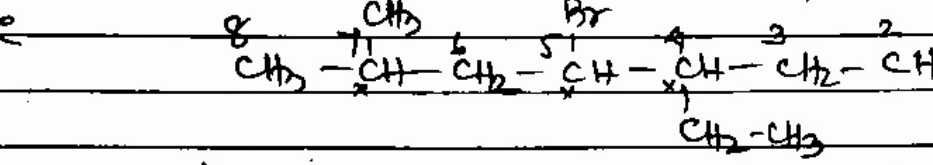
Lect 2

Nomenclature of larger Compound having Carbonyl group:-

Rule

i. At first select longest chain of carbon atom excluding functional group.

ii. Do the numbering of main chain carbon. Keeping in mind Senior functional group's carbon will be one 1st position.

i.e 

Note: a) the no. of carbon atom on which any substituent is attached is called locant-carbon, & locant must be small always. (if numbering from both sides are possible)

b) substituents must be arranged alphabetically in main name).

5-Bromo-4-Ethyl-7-Methyl octan-1-al.

iii) If the no. of functional groups are more than one then use seniority table to give name. the senior most functional group will be treated as secondary suffix and junior functional groups will be treated as secondary prefix.

for example

	Prefix	Suffix
OH	hydroxy	ol.
CHO	formyl	al.
>C=O	Oxo	one
$-\overset{\overset{O}{\|}}{C}-OH$	—	oic acid.

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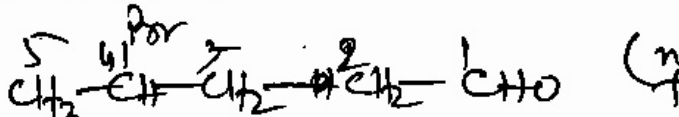
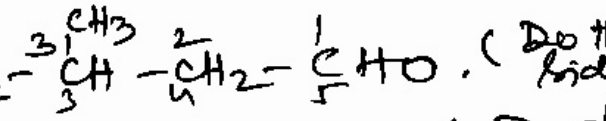
IV) If CHO, CN & COOH are not counted in main chain then CHO is called Carbaldehyde, CN is Carbonitrile, & COOH is Carboxylic acid.

V) If the no. of CHO, CN, or COOH is one or two on the terminal position of main chain then both the functional group will be counted in main chain, but if there are three CHO, or CN or COOH groups in a compound two are attached directly with a main chain but third one is indirectly attached to main chain then two will be counted in main chain but the third one which is indirectly attached will not be counted in main chain.



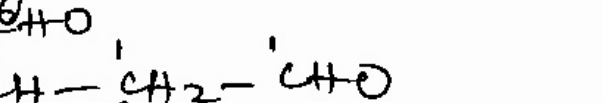
(numbering is possible from one side only)

4- Bromo - pentan - 1 - al.



(Do the numbering from both side because the substituent is in the middle)

3- Methyl - pentane - 1,5 - dial.



Propane - 1, 2, 3 - tricarbaldehyde.

VI) In aromatic compound if the no. of carbon is low also than benzene ring but contain F.G. than F.G contain carbon chain will be the main chain & benzene ring will be treated as substituent i.e called phenyl.

