**Aarambh classes**

**Class X(CBSE)**

**Chemistry worksheet**

**Carbon and its compounds**

**1 marks questions :**

1. The molecular formula of a compound is C2H6O .Name its homologous series .
2. The molecular formula of a hydrocarbon is C10H18 . Name its homologous series .
3. Select the hydrocarbons which are members of the same homologous series .Give the name of each series.

C8H16 , C3H8 ,C6 H10 , C5H10 , C7H12 ,C4 H10

1. What is the molecular formula of a saturated hydrocarbon whose one molecule contains 8 hydrogen atoms ?
2. Write the structure of a branched chain alkane.
3. Give the names of the functional groups .
4. -CHO (ii)

**3 marks questions :**

1. Why does carbon form compounds mainly by covalent bonding ?
2. Differentiate between saturated and unsaturated hydrocarbons by giving examples .
3. Write the molecular formula of (i)an alkane (ii)an alkene (iii) an alkyne having six carbon atoms .
4. A carbon compound has molecular formula C4H10.Write the structures and name of its isomers .
5. An element of group 14 has two common allotropes ,A nd B .A is very hard and is abad conductor of electricity ,while Bis soft in touch and agood conductor of electricity .Identify the element.Name the two allotropes and explain their contrasting behaviour.
6. Two carbon compounds A nd B have the molecular formula C3H8 and C3H6 respectively.Which one of the two is most likely to show addition reaction?Justify your answer.

**5 Mark questions** :

1. Give an example of each of the following:

(a)Carbon compound containing two double bonds .

(b)A molecule in which central atom is linked to three other atoms .

(c) A compound containing both ionic and covalent bonds .

(d)An organic compound which is soluble in water .

(e) A carbon compound which burns with a sooty flame.