

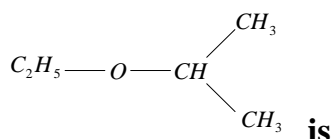
UNIT-XI. Alcohols, Phenols and Ethers

Subtopic - IV: Previous Competative Questions

1. The correct of reactivity of hydrogen halides with ethyl alcohol is [E-2008]

- 1) HF > HCl > HBr > HI 2) HCl > HBr > HF > HI
3) HBr > HCl > HI > HF 4) HI > HBr > HCl > HF

2. The IUPAC name of



[E-2008]

- 1) Ethoxypropane1 2) 1, 1 - Dimethyl Ether
3) 2- Ethoxy Isopropane 4) 2- Ethoxy Propane

3. The functional groups present in 'salol' are [E-2007]

- 1) $-\text{NH}_2$ and $-\text{OR}$ 2) OH and $-\text{COR}$
3) $-\text{NH}_2$ and $-\text{COOH}$ 4) $-\text{OH}$ and $-\text{COOR}$

4. Hybridisation of oxygen in diethyl ether is [E-2007]

- 1) sp 2) sp^2 3) sp^3 4) sp^3d

5. Which of the following compounds when heated with CO at and 500 atm pressure in presence of forms ethyl propionate? [E-2006]

- 1) $\text{C}_2\text{H}_5\text{OH}$ 2) CH_3OCH_3 3) $\text{C}_2\text{H}_5\text{OC}_2\text{H}_5$ 4) $\text{CH}_3\text{OC}_2\text{H}_5$

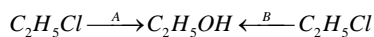
6. When compound X is oxidised by acidified potassium dichromate, compound Y is formed. Compound Y on reduction with gives X, X and Y respectively are

[E-2006]

- 1) $\text{C}_2\text{H}_5\text{OH}$, CH_3COOH 2) CH_3COCH_3 , CH_3COOH
3) $\text{C}_2\text{H}_5\text{OH}$, CH_3COCH_3 4) CH_3CHO , CH_3COCH_3

- 3) Ethoxy Ethane 4) Methoxy Propane

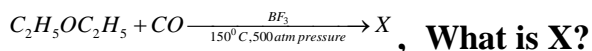
14. Identify A and B in the following reaction



[E-2004]

- 1) A = aqueous KOH; B = AgOH
 2) A = alcoholic KOH /; B = aqueous NaOH
 3) A = aqueous NaOH; B = AgNO₂
 4) A = AgNO₂; B = KNO₂

15. In the reaction,



[E-2003]

- 1) Diethyl Carbonate 2) Ethyl Carbonate
 3) Diethyl Peroxide 4) Ethyl Propionate

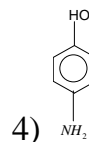
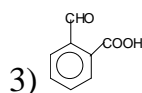
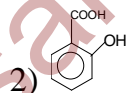
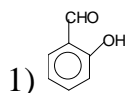
16. Which one of the following gases is liberated when ethyl alcohol is heated with methyl magnesium iodide?

[E-2003]

- 1) Methane 2) Ethane 3) Carbon dioxide 4) Propane

17. Which one of the following compounds gives aspirin on reacting with acetic anhydride in the presence of conc. H₂SO₄?

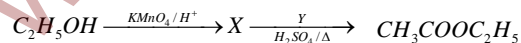
[E-2003]



18. The products formed when diethyl ether is reacted with cold HI are [E-2002]

- 1) $C_2H_5I + C_2H_5OH$ 2) $2C_2H_5I + H_2O$ 3) $2C_2H_5OH$ 4) $C_2H_5-O-C_2H_5 + H_2O$

19. In the following reaction, X and Y respectively are



[E-2002]

- 1) CH_3OH, C_2H_5OH 2) CH_3CHO, CH_3OH 3) $CH_2=CH_2, CH_3COOH$ 4) CH_3COOH, C_2H_5OH

20. Which one of the following is a secondary alcohol?

[E-2002]

- 1) 2-Methyl - 2 Propanol 2) 1-Propanol

3) 1-Butanol

4) 2 - Pentanol

21. Which one of the following pairs of compounds are functional isomers?

[E-2001]

1) $CH_3CH_2CH_2OH, (CH_3)_2CHCH_2OH$

2) $CH_3CH_2CH_2CH_2OH, (CH_3)_2CHCH_2OH$

3) $CH_3CH_2CH_2OH, CH_3CH_2CH_2Cl$

4) $CH_3CH_2CH_2OH, CH_3-O-CH_2CH_3$

22. Ethanol, when reacted with gave A, and HCl. A reacts with silver nitrite to form B (major product) and AgCl. A and B are respectively

[E-2001]

1) C_2H_5Cl and $C_2H_5OC_2H_5$

2) C_2H_6 and $C_2H_5OC_2H_5$

3) C_2H_5Cl and $C_2H_5NO_2$

4) C_2H_6 and $C_2H_5NO_2$

23. Chloroethane reacts with X to form diethyl ether. What is X?

[E-2001]

1) NaOH

2) H_2SO_4

3) C_2H_5ONa

4) $Na_2S_2O_3$

24. 3 moles of ethanol react with one mole of phosphorus tribromide to form 3 moles of bromoethane and one mole of X. Which of the following is X?

