Vidyamandir Classes
Gurukul for IIT/JEE & Medical Preparation

Date Planned : __ / __ / __	Daily Tutorial Sheet-1	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-1	Exact Duration :_____

1. 2-chloro-3-methylbutane is treated with sodium in ether solution, then it will give :

(A) 2, 4-dimethylhexane **(B)** 3, 5-dimethylhexane

(C) 2, 3, 4, 5-tetramethylhexane **(D)** 2, 6-dimethyloctane

2. Wet ether is not used as a solvent in Wurtz reaction, because the water present in it :

(A) RX dissolves in H_2O **(B)** reduces RX to RH

(C) destroy the Na metal **(D)** reacts with R – R

3. Pure methane can be produced by :

(A) Wurtz reaction **(B)** Kolbe's electrolytic method

(C) Soda lime decarboxylation **(D)** Reduction with H_2

4. 2-methylbutane on reacting with bromine in the presence of high temperature gives mainly :

(A) 1-bromo 3-methylbutane **(B)** 2-bromo 3-methylbutane

(C) 2-bromo 2-methylbutane **(D)** 1-bromo 2-methylbutane

5. Both methane and ethane may be obtained by a suitable one-step reaction from :

(A) CH_3I **(B)** C_2H_5I **(C)** CH_3OH **(D)** C_2H_5OH

6. Which of the following liberates methane on treatment with water?

(A) Silicon carbide **(B)** Calcium carbide

(C) Beryllium carbide **(D)** Magnesium carbide

7. Which of the following will give three mono-bromo derivatives excluding stereoisomers ?

(A) $CH_3CH_2CH_2CH(CH_3)CH_3$ **(B)** $CH_3CH_2C(CH_3)_2CH_3$

(C) $CH_3CH(CH_3)CH(CH_3)CH_3$ **(D)** All the above can give

8. On halogenation, an alkane (C_5H_{12}) gives only one monohalogenated product. The alkane is :

(A) n-pentane **(B)** 2-methyl butane

(C) 2, 2-dimethyl propane **(D)** cyclopentane

9. Which of the following reactions can be used to prepare methane?

(A) Clemmensen reduction **(B)** Wurtz reaction

(C) Reduction of $CH_2 = CH_2$ by $LiAlH_4$

(D) Reduction of methyl iodide by using a zinc-copper couple

10. Hydrocarbon which is liquid at room temperature is :

(A) Pentane **(B)** Butane **(C)** Propane **(D)** Ethane

11. On mixing a certain alkane with chlorine and irradiating it with UV light, it form only two monochloro alkanes. The alkane could be:

(A) neopentane **(B)** propane **(C)** pentane **(D)** isopentane

12. Of the five isomeric hexanes, the isomer which can give two monochlorinated compound is : (Excluding stereoisomers)

(A) 2-methylpentane **(B)** 2, 2-dimethylbutane

(C) 2, 3-dimethylbutane **(D)** n-hexane