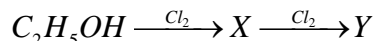


# ORGANIC CHEMISTRY - I

## ALCOHOLS ETHERS AND PHENOLS

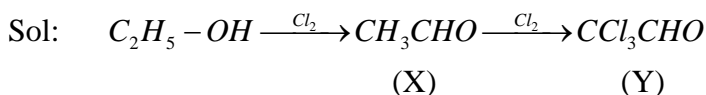
### PREVIOUS EAMCET BITS

1. What are the X and Y in the following reaction sequence? (2009 E)

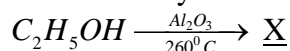


- 1)  $C_2H_5Cl, CH_3CHO$  2)  $CH_3CHO, CH_3COOH$   
 3)  $CH_3CHO, CCl_3CHO$  4)  $C_2H_5Cl, CCl_3CHO$

Ans : 3



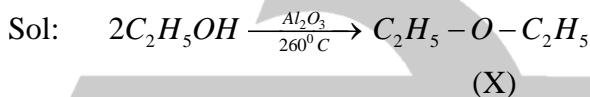
2. What is the hybridisation state (s) of the atoms in X formed in the following reaction



(Vapours)

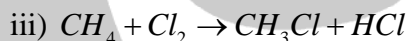
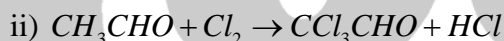
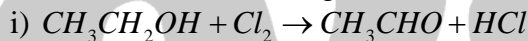
- 1)  $Sp^3$  only 2)  $Sp^2$  only  $Sp^3$  3)  $Sp^2$  only 4)  $Sp$  only

Ans : 1



Atoms have  $Sp^3$  hybridisation

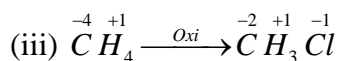
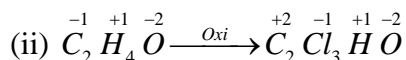
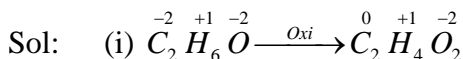
3. In which of the following reaction chlorine acts as an oxidizing agent (2008 E)



The correct answer is

- 1) i only 2) ii only 3) i and iii 4) i, ii and iii

Ans : 4



4. Identify A and B in the following reaction (2008 E)

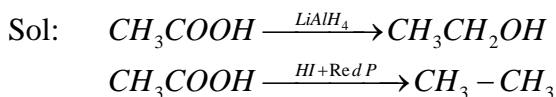


A

B

- 1) HI + Red P LiAlH<sub>4</sub>  
 2) NI/ Δ LiAlH<sub>4</sub>  
 3) LiAlH<sub>4</sub> HI + Red P  
 4) Pd - BaSO<sub>4</sub> Zn + HCl

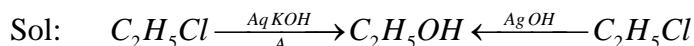
Ans : 3





3) A = aqueous NaOH B = AgNO<sub>2</sub>4) A = AgNO<sub>2</sub> B = KNO<sub>2</sub>

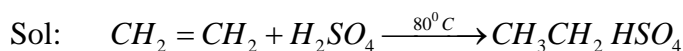
Ans : 1



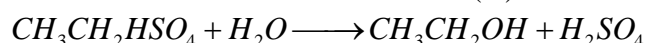
11. What are X and Y in the reaction

1) C<sub>2</sub>H<sub>5</sub>, C<sub>2</sub>H<sub>5</sub>OH2) C<sub>2</sub>H<sub>4</sub>, C<sub>2</sub>H<sub>5</sub>OH3) C<sub>2</sub>H<sub>5</sub>, OSO<sub>3</sub>H, C<sub>2</sub>H<sub>5</sub>OH4) C<sub>2</sub>H<sub>2</sub>, CH<sub>3</sub>CHO

Ans : 3



(X)



(Y)

