KITE VICTERS ONLINE CLASS - 15-01-2021

Chemistry- X- Unit -6. Class - 35

Nomenclature of organic compounds and isomerism

Nomenclature of Unbranched Alkanes Eg:1

Molecular formulae : CH₄ IUPAC Name: Methane Eg: 2



Molecular formulae : C₂H₆ **IUPAC Name: Ethane**

Word roots are selected based on the number of carbon atoms.

C ₁	=	Meth	C ₆	=	Hex
C_2	=	Eth	C ₇	=	Hept
C_3	=	Prop	C_8	=	Oct
C_4	=	But	C ₉	=	Non
C ₅	=	Pent	C ₁₀	=	Dec

Eg:3



Abdul Salam . HST. Govt. Model Higher Secondary School Vellamunda. Wayanad

KITE VICTERS ONLINE CLASS - 15-01-2021

Molecular formulae : C₃H₈ IUPAC Name: Propane

Nomenclature of Branched Hydrocarbons

Let us find the IUPAC name of the following compounds.

a)

CH₃—CH₂—CH—CH₃ | CH₃

Number of carbon atoms in the main chain: 4 Name of the alkyl radical coming as branch: Methyl Position of the branch: 2 IUPAC name = **2-Methyl butane**

b)
$$\begin{array}{c} \mathsf{CH}_{3} \\ \mathsf{CH}_{3} - \mathsf{CH}_{2} - \mathsf{CH} - \mathsf{CH}_{2} - \mathsf{CH}_{3} \end{array}$$

Number of carbon atoms in the main chain: 5

Name of the alkyl radical coming as branch: Methyl

Position of the branch: 3

IUPAC name = 3-Methyl pentane

Abdul Salam . HST. Govt. Model Higher Secondary School Vellamunda. Wayanad

Questions

1. Find the IUPAC names of the following compounds

a) CH₃—CH₂—CH₂—CH₂—CH₃

- b) CH_3 - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - CH_3
- 2. Draw the structure of following compounds

a) Heptane

b) 3-Methyl Octane

Abdul Salam . HST. Govt. Model Higher Secondary School Vellamunda. Wayanad