

Koyana Education Society's
Balasaheb Desai College, Patan
Department of Chemistry
Monthly Teaching Plan-Year-2023-2024
January – 2024 Semester – IV & VI

Name of the Teacher- Mr. Shivhar Balaji Ambegave

| Dates | Unit | Sub unit | Teaching Method Aids |
|------------------|--|--|----------------------|
| B.Sc.-II | | | |
| 03/01/2024 | Unit 1: Carboxylic Acids and Their Derivatives | 1.4 Di carboxylic acids: a) Introduction b) Method of formation of succinic acid from ethylene dibromide, maleic acid c) Chemical Reactions: Action of heat, Action of NaHCO ₃ , C ₂ H ₅ OH in presence of acid. | Lecture |
| 10/01/2024 | | d) Method of formation Phthalic acid from o-xylene and Naphthalene e) Chemical Reactions of Phthalic acid: Action of heat, reaction with sodalime, ammonia. | Lecture |
| 17/01/2024 | | 1.5 Carboxylic acid derivatives: a) Introduction b) Acid halide derivative: Acetyl chloride: i) Synthesis from acid, by action with PCl ₃ and SOCl ₂ . | Lecture |
| 24/01/2024 | | ii) Reaction with water, alcohol (Mechanism of esterification is expected) and ammonia. | Lecture |
| 31/01/2024 | | c) Acid anhydride derivative: i) Synthesis of acetic anhydride by dehydration of acetic acid. ii) Reactions with water, alcohol and ammonia. | Lecture Using ICT |
| B.Sc.-III | | | |
| 04/01/2024 | Unit 1. Reagents and Reactions in Organic Synthesis | II] Name Reactions Statement, General Reaction, Mechanism and Synthetic applications of following reactions.... | Lecture |
| 11/01/2024 | | Diels -Alder reaction. | Lecture |
| 18/01/2024 | | Meerwein –Pondorff-Verley reduction. Hofmann rearrangement | Lecture |
| 25/01/2024 | | Wittig reaction. Wagner- Meerwein rearrangement. Baeyer Villiger oxidation | Lecture |
| M.Sc.-I | | | |
| 02/01/2024 | UNIT-II: | Chloranil, | Lecture |

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| 05/01/2024 | | hydrogen peroxide | Lecture |
| 09/01/2024 | | Swern oxidation. PCC (Corey’s reagent), | Lecture |
| 12/01/2024 | | PDC (Cornforth reagent) | Lecture |
| 16/01/2024 | | Baeyer-Villiger oxidation. | Lecture |
| 19/01/2024 | UNIT-III: A) Reductions | Study of following reductions- Catalytic hydrogenation using homogeneous and heterogeneous catalysts. | Lecture |
| 23/01/2024 | | | Lecture |
| 30/01/2024 | | | Lecture |
| M.Sc.-II | | | |
| 02/01/2024 | UNIT-II: Advanced Liquid Chromatographic Techniques | Liquid Chromatography-Mass Spectrometry interface | Lecture |
| 08/01/2024 | | instrumentation, advantages and applications. | Lecture |
| 09/01/2024 | | Practical applications and examples in analytical chemistry and research. | Lecture |
| 15/01/2024 | UNIT – II: Food and Food Additive Analysis | Food flavors, food colors, | Lecture |
| 16/01/2024 | A) Food Analysis | food preservatives | Lecture |
| 22/01/2024 | | analysis of milk and milk products, adulterants in milk and their identification, analysis of honey, jam and their major component | Lecture |
| 23/01/2024 | | Practical applications and examples in analytical chemistry and research. | Lecture |
| 29/01/2024 | B) Food Additive Analysis | Additives in animal food stuff: | Lecture |
| 30/01/2024 | | Antibiotics: penicillin, chlorotetracyclin, | Lecture |