

08-08-15_Sr.IPLCO_JEE-Main_RPTM-2_Syllabus

Mathematics:

PARABOLA AND CIRCLES

Physics:

N L M and Friction(Circular motion excluded)

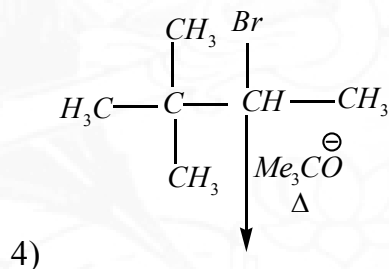
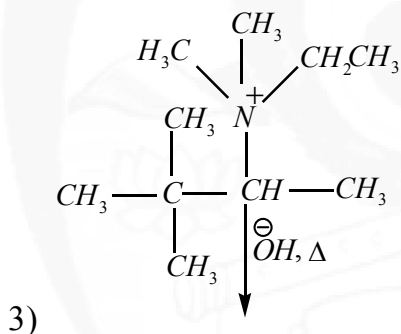
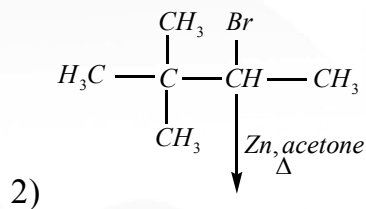
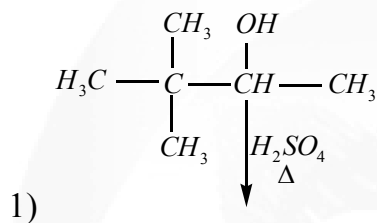
Chemistry:

ALKANES, ALKENES and ALKYNES

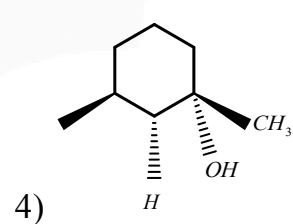
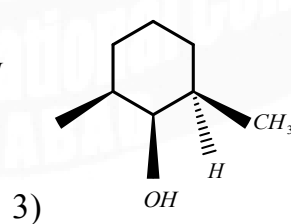
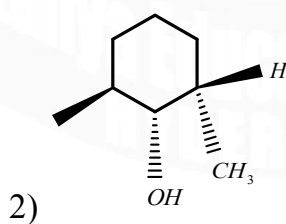
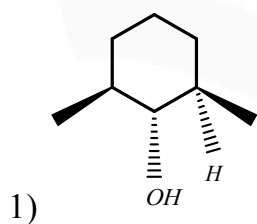
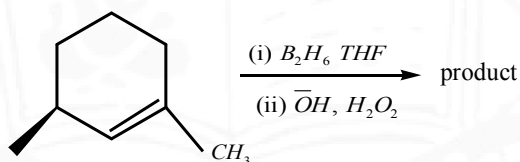
Preparation, properties and reactions of Alkanes, Alkenes, Alkynes and Dienes

CHEMISTRY

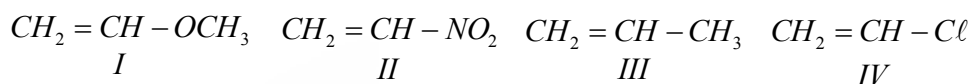
31. Which of the following reaction is expected to give a fairly good yield of $(CH_3)_3C-CH=CH_2$?



32. Which of the product is obtained in the following reaction :

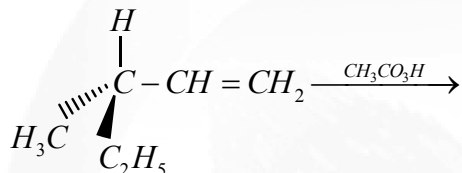


33. Reactivity order of alkenes towards electrophilic addition reaction



1) $III > I > IV > II$ 2) $I > III > IV > II$ 3) $I > II > III > IV$ 4) $III > I > II > IV$

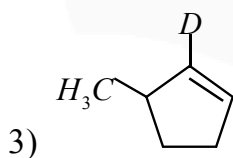
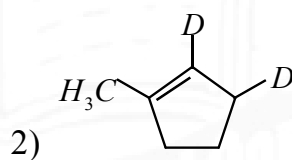
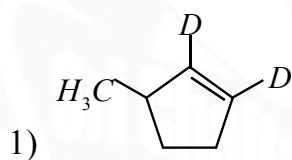
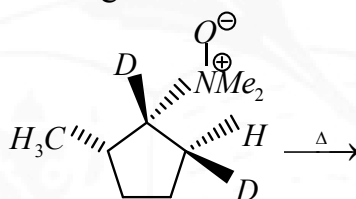
34. The reaction sequence



