

## ASSIGNMENT X CARBON AND ITS COMPOUNDS

- 1 WHY does carbon form covalent bond?
- 2 Define covalent bond and its types with examples.
- 3 Give 4 reasons for large numbers of compounds of carbon.
- 4 Define functional group , homologous series, isomerism, & catenation.
- 5 Draw the isomers of butane & pentane.
- 6 Identify the functional group, give IUPAC name , & draw structure of the given compounds.  $\text{CH}_3\text{CH}_2\text{OH}$  ,  $\text{HCHO}$ ,  $\text{CH}_3\text{COOH}$ ,  $\text{CH}_3\text{CH}_2\text{Br}$ ,  $\text{C}_6\text{H}_{12}$ ,  $\text{C}_5\text{H}_{12}$ ,  $\text{CH}_3\text{COCH}_3$ .
- 7 Name the fourth member of series having general formula  $\text{C}_n\text{H}_{2n}$
- 8 Write 3 characteristics of homologous series.
- 9 Differentiate between the allotropes of carbon.
- 10 (a) Calculate the difference in the molecular formula for (i)  $\text{CH}_3\text{OH}$  &  $\text{C}_2\text{H}_5\text{OH}$  (ii)  $\text{C}_2\text{H}_5\text{OH}$  &  $\text{C}_3\text{H}_7\text{OH}$  (iii)  $\text{C}_3\text{H}_7\text{OH}$  &  $\text{C}_4\text{H}_9\text{OH}$   
(b) Is there any similarities between these series.  
(c) Arrange in increasing order with name.