# CHEMISTRY STUDY MATERIALS FOR CLASS 10

(Questions – Answers & Explanations of Chapter-04)

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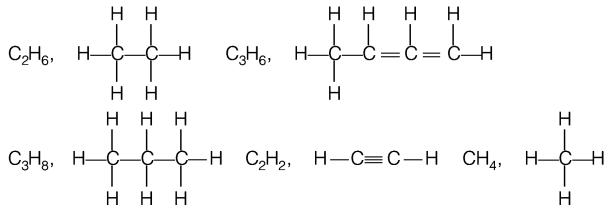
### CARBON AND ITS COMPOUND

#### EXERCISE QUESTIONS PAGE NO. 77 and 78

#### Q13. Which of the following hydrocarbons undergo addition reactions?

 $C_2H_6$ ,  $C_3H_8$ ,  $C_3H_6$ ,  $C_2H_2$  and  $CH_4$ 

Ans:

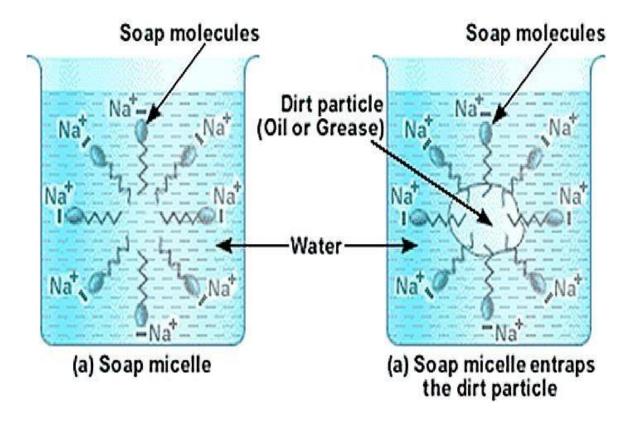


Unsaturated hydrocarbons containing double/ triple bond undergo addition reactions. So,  $C_3H_6$  and  $C_2H_2$  will undergo addition reactions.

- Q14. Give a test that can be used to differentiate chemically between butter and cooking oil.
- Ans: Butter contains saturated compounds while cooking oil contains unsaturated compounds. Since unsaturated compounds are oxidised by alkaline KMnO<sub>4</sub> with disappearance of its pink colour. When cooking oil is treated with a few drops of alkaline KMnO<sub>4</sub>, pink colour of KMnO<sub>4</sub> disappears. With butter however, the pink colour KMnO<sub>4</sub> does not disappear
- Q15. Explain the mechanism of the cleaning action of soaps.

#### Ans: Cleansing action of soaps:

The dirt present on clothes is organic in nature and insoluble in water. Therefore, it cannot be removed by only washing with water. When soap is dissolved in water, its hydrophobic ends attach themselves to the dirt and remove it from the cloth. Then, the molecules of soap arrange themselves in micelle formation and trap the dirt at the centre of the cluster. These micelles remain suspended in the water. Hence, the dust particles are easily rinsed away by water.



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