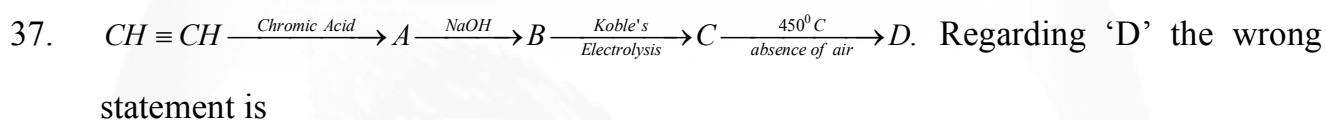
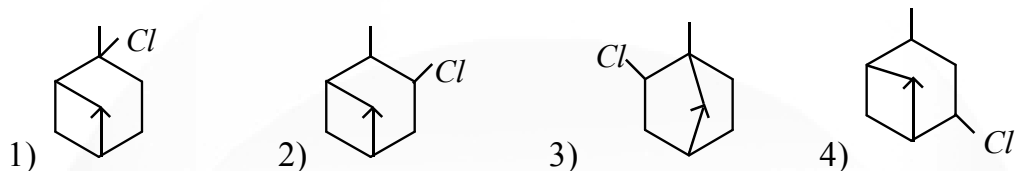
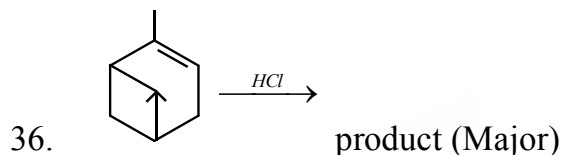
will yield

- 1) A pair of products that are enantiomers
- 2) A single product that is optically active
- 3) A pair of products that are diastereomers
- 4) A Meso compound

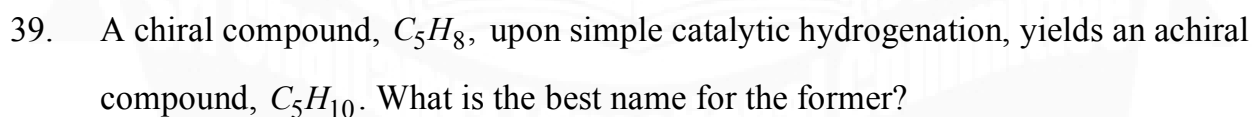
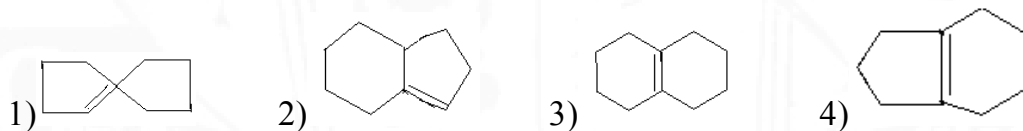
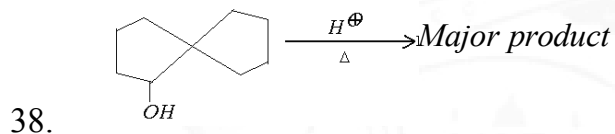
35. The Major product of the following reaction is



4) Both A&B in almost equal proportions

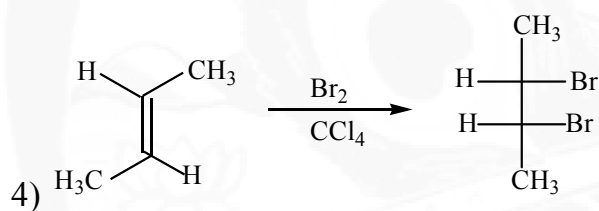
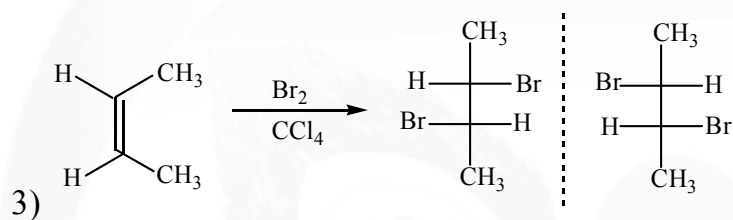
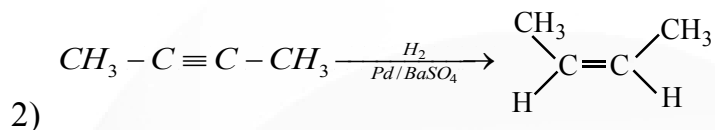
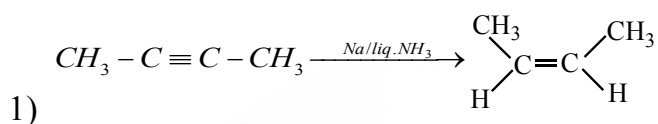


