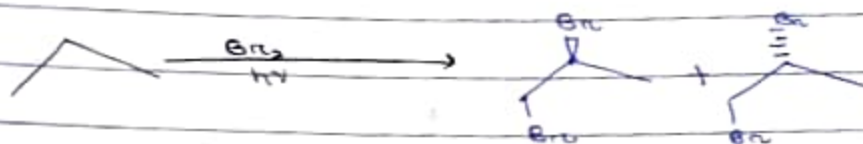
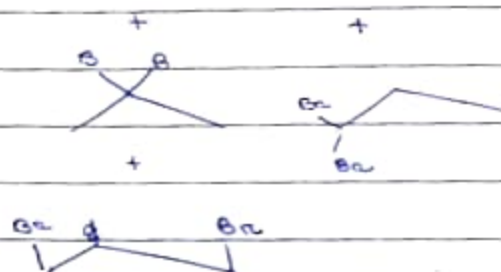


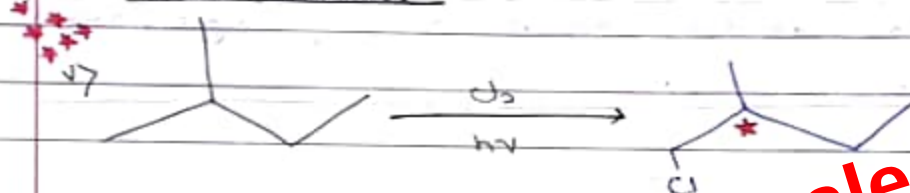
Q. iv) Form dibromo



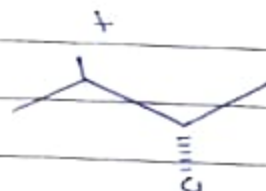
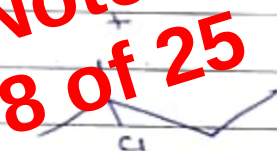
$$\begin{aligned} r &= 4 \\ y &= 2 \times 5 \\ z &= 2 \end{aligned}$$



monochlorination

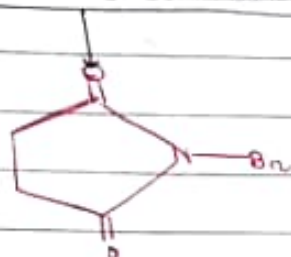


$$\begin{aligned} r &= 4 \\ y &= 6 \\ z &= 4 \end{aligned}$$

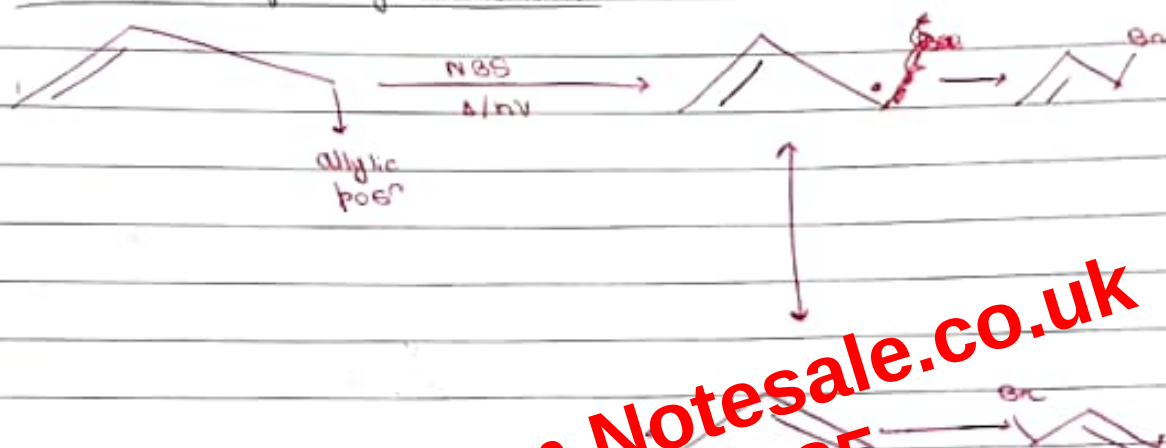


Preview from Notesale.co.uk
Page 8 of 25

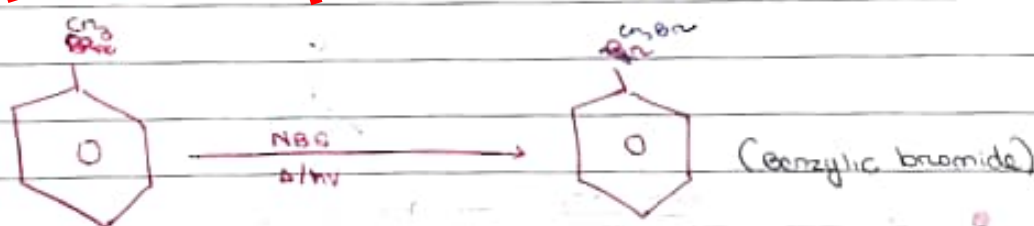
N-B-S [N-bromo succinimide]



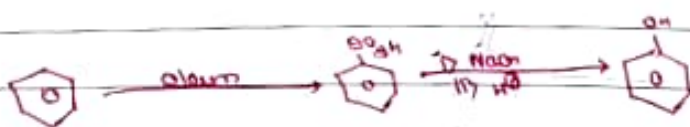
It is used for allylic substitution.



It is used for benzylic substitution.

