

CLASS : XIIth

DATE :

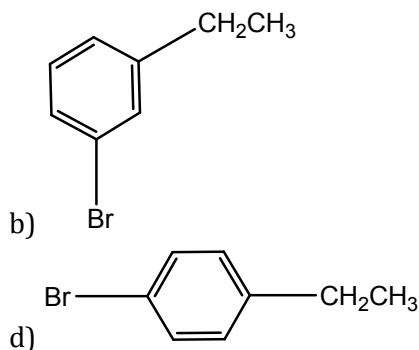
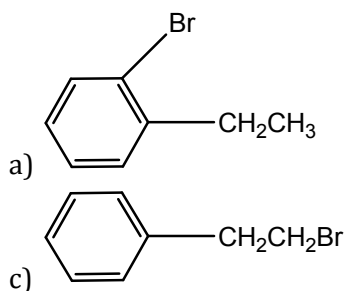
SUBJECT : CHEMISTRY

DPP NO. : 4

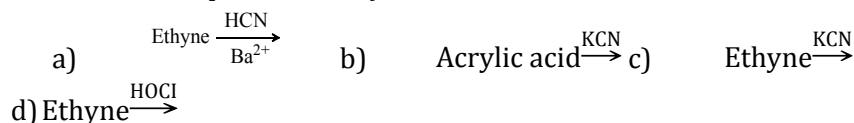
Topic :-HYDROCARBONS

- In which of the following electron delocalisation is possible?
 - $\text{CH}_2 = \text{CH} - \text{CH}_2 - \text{O}^-$
 - $$\begin{array}{c} \text{CH}_3\text{CH}_2\text{C} \\ // \quad \backslash \\ \text{O} \quad \underline{\text{O}} \end{array}$$
 - $\text{CH}_2 = \text{CH} - \text{CH}_2 - \text{CH} = \text{CH}_2$
 - None of the above
- The major component of L.P.G. is:
 - Methane
 - Ethane
 - Propane
 - Iso-butane
- Which of the following alkenes will yield 2-butanone on ozonolysis followed by the reaction with $\text{Zn}/\text{H}_2\text{O}$?
 - 2-methyl-2-hexene
 - 2-methyl-1-hexene
 - 3,4-dimethyl-3-hexene
 - 2,3-dimethyl-3-hexene
- Acetylene and ethylene reacts with alk. KMnO_4 to give:
 - Oxalic acid and formic acid
 - Acetic acid and ethylene glycol
 - Ethyl alcohol and ethylene glycol
 - None of the above
- According to Markownikoff's rule, what will be the major product of reaction

$$\text{CH}_2 = \text{CH} - \text{CH}_3 \xrightarrow{\text{HBr}} ?$$
 - $$\begin{array}{c} \text{Br} \\ | \\ \text{CH}_3 - \text{CH} - \text{CH}_3 \end{array}$$
 - $\text{Br} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$
 - $\text{CH}_2 = \text{CH} - \text{CH}_2\text{Br}$
 - $\text{CH}_2 = \text{C} = \text{CH}_2$
- Carbon black, used in making printing ink is obtained by the oxidation of:
 - Acetylene
 - Benzene
 - Methane
 - CCl_4
- Ethylbenzene with bromine in presence of FeBr_3 , predominantly gives



8. Which reaction produces acrylonitrile ($\text{CH}_2 = \text{CHCN}$)?



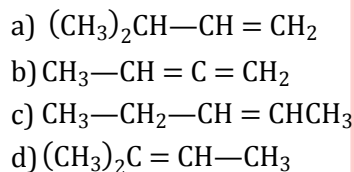
9. Gasoline is:



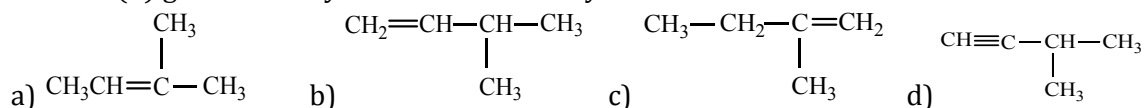
10. Which of the following gives methane [CH_4] on hydrolysis?



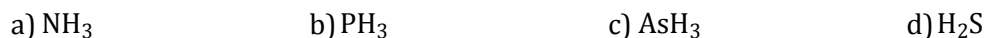
11. The compound $(\text{CH}_3)_2\text{CH}-\text{CHCl}-\text{CH}_3$ reacts with alcoholic KOH to give the following alkene:



12. A hydrocarbon reacts with HI to give (X) which on reacting with aqueous KOH forms (Y). Oxidation of (Y) gives 3-methyl-2-butanone. The hydrocarbon is:



13. Pure acetylene has sweet ethereal smell while impure smells like garlic due to presence of:



14. An alkyl halide by formation of its Grignard reagent and heating with water yields propane. What is the original alkyl halide?

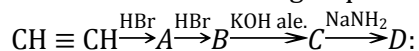


15. 1-propyne on treatment with dilute H_2SO_4 in presence of HgSO_4 gives acetone. The change is due to:



16. O_2 required for complete oxidation of 1 litre of ethane at NTP is:
a) 3.5 litre b) 0.156 mole c) 5.00 g d) All of these

17. In the following sequence the product *D* is,



- a) Ethanol b) Ethane c) Ethyne d) Ethanal

18. Which of the following compounds react with HBr obeying Markownikoff's rule?



19. Liquid hydrocarbon can be converted to a mixture of gaseous hydrocarbon by:

- a) Oxidation
b) Cracking
c) Hydrolysis
d) Distillation under reduced pressure

20. Two jars *A* and *B* are filled with hydrocarbons. Br_2 in CCl_4 is added to these jars. *A* does not decolourise the Br_2 solution but *B* decolourises. What are *A* and *B*?

- a) Alkane and alkene b) Alkene and alkane c) Alkene and alkyne d) None of these