

Date:
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B.Sc. Part I (Hons.)
Organic compounds.

Topic: Nomenclature of
Organic compounds.

There are five main types of
Organic compounds.

(1) Aliphatic compounds; Compds.
which consists of open-chain of
carbon atoms are called aliphatic
compounds.

e.g., Ethane $\text{CH}_3\text{-CH}_3$

Propane $\text{CH}_3\text{-CH}_2\text{-CH}_3$,

n-Butylamine $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-NH}_2$

(2) Saturated and Unsaturated Compds

Compounds which contain only
Carbon and hydrogen are called
hydrocarbons. A hydrocarbon is
said to be saturated if it contains
only C-C single bonds.

A hydrocarbon is said to be un-
saturated if it contains C=C or
C≡C multiple bonds.

Example: Ethane ($\text{CH}_3\text{-CH}_3$) Saturated

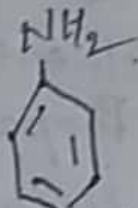
Ethylene $\text{CH}_2=\text{CH}_2$ It is unsaturated

Acetylene $\text{HC}\equiv\text{CH}$ "

(3) Aromatic compounds. Examples are:



Benzene



Aniline



Naphthalene

(4) Alicyclic compounds: cyclic compounds which consists only of carbon atoms are called alicyclic or carbocyclic compounds.

Examples are:



Cyclopropane



Cyclobutane

Each corner represents CH_2 group.

(5) Heterocyclic compounds :
cyclic compounds in which the
ring atoms are of carbon and some
other element. For example, (N, S, O)
are called Heterocyclic compounds
Examples are :

