HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

Program Name **: B. Sc. Chemistry** **Semester : IV**
PROGRAM CODE : SCIUG102
COURSE CODE : SC23PMIDSCCHE402

Type of Course : Practicals Minor (Elective) Discipline Specific Course PMIDSC
Name of Course : Practical's for simplified chemistry I

Total Marks : 50

Effective from June 2023 Under NEP 2020

Total Credits : 02 Teaching Hours per Week: 04 Lab Teaching Hours per semester:60 Minimum Number Practicals to be Performed: 10	Practicals	External 25 Marks Internal 25 Marks

Course Objectives:

1. To learn complexometric titrations.
2. Preparation of solutions and required standardization.

Course Outcomes:

1. Students will gain a comprehensive knowledge and skills in standardization and preparation of solutions for carrying out complexometric titrations.
2. To understand basic methods to estimate the metal ionss on the basis of complexation with ligands.

Sr.No.	List of Practicals	Credit	Hr
1	Inorganic Quantitative analysis. (Any 10) 1. Estimation of Ca by complexometric titration. 2. Estimation of Mg by complexometric titration. 3. Estimation of Cu by EDTA complexometric titration 4. Estimation of Cu by Iodometrical titration 5. To estimate ferrous (Fe^{+2}) and ferric (Fe^{+3}) ions given in the mixture. 6.To determine the strength of Ferrous ammonium sulphate by $K_2Cr_2O_7$. 7. To determine the amount of Zn by EDTA Method. 8. To determine the amount of Ni by EDTA Method.	1	30

	9. Estimation of Glucose/Aniline/Phenol 10. To determine the amount of Aniline by Brominating Method. 11. To determine the amount of Phenol by Brominating Method. 12. To determine the amount of Glucose by oxidation Method		

Books Recommended:

1. Practical Chemistry : For B.Sc. I, II And III Year Students of All India Universities By Pandey O.P. & et Al. publisher S. Chand's, Paperback December 2010.

2. Basic Principles of Practical Chemistry,
by V. Venkateswaran (Author) publisher S. Chand's, Paperback – 1 January 2012

3. Chemistry In Laboratory-B.Sc.-Sem-I-Vi-Hons.
By Dr.Subhojit Ghosh (Author), Dr.Madhushree Das Sharma (Author), publisher CBCS, Paperback – 1 January 2019.

Further Reading:

1. Practical Chemistry, By Sonia Ratnani (Author), Swati Agrawal (Author), Sujeet Kumar Mishra (Author) publisger Mc Graw Hill, 1st Edition Paperback – 16 September 2020.

2. B.Sc. Practical Chemistry First Year By Paperback, Dr. M.M.N. Tandon, Publisher: Shiva Lal Agarwal & Company, 2020.