

Model Question Paper
Surface Chemistry - Part I
12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

III. Question number 17 is compulsory.

Time : 01:30:00 Hrs

Total Marks : 65

5 x 1 = 5

Part-A

- 1) The migration of colloidal particles under the influence of an electric field is known as
(a) electro osmosis (b) cataphoresis (c) electrodialysis (d) electrophoresis
- 2) Which one is the correct factor that explains the increase of rate of reaction by a catalyst.
(a) shape selectivity (b) particle size (c) increase of free energy (d) lowering of activation energy
- 3) Fog is a colloidal solution of
(a) gas in liquid (b) liquid in gas (c) gas in solid (d) solid in gas
- 4) The phenomenon of Tyndall's effect is not observed in
(a) emulsion (b) colloidal solution (c) true solution (d) None
- 5) The Tyndall's effect associated with colloidal particles is due to
(a) presence of charge (b) scattering of light (c) absorption of light (d) reflection of light

Part-B

5 x 3 = 15

- 6) Define adsorption.
- 7) Define colloidal solution.
- 8) What is electrophoresis?
- 9) What is catalysis?
- 10) What are the two types of catalysis?

Part-C

5 x 5 = 25

- 11) Distinguish between physical adsorption and chemical adsorption.
- 12) Discuss the factors affecting adsorption.
- 13) Write notes on catalytic reactions.
- 14) Write notes on i) Positive catalyst, ii) Negative catalyst, iii) Auto catalyst, iv) Induced catalyst
- 15) Write briefly about the theories of catalysis.

Part-D

2X10=20

- 16) a) Write the applications of catalysis.
b) Write briefly about the preparation of colloids by dispersion methods.
- 17) a) Write briefly about the preparation of colloids by condensation methods.
b) Write notes on i) Dialysis ii) Electrodialysis iii) Ultrafiltration

(OR)

- b) a) Write notes on i) Brownian movement, ii) Tyndall effect and iii) Helmholtz double layer
b) What is electro-osmosis? Explain.
