

BSC 501P					Inorganic Chemistry Lab – I					
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

- To apply the theoretical knowledge of Inorganic chemistry into practical application.
- To demonstrate the skill for quantitative estimation of inorganic compounds.
- To develop the skills for synthesis of pure inorganic complexes and their crystals.
- To learn good and safe laboratory practices.

LIST OF EXPERIMENTS

1. Quantitative estimation of Ni²⁺ as Ni-dimethyl glyoxime.
2. Preparation of cuprous chloride.
3. To prepare pure crystals of Tetra amine copper (II) sulphate.
4. Determination of amount of Ferrous iron in Mohr's salt by titration against standard KMNO₄ solution.
5. Estimation of copper in a given solution.
6. Preparation of Prussian blue from iron fillings.
7. To prepare pure crystals of chrome alum.
8. Estimation of Barium in a salt solution.
9. To determine the percentage purity of the given sample of MgSO₄.7H₂O and also determine the percentage of magnesium in it by provided N/20 EDTA solution.

COURSE OUTCOMES

On completion of the course, student will be able to

CO1– Apply the theoretical knowledge of Inorganic Chemistry in quantification & synthesis of inorganic compounds.

CO2– Demonstrate the skills for quantitative estimation of ions viz. Ni²⁺, Cu²⁺, Ba²⁺, Fe²⁺ in salt or solution.

CO3– Prepare metal salts and complexes.

CO4– Learn to prepare pure crystals of inorganic compounds.

CO5– Determine the percentage purity and percentage of Mg in a given unknown sample.

CO6– Develop the aptitude for research & development in analytical and synthetic Inorganic Chemistry.

TEXT/REFERENCE BOOKS

1. Mendham, J., Vogel's Quantitative Chemical Analysis Sixth Edition, Pearson, 2009.
2. Svehala, G. and Sivasankar, B., Vogel's Qualitative Inorganic Analysis, Pearson, India, 2012.
3. Marr, G. and Rockett, B. W., Practical Inorganic Chemistry. John Wiley & Sons 1972.

SEMESTER EXAMINATION PATTERN**Max. Marks: 100**

LW(Daily lab performance plus journal)

LE (Viva-voce plus Lab examination)

Exam Duration: 3 Hrs

50 Marks

50 Marks