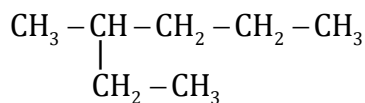
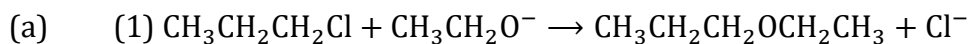


DPP-07

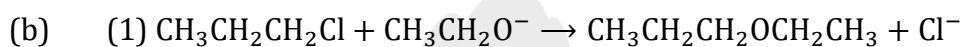
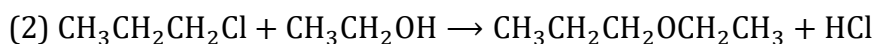
1. Number of monochlorinated product when following compound undergo reaction with $\text{Cl}_2/h\nu$ is –



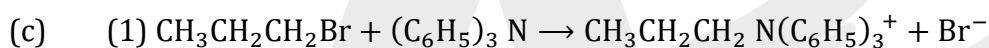
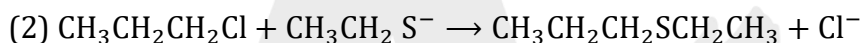
2. Which $\text{S}_\text{N}2$ reaction of each pair would you expect to take place more rapidly in a protic solvent?



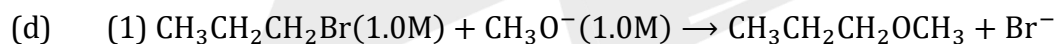
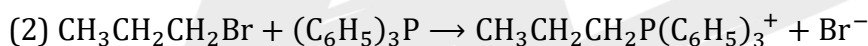
OR



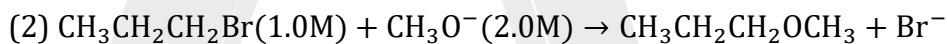
OR



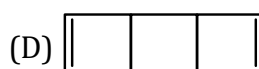
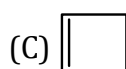
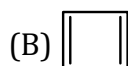
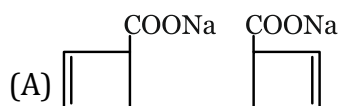
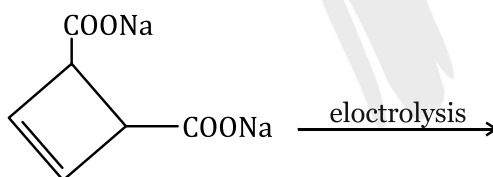
OR



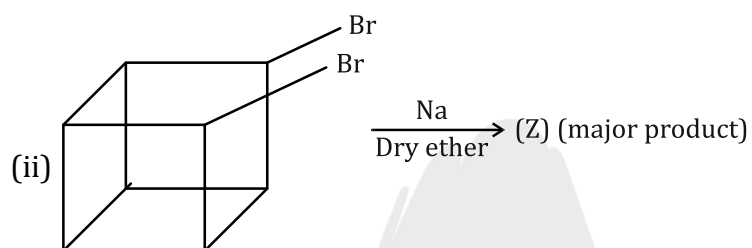
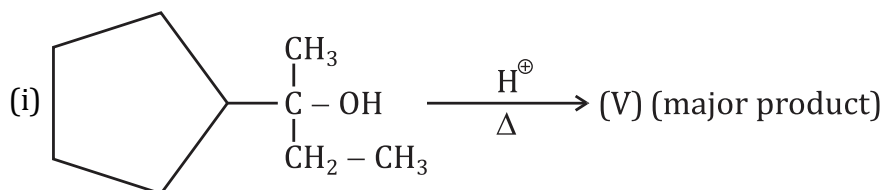
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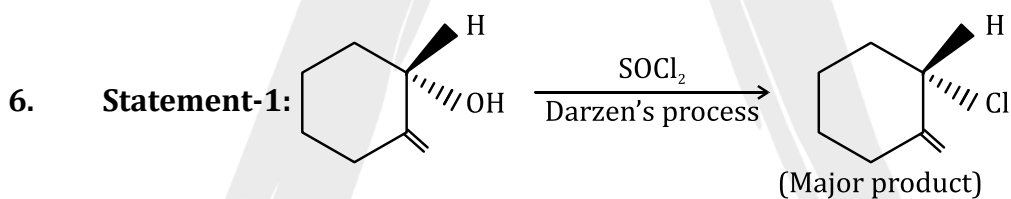
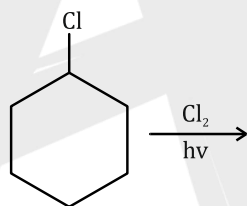
3. Major product of this reaction is isolated as:



4. Sum of number of α -hydrogen is (V) + Double bond equivalent of (Z) in the given reactions is



5. Total number of theoretically possible dichloro derivatives are:



Statement-2: Darzen's process follows S_N1 mechanism and during this reaction retention of configuration take place.

