

Bonding And General Concepts ^{1.}

Degree-I (Hons.) , Session : 2020-23

Paper-II , Group-B , Chapter-1

Topic :- Nomenclature of. Alicyclic

Compounds

Lecture-1
01/12/2020

1. IUPAC suffix : ane , ene , yne

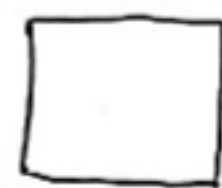
IUPAC prefix : Cyco

* Count the no. of carbon in ring and name the compound as name of corresponding alkane, alkene or alkyne with cyco prefix.

eg;



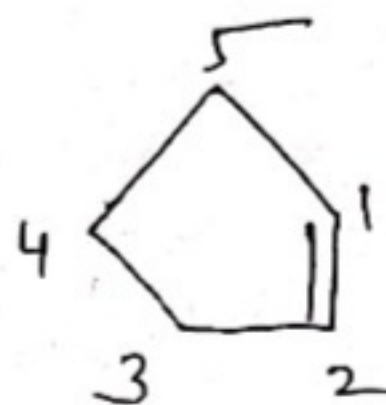
Cyclopropene



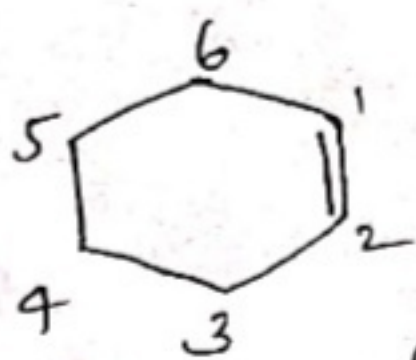
Cyclobutane



cyclopentane



cyclopentene



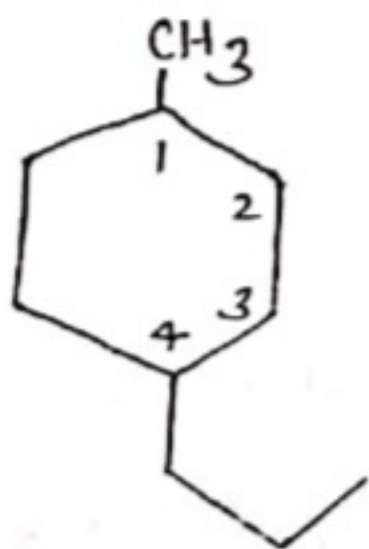
Cyclohexene

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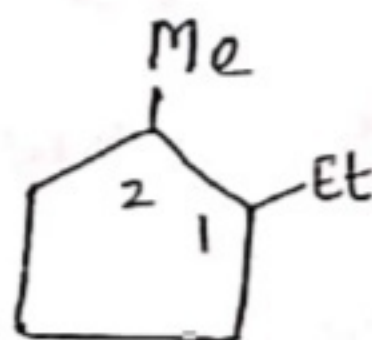
2. If two or more alkyl groups or other substituents are present in the ring, their positions are indicated, eg, 1, 2, 3, - - - - - etc.

* The substituent which comes first in the alphabetical order is given the lowest number as per the lowest sum rule.

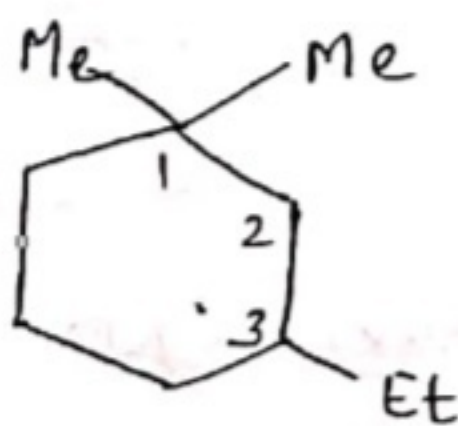
eg;



1-methyl-4-propylcyclohexane

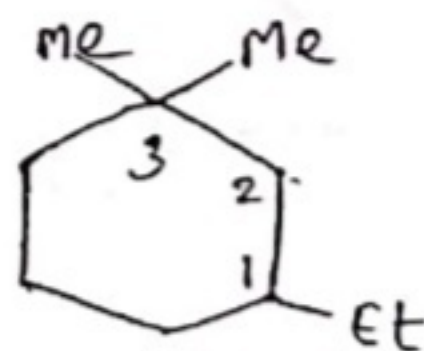


1-ethyl-2-methylcyclopentane



3-ethyl-1,1-dimethylcyclohexane

not



1-ethyl-3,3-dimethylcyclohexane

(Lowest sum : $3 + 1 + 1 = 5$)

(Violates lowest sum rule = $1 + 3 + 3 = 7$)

** More branched gets lower number.

To be continued in next lecture..