

Q) Write structures of different chain isomers of alkanes corresponding to the molecular formula  $C_6H_{14}$ . Also, write their IUPAC names.

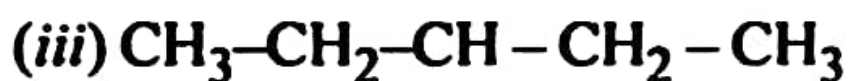
A)  $C_6H_{14}$  has five different chain isomers:



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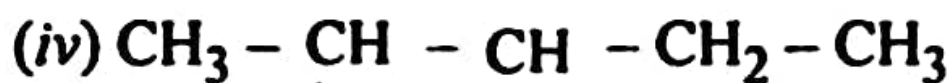
(2-Methylpentane)



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(3-Methylpentane)



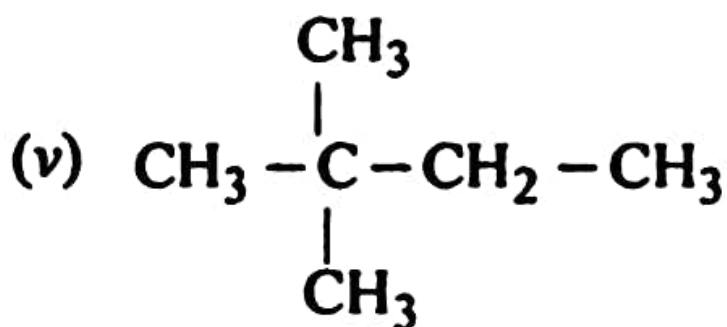
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(2, 3-Dimethylbutane)

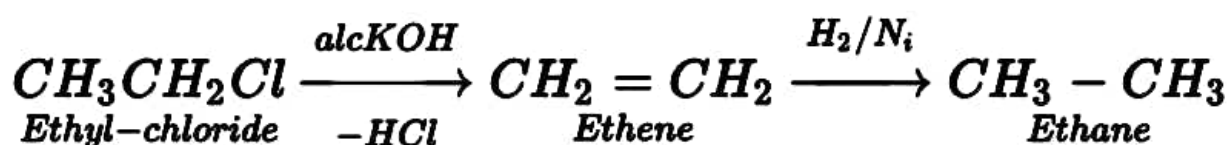


(2, 2-Dimethylbutane)

**How will you convert ethyl chloride into (i) ethane (ii) n-butane?**

SOLUTION

*i)* Ethyl chloride reacts with *alc. KOH* to yield ethene which on hydrogenation with Nickel gives ethane.



*ii)* Ethyl chloride can be converted to *n - butane* by wurtz reaction.