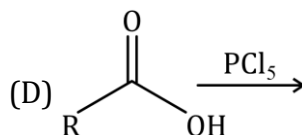
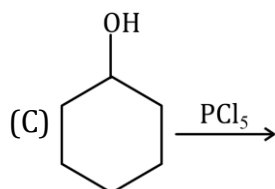
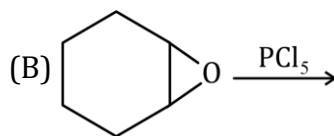
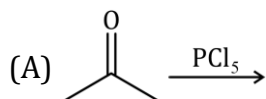
(A*) Statement-1 is true, statement-2 is true and statement-2 is correct explanation for statement-1.

(B) Statement-1 is true, statement-2 is true and statement-2 is NOT the correct explanation for statements-1

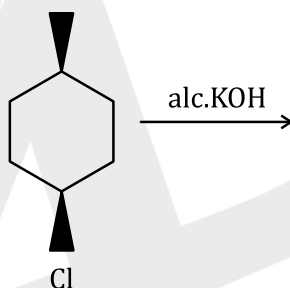
(C) Statement-1 is true, statement-2 is false.

(D) Statement -1 is false, statement -2 is true.

7. In which of the following reaction gemdichloride will formed:-

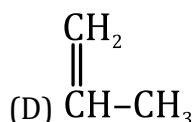
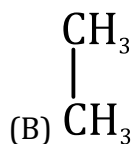
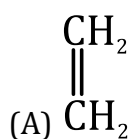
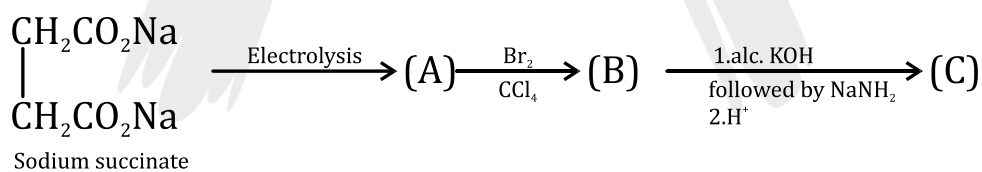


8. Correct statement regarding reaction is (are):

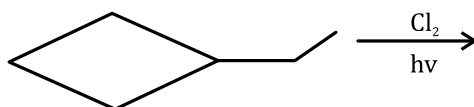


- (A) Product can show geometrical isomerism
- (B) It is an example of E₂ mechanism
- (C) (±) 4-methyl cyclohexene is obtained as product
- (D) Racemic mixture of alcohols are obtained as product

9. Major product (C) in following sequence is:



10. Radicals are obtained by homolysis of bond. Since energy is required to break a bond in a homolytic pattern, hence light is a possible energy source and ultraviolet light with an associated energy of 586KJ/ mole ($h\nu$) is used for homolysis. It can decompose many organic compounds including DNA in skin cells. During halogenation in presence of ultraviolet light a free radical substitution reaction takes place. A reaction is given as:



- (a) Total number of possible monochloride obtained is:
- (A) 5 (B) 8 (C) 10 (D) 6
- (b) Total number of fractions obtained on fractional distillation of monochlorinated product is:
- (A) 7 (B) 5 (C) 8 (D) 6

ANSWER KEY

- | | | | | | | | | | |
|----|------|----|--|-----|---|----|-----|----|-----|
| 1. | (20) | 2. | (a) \Rightarrow (1), (b) \Rightarrow (2), (c) \Rightarrow (2), (d) \Rightarrow (2) | | | | | | |
| 3. | (D) | 4. | (14) | 5. | (9) | 6. | (A) | 7. | (A) |
| 8. | (BC) | 9. | (C) | 10. | (a) \Rightarrow (C) (b) \Rightarrow (A) | | | | |

A