

TKN/KS/16/5908

- (iv) Give the units of Nephelometer.
- (v) Define Dextro Rotatory.
- (vi) Write the unit of Polarimeter.
- (vii) Write the significance of Nephelometer.
- (viii) Define dissolution rate.
- (ix) Write disadvantages of amperometric titration.
- (x) Define pH.
- (xi) Define solvent extraction.
- (xii) What is the importance of solvent extraction ?

Bachelor of Science B.Sc. Semester-V (C.B.S.)
Examination
ICH-502 : INDUSTRIAL CHEMISTRY
Paper—II

Time—Three Hours]

[Maximum Marks—50

- N.B. :—** (1) All **FIVE** questions are compulsory and carry equal marks.
- (2) Write equation and draw well labelled diagrams whenever necessary.

1. (A) What are neutralisation indicators ? Explain it with examples. 5
- (B) Discuss the following :
 - (i) Precipitation titration
 - (ii) Complexometric titration. 5

OR

- (C) What is Universal Indicator ? Explain it. 2½
- (D) Discuss metal-ion indicator in complexometric titration with example. 2½

- (E) Define and explain standard solution with example. 2½
- (F) Write a note on neutralisation curve in strong acid neutralised by strong base. 2½
2. (A) Discuss the instrumentation in Nephelometry. 5
- (B) Explain the following terms :
- (i) Hardness Test
- (ii) Friability Test. 5

OR

- (C) Give the applications of Nephelometry. 2½
- (D) Explain what is the effect of concentration on scattering in Nephelometry ? 2½
- (E) Write a note on Lord Rayleigh scattering in Nephelometry. 2½
- (F) Write a short note on disintegration test. 2½
3. (A) What is amperometric titration ? Discuss the principal of amperometric titration. 5
- (B) What is polarimeter ? Explain basic components of polarimeter. 5

OR

- (C) Give the advantages of amperometric titration. 2½
- (D) Write a note on indicator electrodes. 2½
- (E) Explain optical activity with example. 2½
- (F) Give the applications of polarimetry. 2½
4. (A) Write notes on following :
- (i) Batch extraction
- (ii) Continuous extraction. 5
- (B) Explain liquid-liquid extraction with examples. 5

OR

- (C) Explain buffer action in acidic and basic buffer solution. 2½
- (D) Give the different types of extraction systems. 2½
- (E) Which factors are dependant on rate and selectivity of an extraction ? 2½
- (F) Discuss how to choose solvent for extraction ? 2½
5. Attempt any **TEN** of the following : 10×1=10
- (i) Define mix-indicator.
- (ii) Give any two names of acid-base indicator.
- (iii) What do you mean by secondary standards ?