- 1) Hybridization of carbons is sp^2
- 2) It is useful for the preparation of mustard gas
- 3) It gives Baeyer's test
- 4) It mainly participates in substitution reactions

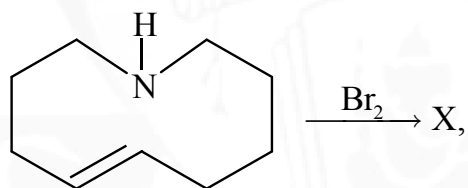


- 1) 1-Methylcyclobutene
- 2) 3-Methylcyclobutene
- 3) 1,2-dimethylcyclopropene
- 4) cyclopentene

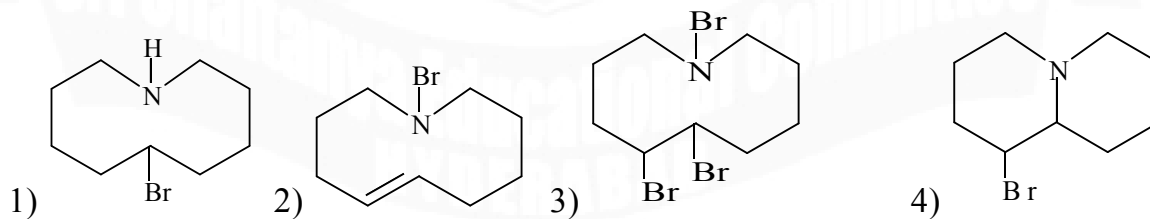
40. Which is incorrect product?

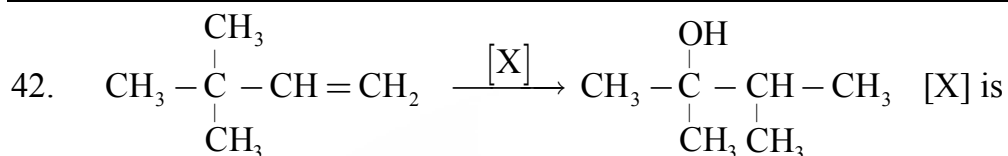


41.

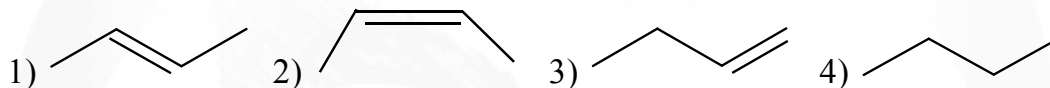
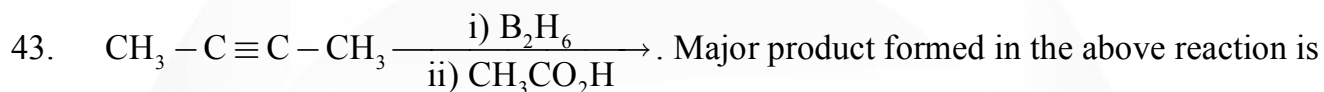


X is

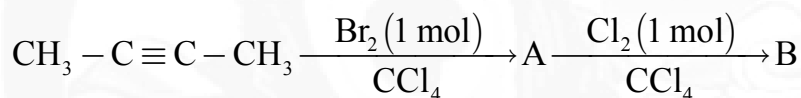




- 1) $\text{H}_2\text{O} / \text{H}_2\text{SO}_4$ 2) $\text{Hg}(\text{OAc})_2$ followed by NaBH_4
3) BH_3 followed by $\text{H}_2\text{O}_2 / \text{NaOH}$ 4) All of these



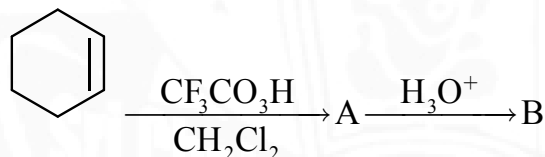
44. But – 2 – yne is subjected to the following sequence of reactions



