

Assignment for B.Sc. Sem IV Chemistry (Major + Minor) 2025-26

Paper: Inorganic Chemistry

Assignment Submission Date: 23.03.2026

M.M. 25

S. No.	Topics	Roll No.
1	Chemistry of Elements of First Transition Series: <ul style="list-style-type: none">• General characteristic properties of d-block elements. Binary compounds, coordination number and geometry	Bio (Major) (2430014010004 — 4010049) Math (Major) (2430014020004 — 4020010)
		Bio (Minor) (2430014010001 — 4010091) Math (Minor) (2430014020001 — 4020035)
2	Chemistry of Elements of Second and Third Transition series: <ul style="list-style-type: none">• General characteristics, comparative treatment of Zr/Hf, Nb/Ta, Mo/W in respect of ionic radii, oxidation states, magnetic behavior, spectral properties and stereochemistry	Bio (Major) (2430014010050 — 4010097) Math (Major) (2430014020016 — 4020021)
		Bio (Minor) (2430014010092 — 4010214) Math (Minor) (2430014020036 — 4020067)
3	Coordination Compounds: <ul style="list-style-type: none">• Werner's coordination theory• EAN concept, Polydentate ligands or chelates, nomenclature of coordination compounds, isomerism in coordination compounds	Bio (Major) (2430014010098 — 4010136) Math (Major) (2430014020027 — 4020037)
		Bio (Minor) (2430014010215 — 4010319) Math (Minor) (2430014020068 — 4020093)
4	Valence bond theory of transition metal complexes: <ul style="list-style-type: none">• Inner and outer orbital complexes• Limitations of VBT	Bio (Major) (2430014010137 — 4010183) Math (Major) (2430014020038 — 4020044)
		Bio (Minor) (2430014010320 — 4010410) Math (Minor) (2430014020094 — 4020119)

5	<p>Chemistry of Lanthanide Elements:</p> <ul style="list-style-type: none"> • Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation • Ceric ammonium sulphate and its analytical uses. 	<p>Bio (Major) (2430014010184 — 4010228)</p> <p>Math (Major) (2430014020048 — 4020055)</p>
6	<p>Chemistry of Actinides:</p> <ul style="list-style-type: none"> • Electronic conformation, oxidation states and magnetic properties • Chemistry of separation of Np, Pu and Am from U 	<p>Bio (Major) (2430014010229 — 4010273)</p> <p>Math (Major) (2430014020056 — 4020071)</p>
7	<p>Oxidation and Reduction:</p> <ul style="list-style-type: none"> • Electrode potential, electrochemical series and its applications. • Principles involved in the extraction of the elements 	<p>Bio (Major) (2430014010279 — 4010321)</p> <p>Math (Major) (2430014020073 — 4020102)</p>
8	<p>Acids and Bases:</p> <ul style="list-style-type: none"> • Arrhenius, Bronsted-Lowry, the Lux-Flood, solvent system and Lewis concept of acids and bases 	<p>Bio (Major) (2430014010322 — 4010375)</p> <p>Math (Major) (2430014020106 — 4020110)</p>
9	<p>Non-aqueous Solvents:</p> <ul style="list-style-type: none"> • Physical properties of a solvent, types of solvents and their general characteristics • Reactions in non-aqueous solvents with reference to liquid NH₃ and liquid SO₂. 	<p>Bio (Major) (2430014010377 — 4010411)</p> <p>Math (Major) (2430014020112 — 4020120)</p>

- Note:**
- 1. Students have to select assignment topics as per their Roll No.**
 - 2. Students are instructed to use a fair register copy for writing**
 - 3. Students must bring their previous semester marksheets at the time of assignment submission**