

Model Question Paper
Surface Chemistry - Part III
12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 01:30:00 Hrs

Total Marks : 70

5 x 1 = 5

Part-A

- 1) Palladium metal can take up a volume of hydrogen. It is example of
(a) dissolution (b) absorption (c) adsorption (d) desorption
- 2) The multilayer adsorption of a gases on solids take place in
(a) sols (b) chemisorption (c) physisorption (d) catalyst poison
- 3) A substance which alters the speed of a chemical reaction without itself undergoing any chemical change is called
(a) promoter (b) catalyst (c) activator (d) catalytic poison
- 4) The catalyst used for the decomposition of KClO_3 is
(a) MnO_2 (b) Cl_2 (c) V_2O_5 (d) Pt
- 5) Which one of the following is true about catalyst?
(a) Catalyst is used to alter the values of K_p and K_c of an equilibrium reaction (b) A large quantity of catalyst is needed
(c) A catalyst alters the position of equilibrium in a reversible reaction (d) A catalyst is specific in its action

Part-B

6 x 3 = 18

- 6) What is Brownian movement? How is it caused?
- 7) How is the stability of the sol maintained? (or) Give reason for the stability of colloid.
- 8) What is meant by Helmholtz double layer?
- 9) Define electro-osmosis.
- 10) Why does sky appear blue?
- 11) How is mist formed?

Part-C

5 x 5 = 25

- 12) Write briefly about the preparation of colloids by dispersion methods.
- 13) Write notes on i) Dialysis ii) Electrodialysis iii) Ultrafiltration
- 14) Write notes on i) Brownian movement, ii) Tyndall effect and iii) Helmholtz double layer
- 15) What is electro - osmosis? Explain.
- 16) Write notes on the types of colloids based on the physical states of dispersed phase and dispersion medium.

Part-D

2X10=20

- 17) a) What is electrophoresis? Explain.
b) Write notes on emulsions.
- 18) a) How are colloids prepared by using (i) mechanical dispersion method, (ii) electro dispersion method?
b) Write notes on a (i) Auto catalyst, (ii) Promoters.