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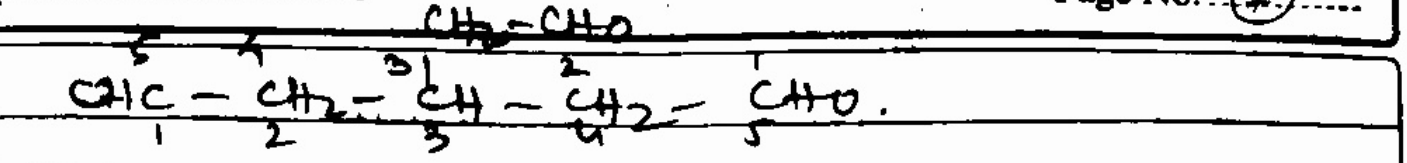
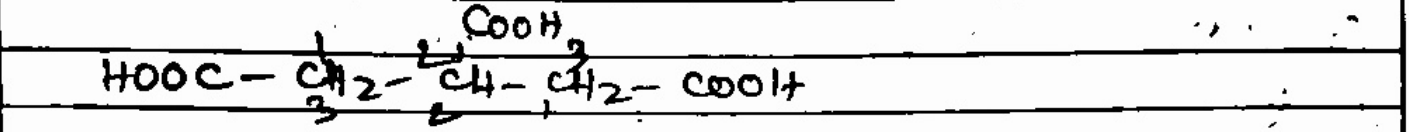
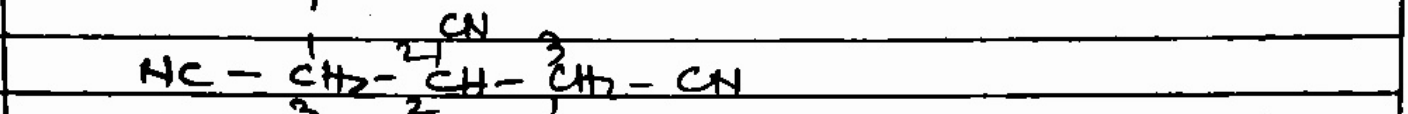


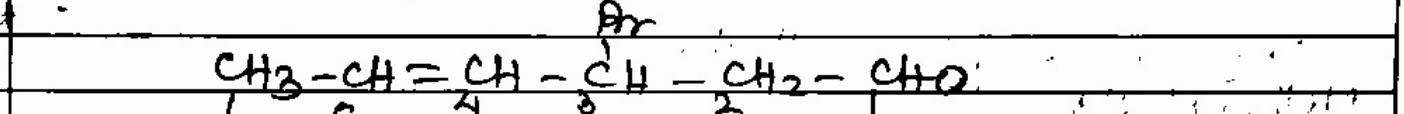
3- Methyl carbaldehyde ~~pentane~~ pentane 1,5- dial.



Propane 1,2,3 tricarboxylic acid.

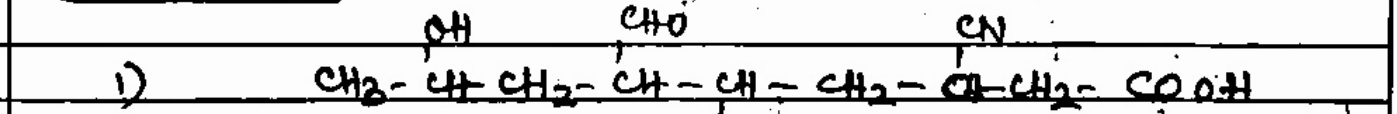


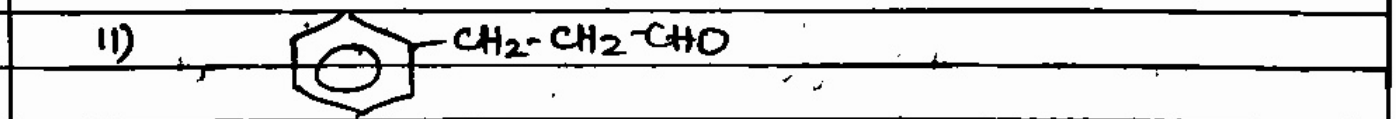
Propane 1,2,3-tricarbonitrile.

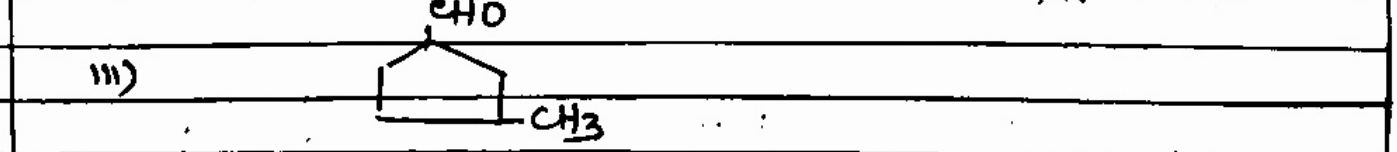


3-Bromo hex-4-ene-1-al.

Solve it

1) 

2) 

3) 

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