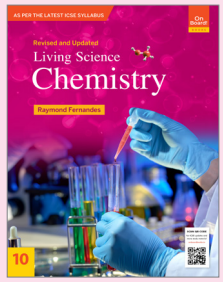
ICSE Living Science CHEMISTRY

Class 10



Multiple-Choice Questions

CHAPTER 12: ORGANIC CHEMISTRY–I

1. Organic compounds, whether natural or synthetic, contain ..... and ..... as the main elements.
   (a) carbon, hydrogen
   (b) carbon, nitrogen
   (c) carbon, oxygen
   (d) carbon, sulphur
   Ans: a

2. Organic compounds are ..... in water but ..... in organic solvents.
   (a) soluble, dissolve
   (b) soluble, do not dissolve
   (c) insoluble, dissolve
   (d) insoluble, do not dissolve
   Ans: c

3. Organic compounds have ..... bonding.
   (a) electrovalent
   (b) coordinate
   (c) molecular
   (d) covalent
   Ans: d

4. Carbon has ..... valence electrons and it forms ..... covalent bonds.
   (a) five, four
   (b) four, four
   (c) four, five
   (d) five, five
   Ans: b

5. Carbon has the unique ability to form bonds with other atoms of carbon, thereby, forming a large number of molecules. This property is called .....
   (a) catenation.
   (b) covalency.
   (c) electrovalency.
   (d) carbonation.
   Ans: a

6. Organic compounds having the ..... molecular formula but/and ..... structural formulae are called isomers.
   (a) different, same
   (b) same, different
   (c) same, same
   (d) different, different
   Ans: b

7. Saturated hydrocarbons contain only ..... covalent bonds between carbon atoms.
   (a) single
   (b) double
   (c) triple
   (d) quadruple
   Ans: a

8. Saturated cyclic compounds containing single covalent bonds are called .....
   (a) aliphatic compounds.
   (b) acyclic compounds.
   (c) carbocyclic compounds.
   (d) cycloalkanes.
   Ans: d

9. C_nH_{2n+2} is the general formula for
   (a) alkenes.
   (b) alkynes.
   (c) alkanes.
   (d) ketones.
   Ans: c

10. Common name for ethanal is
   (a) formaldehyde.
   (b) propionaldehyde.
   (c) butyraldehyde.
   (d) acetaldehyde.
   Ans: d

11. A homologous series is a series of organic compounds, each containing a characteristic ..... group.
   (a) structural
   (b) functional
   (c) chemical
   (d) organic
   Ans: b

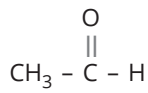
12. Every member of a homologous series differs from its successive member by a ..... group.
   (a) CH_2
   (b) CH_3
   (c) CH_4
   (d) CH_5
   Ans: a

13. Compounds that have the same ..... formula but different ..... formula are called isomers.
   (a) structural, molecular
   (b) chemical, molecular
   (c) structural, chemical
   (d) molecular, structural
   Ans: d

14. Which of the following is not structural isomerism?
   (a) Chain isomerism
   (b) Positional isomerism
   (c) Stereoisomerism
   (d) Functional isomerism
   Ans: c

15. The molecular formula of iso-butane is .....
   (a) C_4H_{10}
   (b) C_2H_{10}
   (c) C_4H_{12}
   (d) C_3H_{10}
   Ans: a

16. The molecular formula of ethyl chloride or chloroethane is .....
   (a) C_4H_5Cl
   (b) C_2H_5Cl
   (c) C_2H_6Cl
   (d) C_3H_5Cl
   Ans: b

17. 

   This is the structural formula of
   (a) methanal.
   (b) methanoic acid.
   (c) ethanoic acid.
   (d) acetaldehyde.
   Ans: d

18. (i) $CH_3 - CH_2 - CH_2 - OH$

(ii) $CH_3 - \underset{\underset{OH}{|}}{CH} - CH_3$

These are the examples of

(a) chain isomers.
(b) functional isomers.
(c) positional isomers.
(d) tautomers.

Ans: c

19. Ethyl alcohol and dimethyl ether are examples of

(a) chain isomers.
(b) functional isomers.
(c) positional isomers.
(d) tautomers.

Ans: b

20. Tautomers are compounds that have the same ..... but contain different ..... that are in equilibrium.

(a) functional group, molecular formula
(b) structural group, molecular formula
(c) molecular formula, functional group
(d) structural formula, molecular formula

Ans: c