

## **Daily Tutorial Sheet-11**

Numerical Value Type for JEE Main

126.(3) 
$$CH_3 - C - C - OH$$
 will not give reaction with  $HIO_4$ 

127.(12) 
$$CH_3 - CH \stackrel{+}{+} C - CH_3 + HIO_4 \longrightarrow CH_3 - CHO + CH_3COOH$$

OH

OH

 $CH_3 - CH \stackrel{+}{+} CH - CH_2 - CH_3 + HIO_4 \longrightarrow CH_3 - CHO + CH_3 - CH_2-CHO$ 

$$\begin{array}{c} \text{OH} \quad \text{OH} \\ \text{OH} \\ \text{OH} \\ + \text{HIO}_4 \\ \end{array} \begin{array}{c} \text{CHO} \\ \text{CHO} \\ \end{array} \begin{array}{c} \text{OH} \\ \text{OH} \\ \end{array} \begin{array}{c} \text{OH} \\ + \text{HIO}_4 \\ \end{array} \begin{array}{c} \text{OH} \\ \text{OH} \\ \end{array} \begin{array}{c} \text{OH} \\ \text{OH} \\ \end{array}$$

**128.(1)** Pinacol – Pinacolone rearrangement is given by vicinal diol

131.(2) 
$$CH_3 - C - CH - CH_3 \xrightarrow{Moist} CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$$

OH CI

 $CH_2 - OH$ 
 $CH_2 - OH$ 
 $CH_2 - OH$ 
 $CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$ 
 $CH_2 - OH$ 
 $CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$ 
 $CH_2 - OH$ 
 $CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$ 
 $CH_2 - OH$ 
 $CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$ 
 $CH_3 - C - CH - CH_3 \xrightarrow{OH OH} OH$ 

- **133.(1)** Tertiary alcohol will be more reactive than secondary alcohol for lucas reagent.
- 134.(3) Primary alcohol, Iodide and nitro compound will give red colouration in victor-mayer test.

Can not be distinguished because they both are secondary groups.



O | | 136.(5) 
$$CH_3 - C -$$
group having mass = 43.

 $\rightarrow$  One acetyl group is added by removal of 1 hydrogen atom

$$\rightarrow$$
 So, number of hydroxyl group are  $\frac{390-180}{42} = 5$ .

137.(3) 
$$HO \longrightarrow OH \longrightarrow OH \longrightarrow CHO$$
  $HO \longrightarrow CH_2$  RO - CH $\longrightarrow CHO$  + HCHO + 2HCOOH

138.(3) 
$$C_3H_8O_3 + CH_3MgI \longrightarrow CH_4$$
  
 $0.092 \qquad \qquad 67$   
 $92 \qquad \qquad 22400$   
= 0.001 mole = 0.003 mole

Therefore, 3 active hydrogen atoms are present.

Because of two chiral center in the final molecule, four optically active compounds are present.