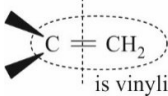
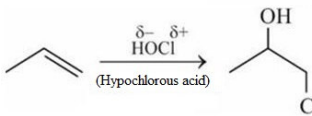
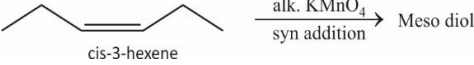


Level - 1

DTS-2

- 16.(B)  $\xrightarrow[\text{Zn}]{\text{O}_3}$ HCHO + other product
- 17.(D) $\text{CH}_3\text{C}(\text{CH}_3)=\text{CHCH}_2\text{CH}_3 \xrightarrow[\text{Zn}]{\text{O}_3} \text{CH}_3\text{C}(\text{CH}_3)=\text{O} + \text{OHC}-\text{CH}_2\text{CH}_3$
- 18.(B) $\text{H}_2\text{C}=\text{CH}_2 \xrightarrow[\text{conc.}]{\text{H}_2\text{SO}_4} \text{H}_3\text{C}-\text{CH}_2-\text{OSO}_3\text{H} \xrightarrow[\Delta]{\text{H}_2\text{O}} \text{H}_3\text{C}-\text{CH}_2\text{OH}$
 (A) (B)
 $\text{H}_3\text{C}-\text{CH}_2\text{Br} \xleftarrow{\text{PBr}_3} \text{H}_3\text{C}-\text{CH}_2\text{OH}$
 $\text{H}_3\text{C}-\text{CH}_2\text{Br} \xrightarrow{\text{KOH(alc.)}} \text{H}_2\text{C}=\text{CH}_2$
 (D)
- 19.(C) Aldehyde with $M_0 = 44$ is : CH_3CHO
 Hence alkene is : $\text{CH}_3\text{CH}=\text{CHCH}_3$
- 20.(D) $\text{CH}_3\text{CH}=\text{CH}_2 \xrightarrow{\text{HOBr}} \text{CH}_3\underset{\text{OH}}{\text{CH}}-\underset{\text{Br}}{\text{CH}_2}$ (1-Bromo-2-propanol)
- 21.(A) $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_2\text{CH}_3 \xrightarrow[\text{Zn/H}_2\text{O}]{\text{O}_3} 2\text{CH}_3\text{CH}_2\text{CHO}$
- 22.(B) Lindlar's Catalyst : Syn addition $\longrightarrow$ cis product
 Na / NH_3 : Anti addition $\longrightarrow$ trans product
- 23.(A) Observe that: a dialkylated alkene $\xrightarrow[\text{Zn}]{\text{O}_3}$ a Ketone
 a mono alkylated alkene $\xrightarrow[\text{Zn}]{\text{O}_3}$ an Aldehyde
 $\text{Me}_2\text{C}=\text{CHMe} \xrightarrow[\text{Zn}]{\text{O}_3} \underset{\text{ketone}}{\text{Me}_2\text{C}=\text{O}} + \underset{\text{Aldehyde}}{\text{MeCHO}}$
 Rest of options give either ketones only or aldehydes only.
- 24.(A) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 \xrightarrow{(\text{O})} \text{CH}_3\text{CH}_2\text{COOH} + \text{CO}_2 + \text{H}_2\text{O}$
- 25.(C) Observe carefully:  $\xrightarrow[\text{Zn}]{\text{O}_3}$ $\begin{matrix} \text{CHO} \\ | \\ \text{CHO} \end{matrix} + \begin{matrix} \text{CHO} \\ | \\ \text{CH}_2 \\ | \\ \text{CH}_2 \\ | \\ \text{CHO} \end{matrix}$
- 26.(A) 
- 27.(A) 
 cis-3-hexene $\xrightarrow[\text{syn addition}]{\text{alk. KMnO}_4}$ Meso diol
 [cis on syn addition $\longrightarrow$ Meso form
 Trans on syn addition $\longrightarrow$ Racemic Mixture]
 Also remember : [cis on anti addition $\longrightarrow$ Racemic mixture
 Trans on anti addition $\longrightarrow$ Meso form]
- 28.(A) O_3 cleaves $\text{>C}=\text{C}<$ bond

