

Practice Challenge - Subjective

Subject: Chemistry

Topic : Carbon and its Compounds_Revision

Class: X

1. Why do covalent compounds have low melting and boiling points ?
2. Give the name and structural formula of next homologue of HCOOH.
3. Explain about the following.
 - (a) Single bond
 - (b) Double bond
 - (c) Triple Bond
4. Describe the structure of diamond. Draw a simple diagram to show the arrangement of carbon atoms in it.
5.
 - (a) Explain why diamond has a high melting point.
 - (b) State any two uses of diamond.

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6. An element E exists in three allotropic forms A, B and C. In allotrope A, the atoms of element E are joined to form spherical molecules. In allotrope B, each atom of element E is surrounded by three other E atoms to form a sheet-like structure. In allotrope C, each atom of element E is surrounded by four other E atoms to form a rigid structure.
- Name the element E.
 - What is allotrope A?
 - What is allotrope B?
 - What is allotrope C?
 - Which allotrope is used in making jewellery?
 - Which allotrope is used in making the electrode of a dry cell?
7. Name the functional groups present in the following compounds:
- $\text{CH}_3\text{COCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$
 - $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$
 - $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CHO}$
 - $\text{CH}_3\text{CH}_2\text{OH}$
8. Name a compound of each type and draw the figure.
- Cyclic compound with single bond.
 - Cyclic compound with triple bond.