DPP
DAILY PRACTICE PROBLEMS

Class : XIIth **Subject : CHEMISTRY**
Date : **DPP No. : 10**

Topic :- Aldehydes, Ketones & Carboxylic Acids

1. On heating with aqueous alkali, chloroform yields:
   a) HCHO b) HCOOH c) CH_3OH d) CO_2 and H_2O

2. A keto ester (A) with molecular formula $C_6H_{10}O_3$ on treatment with $NaOH + I_2$ does not give iodoform but on boiling with dilute KOH gives a compound (B) with molecular formula $C_4H_5O_3K$ which upon acidification followed by heating undergoes decarboxylation to give acetone. The keto ester (A) is
   a) $CH_3COCH_2CH_2COOCH_3$ b) $CH_3COCH_2COOC_2H_5$
   c) $CH_3CH_2OCH_2COOCH_3$ d) $CH_3 - COCH(CH_3)COOCH_3$

3. In the reaction, $HCHO + NH_3 \rightarrow X$, X is
   a) *meta*-formaldehyde b) *para*-formaldehyde c) urotropine d) None of these

4. $CH_3CH_2 - CHO \xrightarrow[\text{alkali}]{\text{Dil.}}$ product
   The product in the above reaction is
   a) CH_3CH_2COOH b) $CH_3CH_2 - CH_2OH$
   c) $CH_3-CH_2-\underset{\underset{OH}{|}}{CH}-CH_2-CHO$ d) $CH_3-CH_2-\underset{\underset{OH}{|}}{CH}-\underset{\underset{CH_3}{|}}{CH}-CHO$

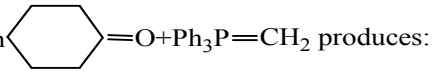
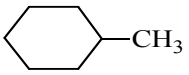
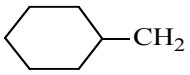
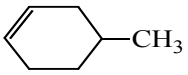
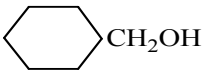
5. One mole of an organic compound requires 0.5 mole of oxygen to produce an acid. The compound may be:
   a) Alcohol b) Ether c) Ketone d) Aldehyde

6. Acetic acid reacts with PCl_5 to form
   a) $CH_2ClCOOH$ b) $CHCl_2COOH$ c) CH_3COCl d) CH_3COOCl

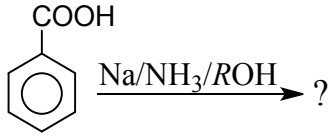
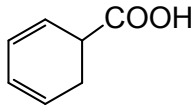
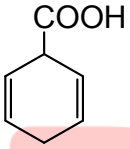
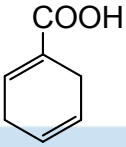
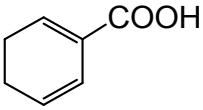
7. The calcium salt of the final oxidation product of ethanol on dry distillation gives:
   a) Formaldehyde b) Acetaldehyde c) Acetone d) Formic acid

8. Coal-tar is obtained as by product during :
   a) Destructive distillation of wood
   b) Destructive distillation of coal
   c) Destructive distillation of bones
   d) None of the above

9. CH_3COOH and C_6H_5COOH can be distinguished by:
   a) Flame test b) Solubility in water c) Physical state d) All of these

10. The reaction  produces:
   a)  b)  c)  d) 

11. Methylene chloride on hydrolysis yields:
   a) HCHO b) CH_3CHO c) CH_3COCl d) None of these

12. 
   Product is
   a)  b)  c)  d) 

13. Which of the following compounds does not have a carboxyl group?
   a) Methanoic acid b) Ethanoic acid c) Picric acid d) Benzoic acid

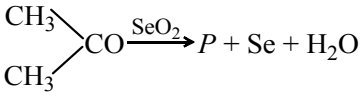
14. 2,4-dichlorophenoxy acetic acid is used as a:
   a) Fungicide b) Insecticide c) Herbicide d) Moth repellent

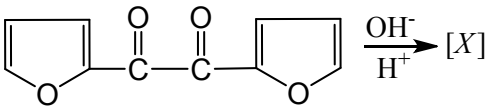
15. Which one of the following is reduced with zinc and hydrochloric acid to give the corresponding hydrocarbon?
   a) Ethyl acetate b) Acetic acid c) Acetamide d) Butan-2-one

16. 3-pentanol on reaction with aluminium tertiary butoxide in the presence of acetone gives
   a) 3-pentanal b) 2-pentanal c) 3-pentanone d) 2-pentanone

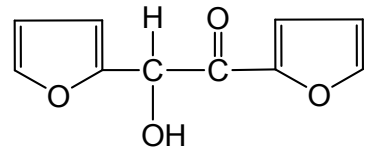
17. Bakelite is obtained from phenol by reacting with:
   a) HCHO b) $(CH_2OH)_2$ c) CH_3CHO d) CH_3COCH_3

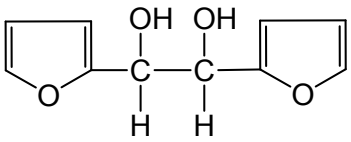
18. The silver salt of a fatty acid on refluxing with an alkyl halide gives an
   a) Acid b) Ester c) Ether d) Amine

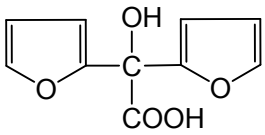
19. In the reaction, *P* is:
   
   a) CH_3COCHO b) CH_3COOCH_3 c) CH_3COCH_2OH d) None of these

20. 

Product is

a) 

b) 

c) 

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