If both the steps involve anti-addition, the final product 'B' is

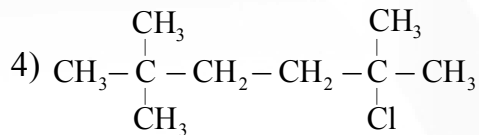
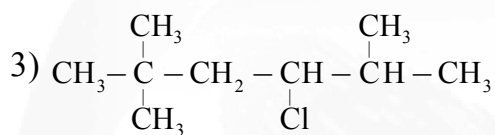
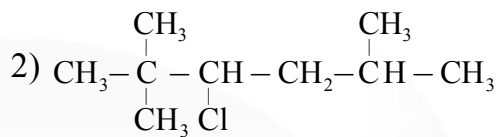
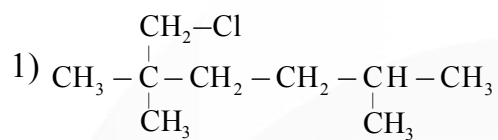
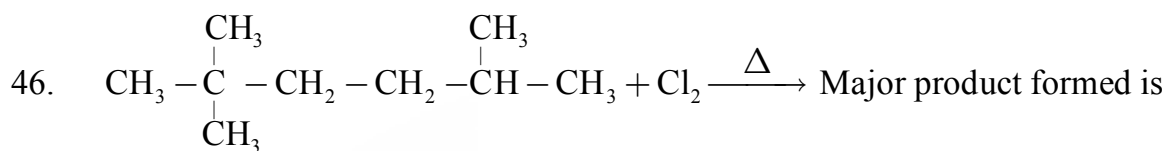
- 1) $(\pm) - \text{CH}_3 - \text{CBrCl} = \text{CBrCl} - \text{CH}_3$ 2) Meso - $\text{CH}_3\text{CBrCl} = \text{CBrClCH}_3$
3) trans - $\text{ClCH}_2\text{CBr} = \text{CBrCH}_2\text{Cl}$ 4) $\text{CH}_3\text{CBr}_2\text{CCl}_2\text{CH}_3$

45. Consider the following sequence of reactions

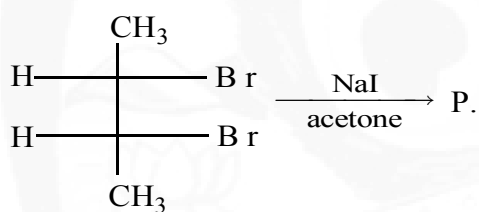


The final product 'B' is

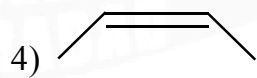
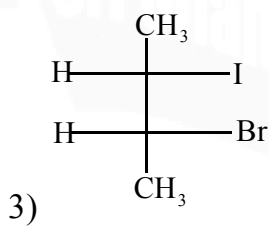
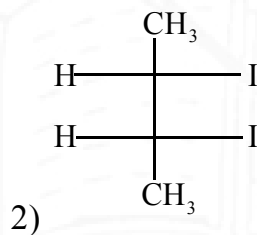
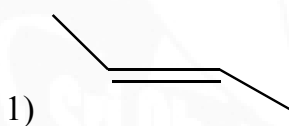
- 1) (\pm) - trans - cyclo hexane - 1, 2 - diol
- 2) (\pm) - cis - cyclo hexane - 1, 2 - diol
- 3) Epoxy cyclo hexane
- 4) Cyclo hexanol



47.



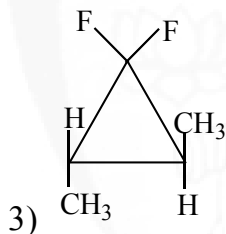
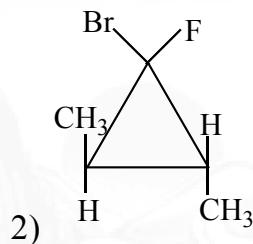
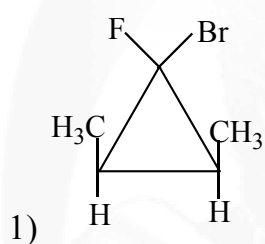
'P' is



48. t-butyl chloride $\xrightarrow[\text{CuI}]{\text{Li}}$ A $\xrightarrow{\text{n-pentyl bromide}}$ B. Compound 'B' is

