility oh hydrogen bonded molecules.
7. Why boiling point of water is greater than HF?
8. Earthen ware vessels keep water cool. Explain.
9. Why evaporation causes cooling?
10. Explain why evaporation takes place at all temperatures?
11. Why vapor pressure increases with temperature?
12. Why boiling point of water is different at Murree Hills and at Mount Everest?
13. Why different liquids evaporate at different rates even at the same temperature.
14. Vacuum distillation can be used to avoid decomposition of sensitive liquids. Explain.
15. Heat of sublimation of iodine is very high, justify it.
16. Ionic solids do not conduct electricity in solid state. Give reason.
17. Write down two applications of liquid crystals.
18. Define isomorphism and polymorphism with examples.
19. Define polymorphism. Give an example.
20. Why ionic solids are highly brittle?
21. Why heat of sublimation of iodine is very high?
22. Define transition temperature with example.
23. Cleavage is an anisotropic behaviour. Explain it.
24. How the liquid crystals help in the detection of blockages in veins and arteries.

OR

How are liquid crystals used to locate veins, arteries, infections and tumors?

25. What is relationship between polymorphism and allotropy?
26. What is Isomorphism? Give example?
27. Transition temperature is the term used for elements as well as compounds. Explain.
28. Define transition temperature. Give two examples**.**
29. The vapor pressure of diethyl ethyl is higher than water at same temperature?
30. Give four properties of molecular solids.
31. Define molar heat of fusion and molar heat of vaporization.
32. Describe that heat of sublimation is greater than heat of vaporization.
33. Why ice floats over the surface of water?
34. Define allotropy. Give its one example.
35. Write two properties of molecular solids.
36. Why the electrical conductivity of metals decrease by increasing temperature?
37. What is meant by dynamic equilibrium? Give an example.
38. HF is weaker acid than HCl. Why?
39. Diamond is hard and an electrical insulator. Give reason?

Long Questions:

1. Define hydrogen bonding. How does it explain the solubility of hydrogen bonded molecules and structure of ice?
2. Explain hydrogen bonding in NH_3, H_2O and HF. How is it helpful in explaining the structure of ice?
3. Classify solids on the basis of Bonding
4. Write brief not on Anisotropy and polymorphism.
5. What is boiling point? What is the effect of external pressure on the boiling point? Why the temperature remains constant at boiling point although heat is continuously supplied.
6. What are ionic solids? Give their properties in details.
7. What are liquid crystals? Give their uses in daily life.
8. What are molecular solids? Give examples and explain their properties?

   OR

   Write down four properties of molecular solids**.**
9. What is hydrogen bonding? Discuss hydrogen bonding in biological properties.
10. What is vapor pressure of a liquid? Also discuss its measurement by Manometric method.
11. Discuss London dispersion forces. Elaborate two factors on which it depends.