



Date Planned : __ / __ / __	Daily Tutorial Sheet-1	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Advanced Archive	Exact Duration : _____

1.

Give one characteristic test which would distinguish CH₄ from C₂H₂.

(1979)

2.

Marsh gas mainly contains :
(A) C₂H₂ (B) CH₄ (C) H₂S (D) CO

(1980)

3.

Which of the following will decolourise alkaline KMnO₄ solution ?
(A) C₃H₈ (B) CH₄ (C) CCl₄ (D) C₂H₄

(1980)

4.

.....is most acidic. (Ethane, Ethene, Ethyne)

(1981)

5.

One mole of a hydrocarbon A reacts with one mole of bromine giving a dibromo compound, C₅H₁₀Br₂. Compound A on treatment with cold dilute alkaline potassium permanganate solution forms a compound, C₅H₁₂O₂. On ozonolysis A gives equimolar quantities of propanone and ethanal. Deduce the structural formula of A.

(1981)

6.

Outline the reaction sequence for the conversion of ethene to ethyne (the number of steps should not be more than two).

(1981)

7.

The compound with highest boiling point is :
(A) 2-methyl butane (B) n-pentane (C) 2, 2-dimethyl propane (D) n-hexane

(1982)

8.

State with balanced equation, what happens when "propene is bubbled through a hot aqueous solution of potassium permanganate." ?

(1982)

9.

Moist ethylene can be dried by passing it through concentrated sulphuric acid. (T/F)

(1982)

10.

Which of the following compounds does not dissolve in conc. H₂SO₄ even on warming ?
(A) Ethylene (B) Benzene (C) Hexane (D) Aniline

(1983)

11.

When propyne is treated with aqueous H₂SO₄ in the presence of HgSO₄, the major product is :
(A) propanal (B) propyl hydrogen sulphate
(C) acetone (D) propanol

(1983)

12.

The compound 1, 2-butadiene has :
(A) only sp-hybridised carbon atoms
(B) only sp²-hybridised carbon atoms
(C) both sp and sp²-hybridised carbon atoms
(D) sp, sp² and sp³-hybridised carbon atoms

(1983)

13.

Acetylene is treated with excess sodium in liquid ammonia. The product is reacted with excess methyl iodide. The final product is

(1983)

14.

Give reasons for the following in one or two sentences :
(i) Methane does not react with chlorine in the dark
(ii) Propene reacts with HBr to give isopropyl bromide but does not give n-propyl bromide.

(1983)

15.

Baeyer's reagent is :
(A) alkaline permanganate solution (B) acidified permanganate solution
(C) neutral permanganate solution (D) aqueous bromine solution

(1984)