

Class : XIIth
Date :

Subject : CHEMISTRY
DPP No. : 2

Topic :- Aldehydes, Ketones & Carboxylic Acids

- Simple distillation can be used to separate:
 - A mixture of benzene (b. p. 80 °C) and toluene (b. p. 110°C)
 - A mixture of ether (b. p. 35°C) and toluene (b. p. 110°C)
 - A mixture of ethanol (b. p. 78°C) and water (b. p. 100°C)
 - None of the above
- Acetyl bromide reacts with excess of CH_3MgI followed by treatment with a saturated solution of NH_4Cl gives
 - Acetone
 - Acetamide
 - 2-methyl-2-propanol
 - Acetyl iodide
- Aldol condensation between the following compounds followed by dehydration gives methyl vinyl ketone:
 - HCHO and CH_3COCH_3
 - HCHO and CH_3CHO
 - Two molecules of CH_3CHO
 - Two molecules of CH_3COCH_3
- $\text{R}-\text{CH}_2-\text{CH}_2\text{OH}$
 $\text{R}-\text{CH}_2-\text{CH}_2-\text{H}$ can be converted into The correct sequence of reagent is,
 - KCN, H^+
 - $\text{PBr}_3, \text{KCN}, \text{H}_2$
 - $\text{HCN}, \text{PBr}_3, \text{H}^+$
 - $\text{PBr}, \text{KCN}, \text{H}^+$
- The acid which does not form an anhydride when treated with P_2O_5 is:
 - Formic acid
 - Acetic acid
 - Propionic acid
 - Benzoic acid
- Prior to the seventeenth century people knew the processes except:
 - Dyeing
 - Preparation of wines
 - Organic synthesis
 - Fermentation
- Molecular weight of acetic acid is 60. Its empirical formula is:
 - CH_2O
 - $\text{C}_2\text{H}_4\text{O}_2$
 - $\text{C}_3\text{H}_6\text{O}_3$
 - $\text{C}_2\text{H}_4\text{O}_3$
- Ketones can be obtained in one step by:
 - Hydrolysis of ester
 - Oxidation of primary alcohols
 - Reaction of acid halide with alcohols

- d) Oxidation of secondary alcohol
9. The scientist who gave chromatography concept:
 a) Berzelius b) Avogadro c) Tswett d) Lavoisier
10. $RCOOH \rightarrow RCH_2COOH$. This conversion is known as reaction
 a) Arndt-Eistert reaction b) Favorskii reaction
 c) Mannich reaction d) Schmidt reaction
11. Nucleophilic addition reaction will be most favoured in:
 a) CH_3CH_2CHO
 b) CH_3CHO
 c) $CH_3 \cdot CH_2 \cdot CH_2COCH_3$
 d) $(CH_3)_2C=O$
12. 0.2 g of an organic compound containing C, H and O on combustion yielded 0.147 g CO_2 and 0.12 g water. The percentage of oxygen in it is:
 a) 73.34% b) 78.45% c) 83.23% d) 89.50%
13. Aliphatic aldehydes react with Fehling's solution to give red ppt. but benzaldehyde does not produce red precipitate with Fehling's solution because:
 a) Of a bulky ring, $-CHO$ is hinderer
 b) Or resonance, oxidation of benzaldehyde is difficult
 c) $-CHO$ is present in cyclic structure
 d) Of all the above statements
14. The identical $C-O$ bond lengths in carboxylate ions are due to:
 a) Resonance
 b) Presence of carbonyl group
 c) Presence of alkyl group
 d) None of the above
15. Which one of following can be oxidised to the corresponding carbonyl compound?
 a) 2-hydroxypropane b) *Ortho*-nitrophenol
 c) Phenol d) 2-methyl-2-hydroxypropane
16. A compound does not react with 2, 4 dinitrophenyl hydrazine, compound is
 a) Acetone b) Acetaldehyde c) CH_3OH d) $CH_3CH_2COCH_3$
17. When CH_3COOH reacts with $CH_3 - MgX$
 a) CH_3COX is formed b) Hydrocarbon is formed
 c) Acetone is formed d) Alcohol is formed
18. 13 g of a hydrocarbon contains 1.0 g of hydrogen. Its formula is:

- a) C_2H_2 b) C_2H_3 c) C_3H_4 d) C_4H_7
19. 2-pentanone and 3-pentanone can be distinguished by one of the following:
a) Tollen's reagent b) Fehling's solution c) Schiff's test d) Iodoform test
20. Ethyl acetate is obtained by acetaldehyde in one step process by
a) Condensation using $Ba(OH)_2$ b) Using aluminium ethoxide
c) Oxidation d) Reduction

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