- 1) 2-methyl heptane 2) 2-methyl hexane
3) 2, 2-dimethyl heptane 4) 2, 2-dimethyl hexane

49. $\text{CHF}_2\text{Br} \xrightarrow{\text{Alc.OH}^{(-)}} \text{A} \xrightarrow{\text{trans-2-butene}} \text{B}$, 'B' is

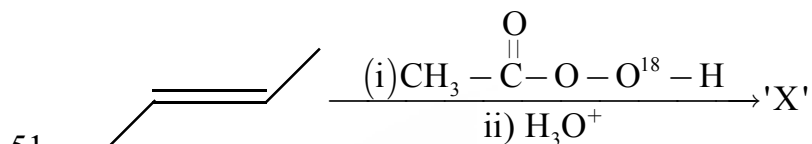


4) An open chain compounds

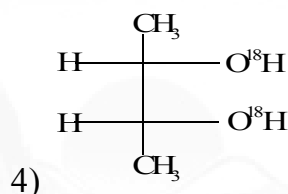
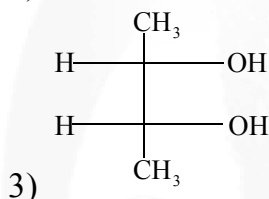
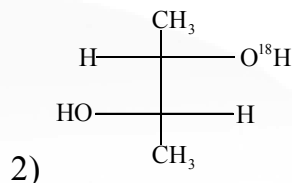
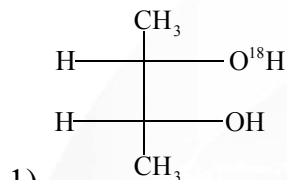
50. $\text{CH}_3 - \text{C} \equiv \text{CH} \longrightarrow \text{CH}_3 - \text{C} \equiv \text{C} - \text{CH}_3$

Above conversion can be achieved by

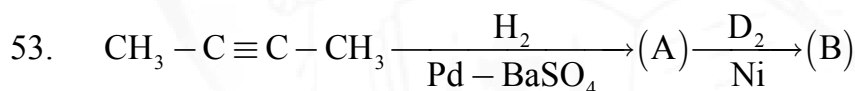
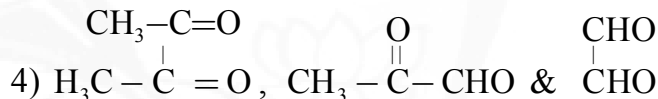
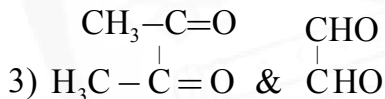
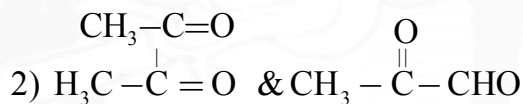
- 1) NaNH_2 , $\text{CH}_3 - \text{I}$ 2) NaH , $\text{CH}_3 - \text{I}$
3) Na , $\text{CH}_3 - \text{I}$ 4) All



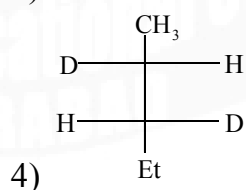
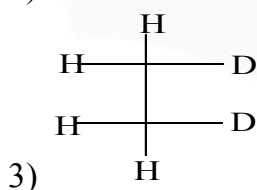
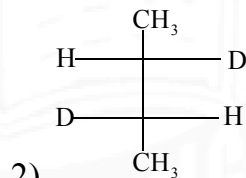
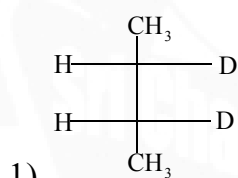
The probable structure of 'X' is



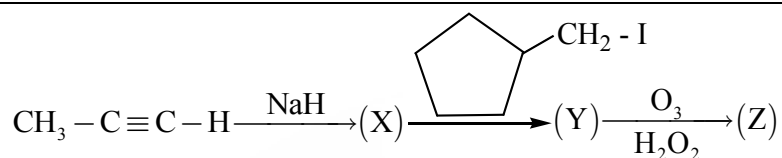
52. O-xylene on ozonolysis will give



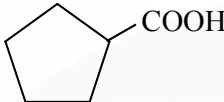
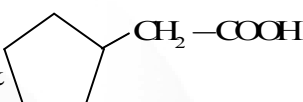
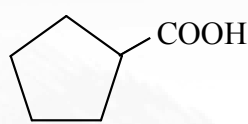
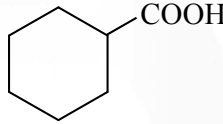
Product (B) of above reaction is



