

Bachelor of Science (B.Sc.) Semester—IV (C.B.S.) Examination
INDUSTRIAL CHEMISTRY (ICH-401)
Paper—I

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) All **FIVE** questions are compulsory and carry equal marks.

(2) Give diagrams and chemical reactions wherever necessary.

1. (A) Explain the process of galvanization used in hot dipping process. 5
(B) Describe the process of electroplating with suitable diagram. 5

OR

(C) What are requirements for depositing electrolyte ? 2½
(D) What are the advantages of metal spraying ? 2½
(E) Explain the term vapour deposition. 2½
(F) Explain metallic coating with example. 2½
2. (A) What are the requirements of good paint ? 5
(B) Explain the different types of varnishes with suitable examples. 5

OR

(C) Explain the various types of pigments used for making paints. 2½
(D) Give the Industrial applications of paints. 2½
(E) Write the process of manufacture of enamels. 2½
(F) Write notes on paint remover. 2½
3. (A) Explain the extraction and purification process of juice. 5
(B) Explain the manufacture of leather. 5

OR

(C) How will you prepare cane sugar from molasses ? 2½
(D) Describe preparation of hides for tanning. 2½
(E) Write a note on oil tanning. 2½
(F) Draw neat diagram of extraction of juice from cane sugar. 2½

4. (A) What is semiconductor ? Explain intrinsic and extrinsic semiconductor with suitable example. 5

(B) What are the basic requirements of electrical insulating material ? Give their classification. 5

OR

(C) Explain degenerate semiconductor on the basis of Band theory. 2½

(D) Write a note on dielectric materials. 2½

(E) What are Superconductors ? Give their properties. 2½

(F) Differentiate between conductors and semiconductors. 2½

5. Solve any **TEN** of the following :

(i) What are the uses of vapour deposition ?

(ii) What is acid cleaning in electroplating ?

(iii) What is clod metal ?

(iv) Write only physical properties of white lead.

(v) What are the aluminium paints ?

(vi) Write the uses of varnishes.

(vii) Give any two drying agents used in preparation of sugar.

(viii) Define refining.

(ix) What are the by-products obtained in chrome tanning ?

(x) What are n-type semiconductors ?

(xi) Write any two properties of superconductors.

(xii) What do you mean by insulation ?

1×10=10