

# Chem. – 203 Applied chemistry (Core)

## Objectives:

- 1) To provide basic knowledge related to organic and inorganic chemistry including petrochemicals.
- 2) To acquaint students with the application of basic knowledge of chemicals ingredient and various organic products.

## Unit – 1

- Introduction to organic chemistry sources of organic chemical and importance of organic chemicals.  
Fractional distillation of petroleum.
- Classification of organic compounds, Nomenclature – IUPAC system, Functional groups and their structural formula, Homologous series and isomerism.

## Unit – 2

- Aliphatic series of carbon, general properties of following.  
Alkane, Alkyne
- Compounds with different functional groups, general properties of following with use.  
Alcohol, Ether.  
Phenol, Aldehydes  
Ketones, Benzenes.

## Unit – 3

- Water
- Types of water and its hardness.
- Types of hardness, purification of water.
- Soap and detergents.  
Definition, Preparation, properties, cleaning action, detergents – definition, industrial preparation their properties, Advantages and disadvantages of using soap and detergents.

## Unit – 4

- A. Brightening agent, optical brightness.  
General information of perfumes and flavours.
- B. Common Drugs.  
Elementary Knowledge of common drugs, general information analysis, Disinfectants.

## Practicals:

- Qualitative analysis of organic and inorganic compound.
- Preparation of soap, detergent, shampoo, balm, Vaseline, cold cream.

## Reference

- A text book of Applied chemistry by Thankamma Jacob.
- Textbook of 11<sup>th</sup> and 12<sup>th</sup> science Gujarat Board.