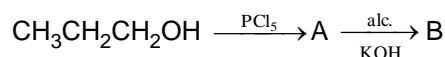


Single Correct Answer Type

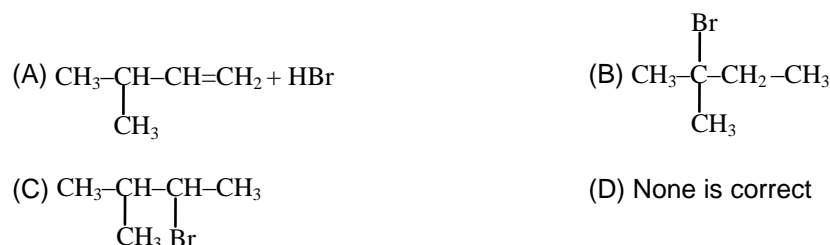
1. In the sequence of reactions,



the product B is -

- (A) Propyne (B) Propylene (C) Propane (D) Propanol

- 2.
- $\text{CH}_3-\underset{\text{CH}_3}{\text{CH}}-\text{CH}=\text{CH}_2 + \text{HBr}$
- (product) which is predominate; X is -



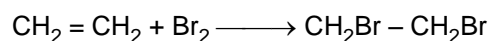
3. 3-Methyl-2-pentene on reaction with HOCl gives -



4. Isobutylene on hydroboration followed by reaction with
- $\text{H}_2\text{O}_2/\text{OH}^-$
-



5. The reaction



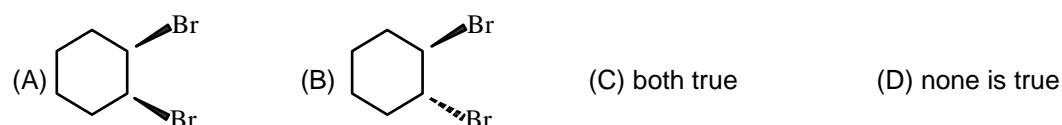
is an example of -

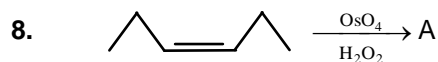
- (A) Nucleophilic addition (B) Electrophilic addition
(C) Elimination (D) Nucleophilic substitution

6. Propene when heated with chlorine at about
- 500°C
- forms -



A will have configuration -





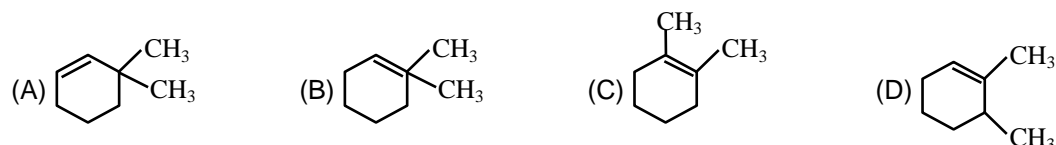
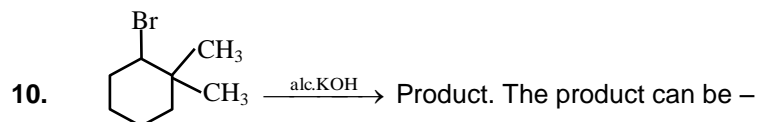
A is -

- (A) meso diol (B) racemic diol (C) both correct (D) none is correct



which is most easily dehydrohalogenated -

- (A) I (B) II (C) III (D) all with same case



11. In which of the following Kharasch effect operate -

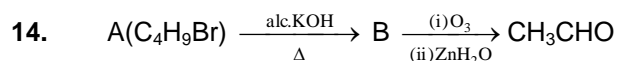
- (A) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{HCl}$ (B) $\text{CH}_3\text{CH}_2-\text{CH}=\text{CH}_2 + \text{HBr}$
 (C) $\text{CH}_3\text{CH}=\text{CH}-\text{CH}_3 + \text{HBr}$ (D) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{HI}$

12. 1-Butene on heating with aluminium chloride at high temperature (200°-300°) isomerises to give-

- (A) 2-Butene only (B) Isobutylene only (C) Both A and B (D) Cyclobutane.

