



INDIAN SCHOOL MUSCAT
SENIOR SECTION
DEPARTMENT OF CHEMISTRY
CLASS XII
CHAPTER - SURFACE CHEMISTRY
WORKSHEET - 14



1. What is the basic difference between adsorption and absorption?
2. Why are finely divided substances more effective as an adsorbent?
3. Why is the adsorption phenomenon always exothermic?
4. What is meant by shape selective catalysis?
5. Out of AlCl_3 and NaCl , which is more effective in causing coagulation of a negative sol and why?
6. What is the difference between a colloidal solution and emulsion? What is the role of emulsifier in forming emulsion?
7. What are the characteristics of a solid catalyst?
8. What is activation of an adsorbent? How can it be achieved?
9. Differentiate between giving examples.
 - a) Homogeneous and heterogeneous catalysis
 - b) Physical and chemical adsorption
 - c) Lyophobic and lyophilic colloids
10. What is the difference between multimolecular and macromolecular colloids?
Give one example of each type. How associated colloids are different from these two types of colloids.
11. Explain how the phenomenon of adsorption finds application in each of the following processes:
 - a) Production of vacuum
 - b) Heterogeneous catalysis
 - c) Froth floatation process
12. Explain the following terms:
 - a) Tyndall effect
 - b) Electrophoresis
 - c) Dialysis
13. What happens when
 - a) Electric current is passed through a colloidal solution.
 - b) Solution of NaCl is added to a colloidal solution of $\text{Fe}(\text{OH})_3$.
 - c) An emulsion is subjected to centrifugation.
14. Define adsorption with an example. Why is adsorption exothermic in nature? Write the types of adsorption based on the nature of forces between adsorbate and adsorbent.
