

# UTKALMANI GOPABANDHU INSTITUTE OF ENGINEERING, ROURKELA



## LESSON PLAN

**SUBJECT-ORGANIC CHEMISTRY**

**PREPARED BY- RAGHUNATH MARANDI  
DEPARTMENT OF CHEMICAL  
ENGINEERING**

|        | Topics covered                                                                           |
|--------|------------------------------------------------------------------------------------------|
| WEEK 1 | Scope of organic chemistry                                                               |
|        | Differentiate between organic compound and inorganic compounds                           |
|        | Importance of organic Chemistry in modern life.                                          |
|        | Classification and sources of organic compounds                                          |
| WEEK 2 | IUPAC naming of mono functional and polyfunctional Organic Compound.                     |
|        | IUPAC naming of monofunctional and polyfunctional Organic Compound.                      |
|        | IUPAC naming of monofunctional and poly functional Organic Compound.                     |
| WEEK 3 | Concept, type and example of isomerism                                                   |
|        | Methods of preparations, properties and uses of $\text{CH}_4$ and $\text{C}_2\text{H}_5$ |
|        | Methods of preparations, properties and uses of $\text{CH}_4$ and $\text{C}_2\text{H}_5$ |
| WEEK 4 | Methods of preparations properties of ethylene.                                          |
|        | Methods of preparation, properties and uses of acetylene.                                |
|        | Methods of preparation, properties and uses of acetylene.                                |
|        | Methods of preparation properties and uses of methanol and ethanol                       |
| WEEK 5 | Methods of preparation properties and uses of methanol and ethanol                       |
|        | Methods of preparation properties and uses of methanol and ethanol                       |
|        | Methods of preparation properties and uses of methanol and ethanol                       |
|        | Absolute alcohol and denatured alcohol                                                   |
| WEEK 6 | Absolute alcohol and denatured alcohol                                                   |
|        | Methods of preparation properties and uses of formic acid and acetic acid.               |
|        | Methods of preparation properties and uses of formic acid and acetic acid.               |
|        | Methods of preparation properties and uses of formic acid and acetic acid.               |
| WEEK 7 | Methods of preparation properties and uses of formic acid and acetic acid.               |

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|---------|-------------------------------------------------------------------------------------------|
|         | Methodsofpreparationpropertiesandusesofformaldehydeandacetone.                            |
|         | Methodsofpreparationpropertiesandusesofformaldehydeandacetone.                            |
| WEEK 8  | Methodsofpreparationpropertiesandusesofformaldehydeandacetone.                            |
|         | Methodsofpreparationpropertiesandusesofformaldehydeandacetone.                            |
|         | Methodsofpreparationpropertiesandusesofformaldehydeandacetone.                            |
| WEEK 9  | Methodsofpreparation,propertiesandusesof(a) Benzene                                       |
|         | Methodsofpreparation,propertiesandusesof(a) Benzene                                       |
|         | Methodsofpreparation,propertiesandusesof(b) Toluene                                       |
| WEEK 10 | Methodsofpreparation,propertiesandusesof(b) Toluene                                       |
|         | Methodsofpreparation,propertiesandusesofBenzenederivativecompound(a)Phenol(b)Benzaldehyde |
|         | Methodsofpreparation,propertiesandusesofBenzenederivativecompound (a)Phenol               |
| WEEK 11 | Methodsofpreparation,propertiesandusesofBenzenederivativecompound (a)Phenol               |
|         | Methods of preparation, properties and uses of Benzenederivativecompound (b)Benzaldehyde  |
|         | Classificationofcarbohydrates                                                             |
| WEEK 12 | Synthesisandinterconversionsofmonosaccharides                                             |
|         | Synthesisand interconversions of monosaccharides                                          |
|         | Synthesisandinterconversionsofmonosaccharides                                             |
|         | Manufacturingproperties andusesofglucose, fructose,sucrose,andstarch.                     |
| WEEK 13 | Manufacturingpropertiesandusesofglucose,fructose,sucrose,andstarch.                       |
|         | Manufacturingpropertiesandusesof glucose, fructose,sucrose,andstarch.                     |
|         | Manufacturingproperties andusesofglucose, fructose,sucrose,andstarch.                     |
| WEEK 14 | Manufacturingproperties andusesofglucose, fructose,sucrose,andstarch.                     |
|         | Manufacturingpropertiesandusesofglucose, fructose,sucrose,andstarch.                      |
|         | Preparation,propertiesandusesofAminoacid                                                  |
|         | Preparation,propertiesandusesofAminoacid                                                  |
| WEEK 15 | Preparation,propertiesandusesofAminoacid                                                  |
|         | Classificationofproteins,Peptides                                                         |
|         | Classificationofproteins,Peptides                                                         |
| WEEK 16 | Classificationofproteins,Peptides                                                         |
|         | Propertiesanduses ofproteins                                                              |
|         | Propertiesanduses ofproteins                                                              |
|         | Sources,Propertiesandusesoffats                                                           |
| WEEK 17 | Sources,Propertiesandusesoffats                                                           |
|         | Sources,Propertiesandusesoffats                                                           |
|         | Sources,Propertiesandusesoffats                                                           |
|         | Sources,Propertiesandusesoffats                                                           |

#### BOOKS FOR REFERENCE:

- A Text Book of Organic Chemistry by B.S.Bahl, Arun Bahl, S Chand Publication

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|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                    | <b>Prepared by</b>                                                                  | <b>Approved by</b>                                                                    |
| <b>Signature</b>   |  |  |
| <b>Name</b>        | <b>RAGHUNATH MARANDI</b>                                                            | <b>SOVAN KUMAR SAHOO</b>                                                              |
| <b>Designation</b> | <b>Lecturer</b>                                                                     | <b>HOD, Chemical.</b>                                                                 |
| <b>SESSION</b>     | <b>2024-25</b>                                                                      |                                                                                       |