

18. Dicarboxylic acids contain _____

- (a) two carboxylic acid groups
- (b) one carbonyl group and one hydroxyl group
- (c) one carboxyl group
- (d) one carboxyl group and are aldehyde group

19. The carboxylic acid present in ants and in vinegar are respectively _____

- (a) acetic acid and formic acid
- (b) formic acid and acetic acid
- (c) formic acid and butyric acid
- (d) butyric and formic acid

20. Methanoic acid is _____

- (a) the common name for formic acid
- (b) IUPAC name for acetic acid
- (c) the common name for acetic acid
- (d) the IUPAC name for formic acid.

21. The formula of butyric acid is _____

- (a) CH_3COOH
- (b) $\text{CH}_2\text{CH}_2\text{COOH}$
- (c) HCOOH
- (d) $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$

22. $\text{CH}_3\text{COOH} \xrightarrow{\text{A}} \text{CH}_3\text{COCl}$. A is _____

- (a) HCl
- (b) SOCl_2
- (c) Cl_2
- (d) $\text{HCl} + \text{Cl}_2$

23. Ethyl acetate is formed by the action of _____

- (a) ethanal and ethanoic acid
- (b) ethanol and formic acid
- (c) ethyl alcohol and acetic acid
- (d) ethyl alcohol and formic acid.

24. Which of the following is a decarboxylation reaction?

- (a) $\text{CH}_3\text{COOH} + \text{NaOH} \longrightarrow \text{CH}_3\text{COONa} + \text{H}_2\text{O}$
- (b) $\text{CH}_3\text{COOH} + \text{C}_2\text{H}_5\text{OH} \longrightarrow \text{CH}_3\text{COOC}_2\text{H}_5 + \text{H}_2\text{O}$
- (c) $\text{CH}_3\text{COONa} + \text{NaOH} \xrightarrow{\text{CaO}} \text{CH}_4 + \text{Na}_2\text{CO}_3$
- (d) $\text{CH}_3\text{COOH} + \text{NH}_3 \longrightarrow \text{CH}_3\text{COONH}_4$