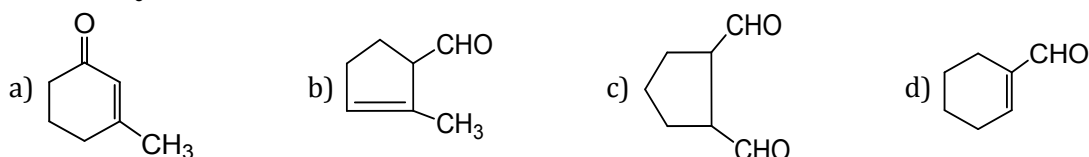
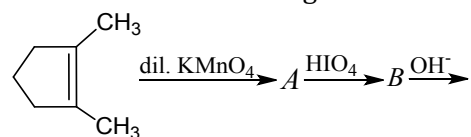


## Topic :- Aldehydes, Ketones & Carboxylic Acids

- Two mole of acetic acid are heated with  $P_2O_5$ . The product formed is:
  - 2 mole of ethyl alcohol
  - Formic anhydride
  - Acetic anhydride
  - 2 mole of methyl cyanide
- The nitrogen content in the proteins can be quantitatively estimated by:
  - Carius method
  - Kjeldahl's method
  - Victor Meyer's method
  - Rast method
- Correct order of reducing power of the following carbonyl compounds
  - $HCHO > CH_3COCH_3 > \phi CHO$
  - $CH_3COCH_3 > \phi CHO > HCHO$
  - $HCHO > \phi CHO > CH_3COCH_3$
  - $CH_3COCH_3 > HCHO > \phi CHO$
- Cyanohydrin of which of the following forms lactic acid?
  - HCHO
  - $CH_3COCH_3$
  - $CH_3CHO$
  - $CH_3CH_2CHO$
- Ethyl acetate on reaction with a Grignard reagent gives,
  - Alcohol
  - Aldehyde
  - Acid
  - Ketone
- Acetaldehyde reacts with HCN followed by hydrolysis forms a compound which shows:
  - Optical isomerism
  - Geometrical isomerism
  - Metamerism
  - Tautomerism
- Carboxylic acids dissolve in *aq.* NaOH because the acids undergo:
  - Protonation
  - Deprotonation
  - Carboxylation
  - Decarboxylation
- Which of the acids cannot be prepared by Grignard reagent?
  - Acetic acid
  - Succinic acid
  - Formic acid
  - All of these

9. Compound *A* when treated with ethyl magnesium iodide in dry ether forms an addition compound which on hydrolysis form compound *B*. The compound *B* on oxidation form 3-pentanone. Hence, the compound *A* and *B* are  
 a) Propanol, 3-pentanol b) Pentanol, 3-pentanol c) Ethanal, pentanal d) Acetone, 3-pentanol

10. Suggest appropriate structures for the missing final compound. (The number of carbon atom remains the same throughout the reaction.)

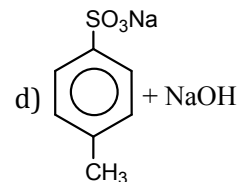
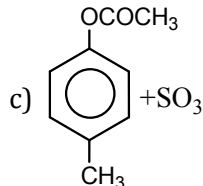
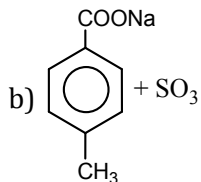
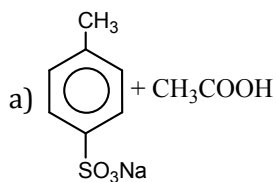


11. Lactic acid on heating with conc.  $\text{H}_2\text{SO}_4$  gives  
 a) Acetic acid b) Formic acid c) Acrylic acid d) Propionic acid
12. Urea can be detected by  
 a) Benedict test b) Molisch test c) Ninhydrine test d) Biurate test
13. Which of the following does not give brick red precipitate with Fehling's solution?  
 a) Acetaldehyde b) Formalin c) D-glucose d) Acetone
14. Which of the following statements is wrong?  
 a) Formic acid is stronger than acetic acid  
 b) *o*-bromobenzoic acid is weaker than *o*-chlorobenzoic acid  
 c) Lactic acid does not answer the silver mirror test  
 d) Benzaldehyde does not reduce Fehling's solution
15. Pick out the reaction in which formic and acetic acid differs from each other:  
 a) Sodium replaces hydrogen from the compound  
 b) Forms esters with alcohols  
 c) Reduces solution of ammoniacal silver nitrate or Fehling's solution of dil. acid  $\text{KMnO}_4$   
 d) Turns red litmus blue
16. An organic substance from its aqueous solution can be separated by:  
 a) Solvent extraction b) Steam distillation c) Distillation d) Fractional distillation
17. The strongest acid amongst the following compounds is  
 a)  $\text{CH}_3\text{COOH}$  b)  $\text{HCOOH}$  c)  $\text{CH}_3\text{CH}_2\text{CH}(\text{Cl})\text{CO}_2\text{H}$  d)  $\text{ClCH}_2\text{CH}_2\text{CH}_2\text{COOH}$

18. What is obtained when acetyl chloride is heated with benzene in presence of anhydrous  $\text{AlCl}_3$   
a) Acetyl benzoic acid    b) Anisole    c) Acetophenone    d) Chlorobenzene

19. Reaction of formaldehyde and ammonia gives  
a) Hexamethylene tetramine    b) Bakelite  
c) Urea    d) Triethylene tetramine

20. 4-methyl benzene sulphonic acid reacts with sodium acetate to give



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