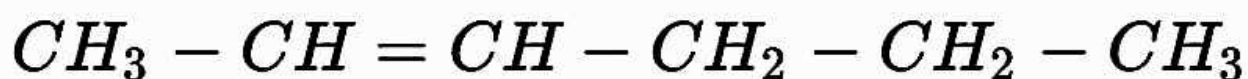


Write three structural isomer of alkenes corresponding to  $C_6H_{12}$  with their IUPAC names.

SOLUTION

Structural isomers of alkenes  
( $C_6H_{12}$ )

(1)



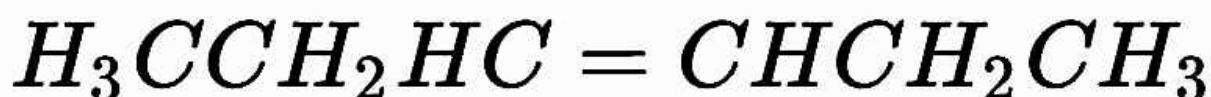
2 - Hexene

(2)



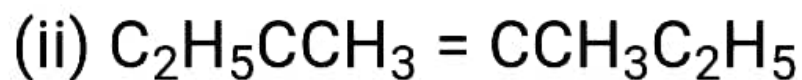
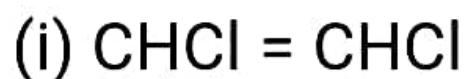
1 - Hexene

(3)

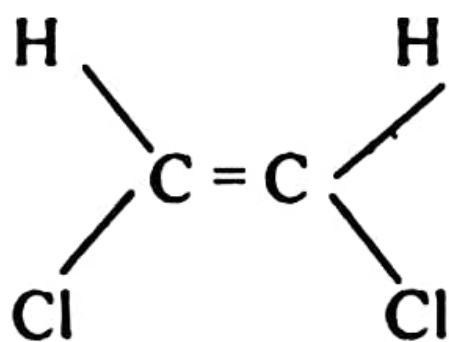


3 - Hexene

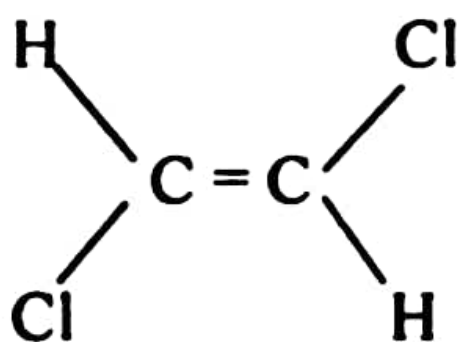
Draw cis and trans isomers of the following compounds. Also, write their IUPAC names:



(i) cis and trans isomers of  $\text{CHCl} = \text{CHCl}$  are as follows:

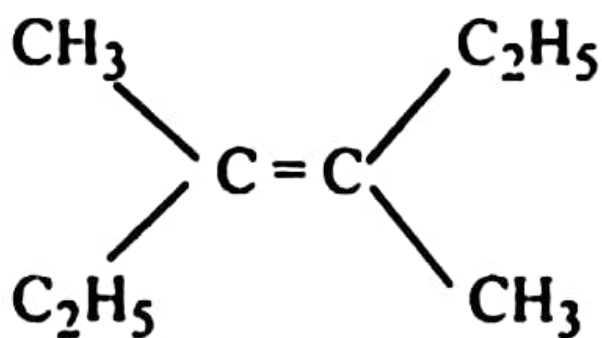
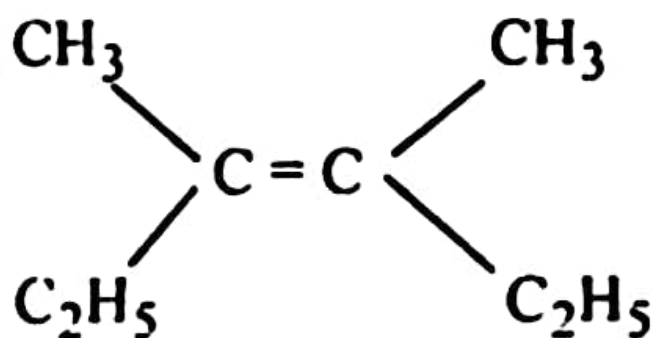


**cis 1, 2-Dichloroethene**



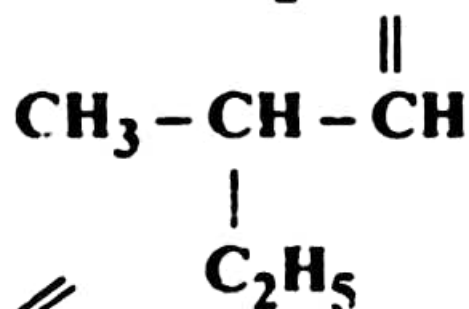
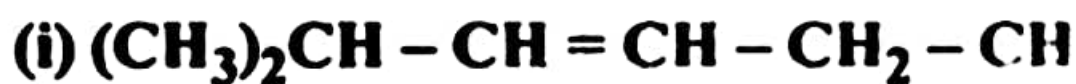
**trans-1, 2-Dichloroethene**

