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DATE	CURICULUM (BSc IV SEM)
17-01-23 to 24-01-23	**Inorganic chemistry** **Section-C** **Theory of Qualitative and Quantitative Inorganic Analysis-I** Chemistry of analysis of various acidic radicals,
25-01-23 to 31-01-23	Chemistry of identification of acid radicals in typical combinations, Chemistry of interference of acid radicals including their removal in the analysis of basic radicals.
01-02-23 to 07-02-23	**Section-D** **Theory of Qualitative and Quantitative Inorganic Analysis-II** Chemistry of analysis of various groups of basic radicals,
08-02-23 to 14-02-23	Theory of precipitation, co-precipitation, Post- precipitation, purification of precipitates.
15-02-23 to 21-02-23	**Organic Chemistry** **Section-A** **Infrared (IR) absorption spectroscopy** Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, measurement of IR spectrum,
22-02-23 to 28-02-23	Fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds.Applications of IR spectroscopy in structure elucidation of simple organic compounds.
01-03-23 to 15-03-23	**Diazonium Salts** Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO_2 and CN groups, reduction of diazonium salts to hyrazines, coupling reaction and its synthetic application.
16-03-23 to 22-03-23	**Section-B** **Amines** Structure and nomenclature of amines, physical properties. Separation of a mixture of primary, secondary and tertiary amines.Structural features affecting basicity of amines.
23-03-23 to 29-03-23	Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds.
30-03-23 to 05-04-23	Gabrielphthalimide reaction, Hofmann bromamide reaction. electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.
06-04-23 to 12-04-23	**Section-C** **Nitro Compounds**

	Preparation of nitro alkanes and nitro arenes and their chemical reactions. Mechanism of electrophilic substitution reactions in nitro arenes and their reductions in acidic, neutral and alkaline medium.
13-04-23 to 19-04-23	**Section-D** **Aldehydes and Ketones** Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides.
20-04-23 to 26-04-23	Advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate.
27-04-23 to 02-05-23	Physical properties. Comparison of reactivities of aldehydes and ketones.
03-05-23 to 09-05-23	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction.
10-05-23 to 16-05-23	Mannich reaction.Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones, Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, $LiAlH_4$ and $NaBH_4$ reductions.
	Revision