

**UNIT- 11 – CARBON AND ITS COMPOUNDS****I. Answer in brief (2 marks)**

1. Write the general characteristics of organic compounds.
2. Write the classification of organic compounds.
3. Write the characteristics of hydrocarbons.
4. What are the three compounds present in IUPAC Nomenclature?
5. Arrive at, systematically, the IUPAC name of the compound:  $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{OH}$ .
6. Name the simplest ketone and give its structural formula.
7. Classify the following compounds based on the pattern of carbon chain give their structural formula.
  - a) Propane
  - b) Benzene
  - c) Cyclobutane
  - d) Furan.
8. How is ethanol acid prepared from ethanol? Give the chemical equations.
9. How do detergents cause water pollution? Suggest remedial measures to prevent this pollution.
10. Define biodegradable and bio non – degradable detergents.

**II. Answer in a paragraph (5 marks)**

1. What is called homologous series? Give any three of its characteristic.
2. How is ethanol manufactured from sugar cane?
3. Give the balanced chemical equation of the following reactions.
  - a. Neutralization of NaOH with ethanoic acid.
  - b. Evolution of carbon dioxide by the action of ethanoic acid with  $\text{NaHCO}_3$ .
  - c. Oxidation of ethanol by acidified potassium dichromate.
  - d. Combustion of ethanol.
4. Explain the mechanism of cleansing action of soap.
5. Explain the advantages of detergents over soaps.
6. Explain the difference between soap and detergents.
7. Explain the manufacture of soap by kettle process.
8. The molecular formula of an alcohol is  $\text{C}_4\text{H}_{10}\text{O}$ . The locant number of its  $-\text{OH}$  group is 2.
  - a. Draw its structural formula.
  - b. Give its IUPAC name.
  - c. Is it saturated or unsaturated?