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(iv) Give the units of Nephelometer.

(v) Define Dextro Rotartory.

(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 ?

TKN/KS/16/5908

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

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(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 ?

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