

BONDING & GENERAL CONCEPTS ^{1.}

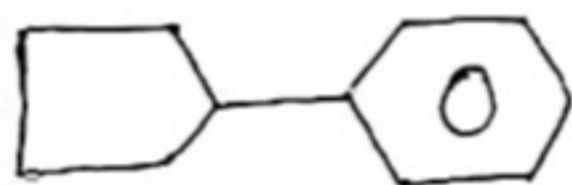
DEG-I (H), P-II, CH-1, GROUP-B

LECTURE-4, SESSION 2020-23, 07/12/2020

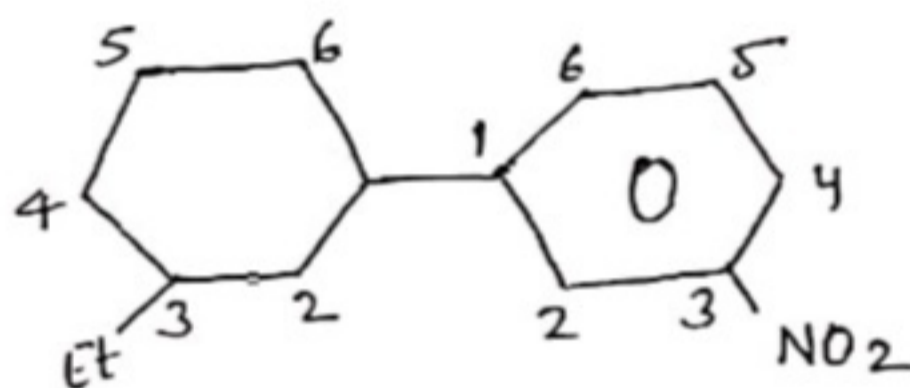
Nomenclature of Alicyclic Compounds

continued..

i) If an alicyclic ring is directly attached to the benzene ring, it is named the derivative of benzene, eg;



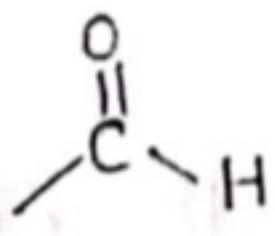
Cyclopentyl benzene



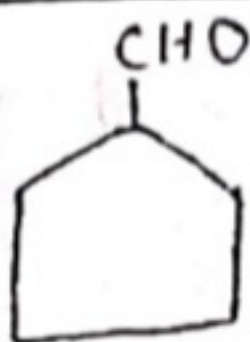
1-(3-ethylcyclohexyl)-3-nitrobenzene

j) If an alicyclic ring is directly attached to the carbon containing functional group the C-atom of the functional group is not included in the parent-name of the alicyclic ring.

The following prefixes and suffixes are used for functional groups.

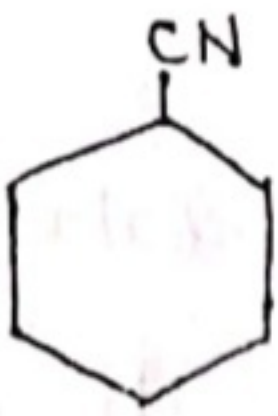
Functional Group	Prefix	Suffix
1) $-\text{COOH}$	Carboxy	Carboxylic acid
2) 	Formyl	Carbaldehyde
3) $-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}-\text{OR}$	Carbalkoxy or Alkyl carbonyl	Alkyl carboxylate
4) $-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}-\text{NH}_2$	Carbamoyl	Carboxamide
5) $-\text{C}\equiv\text{N}$	Cyano	Carbonitrile
6) $-\overset{\text{O}}{\text{C}}-\text{X}$ $\text{X} = \text{F}, \text{Cl}, \text{Br}, \text{I}$	Halocarbonyl	Carbonyl halide

For example;

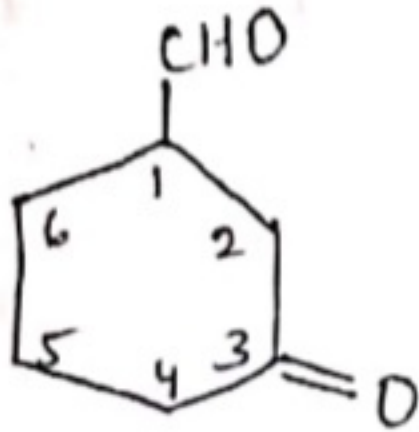


cyclopentane carbaldehyde

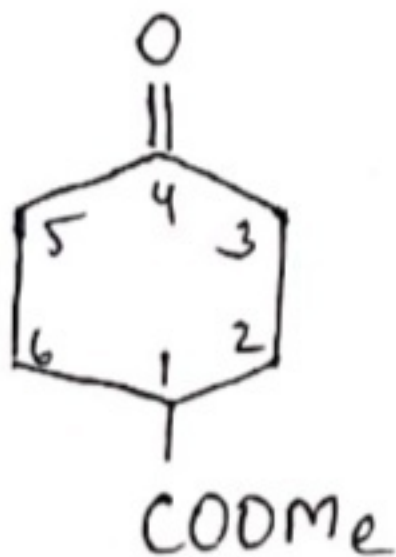
3.



