DPP
DAILY PRACTICE PROBLEMS

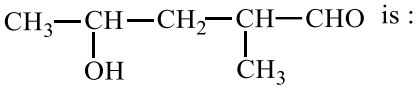
CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 3**

Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

1. In Kjeldahl's method of estimation of nitrogen, $CuSO_4$ acts as
   a) Oxidising agent b) Reducing agent c) Catalytic agent d) Hydrolysis agent

2. A mixture of acetone and methanol can be separated by
   a) Steam distillation b) Vaccum distillation
   c) Fractional distillation d) None of these

3. The IUPAC name of,

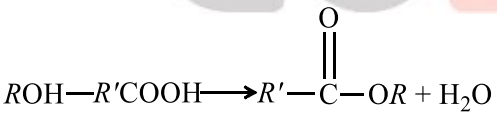


   a) 4-hydroxy-1-methylpentanal
   b) 4-hydroxy-2-methylpentanal
   c) 3-hydroxy-2-methylpentanal
   d) 3-hydroxy-3-methylpentanal

4. The oxygen atom in phenol
   a) Exhibits only inductive effect
   b) Exhibits only resonance effect
   c) Has more dominating resonance effect than inductive effect
   d) Has more dominating inductive effect than the resonance effect

5. 2-methylpent-3-enoic acid shows :
   a) Optical isomerism
   b) Geometrical isomerism
   c) Both (a) and (b)
   d) None of these

6. In the reaction,



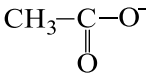
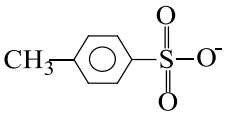
water is formed by the combination of :
   a) Hydroxyl of acid with alcoholic hydroxyl hydrogen
   b) Hydroxyl of alcohol with carboxylic hydrogen
   c) Both the above changes
   d) None of the above

7. Pyridine is :
   a) An aromatic compound and a primary base
   b) A heterocyclic amino compound and a tertiary base
   c) An aromatic amino compound and forms salts

d) A cyano derivative of benzene and secondary base

8. The reason for the loss of optical activity of lactic acid when – OH group is changed by H is that
a) Chiral centre of the molecule is destroyed b) Molecules acquires asymmetry
c) Due to change in configuration d) Structural changes occurs

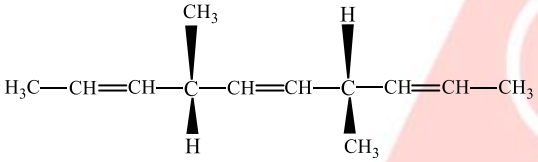
9. The correct order of nucleophilicity among the following is :

a)  b) CH_3O^- c) CN^- d) 

10. Which of the following compounds exhibits rotamers?
a) 2-butene b) Maleic acid c) Butane d) Fumeric acid

11. Ammonia molecule is :
a) A nucleophile b) An electrophile c) A homolytic d) An acid

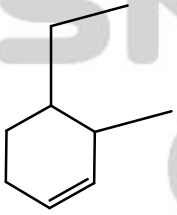
12. The number of optically active products obtained from the complete ozonolysis of the given compound is :



a) 0 b) 1 c) 2 d) 4

13. The structures,
$CH_3—CH(NH_2)—CH_2—CH_2CH_3$ and
$CH_3—CH_2—CH(NH_2)—CH_2CH_3$ represent:
a) Chain isomers b) Position isomers c) Stereo isomers d) mesomers

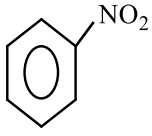
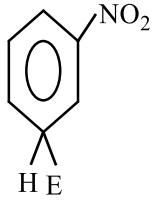
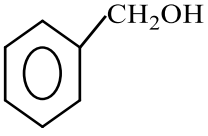
14. The systematic (IUPAC) name of the compound with the following structural formula shall be



a) 1-ethyl-2-methyl cyclohexene b) 2-methyl-1-ethyl cyclohexene
c) 3-ethyl-2-methyl cyclohexene d) 4-ethyl-3-methyl cyclohexene

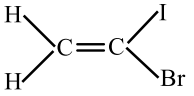
15. 0.5 g of hydrocarbon gave 0.9 g water on combustion. The percentage of carbon hydrocarbon is
a) 60.6 b) 28.8 c) 80.0 d) 68.6

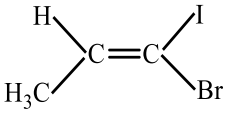
16. Which one of the following is most reactive towards electrophilic attack?

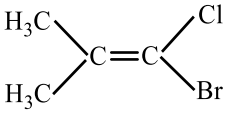
a)  b)  c)  d) 

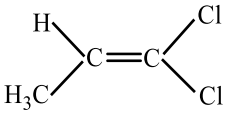
17. Identify, which of the below does not possess any element of symmetry?
a) (+)(-) tartaric acid b) Carbon tetrachloride c) Methane d) *Meso*-tartaric acid

18. Geometrical isomerism is shown by :

a) 

b) 

c) 

d) 

19. When thiourea is heated with metallic sodium, the compound which can't be formed is
a) NaCNS b) NaCN c) Na_2SO_4 d) Na_2S

20. An unknown compound *A* has a molecular formula C_4H_6. When *A* is treated with excess of Br_2 a new substance *B* with formula $C_4H_6Br_4$ is formed. *A* forms a white ppt. with ammoniacal silver nitrate solution. *A* may be :
a) But-1-yne b) But-2-yne c) But-1-ene d) But-2-ene