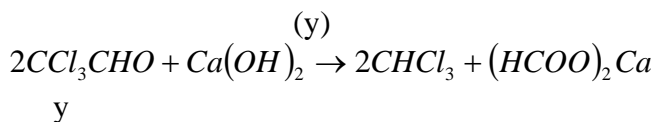
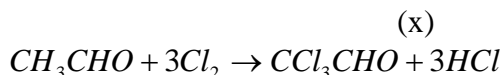
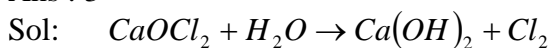






- 1)  $\text{CH}_3\text{CH}(\text{OH})_2$       2)  $\text{CH}_2\text{Cl}_2$       3)  $\text{CCl}_3\text{CHO}$       4)  $\text{CCl}_3\text{COCH}_3$

Ans : 3



13. Match the following columns. (2007 E)

Column I (Reactants)

(A)  $\text{C}_2\text{H}_5\text{Cl}$ , moist  $\text{Ag}_2\text{O}$

(B)  $\text{C}_2\text{H}_5\text{Cl}$ , aqueous ethanolic  $\text{AgCN}$

(C)  $\text{C}_2\text{H}_5\text{Cl}$ , aqueous ethanolic  $\text{AgNO}_2$

(D)  $\text{C}_2\text{H}_5\text{Cl}$ , ethanolic  $\text{KOH}$

Column II (Products)

(1)  $\text{CH}_3\text{CH}_2\text{ONO}$

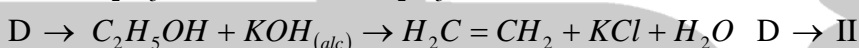
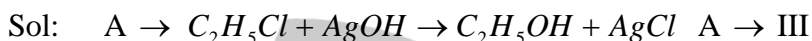
(2)  $\text{C}_2\text{H}_4$

(3)  $\text{C}_2\text{H}_5\text{-H}$

(4)  $\text{CH}_3\text{CH}_2\text{NC}$

(5)  $\text{C}_2\text{H}_6$

Ans : 3



14. Which of the following is added to chloroform to slow down its aerial oxidation in presence of light (2006 E)

- 1) Carbonyl chloride    2) Ethyl alcohol    3) Sodium hydroxide    4) Nitric acid

Ans : 2

Sol: 1% ethyl alcohol is added to retard oxidation of chloroform.

15. The correct structure of 4-bromo-3-methylbut-1-ene is (2004 E)

1)  $\text{Br}-\text{CH} = \text{C}(\text{CH}_3)_2$

2)  $\text{CH}_2 = \text{CH}-\text{CH}(\text{CH}_3)-\text{CH}_2\text{Br}$

3)  $\text{CH}_2 = \text{C}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{Br}$

4)  $\text{CH}_3 - \text{C}(\text{CH}_3) = \text{CHCH}_2 - \text{Br}$

Ans : 2

Sol: 4-bromo-2-methyl-but-1-ene

Structure is  $\text{H}_2\text{C} = \text{CH} - \text{CH}(\text{CH}_3) - \text{CH}_2\text{Br}$ .

16. The chemical formula of tear gas is (2004 E)

1)  $\text{COCl}_2$

2)  $\text{CO}_2$

3)  $\text{Cl}_2$

4)  $\text{CCl}_3\text{NO}_2$

Ans : 4

Sol: The chemical formula of tear gas is  $\text{CCl}_3\text{NO}_2$ .

