SEMESTER II

INORGANIC CHEMISTRY-II

PRACTICAL SYLLABUS

Programme:M.Sc **Max marks: 50**
Course Code: P20/CHE/DSC/201/P **No. of Hrs./Week: 4 Hrs**
CourseType:DSC-5 No. of Hrs./Week: 4 Hrs
No. of Credits:2

COURSE OUTCOMES:

CO1: Comprehend the significance of Analysis of Two component mixtures andthree component mixturestitrations in Inorganic quantitative analysis.
CO2 : Get equipped with the knowledge of gravimetry in Inorganic analysis
CO3 : Determination of Iron and calcium in Cement, Calcium in calcium tablets, alkali content in antacid

I. Analysis of Two component mixtures:

(i).Separation of Ni^{2+} and Cu^{2+} in a mixture and estimation of Ni^{2+} (gravimetric) and Cu^{2+} volumetric).

(ii).Separartion of $Fe^{2+}$and Al^{3+}in a mixture and estimation of Fe^{2+}volumetrically and Al^{3+} gravimetrically.

(iii).Separartion of $Ag^{+}$and Ca^{2+}in a mixture and estimation of Ag^{+}volumetrically and Ca^{2+} volumetrically

II.Analysis of three component mixtures:

(i).Separation of (Ni^{2+} and Cu^{2+}) from Mg^{2+} in the given mixture and estimation of Mg^{2+} (Gravi).

III Applied titrimetric analysis :
(i) Determination of Iron and calcium in Cement
(ii) Determination of Calcium in calcium tablets
(iii) Determination of alkali content in antacid

Suggested Books:

1. (i). Text book of Quantitative Inorganic Analysis by A.I.Vogel, 3rd edition, ELBS 1969.
   (ii) Vogel's text book of Quantitative Inorganic analysis. Jeffery etal, 4th edition, ELBS 1988.
   (iii). Vogel's text book of Quantitative Inorganic Analysis. 6th edition, Pearson education ltd 2002.
2. Practical Inorganic chemistry By G.Marr and R.W.Rockett 1972.
3. Experimental Inorganic/Physical Chemistry – An Investigative integrated approach to Practical Project work. By Mounir A.Malati, 1999.
4. Advanced experimental Inorganic chemistry by. Ayodhya Singh.
5. Practical Inorganic Chemistry by G. Pass & H. Sutchiffe, 2nd edn John Wiley & sons.

SEMESTER II
INORGANIC CHEMISTRY-I
MODEL PRACTICAL QUESTION PAPER

Course Code: P20/CHE/DSC/102/P **Time: 3Hrs**
Credits: 2 **Max. Marks:50**

Answer all questions: -

1 a) The principle in brief for the separation of (Ni^{2+} and Cu^{2+}) from Mg^{2+} metal ions in the given three component mixture Explain solution and estimation of Magnesium ions by the gravimetric method. (CO1) **10 M**

OR

b) Explain the Principle for the Estimation of Iron and Calcium in Cement . (CO3)

2) In the given Two Acs2 Component mixture of Metal ions separate the metal ions and estimate the amount of the ions by Gravimetric and Volumetric Methods . You are provided with EDTA of Approximate concentration (CO2) **25 M**

3) Record and Attendance **5 M**

4) Viva **10 M**