(vii) What is importance of Nephelometer ?

(viii) Define dissolution rate.

(ix) Give the condition of amperometric titration.

(x) Define Soxhlet extraction.

(xi) What is acidic buffer ?

(xii) What are the solvents used in Solvent extraction process ? 1×10=10

NTK/KW/15/5908

Bachelor of Science (B.Sc.) Semester—V
(C.B.S) Examination

ICH—502 : INDUSTRIAL CHEMISTRY

Paper—II

Time—Three Hours] [Maximum Marks—50

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

(2) Write equation and draw well labelled diagram wherever necessary.

1. (A) Explain the complexometric titration with suitable examples. 5

(B) Discuss the classification of reaction in titrimetric analysis. 5

OR

(C) Write a short note on mixed indicator. 2½

(D) Explain the neutralization curves in weak acid neutralized by strong acid. 2½

(E) Explain the precipitation titration. 2½

(F) What is indicator ? How will you prepare the phenophthalein indicator ? 2½

2. (A) Explain the theory of Nephelometry with well diagram. 5

(B) Write notes on following :

(i) Hardness Test, and

(ii) Disintegration Test. 5

OR

(C) Draw a diagram of Nephelometric analyser. Give its uses. 2½

(D) Explain the term Friability test with suitable example. 2½

(E) Give the applications of Nephelometry. 2½

(F) Write a note on Rayleigh Scattering in Nephelometry. 2½

3. (A) Draw a well labelled diagram of cell arrangement for Amperometric titrations with a rotating platinum electrode. Discuss volume correction and electrical circuit. 5

(B) What is polarimetry ? Explain polarisation of light. 5

OR

(C) What are the disadvantages of amperometric titration ? 2½

(D) What is indicator electrode ? Explain with suitable example. 2½

(E) Discuss the optical activity of Lactic acid and tartaric acid. 2½

(F) Explain the principle of polarimetry. 2½

4. (A) What is solid liquid extraction ? Explain the different types of continuous extractions. 5

(B) Explain the principle and working of solvent extraction. 5

OR

(C) What are the advantages and disadvantages of hydrogen electrode in pH measurement ? 2½

(D) Explain Ion association system with suitable examples. 2½

(E) Discuss the factors affecting on extraction. 2½

(F) Distinguish between Batch and Continuous extraction. 2½

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

(i) What is Universal indicator ?

(ii) What is meant by primary standard ?

(iii) Define neutralization.

(iv) What is Nephelometry ?

(v) Define Laevorotatory.

(vi) Give any one condition of optical activity.