

ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department of Chemistry

Bankura Christian College

ACADEMIC YEAR: 2023-24 (Semester 2nd /4th /6th)4th Semester (Hons) Practical (January,2023 to June, 2023)

Name of faculty member: Dr. Bibekananda Mahanti

Subject: Chemistry

Core P9 - Inorganic Chemistry III Lab

Unit – 1.

Complexometric titration

1. Zn(II)
2. Zn(II) in a Zn(II) and Cu(II) mixture.
3. Ca(II) and Mg(II) in a mixture.
4. Hardness of water.

Unit – 2.

Inorganic preparations

1. [Cu(CH₃CN)₄]PF₆/ClO₄
2. Cis and trans K[Cr(C₂O₄)₂ (H₂O)₂]
3. [Cu(CH₃CN)₄]PF₆/ClO₄
4. Cis and trans K[Cr(C₂O₄)₂ (H₂O)₂]
5. Potassium dioxalatodiaquachromate(III)

Unit – 3.

6. Tetraamminecarbonatocobalt (III) ion
7. Potassium tris(oxalate)ferrate(III)
8. Tris-(ethylenediamine) nickel(II) chloride.

Unit – 4.

9. [Mn(acac)₃] and Fe(acac)₃ (acac- acetylacetonate)

MONTH/YEAR	WEEK	PORTIONS
March 2023	2 nd	Complexometric titration: Zn(II)
	3 rd	Complexometric titration :Zn(II) in a Zn(II) and Cu(II) mixture.
	4 th	Complexometric titration :Ca(II) and Mg(II) in a mixture.
	5 th	Complexometric titration: Hardness of water.
April 2023	1 st	Inorganic preparations: [Cu(CH ₃ CN) ₄]PF ₆ /ClO ₄
	2 nd	Inorganic preparations:Cis K[Cr(C ₂ O ₄) ₂ (H ₂ O) ₂]
	3 rd	Inorganic preparations: trans K[Cr(C ₂ O ₄) ₂ (H ₂ O) ₂]
	4 th	Inorganic preparations: Potassium dioxalatodiaquachromate(III)
May 2023	1 st	Inorganic preparations: Tetraamminecarbonatocobalt (III) ion
	2 nd	Inorganic preparations: Potassium tris(oxalate)ferrate(III)
	3 rd	Inorganic preparations: Tris-(ethylenediamine) nickel(II) chloride.
	4 th	Revision of Unt-3

June 2023	1 st	Inorganic preparations: $[\text{Mn}(\text{acac})_3]$ (acac- acetylacetonate)
	2 nd	Inorganic preparations: $[\text{Fe}(\text{acac})_3]$ (acac- acetylacetonate)
	3 rd	Revision of Unt-4