12. In the reaction  $C_2H_5OC_2H_5 + CO \xrightarrow[150^\circ C, 500 atm]{BF_3} X$  (2003 E)

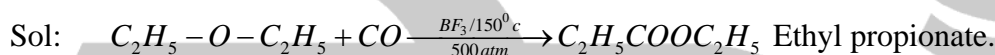
1) Diethyl carbonate

2) Ethyl carbonate

3) Diethyl peroxide

4) Ethyl propionate

Ans : 4



13. Canned heat is prepared by mixing ----- and ----- at high pressure (2003 M)

1) C<sub>2</sub>H<sub>5</sub>OH, HI/ Red P2) C<sub>2</sub>H<sub>2</sub>, O<sub>2</sub>3) C<sub>2</sub>H<sub>5</sub>OH, Ca(OH)<sub>2</sub>4) C<sub>3</sub>H<sub>6</sub>O, CaOCl<sub>2</sub>

Ans : 3

Sol: Ethyl alcohol is mixed with saturated solution of calcium hydroxide to give a solid gel canned heat.

14. The products formed when diethyl ether is reacted with cold HI are (2002 E)

1) C<sub>2</sub>H<sub>5</sub>I + C<sub>2</sub>H<sub>5</sub>OH2) 2C<sub>2</sub>H<sub>5</sub>I + H<sub>2</sub>O3) 2C<sub>2</sub>H<sub>5</sub>OH4) C<sub>2</sub>H<sub>5</sub>-O-O-C<sub>2</sub>H<sub>5</sub> + H<sub>2</sub>O

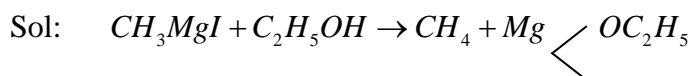
Ans : 1



15. Which one of the following compounds converts methyl magnesium Iodide to methane in one step (2002 M)

1) C<sub>2</sub>H<sub>5</sub>OC<sub>2</sub>H<sub>5</sub>2) C<sub>2</sub>H<sub>5</sub>Cl3) C<sub>2</sub>H<sub>4</sub>4) C<sub>2</sub>H<sub>5</sub>OH

Ans : 4



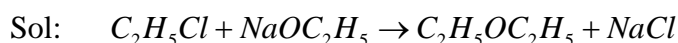
I

16. Chloro ethane reacts with X to form diethyl ether. What is X (2001 E)

1) NaOH

2) H<sub>2</sub>SO<sub>4</sub>3) C<sub>2</sub>H<sub>5</sub>ONa4) Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

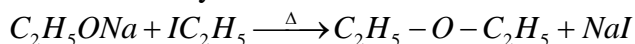
Ans : 3



17. Williamson's synthesis is used for preparing (2001 M)  
 1) Alcohols                      2) Ketones                      3) Ethers                      4) Aldehydes

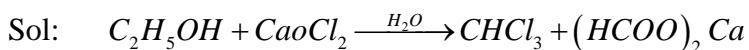
Ans : 3

Sol: Williamson's synthesis



18. Which of the following reacts with ethanol to form chloroform (2000 E)  
 1)  $SOCl_2$                       2)  $PCl_3$                       3)  $HCl$                       4)  $CaOCl_2 / H_2O$

Ans : 4



19. Which of the following is Lucas reagent (2000 E)  
 1) Ammonical silver nitrate                      2)  $Br_2/CCl_4$   
 3)  $ZnCl_2/con\ HCl$                       4) Cold Alkaline  $KMnO_4$

Ans : 3

Sol:  $ZnCl_2/con\ HCl$  is called Lucas reagent.

20. Which of the following conditions are used for the conversion of ethanol to ethylene (2000 E)  
 1)  $Con\ H_2SO_4 / 70^\circ C$                       2)  $dil\ H_2SO_4 / 140^\circ C$   
 3)  $dil\ H_2SO_4 / 100^\circ C$                       4)  $Con\ H_2SO_4 / 170^\circ C$

Ans : 4