[E-2001]

1) H_3PO_4

2) H_3PO_2

3) HPO_3

4) H_3PO_3

25. Absolute alcohol (100% alcohol) is prepared by distilling rectified spirit over

1) Na

2) $CaCl_2$

3) Mg

4) $Mg(OC_2H_5)_2$

26. Which of the following is Lucas reagent?

[E-2000]

1) Ammoniacal $AgNO_3$

2) Br_2 / CCl_4

3) $ZnCl_2 / conc. HCl$

4) Cold alk. $KMnO_4$

27. Which of the following is a tertiary alcohol?

[E-2000]

1)
$$\begin{array}{c} CH_3-CH-CH_2OH \\ | \\ CH_3 \end{array}$$

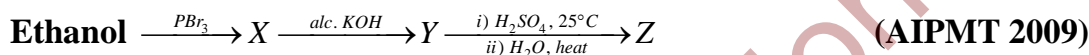
2) $CH_3CH_2CH_2CH_2OH$

3)
$$\begin{array}{c} CH_3CH_2-CH-OH \\ | \\ CH_3 \end{array}$$

4)
$$\begin{array}{c} CH_3 \\ | \\ CH_3-C-OH \\ | \\ CH_3 \end{array}$$

28. $\text{HOCH}_2 \cdot \text{CH}_2\text{OH}$ on heating with periodic acid gives (AIPMT 2009)
 1) 2 HCOOH 2) $\text{CHO} - \text{CHO}$ 3) 2 HCHO 4) 2 CO_2
29. $\text{CH}_3\text{OC}_2\text{H}_5$ and $(\text{CH}_3)_3\text{COCH}_3$ are treated with hydroiodic acid. The fragments after reaction obtained are (AIIMS 2007)
 1) $\text{CH}_3\text{I} + \text{C}_2\text{H}_5\text{OH}$; $(\text{CH}_3)_3\text{C-I} + \text{CH}_3\text{OH}$
 2) $\text{CH}_3\text{OH} + \text{C}_2\text{H}_5\text{I}$; $(\text{CH}_3)_3\text{C-I} + \text{CH}_3\text{OH}$
 3) $\text{CH}_3\text{OH} + \text{C}_2\text{H}_5\text{I}$; $(\text{CH}_3)_3\text{C-OH} + \text{CH}_3\text{I}$
 4) $\text{CH}_3\text{I} + \text{C}_2\text{H}_5\text{OH}$; $\text{CH}_3\text{I} + (\text{CH}_3)_3\text{C-OH}$

30. Identify 'Z' in the following sequence



- 1) $\text{CH}_2 = \text{CH}_2$ 2) $\text{CH}_3\text{CH}_2\text{OH}$
 3) $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$ 4) None

31. In the reaction $\text{CH}_3 - \overset{\text{CH}_3}{\underset{|}{\text{C}}} - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3 + \text{HI} \xrightarrow{\text{heat}} \dots$

Which of the following compounds will be formed? (AIPMT 2008)

- 1) $\text{CH}_3 - \overset{\text{CH}_3}{\underset{|}{\text{C}}} - \text{CH}_2\text{OH} + \text{CH}_3\text{CH}_2\text{I}$ 2) $\text{CH}_3 - \overset{\text{CH}_3}{\underset{|}{\text{C}}} - \text{CH}_2\text{I} + \text{CH}_3\text{CH}_2\text{OH}$
 3) $\text{CH}_3 - \overset{\text{CH}_3}{\underset{|}{\text{C}}} - \text{CH}_3 + \text{CH}_3\text{CH}_2\text{OH}$ 4) $\text{CH}_3 - \overset{\text{CH}_3}{\underset{|}{\text{C}}} - \text{CH}_2\text{OH} + \text{CH}_3\text{CH}_3$

Key

- 1) 4 2) 4 3) 4 4) 3 5) 3 6) 1 7) 2 8) 1 9) 4 10) 4
 11) 3 12) 3 13) 4
 14) 1 15) 4 16) 1 17) 2 18) 1 19) 4 20) 4 21) 4 22) 3 23) 3 24) 4 25) 4 26) 3
 27) 4 28) 3 29) 1 30) 2 31) 1