

NEET CHEMISTRY

Topic : Carboxylic acid and benzoic acid

- Q.1** In the reaction product D is, $\text{CH}_2=\text{CH}_2 \xrightarrow{\text{Br}_2/\text{CCl}_4} \text{A} \xrightarrow{\text{KCN}} \text{B} \xrightarrow{\text{H}_3\text{O}^+} \text{C} \xrightarrow{\Delta} \text{D}$
- [1] $\text{CH}_2 \begin{matrix} \diagup \text{COOH} \\ \diagdown \text{COOH} \end{matrix}$ [2] $\text{CH}_3\text{CH}_2\text{COOH}$ [3] $\begin{matrix} \text{CH}_2 - \text{CO} \\ | \quad \quad \quad \diagdown \\ \text{CH}_2 - \text{CO} \quad \quad \quad \text{O} \end{matrix}$ [4] $\text{CH}_2 - \text{OH} - \text{CH}_2\text{CN}$
- Q.2** In the following sequence of reaction A is-
 $\text{A} \xrightarrow{\text{PCl}_3} \text{B} \xrightarrow{\text{KCN}} \text{B} \xrightarrow{\text{H}_2/\text{Ni}} \text{CH}_3 - \text{CH}_2 - \text{NH}_2$
- [1] $\text{CH}_2\text{CH}_2\text{Cl}$ [2] CH_3OH [3] CH_3CN [4] $\text{CH}_3\text{CH}_2\text{OH}$
- Q.3** The electrolysis of sodium propionate give-
 [1] C_3H_8 [2] C_2H_6 [3] C_4H_{10} [4] All
- Q.4** $\text{CH}_3\text{COOAg} + \text{Br}_2 \xrightarrow{\Delta} \text{CH}_3\text{Br} + \text{CO}_2 + \text{AgBr}$, The above reaction is called-
 [1] Hunsdiecker reaction [2] Wurtz fittig reaction
 [3] Mustard oil reaction [4] Hofmann bromamide reaction
- Q.5** $\text{C}_2\text{H}_2 \xrightarrow[\text{HgSO}_4, 1\%]{\text{H}_2\text{SO}_4 \text{ dil}} \text{A} \xrightarrow{[\text{O}]} \text{B} \xrightarrow{\text{NaOH}} \text{C} \xrightarrow{\text{NaOH}/\text{CaO}} \text{D}$ [D] is-
 [1] CH_4 [2] $\text{CH}_3 - \text{CH}_3$ [3] C_3H_8 [4] C_4H_{10}
- Q.6** $\text{C}_2\text{H}_5\text{Br} \xrightarrow{\text{aq. NaOH}} \text{X} \xrightarrow{\text{Cu}/300^\circ\text{C}} \text{Y} \xrightarrow{(\text{C}_2\text{H}_5\text{O})_3\text{Al}} \text{Z}$, [Z] is
 [1] Ethyl acetate [2] Acetic acid [3] Propionic Acid [4] Acetaldehyde
- Q.7** The acid formed when propyl magnesium bromide is treated with carbon dioxide is-
 [1] $\text{C}_3\text{H}_7\text{COOH}$ [2] $\text{C}_2\text{H}_5\text{COOH}$ [3] Both [4] None
- Q.8** The acid present in tomatoes is-
 [1] Lactic Acid [2] Oxalic Acid [3] Citric Acid [4] Tartaric Acid
- Q.9** Amides may be converted into amines by reaction named after
 [1] Perkin [2] Claisen [3] Hoffman [4] Kekule
- Q.10** Acetyl chloride is reduced to acetaldehyde by-
 [1] $\text{Na} - \text{C}_2\text{H}_5\text{OH}$ [2] LiAlH_4 [3] $\text{H}_2/\text{Pd}-\text{BaSO}_4$ [4] H_2/Ni
- Q.11** Which reagent can convert acetic acid into ethanol
 [1] $\text{Sn} + \text{HCl}$ [2] $\text{H}_2 + \text{Pt}$ [3] LiAlH_4 [4] $\text{Na} + \text{alcohol}$