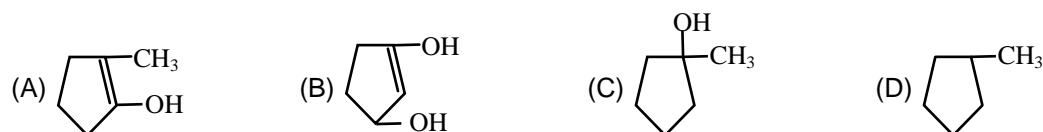
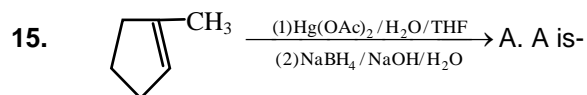
13. A hydrocarbon X adds on one mole of hydrogen to give another hydrocarbon and also decolourises bromine water. X reacts with KMnO_4 in presence of acid to give two moles of the same carboxylic acid. The structure of X is -

- (A) $\text{CH}_3\text{CH}=\text{CH}.\text{CH}_2\text{CH}_2\text{CH}_3$ (B) $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_2\text{CH}_3$
 (C) $\text{CH}_3\text{CH}_2\text{CH}_2-\text{CH}=\text{CHCH}_3$ (D) $\text{CH}_2=\text{CH}.\text{CH}_2\text{CH}_2\text{CH}_3$



A and B in the above reaction sequence are-

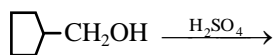
- (A) s-Butyl bromide, α -Butylene (B) t-Butyl bromide, Isobutylene
 (C) s-Butyl bromide, β -Butylene (D) n-Butyl bromide, α -Butylene



16. Which of the following reactions will lead to the creation of two chiral centres in the product ?

- (A) $\text{CH}_3\text{CH}=\text{CHCH}_3 + \text{Br}_2 \xrightarrow{\text{CCl}_4}$ (B) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{Br}_2 \xrightarrow{\text{CCl}_4}$
 (C) $\text{CH}_3\text{CH}=\text{CHCH}_3 + \text{HBr} \longrightarrow$ (D) $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{HBr} \longrightarrow$

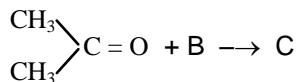
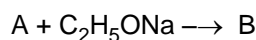
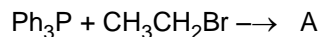
17. For the reaction



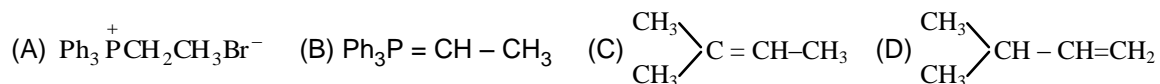
the major product is -



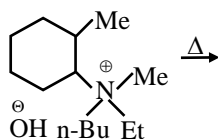
18. Consider the following reactions



The final product is -



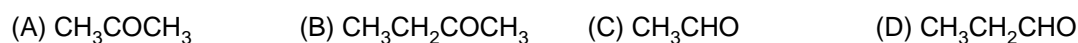
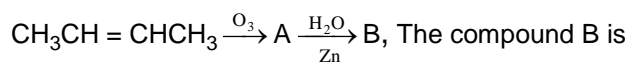
19.



The alkene formed as a major product in the above elimination reaction is-




20. In the following sequence of reactions, the alkene affords the compound 'B'



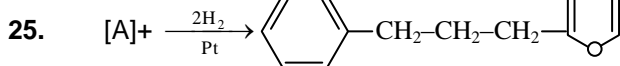
Numerical based

21. A hydrocarbon A, of the formula C_8H_{10} , on ozonolysis gives compound B ($\text{C}_4\text{H}_6\text{O}_2$) only. The Compound B can also be obtained from the alkyl bromide, $\text{C}(\text{C}_3\text{H}_5\text{Br})$ upon treatment with magnesium in dry ether, followed by carbon dioxide and acidification. Give the number of secondary hydrogen atoms in compound

22. A compound [A] with 87.1% C & 12.8 % H on catalytic reduction gives B (84.1% C & 15.9 % H) Ozonolysis of [A] gives acetic acid, acetone and pyruvic acid. The numbers in carbon in A

23. How many alkyl halides can be obtained from monochlorination of the alkane,  (i.e. isohexane)

24. How many 1° carbon atom will be present in a simplest hydrocarbon having two 3° and one 2° carbon atom?



Unit of unsaturation in compound (A)

KEY

1. B	2. B	3. D	4. A	5. A
6. B	7. A	8. B	9. A	10. C
11. D	12. C	13. B	14. C	15. C
16. A	17. C	18. C	19. A	20. C
21. 008	22. 8	23. 5	24. 4	25. 9

** Wish You all the Best **