DPP
DAILY PRACTICE PROBLEMS

CLASS : XIIth
DATE :

SOLUTION

SUBJECT : CHEMISTRY
DPP NO. : 4

Topic :-HYDROCARBONS

2 **(d)**

L.P.G. mainly contains butane and isobutane.

4 **(a)**

$CH \equiv CH \xrightarrow{[O]} \begin{matrix} COOH \\ | \\ COOH \end{matrix}$;

$CH_2 = CH_2 \xrightarrow{[O]} 2HCOOH$

5 **(a)**

According to Markownikoff's rule, the negative part of the reagent gets attached to that double bonded carbon atom which has least number of H-atoms. Thus,

$$CH_3 = CH - CH_3 \xrightarrow{HBr} CH_3 - \underset{\displaystyle Br}{\underset{|}{CH}} - CH_3$$

9 **(b)**

Gasoline contains alkanes from C_6 to C_{11} carbon atom.

10 **(d)**

We know that,

$Al_4C_3 + 12H_2O \rightarrow 4Al(OH)_3 + 3CH_4$

Thus, in this reaction methane (CH_4) is produced.

11 **(d)**

Follow Saytzeff rule of elimination.

13 **(b)**

Impurities of PH_3 give garlic smell to C_2H_2.

14 **(d)**

In the formation of an alkane from Grignard reagent, alkyl group always comes from Grignard reagent. Hence, the number of carbon atoms in the Grignard reagent and alkane formed Grignard reagent will be identical. So, the original alkyl halide is propyl bromide.

15 **(c)**

$CH \equiv C \quad CH_3 \xrightarrow[Hg^{2+}/H_2SO_4]{H_2O}$

$CH_2 = C(OH)CH_3 \rightleftharpoons CH_3COCH_3$;

The mechanism involves tautomerism.

16 **(d)**

$$C_2H_6 + \frac{7}{2}O_2 \longrightarrow 2CO_2 + 3H_2O$$

17 **(c)**

$$CH \equiv CH \xrightarrow{HBr} CHBr = CH_2 \xrightarrow{HBr}$$

$$CHBr_2—CH_3 \xrightarrow{KOH(alc.)} CHBr = CH_2 \xrightarrow{NaNH_2} CH \equiv CH$$

18 **(d)**

According to Markownikoff's rule the addition of a reagent (H*X*) to an unsymmetrical alkene takes place in such a way that the negative part of the reagent will be attached to that carbon atom which contains lesser number of H-atom.

$$CH_3 - \underset{\displaystyle CH_3}{\overset{\displaystyle |}{C}} = CH_2 + HBr \rightarrow CH_3 - \underset{\displaystyle CH_3}{\overset{\displaystyle Br \\ \displaystyle |}{C}} - CH_3$$

2-methylpropene

19 **(b)**

Follow text.

20 **(a)**

Br_2solution is decolourized by alkene or alkyne or molecules having unsaturation.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	B	D	C	A	A	C	D	A	B	D
Q.	11	12	13	14	15	16	17	18	19	20
A.	D	B	B	D	C	D	C	D	B	A