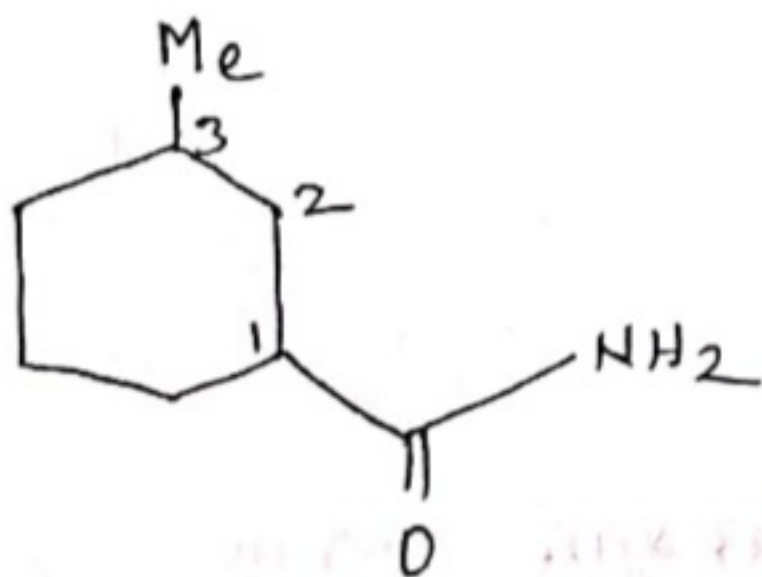
Cyclohexane carbonitrile



3-oxocyclohexane carbaldehyde

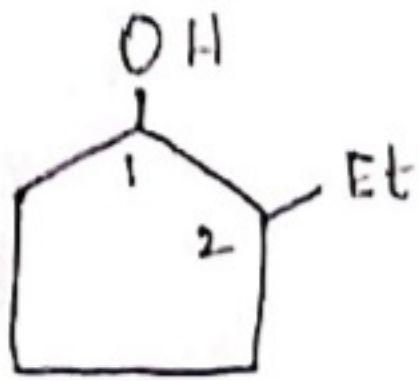


Methyl (4-oxocyclohexane)-1-carboxylate

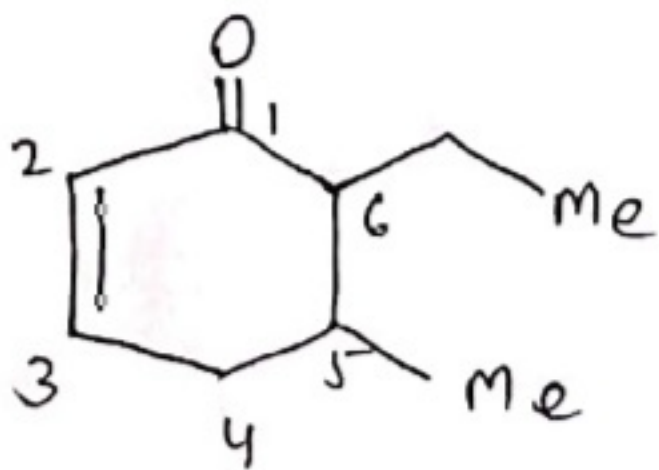


3-methylcyclohexane-1-carboxamide

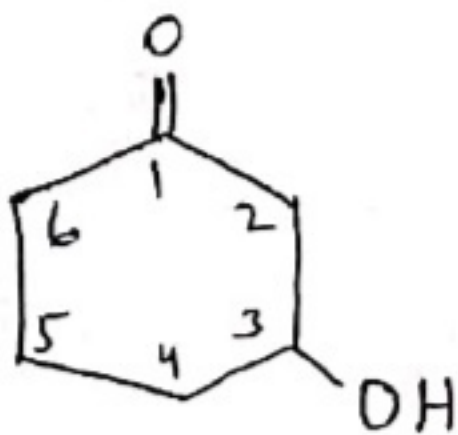
K) If some functional group along with other substituent is present in the ring, the lowest no. is given to the principal functional group by using the appropriate prefix or suffix, eg;



2-ethylcyclopentan-1-ol



6-ethyl-5-methylcyclohex-2-en-1-one



3-Hydroxycyclohexan-1-one

Completed