DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth **SUBJECT : CHEMISTRY**
DATE : **DPP NO. : 10**

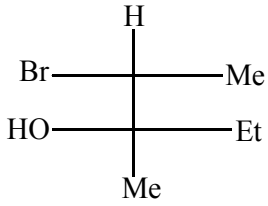
Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

1. A student named the compound as 1,4-butadiene :
   a) The name is correct
   b) He committed an error in the selection of carbon chain
   c) He committed an error in position of double bond
   d) Unpredictable

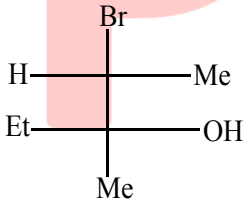
2. The correct IUPAC name of $(C_2H_5)_4$ C is :
   a) Tetraethyl methane b) 2-ethylpentane c) 3,3-diethylpentane d) None of these

3. The number of different substitution products possible when ethane is allowed to react with bromine is sunlight are :
   a) 9 b) 6 c) 8 d) 5

4. Which of the following structures are superimposable?



(1)



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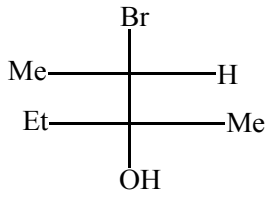

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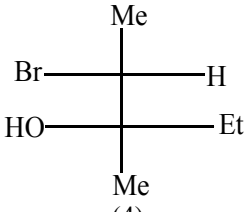
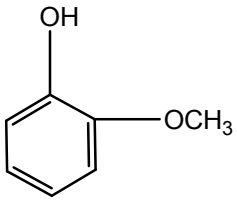
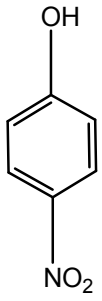


(4)

   a) 1 and 2 b) 2 and 3 c) 1 and 4 d) 1 and 3

5. Phenol is more acidic than

a) 

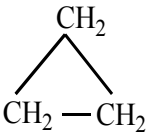
b) 

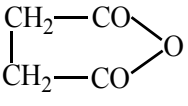
c) C_2H_2 d) Both (a) and (c)

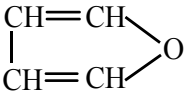
6. During the fusion of an organic compound with sodium metal, nitrogen of the compound is converted into

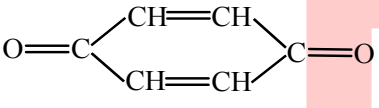
a) $NaNO_2$ b) $NaNH_2$ c) NaCN d) NaNC

7. The structure representing a heterocyclic compound is :

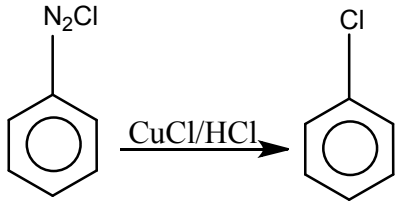
a) 

b) 

c) 

d) 

8. Following reaction is,



a) S_N b) S_E c) El d) EI-CB

9. Which of the following reactions is an example of nucleophilic substitution reaction?

a) $RX + Mg \longrightarrow RMgX$

b) $RX + KOH \longrightarrow ROH + KX$

c) $2RX + 2Na \longrightarrow R—R + 2NaX$

d) $RX + H_2 \longrightarrow RH + HX$

10. How many structural isomers are possible for C_4H_9Cl?

a) 2 b) 4 c) 8 d) 10

11. In which of the following species the central carbon atom is negatively charged?
a) Carbonium ion b) Carbanion c) Carbocation d) Free radicals

12. Select the molecule having only one π-bond :
a) $CH \equiv CH$ b) $CH_2 = CH—CHO$ c) $CH_3—CH = CH_2$ d) $CH_3—CH = CHCOOH$

13. Optically active compound among the following is :
a) 2-ethylbutanol-1 b) n-butanol c) 2,2-dimethylbutanol d) 2-methylbutanol-1

14. Which of the following compounds will be most reactive towards nucleophilic addition reaction?
a) $CH_3COCH_2CH_2CH_2CH_3$
b) $CH_3CH_2COCH_2CH_2CH_3$
c) $CH_3CH_2CH_2CH_2CH_2CHO$
d) $CH_3—CH_2—CO—CH(CH_3)$

15. Lactic acid, $CH_3CH(OH)COOH$ molecule shows :
a) Geometrical isomerism
b) Metamerism
c) Optical isomerism
d) Tautomerism

16. n-pentane and neopentane are :
a) Functional isomers b) Geometrical isomers c) Chain isomers d) Position isomers

17. The IUPAC name of acryldehyde is
a) Prop-2-en-1-al b) Propenylaldehyde c) But-2-en-1-al d) Propenal

18. Due to presence of an unpaired electron, free radicals are
a) Cations b) Anions c) Chemically inactive d) Chemically reactive

19. 2-methylpent-3-ene is a chiral because it has :
a) A centre of symmetry
b) A plane of symmetry
c) Symmetry at C_2 carbon
d) Both centre and a plane of symmetry

20. Which of the following molecules contain asymmetric carbon atom?
a) $CH_3CHClCOOH$ b) CH_3CH_2COOH c) $ClCH_3.CH_2COOH$ d) $Cl_2CHCOOH$