17. The metal used from the debromination reaction of 1,2-dibromoethane, is (2004 E)

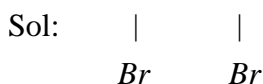
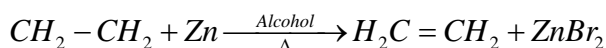
1) Na

2) Zn

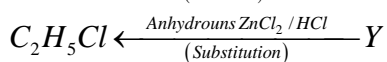
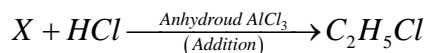
3) Mg

4) Li

Ans : 2

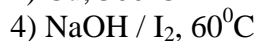
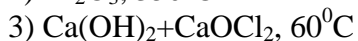
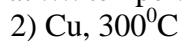
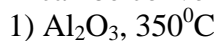


18. Consider the following reactions

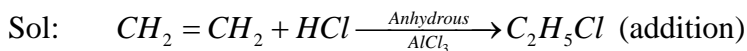


Y can be converted to X on heating with ..... at .... temperature.

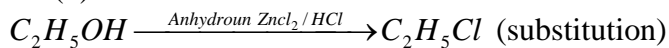
(2003 E)



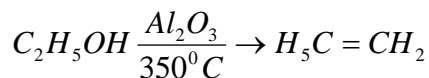
Ans : 1



(x)



(y)



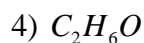
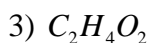
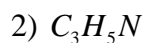
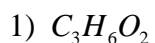
(y)

(x)

19. In the reaction sequence  $C_2H_5Cl + KCN \xrightarrow{C_2H_5OH} X \xrightarrow[\Delta]{H_3O^+} Y$ ,

what is the molecular formula of Y?

(2003 E)



Ans : 1

Sol :

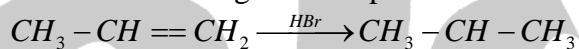


(X)

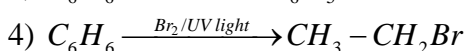
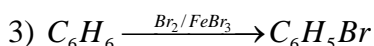
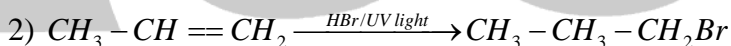
(Y)

20. Which of the following reaction proceeds via a secondary free radical ?

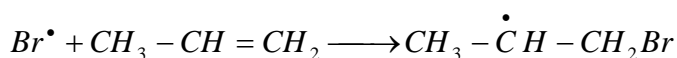
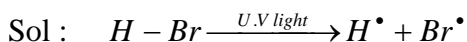
(2003 E)



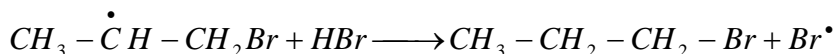
1)

|  
Br

Ans : 2

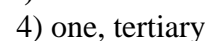
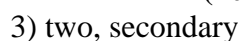
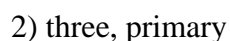
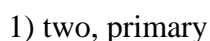


(Secondary free radical more stable)

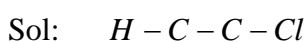


21. In chloroethane, the carbon bearing halogen is bonded to ... hydrogen (s). It is called ... alkyl halide.

(2002 E)

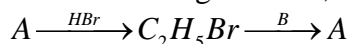


Ans: 1



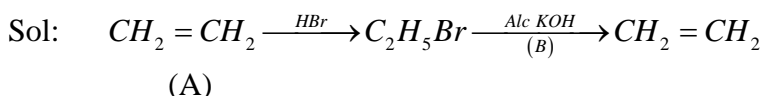
C bonded to 2 H atoms  $\therefore$  it is primary alkyl halide.

22. In the following reaction, A and B respectively are (2002 E)



- 1)  $C_2H_4$  and alcoholic KOH/  $\Delta$                       2)  $C_2H_5Cl$  and aqueous KOH/  $\Delta$   
 3)  $C_2H_5OH$  and aqueous KOH/  $\Delta$                       4)  $C_2H_2$  and  $PBr_3$

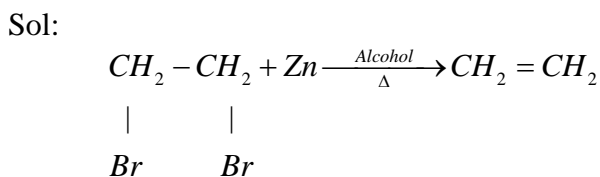
Ans : 1



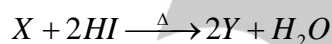
23. The reaction conditions used for converting 1,2- dibromoethane to ethylene are (2002 E)

