

CLASS : XIIth

DATE :

SUBJECT : CHEMISTRY

DPP NO. : 9

Topic :-ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES

1. The addition of HBr on butene-2 in presence of peroxide follow the:

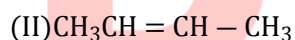
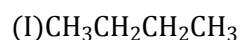
- a) Electrophilic addition
- b) Free radical addition
- c) Nucleophilic addition
- d) None of these

IUPAC name of  is :

2.

- a) 5-methylhexanol
- b) 2-methylhexanol
- c) 2-methylhex-3-enol
- d) 4-methylpent-2-enol

3. In which of the compounds given below there is more than one kind of hybridization (sp, sp^2, sp^3) for carbon?

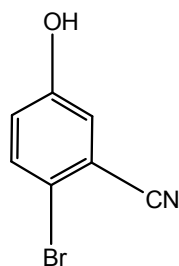


- a) (II) and (IV)
- b) (I) and (IV)
- c) (II) and (III)
- d) (II)

4. Which represents nucleophilic aromatic substitution reaction?

- a) Reaction of benzene with Cl_2 in sunlight
- b) Benzyl bromide hydrolysis
- c) Reaction of NaOH with dinitrofluorobenzene
- d) Sulphonation of benzene

5. The IUPAC name of the following compound, is



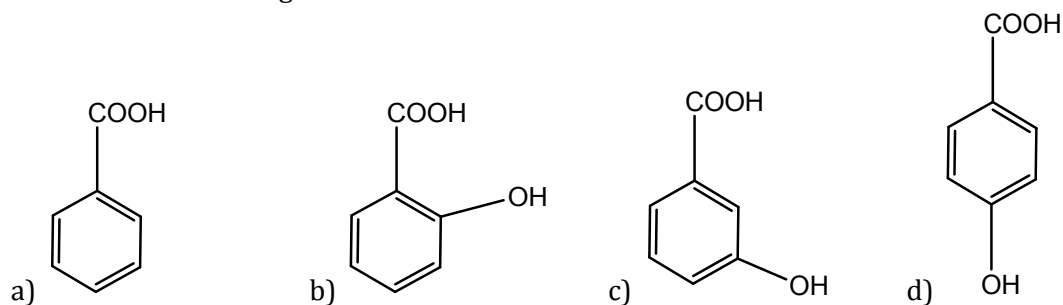
- a) 4-bromo-3-cynophenoal
- b) 2-bromo-5-hydroxybenzonitrile
- c) 2-cyano-4-hydroxybromobenzene
- d) 6-bromo-3-hydroxybenzonitrile

6. Ethoxy ethane and methoxy propane are :

- a) Geometrical isomers
- b) Optical isomers

- c) Functional group isomers
- d) Metamers

7. Which of the following aromatic acid is most acidic?



8. The hybridization of carbon in diamond, graphite and acetylene is in the order:

- a) sp^3, sp^2, sp
- b) sp^2, sp^3, sp
- c) sp, sp^2, sp^3
- d) sp^2, sp, sp^3

9. Which is optically active?

- a) Isobutyric acid
- b) β -chloropropionic acid
- c) Propionic acid
- d) α -chloropropionic acid

10. Which of the following statement is wrong?

- a) Using Lassaigne's test nitrogen and sulphur present in organic compound can be tested
- b) Using Beilstein's test the presence of halogen in a compound can be tested
- c) In Lassaigne's filtrate the nitrogen present in a organic compound is converted into NaCN
- d) In the estimation of carbon, an organic compound is heated with CaO in a combustion tube

11. The reaction, $\text{CH}_2 = \text{CHCHO} \xrightarrow{\text{HX}}$ gives :

- a) CH_3CHXCHO
- b) CH_2XCHCHO
- c) $\text{CH}_2 = \text{CHCHX}_2$
- d) None of these

12. What kind of isomerism is possible for 1-chloro-2-nitroethene?

- a) Functional group isomerism
- b) Position isomerism
- c) E/Z isomerism
- d) Optical isomerism

13. Acetonitrile is

- a) CH_3CN
- b) CH_3COCN
- c) $\text{C}_2\text{H}_5\text{CN}$
- d) $\text{C}_6\text{H}_5\text{CN}$

14. Formation of cyanohydrin from a ketone is an example of

- a) Electrophilic addition
- b) Nucleophilic addition
- c) Electrophilic substitution
- d) Nucleophilic substitution

15. An organic compound which produces a bluish green coloured flame on heating in presence of copper is

- a) Chlorobenzene
- b) Benzaldehyde
- c) Aniline
- d) Benzoic acid

16. The compound abd C—C abd will exist in :
 a) 3 forms b) 4 forms c) 5 forms d) 2 forms
17. Which of the following compounds has the maximum number of π -bonds?
 a) $\text{HC} \equiv \text{C} - \text{CH} = \text{CH}_2$ b) $\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2$
 c) $\text{CH}_3\text{CH}_2\text{COCH}_3$ d) $\text{C}_6\text{H}_5 - \text{COOH}$
18. The C – H bond distance is longest in
 a) C_2H_2 b) C_2H_4 c) C_2H_6 d) $\text{C}_2\text{H}_2\text{Br}_2$
19. The yield in organic reactions is generally poor because the reactions are :
 a) Very fast
 b) Non-ionic
 c) Between covalent compounds
 d) Accompanied by side reactions
20. Which of the following resonating structures of 1-methoxy-1, 3-butadiene is least stable?
 a) $\overset{\ominus}{\text{C}}\text{H}_2 - \text{CH} = \text{CH} - \overset{\oplus}{\text{C}}\text{H} = \text{O} - \text{CH}_3$ b) $\text{CH}_2 = \text{CH}_2 - \overset{\ominus}{\text{C}}\text{H} - \overset{\oplus}{\text{C}}\text{H} = \text{O} - \text{CH}_3$
 c) $\overset{\ominus}{\text{C}}\text{H}_2 - \overset{\oplus}{\text{C}}\text{H} - \text{CH} = \text{CH} - \text{O} - \text{CH}_3$ d) $\text{CH}_2 = \text{CH} - \overset{\ominus}{\text{C}}\text{H} - \overset{\oplus}{\text{C}}\text{H} - \text{O} - \text{CH}_3$

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