

# **SBOA SCHOOL AND JUNIOR COLLEGE**

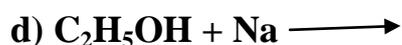
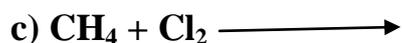
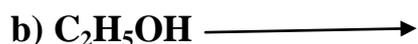
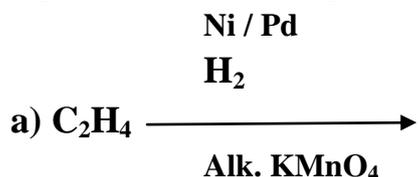
## **CHENNAI -101**

**Std - X**

### **CHEMISTRY ASSIGNMENT – 4**

1. List 2 tests to distinguish experimentally between an alcohol and a carboxylic acid and describe how these tests are performed.

2. Complete the following reactions:-



3. What is Hydrogenation ? What is its industrial application?

4. Why are carbon compounds used as fuels give two reasons?

5. Write the molecular formula of alcohol which can be derived from butane ?

6. What is denatured alcohol ? Why is alcohol denatured?

7. The molecular formula of two organic compounds are  $\text{C}_3\text{H}_6$  and  $\text{C}_3\text{H}_8$ . Which of the two is likely to show addition reaction . Why?

8. Name the carbon compound which when heated with conc.  $\text{H}_2\text{SO}_4$  produces ethane. Write chemical equation for the reaction .State the role of conc.  $\text{H}_2\text{SO}_4$  in the reaction.

9. A neutral organic compound A of molecular formula  $\text{C}_2\text{H}_6\text{O}$  on oxidation with potassium dichromate and sulphuric acid gives compound B. Compound A reacts with compound B, on warming in the presences of conc.  $\text{H}_2\text{SO}_4$  gives a sweet smelling substance C. Identify A, B and C.

10. How do we obtain the following substances from pure ethanol ? Explain with a chemical equation (a) Sodium ethoxide (b) Ethane.

11. Which of the following undergoes substitution reaction. Give reason.



12. What happens when methane reacts with chlorine? Give equation of the reaction which takes place.

13. Write the name and general formula of a chain of hydrocarbons in which an addition with hydrogen is possible. State the essential condition for an addition reaction. Stating this condition write the chemical equation giving the name of the reactant and the product of the reaction.

- 14. An organic compound having molecular formula  $C_3H_6O$  can exist in the form of two isomers A and B having different functional groups. The isomer A is a liquid which is used as a solvent for nail polish. The isomer B is also a liquid. An aqueous solution of one of the lower homologous of B is used for preserving biological specimens in the laboratory.**
- a) What is compound A?**
  - b) Write the electron dot structure of A?**
  - c) What is compound B?**
  - d) Name the lower homologous of compound B which is used in preserving biological specimens.**
- 15. Kerosene burns with blue flame in stove and with yellow flame in the lantern give reason.**
- 16. What is dehydration reaction ? Explain with an example.**
- 17. List two uses of ethanol.**
- 18. Compare saturated and unsaturated compounds on the basis of combustion.**
- 19. What is (a) Vinegar (b) denatured alcohol (c) Rectified spirit (d) Absolute alcohol.**

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