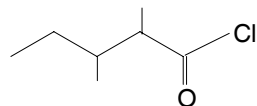


ORGANIC CHEMISTRY



1. The IUPAC name of (AIPMT 2006)

- 1) 2, 3-dimethylpentanoyl chloride 2) 3, 4 - dimethylpentanoyl chloride
3) 1-chloro -1-oxo - 2, 3-dimethylpentane 4) 2-ethyl-3-methyl butanoyl chloride

2. The general molecular formula which represents the homologous series of alkanols is (AIPMT 2006)

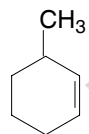
- 1) $C_nH_{2n+2}O$ 2) $C_nH_{2n}O_2$ 3) $C_nH_{2n}O$ 4) $C_nH_{2n+1}O$

3. 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 (AIPMT 2008)

- 1) CHO 2) CH₄O 3) CH₃O 4) CH₂O
2)

4. In the hydrocarbon $\overset{6}{CH_3} - \overset{5}{CH} = \overset{4}{CH} - \overset{3}{CH_2} - \overset{2}{C} \equiv \overset{1}{CH}$, the state of hybridization of carbons 1, 3 and 5 are in the following sequence (AIPMT 2008)

- 1) sp, sp², sp³ 2) sp³, sp², sp 3) sp², sp, sp³ 4) sp, sp³, sp²



5. The IUPAC name of (AIIMS 2003)

- 1) 3-methylcyclohexane 2) 1-methyl cyclohex-2-ene
3) 6- methylcyclohexane 4) 2- methylcyclohex-5-ene

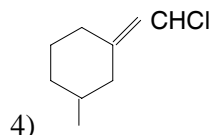
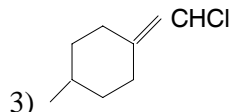
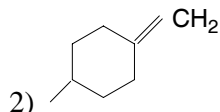
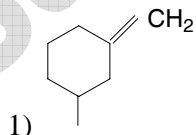
6. The correct IUPAC name of the compound given below is (CBSE Med 2003)

- 1) 4-ethyl-3-methyl octane 2) 3-methyl-4-ethyl octane
3) 2, 3-dimethyl heptane 4) 5-ethyl-6-methyl octane

7. The dihedral angle in the staggered conformation of C₂H₆ is (CBSE Med 2000)

- 1) 120° 2) 60° 3) 0° 4) 90°

8. The geometrical isomerism is shown by (AIIMS 2004)



9. A chiral compound is (AIIMS 2003)

- 1) 2, 3, 4-trimethyl hexane 2) n-hexane
3) methane 4) n-butane

10. The molecular formula of diphenyl methane is $C_{13}H_{12}$. How many structural isomers are possible when one of the hydrogenation is replaced by a chlorine atom? (CBSE Med 2000)
- 1) 6 2) 4 3) 8 4) 7

11. The formal charges of C and O atoms in $CO_2 \left(: \ddot{O} = C = \ddot{O} : \right)$ are, respectively (EAMCET-2012)
- 1) 1, -1 2) -1, 1 3) 2, -2 4) 0, 0

12. Match the following (EAMCET-2012)

List-I

- (A) Acetaldehyde, Vinylalcohol
 (B) Eclipsed and staggered ethane
 (C) Butanol, Butanol
 (D) Methyl -n- propylamine
 and Diethylamine

List-II

- (I) Enantiomers
 (II) Tautomers
 (III) Chain isomers
 (IV) Conformational isomers
 (V) Metamers

The correct answer is.

- | | | | | |
|-----|------|------|-------|------|
| | (A) | (B) | (C) | (D) |
| (1) | (II) | (IV) | (III) | (V) |
| (2) | (II) | (IV) | (I) | (V) |
| (3) | (V) | (I) | (IV) | (II) |
| (4) | (V) | (I) | (III) | (II) |

13. The number of stereoisomers possible for $H_3C - CH(OH) - CH(OH) - CH_3$ is (EAMCET-2011)
- 1) 1 2) 2 3) 3 4) 4

14. Identify the compound that exhibits tautomerism. (AIEEE-2010)
- (1) Phenol (2) 2-Butene (3) Lactic acid (4) 2-Pentanone

15. Which one of the following pairs of 2, 3-butane diol is enantiomeric? (EAMCET-2010)
- 1) 2R, 3R, and 2S, 3S 2) 2S, 3S and 2S, 3R 3) 2R, 3R and 2R, 3S 4) 2S, 3S and 2R, 3S

16. With respect to chlorobenzene, which of the following statements is NOT correct? (EAMCET12)

- | | |
|--------------------------------|--------------------------|
| (1) Cl is ortho/para directing | (2) Cl exhibits effect |
| (3) Cl is ring deactivating | (4) Cl is meta directing |

KEY

- 1) 1 2) 1 3) 3 4) 4 5) 1 6) 1 7) 2 8) 4 9) 1 10) 2
- 11) 4 12) 2 13) 3 14) 4 15) 1 16) 4