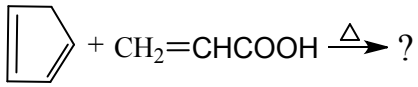
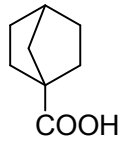
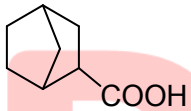
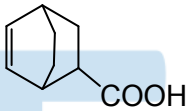
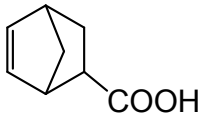
# DPP
DAILY PRACTICE PROBLEMS

**Class : XIIth** **Subject : CHEMISTRY**
**Date :** **DPP No. : 5**

## Topic :- Aldehydes, Ketones & Carboxylic Acids

1. Tartronic acid is obtained from tartaric acid by:
   a) HBr b) HI c) Tollen's reagent d) $PCl_5$

2. 
   Product is
   a) 
   b) 
   c) 
   d) 

3. A compound, containing only carbon, hydrogen and oxygen, has a molecular weight of 44. On complete oxidation it is converted into a compound of molecular weight 60. The original compound is
   a) An aldehyde b) An acid c) An alcohol d) An ether

4. Which of the following reagents is useful for separating aniline from a mixture of aniline and nitrobenzene?
   a) $NaOH(aq.)$ b) $H_2O$ c) $NaHCO_3(aq.)$ d) $HCl(aq.)$

5. How will you separate a miscible mixture of $C_6H_6 + CHCl_3$?
   a) Sublimation b) Filtration c) Distillation d) Crystallization

6. An organic compound has C and H percentage in the ratio 6 : 1 and C and O percentage in the ration 3 : 4. The compound is:
   a) HCHO b) $CH_3OH$ c) $CH_3CH_2OH$ d) $(COOH)_2$

7. Potassium cyanate is heated with ammonium sulphate. The product formed is
   a) Urea b) Ammonia c) Potassium sulphate d) Ammonium cyanide

8. 2-pentanone and 3-petanone can be distinguished by
   a) Cannizaro's reaction b) Aldol condensation
   c) Iodoform reaction d) Clemmensen's reduction

9. Acetyl bromide reacts with excess of $CH_3MgI$ followed by treatment with a saturated solution of $NH_4Cl$ gives
   a) Acetone b) Acetamide c) 2-methyl-2-propanol d) Acetyl iodide

10. Formalin is
   a) Solution of fructose
   b) 40% aq. sol. Of HCHO
   c) 40% HCHO + 60% $CH_3CHO$
   d) None of the above

11. Aldol condensation is given by
   a) Trimethylacetaldehyde
   b) Acetaldehyde
   c) Benzaldehyde
   d) Formaldehyde

12. Which reaction is used for detecting the presence of carbonyl group?
   a) Reaction with hydrazine
   b) Reaction with phenyl hydrazine
   c) Reaction wit hydroxylamine
   d) All of the above

13. The product obtained in the reaction
   $CH_3CH_2CO_2H \xrightarrow{Cl_2/P}$ is
   a) $CH_3CHCO_2H$ (Cl) b) $ClCH_2CH_2CO_2H$ c) $CH_3-C(Cl)_2-CO_2H$ d) $Cl_2CHCH_2CO_2H$

14. An organic compound contains carbon, hydrogen and oxygen. Its elemental analysis gave, C, 38.71% and H, 9.67%. The empirical formula of the compound would be:
   a) $CH_2O$ b) CHO c) $CH_4O$ d) $CH_3O$

15. $CH_3COCl \xrightarrow[[H_2]]{Pd/BaSO_4} A$
   The isomers of $CH_3COCl$ and $A$ will be respectively
   a) $CH_2ClCHO$, oxirane
   b) Chloral, vinyl alcohol
   c) $\alpha$-chloro ethyl alcohol, epoxy ethane
   d) None of the above

16. Acid chlorides react with Grignard's reagents to give:
   a) Esters b) Ethers c) Carbonyl compounds d) None of these

17. Which of the following give an explosive RDX, on nitration?
   a) Toluene b) Benzene c) Guanidine d) Urotropine

18. The conversion of —COOH group to —$NH_2$ group can be made by:
   a) Wurtz reaction b) Claisen condensation c) Stephen's reduction d) Schmidt reaction

19. In question 178 step (2) can be thought of an/a:
    a) Neutralization
    b) Electrophilic attack at the carbonyl carbon
    c) Nucleophilic attack of $N$-lone pair at the carbonyl carbon leading to substitution
    d) Nucleophilic addition reaction

20. Acetaldehyde forms a white crystalline precipitate on mixing with a .....solution of ....
    a) Acidic,$Zn - Hg$
    b) Alcoholic, $Na_2SO_3$
    c) Saturated aqueous, $NaHSO_3$
    d) Aqueous, NaCl