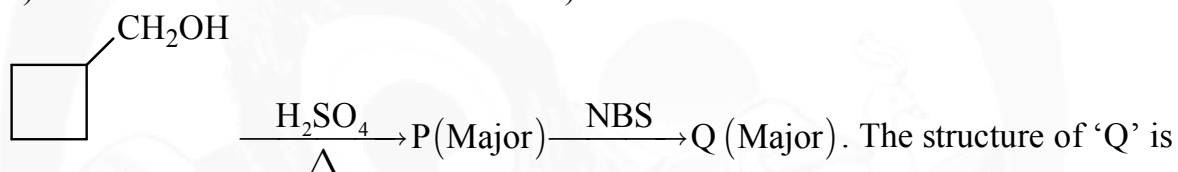
54.

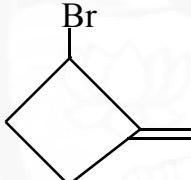
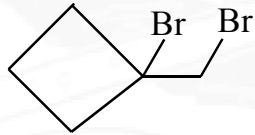
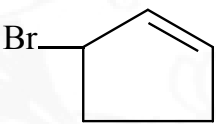
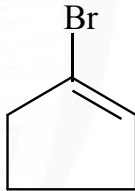


Final products (Z) of reaction are?

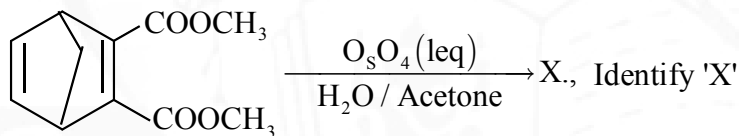
- 1) Et - COOH &  2) $\text{CH}_3 - \text{COOH}$ & 
- 3) $\text{CH}_3 - \text{COOH}$ &  4) $\text{CH}_3 - \text{COOH}$ & 

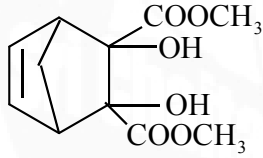
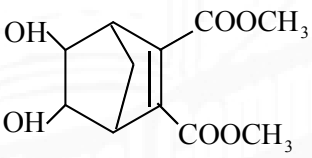
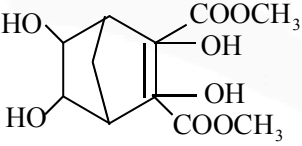
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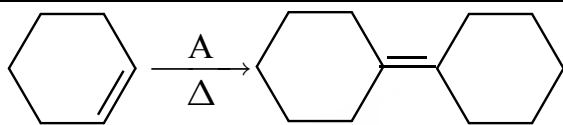
- 1)  2)  3)  4) 

56.



- 1)  2) 
- 3)  4) Reaction will not occur

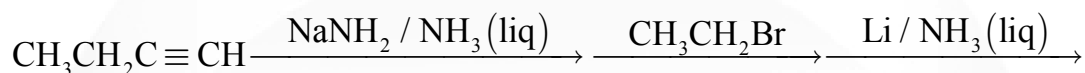
57.



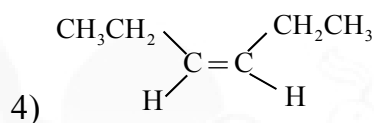
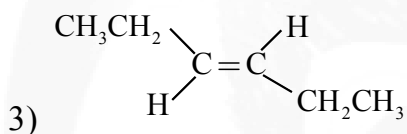
‘A’ can be

- 1) Conc. H_2SO_4 2) alcoholic KOH 3) Et_3N 4) t-BuOK

58.



- 1) $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_3$ 2) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2$

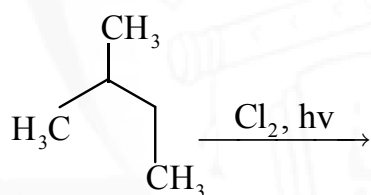


59.

Propyne and propene can be distinguished by

- 1) conc. H_2SO_4 2) Br_2 in CCl_4 3) dil. KMnO_4 4) AgNO_3 in ammonia

60.



N(isomeric products) $\text{C}_5\text{H}_{11}\text{Cl} \xrightarrow{\text{fractional distillation}}$

M (isomeric products). What are N and M?

- 1) 6, 6 2) 6, 4 3) 4, 4 4) 3, 3