

WORKSHEET 1

CHAPTER 13 – ORGANIC CHEMISTRY-II

A. Tick (✓) the correct option.

- Alkenes are also called olefins which means
 - acid-formation.
 - bond-forming.
 - oil-forming.
 - soap-forming.
- What is the life time of methane in the atmosphere?
 - 3–5 years
 - 9–15 years
 - 20–24 years
 - 100 years
- On a large-scale, what is manufactured by fermentation of sugar and starch?
 - Methanal
 - Ethanol
 - Aldehyde
 - Ester
- When acetic acid is cooled sufficiently below room temperature, it forms ice like crystals. This is called
 - denaturing alcohol.
 - high speed alcohol.
 - glacial acetic acid.
 - illicit alcohol.
- Which of the following is the main constituent of marsh gas?
 - Ethene
 - Ethyne
 - Methane
 - Propane

B. Complete the following sentence:

- Vinegar is prepared by the bacterial oxidation of _____
- The organic acid present in vinegar is _____
- The next higher homologue of ethanoic acid is _____
- When acetic acid and ethanol react, it results in the formation of _____
- Phosphorous pentoxide (P_2O_5) is heated along with acetic acid to form _____

C. Name the hydrocarbon which

- is a tetrahedral molecule.
- is a planar molecule.
- is a linear molecule.
- forms a red precipitate with ammonical solution of copper(I) chloride.
- is known as paraffin.

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D. Name an organic compound which is

1. used for illuminating country houses.
2. used for making a household plastic material.
3. called 'wood spirit'.
4. poisonous and contains OH group.
5. consumed as a drink.

E. Answer the following.

1. State the sources of alkanes.
2. Methane is a greenhouse gas comment.
3. How is ethane prepared in the laboratory?
4. Give three uses of ethane.
5. Write the following properties of ethene:
 - a. Physical state
 - b. Odour
 - c. Density as compared to air
 - d. Solubility

ANSWERS

WORKSHEET 1

A. Tick (✓) the correct option.

1. c
2. b
3. b
4. c
5. c

B. Complete the following sentence:

1. ethanol
2. acetic acid
3. propanoic acid
4. ethyl acetate
5. acetic anhydride

C. Name the hydrocarbon which;

1. Methane
2. Ethene
3. Ethyne
4. Acetylene
5. Alkanes

D. Name an organic compound which is:

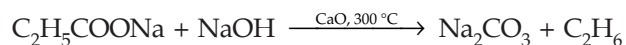
1. Ethyne
2. Ethene
3. Methanol
4. Methanol
5. Ethanol

E. Answer the following.

1. The principal sources of alkanes are Natural gas and petroleum.
2. Methane is a primary constituent of natural gas. It absorbs outgoing heat radiation from the earth, and thus contributes to the green house effect and so it is considered as a green house gas.

3. Laboratory preparation of ethane:

When the mixture of sodium propionate and soda lime is taken in the boiling tube and heated, the ethane gas is evolved. It is also collected by downward displacement of water.



4. Three uses of ethane are:

- i. It is used in the preparation of ethene, ethanol, and ethanol.
- ii. It forms ethyl chloride, which is used to make tetraethyllead.
- iii. It is also a good fuel.

5. a. Physical state: Ethene is a colourless and inflammable gas.

b. Odour: It has faint sweetish odour.

c. Density as compared to air: It has density less than one, hence it is lighter than air.

d. Solubility: It is sparingly soluble in water but highly soluble in organic solvents like alcohol, ether and chloroform.