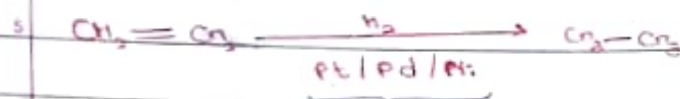


It is used for allylic/benzylic bromination.



• Syn Addition

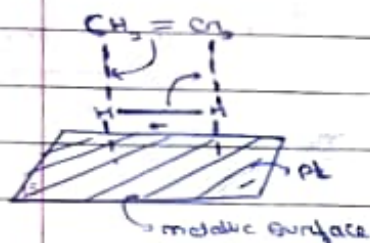
CATALYTIC HYDROGENATION



They behave as
Surface catalyst.

→ H_2/Pt also reduces ketone to alcohol and cyanide to amine.

Mechanism



→ Adv. It is a concerted mechanism. i.e. the breaking and making of bonds takes place at the same time.

→ It is known as syn / cis / same addⁿ. Syn addⁿ means both the hydrogens are added on the same, i.e. π -bond.

→ metal catalyst is used which makes the reaction easy.

→ $\text{Rate} \propto \frac{1}{\text{steric hindrance}}$

Less hindered is more reactive.

→ $\text{Rate} \propto \frac{1}{\text{stability}}$

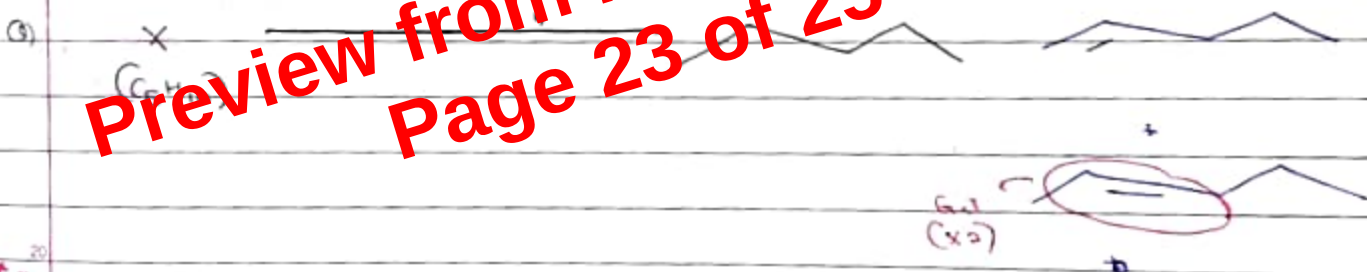
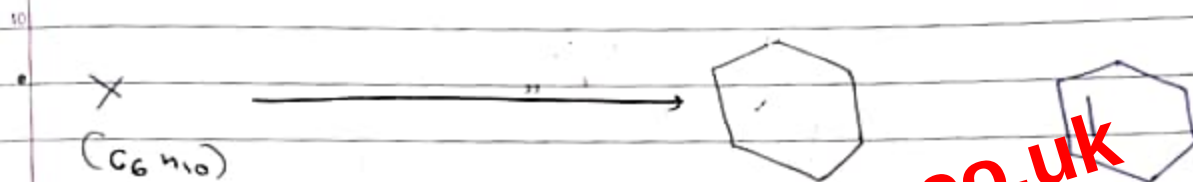
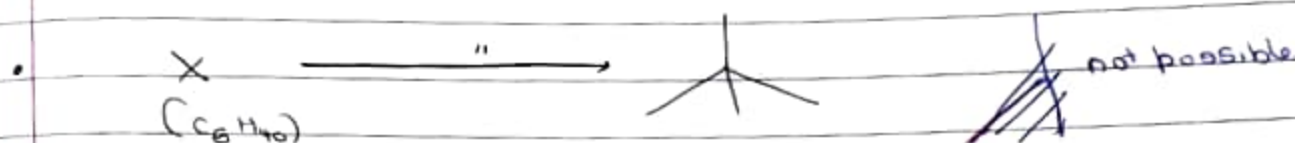
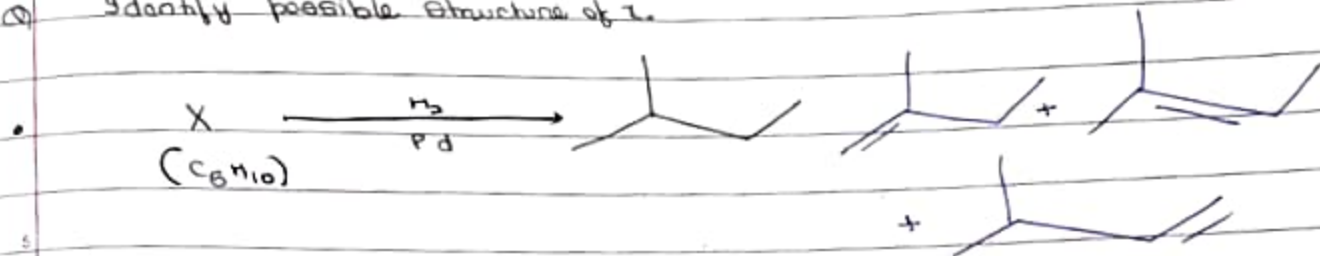
→ Stereochemistry is useful only when chiral centre is obtained / is possible.

→ In syn-addition maximum 2 compounds are possible.

→ neo-pentane cannot be formed by catalytic hydrogenation.

→ Alkyne is more reactive to catalytic hydrogenation than alkene.

Identify possible structure of X.



Structure = 3
Stereo = 5

Show G.I.

