17BSC302P					Chemistry-III Lab					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
0	0	2	1	2				50	50	100

COURSE OBJECTIVES

- Learn proper safety precaution while working in the laboratory.
- Knowledge on sampling methods for laboratory purpose.
- Able to calculate the unknown concentration or mass through different analytical procedure.
- Apply the laboratory concept of chemistry for industrial and domestic use.
- To enhance the thinking capabilities in line with the modern trends in science and technology.

LIST OF EXPERIMENTS

1. Determination of amount of Na_2CO_3 and $NaHCO_3$ in a mixture with standard HCl.
2. Determination of alkali content of antacid tablets.
3. To determine the purity of given ascorbic acid by titrating against standard (N/10) iodine solution.
4. To determine the dissolved oxygen in given water sample.
5. To verify Lambert-Beer law and determine concentration of an unknown solution.
6. Preparation of sodium ferri-oxalate and determination of its melting point.
7. Determination of the amount of Calcium and Magnesium in milk powder by EDTA complexometry.
8. To determine the concentration of KCl present in the given solution by conductometric titration.
9. Estimation of Iron as ferric oxide in Mohr's salt.
10. Estimation of Iron in Portland cement.

COURSE OUTCOMES

On completion of the course, student will be able to

CO1– Capability to design new experimental method for unknown experiment
CO2– Able to calculate the alkali content in anta acid
CO3– Anayze the purity of organic compound through titration techniques
CO4– Justify the Lambert-Beer law
CO5– Realisation of theoretical background of complexometric titration to calculate hardness limit in drinking water
CO6– Understand the conductometirc titration for determination of unknown concentration

TEXT/REFERENCE BOOKS

1. A. I. Vogel, A text book of quantitative Inorganic Analysis, ELBS.
2. A. K. Nad, B. Mahapatra & A. Ghosal, An Advanced Course in Practical Chemistry, New Central, 2007. Vogel's Text Book of Practical Organic Chemistry (5th Edn).
3. Finar, I. L. Organic Chemistry (volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

SEMESTER EXAMINATION PATTERN

Max. Marks: 100 **Exam Duration: 3 Hrs**

LW(Daily lab performance plus journal maintain each 25 marks) 50 Marks
LE (Viva-voce plus Lab examination each 25 marks) 50 Marks