- Q.12** $(\text{COOH})_2$ on treatment with H_2SO_4 gives-
 [1] $\text{H}_2\text{O} + \text{CO} + \text{CO}_2$ [2] $\text{HCOOH} + \text{CO} + \text{O}_2$ [3] $\text{CO} + \text{H}_2\text{O}$ [4] $\text{CO}_2 + \text{HCOOH}$
- Q.13** Formic and acetic acid can be distinguished
 [1] with the help of litmus [2] with caustic soda
 [3] with sodium bicarbonate [4] with ammonical AgNO_3
- Q.14** The reaction of formic acid with concentrated sulphuric acid gives
 [1] CO_2 [2] CO [3] Oxalic acid [4] Acetic acid
- Q.15** COOH can be converted into $-\text{CH}_3$ group
 [1] Na & alcohol [2] Zn + HCl [3] LiAlH_4 [4] HI & red phosphorus
- Q.16** When formic acid reacts with PCl_3 it forms-
 [1] Methyl chloride [2] Acetyl chloride [3] Formyl chloride [4] Carbon monoxide and HCl
- Q.17** Bouvaut Blanc reduction involves-
 [1] $\text{C}_2\text{H}_5\text{OH}/\text{Na}$ [2] LiAlH_4 [3] $\text{C}_2\text{H}_5\text{MgX}$ [4] Zn/HCl
- Q.18** $\text{CH}_3\text{CONH}_2 \xrightarrow{\text{Br}_2/\text{NaOH}} ?$
 [1] CH_3COOH [2] $\text{CH}_3\text{CH}_2\text{NH}_2$ [3] CH_3NH_2 [4] CH_3Br
- Q.19** Dry distillation of a mixture of calcium formate and the calcium acetate gives-
 [1] HCHO [2] CH_3CHO [3] CH_3COCH_3 [4] None
- Q.20** Propanoic acid is obtained by the hydrolysis of-
 [1] Ethyl cyanide [2] Acetyl Chloride [3] Acetamide [4] All
- Q.21** Formic acid on heating gives-
 [1] $\text{CO} + \text{H}_2\text{O}$ [2] $\text{CO}_2 + \text{H}_2$ [3] Formic anhydride [4] Oxalic acid
- Q.22** Which of the ester on pyrolysis forms acetic acid-
 [1] Methyl acetate [2] Ethyl acetate [2] 1 and 2 both [4] None
- Q.23** Acetyl Chloride on reaction with sodium acetate followed by hydrolysis of the product gives-
 [1] Acetic anhydride [2] Acetic acid [3] Ethane [4] Ethyl alcohol
- Q.24** Hydrocyanic acid on hydrolysis gives A, which on further reaction with conc. H_2SO_4 gives
 [1] $(\text{HCO})_2\text{O}$ [2] $\text{CO} + \text{H}_2\text{O}$ [3] $\text{CO}_2 + \text{H}_2$ [4] $\text{C}_2\text{H}_5\text{HSO}_4$
- Q.25** Acetic acid on reaction with Diazomethane gives-
 [1] Methyl acetate [2] Ethanoic acid [3] Acetic ester [4] None
- Q.26** $\text{A} \xrightarrow{\text{SOCl}_2} \text{B} \xrightarrow[\text{BaSO}_4]{\text{pd}} \text{Ethanal}$ [B] is-
 [1] Propanone [2] Ethanol [3] Acetic acid [4] Acety chloride

- Q.27** [A] + ethanol \longrightarrow ethyl acetate, [A] is-
 [1] CH_3COCl [2] CH_3COOH [3] $(\text{CH}_3\text{CO})_2\text{O}$ [4] All
- Q.28** Which compound reacts with sodium bicarbonate as well as tollen's reagent ?
 [1] CH_3COOH [2] $(\text{COOH})_2$ [3] HCOOH [4] $\text{CH}_2(\text{COOH})_2$
- Q.29** Which of the following is an alpha hydroxy acid ?
 [1] Citric acid [2] Lactic acid [3] Maleic acid [4] Alanine
- Q.30** Of the three acids - formic acid, trichloro acetic acid and trifluoro acetic acid which is the strongest acid-
 [1] Formic acid [2] Trichloroacetic acid [3] Trifluoro acetic acid [4] None

ANSWER KEY

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