(ii) cis and trans isomers of  $\text{C}_2\text{H}_5\text{CCH}_3 = \text{CCH}_3\text{C}_2\text{H}_5$  are as follows:

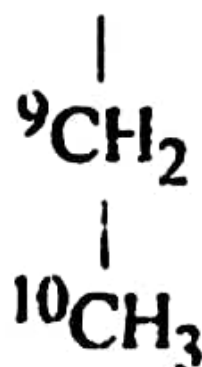
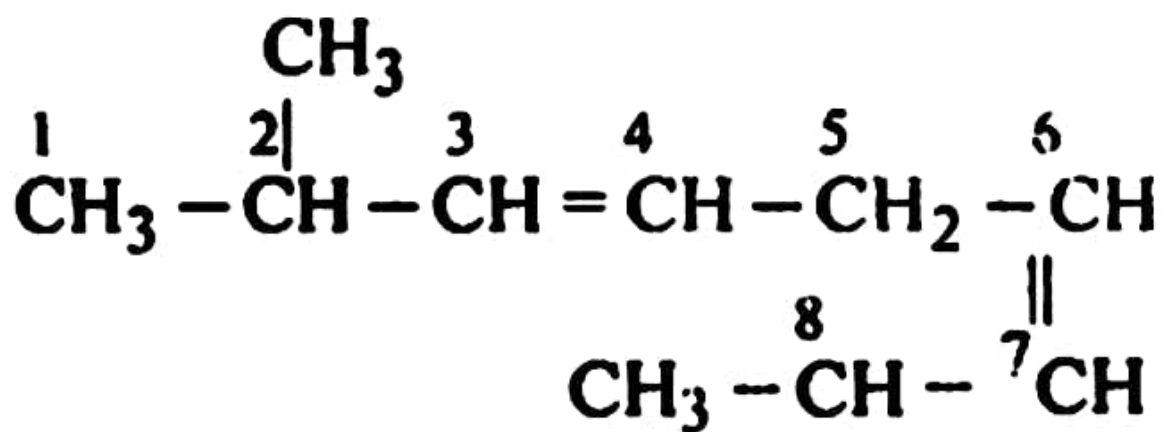


**cis 3, 4 Dimethylhex-3-ene trans 3, 4-Dimethylhex-3-ene**

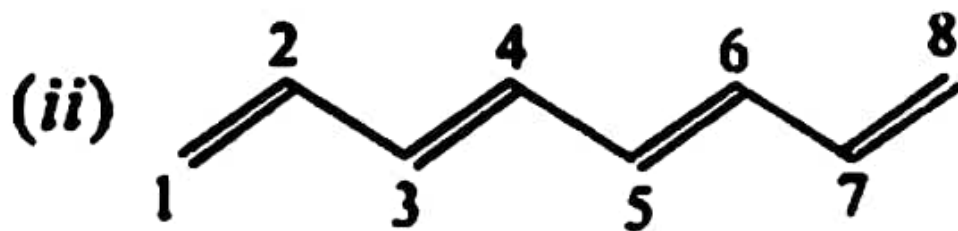
Write IUPAC names of the following compounds:



(i)

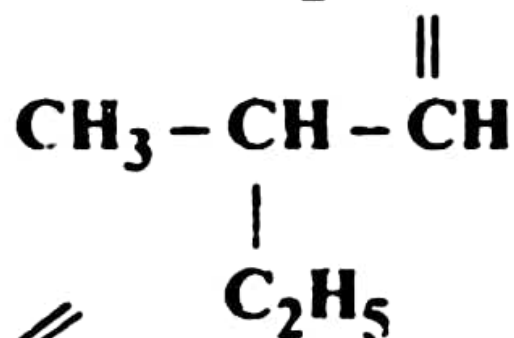
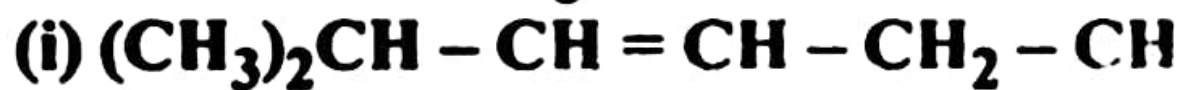


**2, 8-Dimethyl-3, 6-decadiene :**



**1, 3, 5, 7 Octatetraene**

Calculate the number of sigma ( $\sigma$ ) and pi ( $\pi$ ) bonds in the following structures:



(i)  $\sigma$  bonds 33,  $\pi$  bonds 2

(ii)  $\sigma$  bonds 7,  $\pi$  bonds 4