
	Selvam College Of Technology, Namakkal (Autonomous) IT Support & Development Training Programme (ISDTP)		
Worksheet -5 (Carbon and its Compound)			
Bundle & Subject Name	Advanced Bundle V2 (2025) - Competitive Exam Training - SC (Level 2)	Semester	VI

Answer Key (10*1=10)

1. What is the general formula of alkynes? (RRC Group D 2021)

- A) C_nH_{2n+2} B) C_nH_{2n}
 C) C_nH_{2n-2} D) C_nH_{2n-4}

Ans: C) C_nH_{2n-2}

2. What is the IUPAC name of the hydrocarbon with the molecular formula C_6H_{14} ? (RRB ALP 2018)

- A) Hexane B) Cyclohexane
 C) Methane D) Propane

Ans: A) Hexane

3. What is the geometry around each carbon atom in a diamond?

- A) Linear B) Trigonal planar
 C) Tetrahedral D) Octahedral

Ans: C) Tetrahedral

4. What is the common name of ethanoic acid?

- A) Acetic Acid B) Formic Acid
 C) Propionic Acid D) Butanoic Acid

Ans: A) Acetic Acid

5. Which of the following is a structural formula for butane?

- A) $CH_3-CH_2-CH_2-CH_3$ B) CH_3CH_3
 C) $CH_3CH_2CH_3$ D) $CH_3-CH_2-CH_3$

Ans: A) $CH_3-CH_2-CH_2-CH_3$

6. Who is credited with the discovery of carbon as an element?

- A) Dmitri Mendeleev B) Antoine Lavoisier
 C) Joseph Priestly D) Robert Boyle

Ans: B) Antoine Lavoisier

7. Soaps are sodium or potassium salts of long chain _____.
 (RRB JE 2019)

- A) $-COOH$ B) $-OH$
 C) $-CHO$ D) $-OR$

Ans: A) $-COOH$

8. Which carbon is known as Buckminsterfullerene?

- A) C 14 B) C 6
 C) C 20 D) C 60

Ans: D) C 60

9. Which allotrope of carbon has a three-dimensional network structure and is known for its hardness and high melting point?

- A) Graphite B) Diamond
 C) Fullerene D) Amorphous carbon

Ans: B) Diamond

10. Which of the following is a saturated hydrocarbon? (RRB JE 2023)

- A) Methane B) Propylene
 C) Butadiene D) Acetylene

Ans: A) Methane