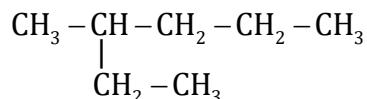


DPP-07

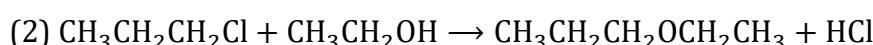
1. Number of monochlorinated product when following compound undergo reaction with $\text{Cl}_2/\text{h}\nu$ is –



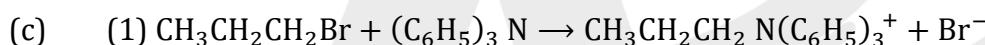
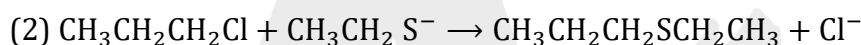
2. Which S_N2 reaction of each pair would you expect to take place more rapidly in a protic solvent?



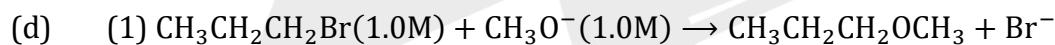
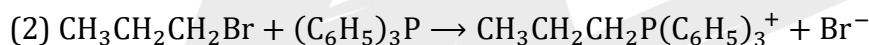
OR



OR



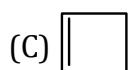
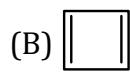
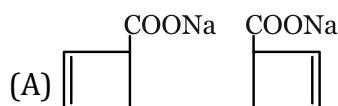
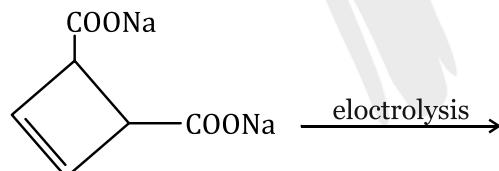
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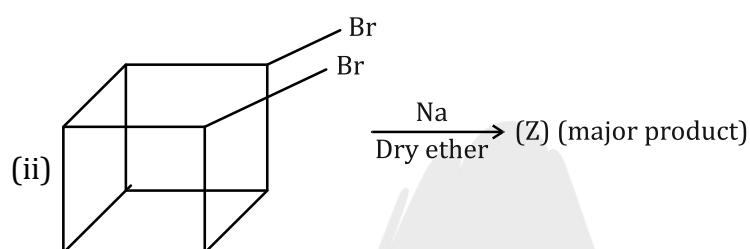
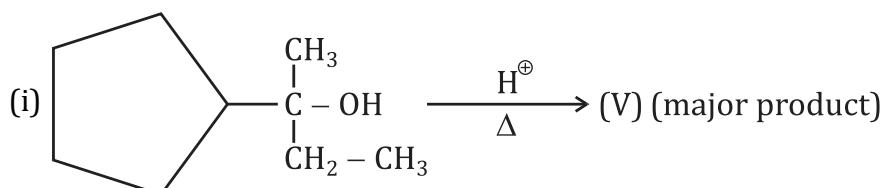
OR



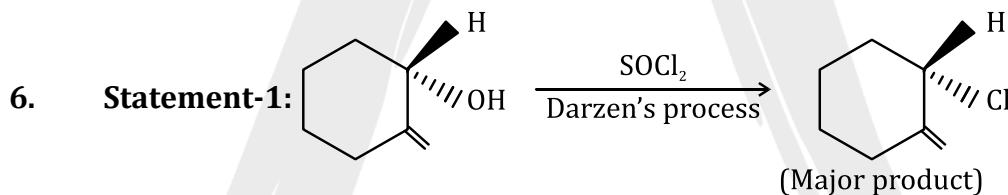
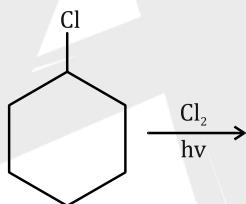
3. Major product of this reaction is isolated as:



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_Ni 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.

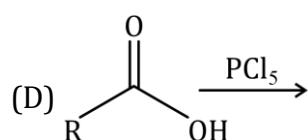
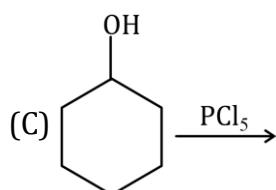
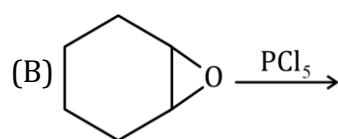
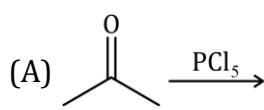
(B) Statement-1 is true, statement-2 is true and statement-2 is NOT the correct explanation for statements-1

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

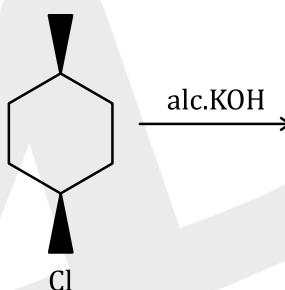
(D) Statement -1 is false, statement -2 is true.



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

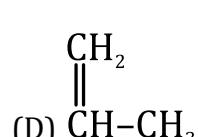
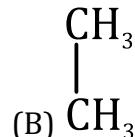
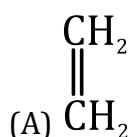
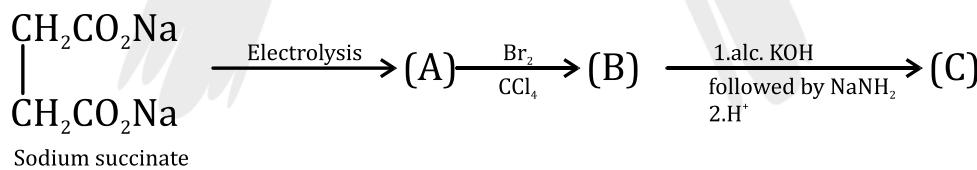


8. Correct statement regarding reaction is (are):

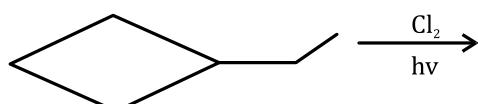


- (A) Product can show geometrical isomerism
- (B) It is an example of E₂ mechanism
- (C) (\pm) 4-methyl cyclohexene is obtained as product
- (D) Recemic mixture of alcohols are obtained as product

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 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:





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) | | |

