1. **Which of the following compounds is aromatic?**



1. **The compound X in the following reaction is:**



1. Butyne
2. Butene
3. 2-Chlorobutene
4. Butane
5. **The common name of methylbenzene is:**
6. Anisol C) *p*-Cresol
7. Toluene D) Xylene
8. **How many σ and π bonds are in the following structure:**



1. 13 sigma and 2 pi bond
2. 15 sigma and 1 pi bond
3. 16 sigma and 1 pi bond
4. 6 sigma and 2 pi bond
5. **The major product of the following reaction is:**



1. **The type of hybridization of the indicated carbon in the following structure is:**



1. sp2
2. sp3d
3. sp3
4. sp
5. **The compound with the highest boiling point is:**
6. *n*-Hexane
7. 2,2-Dimethylbutane
8. 2-Methylpentane
9. *n*-Pentane
10. **Addition of 2 moles HBr to 1-pentyne gives:**
11. *1-Bromopentene*
12. 2,2-Dibromopentene
13. 2,2-Dibromopentane
14. 1,2-Dibromopentane
15. **One of the expected products of the following reaction is:**



1. **The sulphonation of benzene is:**
2. Nucleophilic addition
3. Nucleophilic substitution
4. Electrophilic substitution
5. Electrophilic addition
6. **The structure of *p*-chlorobenzylbromide is:**



1. **The major product of the following reaction is:**



1. **Oxidation of m-xylene by KMnO4 yields:**



1. **Hydrogenation of cyclopropane gives:**



1. **The product of the following reaction is:**





1. **The product from the reaction of with FeBr3/Br2 is:**



1. **The number of isomers for the molecular formula C4H10 is:**

A) 1 B) 2 C) 3 D) 4

1. **Ozonoloysis of 1-methylcyclopentene gives:**



1. **What is the correct IUPAC name of the given structure?**



1. 4, 6-Dimethylcyclohexene
2. 3, 5-Dimethylcyclohexene
3. 1, 5-Dimethylcyclohexene
4. 3, 5-Dimethylcyclohexane
5. **The product of the following reaction is:**



1. Pentane
2. Octane
3. 1-Bromopentane
4. 1-Bromopropane
5. **Acetylene is the Common name for?**
6. Propene
7. Ethane
8. Ethene
9. Ethyne
10. **The correct IUPAC name of the given compound is :**



1. 1-Bromo-3-pentyne
2. 5-Bromo-3-pentyne
3. 1-Bromo-4-pentyne
4. 5-Bromo-2-pentyne
5. **The most reactive compound in alkylation reaction of the following substituted benzenes is:**



1. **Which of the following compounds has the shortest carbon-carbon bond?**

A) Acetylene B) Propane

C) Ethene D) Ethane

1. **The reagent used in the following transformation**

is:

1. HCl
2. HCl/H2O
3. Cl2/Light
4. Cl2/FeCl3
5. **The carbon bearing a positive charge is called:**
6. Free radical
7. Carbanion
8. Carbocation
9. Anion
10. **The product of the following reaction is :**



1. *trans*-2-Butene
2. *cis*-2-Butene
3. *trans*-2-pentene
4. Butane
5. **The geometry of the selected carbon is:**



1. Tetrahedral
2. Trigonal planar
3. Bent
4. Linear
5. **Which of the following molecules has the smallest dipole moment?**
6. CHCl3
7. CCl4
8. NH3
9. H2O
10. **Which of the following dibromides would yield 2-butyne upon dehydrohalogenation?**

