

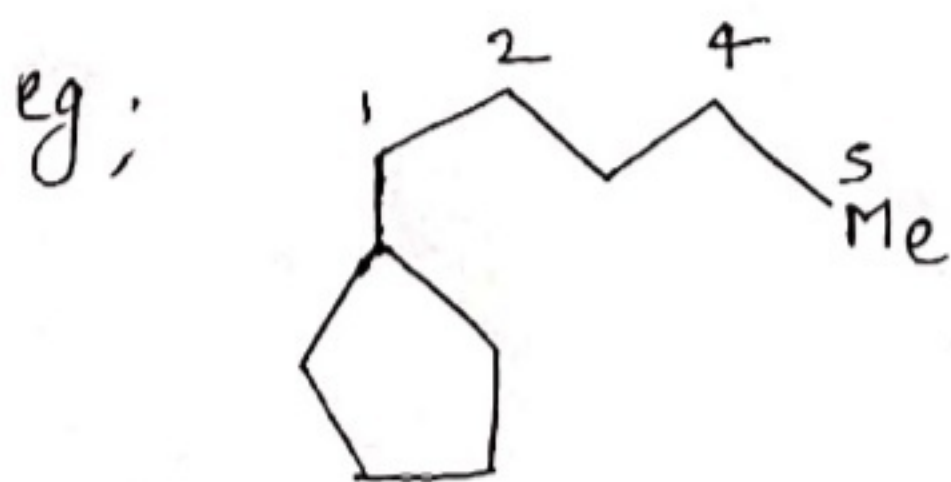
BONDING & GENERAL CONCEPTS ^{1.}

DEGREE-I (H), SESSION : 2020-23

PAPER-II, GROUP-B, LECTURE-2, 02 Dec.2020

NOMENCLATURE OF ALICYCLIC COMPOUNDS

3. If the ring contains equals or more no. of C-atoms **Continued....**
- a. than the alkyl groups attached to it, it is named as alkyl cycloalkane.
- b. If the ring contains lesser no. of C-atoms than the alkyl groups attached to it, it is named as cycloalkyl alkane.

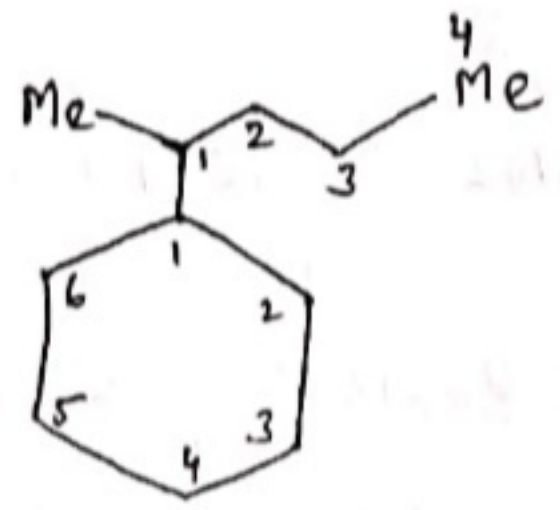


(Same no. of carbon atoms in ring and side chain.)

Name :- Pentyl cyclopentane

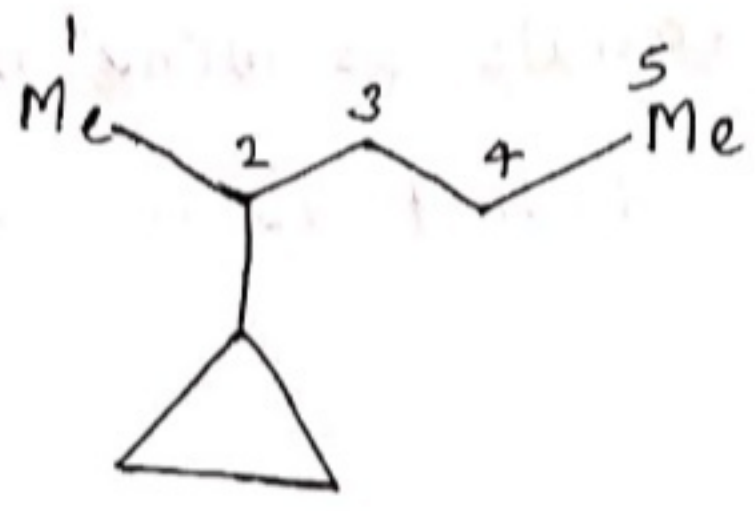
(Alkyl cycloalkane)

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(Ring contains more carbon atoms than side chain)

Name : — 1-methylbutylcyclohexane

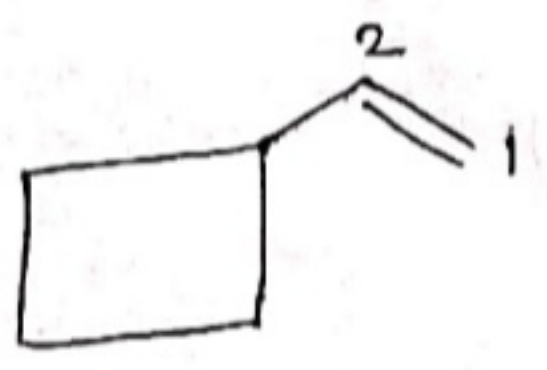


(Ring contains less c atoms than side chain)

