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| **logoUniversity of Management & Technology**  School of Science  **Department of Chemistry** |
| BS CH 206 -Organic Chemistry-1  Credit Hours 4 |

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| **Week** | **Lecture** | **Course Outlines** |
| 1 | 1  2 | Covalent Bond, Atomic and Molecular orbitals  Hybridization and Shape of organic molecules |
| 2 | 1  2 | Inductive effect, Dipole moment  Delocalized bonding, Resonance Theory |
| 3 | 1  2 | Resonance effect, Steric inhibition of resonance  Hyperconjugation, Tautomerism |
| 4 | 1  2 | Alkanes: Nomenclature, Methods of preparations  Alkanes: Physical & Chemical properties |
| 5 | 1  2 | Cycloalkanes: Nomenclature, Methods of preparations  Cycloalkanes: Physical & Chemical properties |
| 6 | 1  2 | Alkenes: Nomenclature, Methods of preparations  Alkenes: Physical & Chemical properties |
| 7 | 1  2 | Alkynes: Nomenclature, Methods of preparations  Alkynes: Physical & Chemical properties |
| 8 | 1  2 | Stereochemistry: Conformational isomerism in alkanes  Stereochemistry: Conformational isomerism in cycloalkanes |
| 9 | 1  2 | Stereochemistry: Optical isomerism, Chirality, racemic mixture  Stereochemistry: Geometrical isomerism in alkenes |
| 10 | 1  2 | Alkyl halides: Nomenclature, Methods of preparations  Alkyl halides: Physical & Chemical properties |
| 11 | 1  2 | Mechanism & Reactivity of Aliphatic Nucleophilic Substitution reactions Mechanism &Reactivity of Elimination reactions |
| 12 | 1  2 | Orientation of double bond  Preparation of Grignard Reagent |
| 13 | 1  2 | Reactions of Grignard Reagent  Structure and Spectroscopy of Grignard Reagent |
| 14 | 1  2 | Structure of benzene & Aromaticity  Aromatic compounds: Nomenclature, Methods of preparations |
| 15 | 1  2 | Aromatic compounds: Physical & Chemical properties  Polycyclic aromatic hydrocarbons |