



K20U 0297

Reg. No. :

Name :

II Semester B.Sc. Degree (CBCSS – Supplementary/Improvement)

Examination, April 2020

(2014-2018 Admissions)

CORE COURSE IN CHEMISTRY

2B 03 CHE : Analytical Chemistry

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** questions. **Each** question carries **one** mark.

1. Name a redox indicator.
2. Give the auto ionization of NH_3 .
3. What is meant by titration curve ?
4. Expand TGA.

(4×1=4)

SECTION – B

Answer **any seven** questions. **Each** question carries **2** marks.

5. What is meant by pH indicators ? Give two examples.
6. Explain the requirement of a gravimetric precipitate.
7. What is the principle of activation analysis ?
8. Explain the disadvantages of liq.NH_3 as a solvent.
9. What is meant by synergistic extraction ?
10. What is the advantage of using masking agents in solvent extraction ?
11. Explain levelling effect.
12. Sketch the titration curve for NaOH versus HCl titration.
13. Give any two applications of ion exchange chromatography.
14. What is meant by thermometric titration ?

(7×2=14)

P.T.O.



SECTION – C

Answer **any 4** questions. **Each** question carries **3** marks.

15. Discuss the applications of HSAB concept.
16. Write a note on thin layer chromatography.
17. Explain the methods for expressing concentration of a solution.
18. Explain the principles involved in cation analysis.
19. What are the factors affecting solvent extraction ?
20. Describe the thermogram of CaC_2O_4 .

(4×3=12)

SECTION – D

Answer **any 2** questions. **Each** question carries **5** marks.

21. Give any three reactions that can be carried out in liquid HF. What are the characters of a solvent ?
22. Explain gel permeation chromatography. What are the applications ?
23. Give an account of the working principle, instrumentation and application of DTA.
24. Discuss the principle involved in complexometric titration. Write a note on metal ion indicators.

(2×5=10)