

CHAPTER : CARBON AND ITS COMPOUND

1. Why does carbon forms compounds mainly by covalent bonding?

2. Name the three allotropes of carbon.

3. Which of the following compounds can have a triple bond?

C₂H₄ C₃H₄ C₃H₆

4. Which of the following compounds can have a double bond?

C₄H₁₀ C₅H₈ C₅H₁₀

5. Give the names of one saturated cyclic hydrocarbon and one unsaturated cyclic hydrocarbon.

6. Write the molecular formula and structure of benzene.

7. Write the electron dot structure for the following compounds:

(1) H₂ (2) O₂ (3) N₂ (4) CO₂ (5) S₈ (6) H₂O (7) NH₃ (8) CCl₄

(9) CH₄ (10) C₅H₁₂ (11) C₄H₈ (12) C₅H₈ (13) C₇H₁₂

(14) C₅H₁₀ (15) Cyclopropane (16) Cyclobutane (17) Cyclopentane (18) Cyclohexane
(19) Benzene

8. Define the following with examples:

(a) Hydrocarbon.

(b) Saturated hydrocarbon.

(c) Unsaturated hydrocarbon.

(d) Homologous series.

(e) Functional group.

9. Write the IUPAC Name of the following:

(1) CH₃ – CH₂ – CH₂ – Cl

(2) C₃H₇Br

(3) C₂H₅I