- 1) Zn, alcohol,  $\Delta$     2) KOH, alcohol,  $\Delta$     3) KOH, water,  $\Delta$     4) Na, alcohol,  $\Delta$

Ans : 1

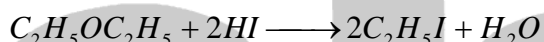
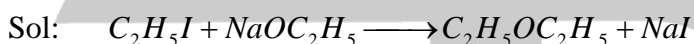


24. What is Y in the following reaction ? (2007 E)



- 1)  $C_2H_6$                       2)  $C_2H_5I$                       3)  $C_2H_4$                       4)  $C_2H_5OC_2H_5$

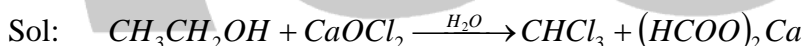
Ans : 2



25. Which of the following reacts with ethanol to form chloroform (2000E)

- 1)  $SOCl_2$                       2)  $PCl_5$                       3)  $HCl$                       4)  $CaOCl_2 + H_2O$

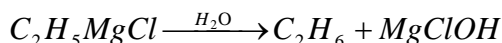
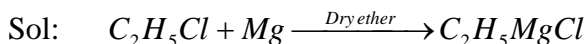
Ans : 4



26. Chloroethane reacts with magnesium in dry ether to form X. When X is hydrolysed a carbon compound Y and Z are formed. Which of the following is Y? (2000E)

- 1)  $C_2H_4$                       2)  $C_2H_2$                       3)  $C_2H_6$                       4)  $C_6H_6$

Ans : 3

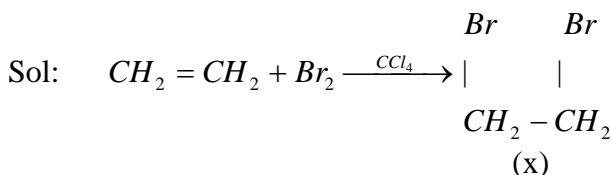


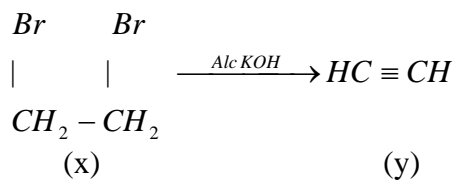
(x)                      (y)                      (z)

27. Ethylene reacted with bromine in  $CCl_4$  to form X. X is treated with alcoholic KOH to give Y. X and Y are respectively. (2000E)

- 1)  $BrCH_2-CH_2Br$  and  $C_2H_2$                       2)  $C_2H_5Br$  and  $C_2H_4$   
 3)  $C_2H_5Br$  and  $C_6H_6$                       4)  $C_2H_3Br_3$  and  $C_2H_4$

Ans : 1

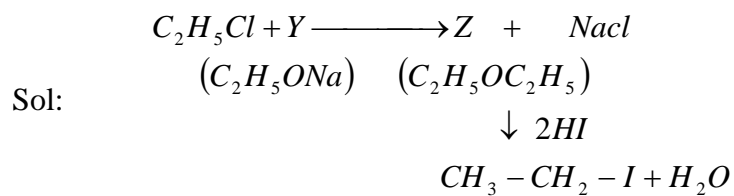




28. Chloroethane reacts with Y to form NaCl and Z. One mole of Z reacts with two moles of HI to form water and iodo ethane. Which of the following is Y? **(2000E)**

- 1)  $\text{CH}_3\text{COOH}$       2)  $\text{CH}_3\text{CHO}$       3)  $\text{C}_2\text{H}_5\text{OC}_2\text{H}_5$       4)  $\text{C}_2\text{H}_5\text{ONa}$

Ans :4



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