

## Chemistry Worksheets Class 12 on Chapter 5 Surface Chemistry - Set 1

**Q1.** Which of the following statements are correct?

- a.) Mixing two oppositely charged sols neutralises their charges and stabilises the colloids.
- b.) The presence of equal and similar charges on colloidal particles provides stability to the colloids.
- c.) Any amount of dispersed liquid can be added to an emulsion without destabilising it.
- d.) Brownian movement stabilises sols.

**Q2.** Which of the following phenomenon occurs when a chalk stick is dipped in ink?

- a.) adsorption of coloured substances.
- b.) adsorption of solvent.
- c.) absorption and adsorption both of solvent
- d.) absorption of solvent.

**Q3.** Which of the following is adsorbed by charcoal to the maximum extent?

- a.)  $N_2$
- b.)  $CO_2$
- c.)  $Cl_3$
- d.)  $O_2$

**Q4.** Blue colour of the water in the sea is due to–

- a.) refraction of blue light by impurities in seawater.
- b.) scattering of light by water
- c.) refraction of blue sky by water
- d.) None of these

**Q5.** Emulsifying agent present in milk that makes it stable is–

- a.) maltose
- b.) casein
- c.) lactose
- d.) None of these

**Q6.** What is the basic difference between adsorption and absorption?

**Q7.** Out of  $AlCl_3$  and  $NaCl$ , which is more effective in causing coagulation of a negative sol and why?

**Q8.** Define the term Tyndall effect.

**Q9.** What is the coagulation process?

**Q10.** How many types of Adsorption are there?

**Q11.** What is the difference between a colloidal solution and an emulsion? What is the role of emulsifiers in forming emulsions?

**Q12.** What are the characteristics of a solid catalyst?

**Q13.** Give applications of Adsorption.

**Q14.** Why are medicines more effective in a colloidal state?

**Q15.** Differentiate between the following-

- (i) Homogeneous and Heterogeneous catalysis.
- (ii) Lyophobic and lyophilic colloids

**Q16.** The coagulation of 100 mL of a colloidal solution of gold is completely prevented by the addition of 0.25 g of starch to it before adding 1 mL of 10% of NaCl solution. Calculate the gold number of starch.

**Q17.** A peptizing agent is added to convert precipitate into a colloidal solution. Explain.

**Q18.** Differentiate between physical adsorption and chemical adsorption.

**Q19.** Explain how the phenomenon of adsorption finds application in each of the following processes:

- (i) Production of vacuum
- (ii) Heterogeneous catalysis
- (iii) Froth floatation process

**Q20.** What are multimolecular and macromolecular colloids? Give one example of each type. How associated colloids are different from these two types of colloids?