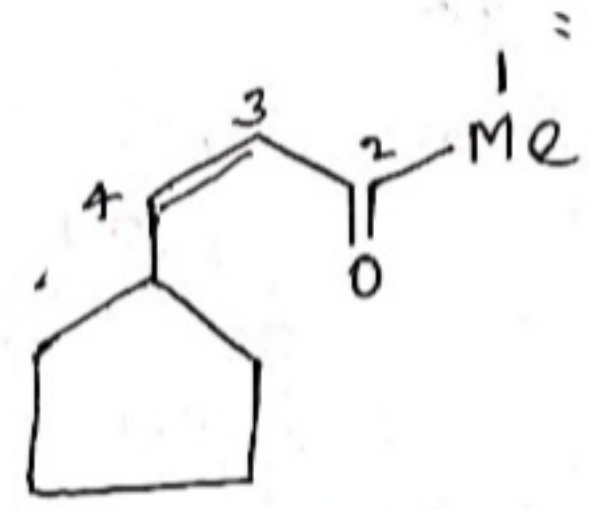
2-cyclopropyl pentane
(cycloalkyl alkane)

(C) If the side chain contains a functional group or a multiple bond, the alicyclic ring is considered substituent irrespective of the size of the ring.

eg;

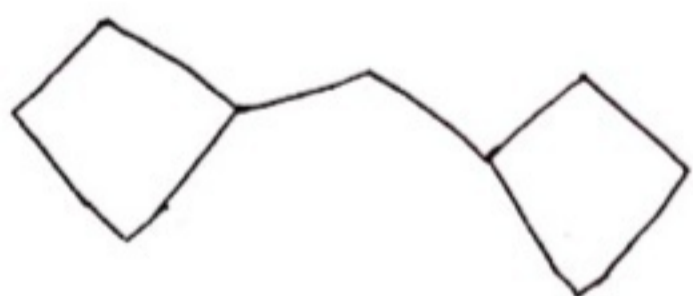


2-cyclobutylethene

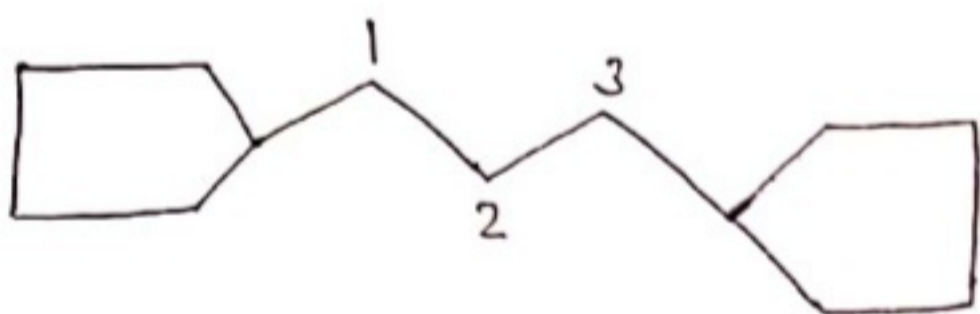


4-cyclopentylbut-3-en-2-one

- (d) If more than one alicyclic ring is attached to a single chain, then the compound is named as cycloalkyl alkane (ie; derivative of alkane) irrespective of the no. of carbon atoms in the ring or the chain. eg;



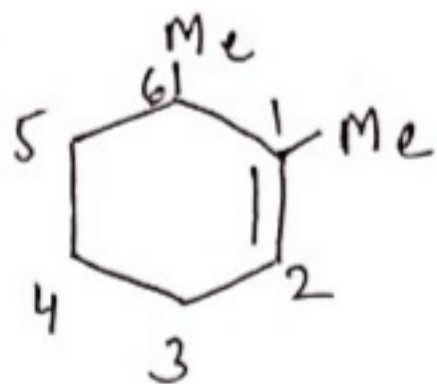
Dicyclobutyl methane



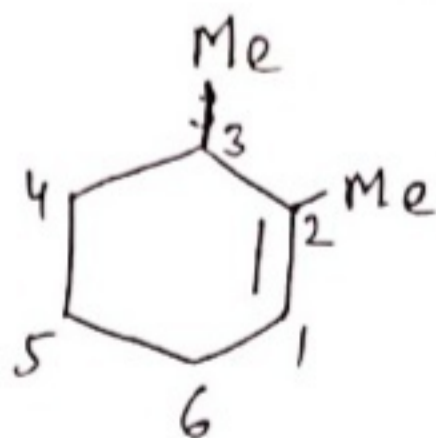
1,3-Dicyclopentyl propane

- (e) If double or triple bonds and some other substituents are present in the ring the numbering is done in such a way that the multiple bond gets the lowest number.

eg;



not



1,6-Dimethyl cyclohex-1-ene
(incorrect)

2,3-Dimethyl cyclohex-1-ene
(correct)

To be continued in next lecture...