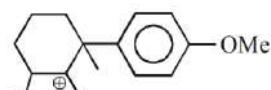


DPP-05

1. Identify group migrate during carbocation rearrangement in following compound and give major product with nucleophile?



(A) Me

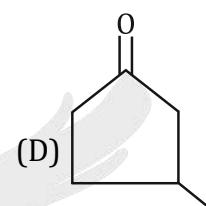
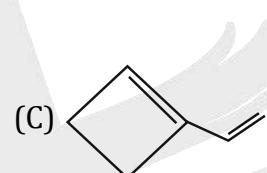
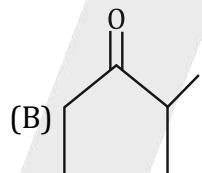
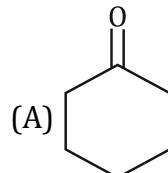
(B) Et

(C) H

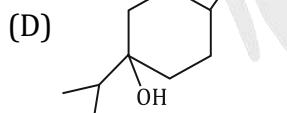
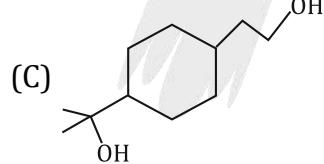
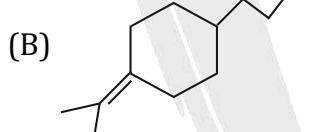
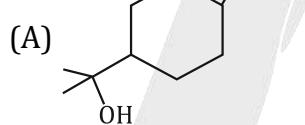
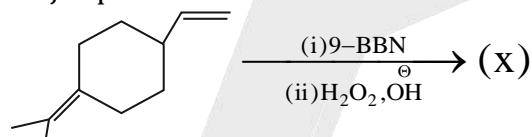


2. $\xrightarrow{\text{conc. H}_2\text{SO}_4}$ Major product (P)

In the given Reaction major product (P) will be: -



3. Major product will be



4. $\xrightarrow{\text{(i) Hg(OAc)}_2}$ $\xrightarrow{\text{(ii) NaBH}_4, \text{OH}}$ $\xrightarrow{\text{(Q)}}$ major product

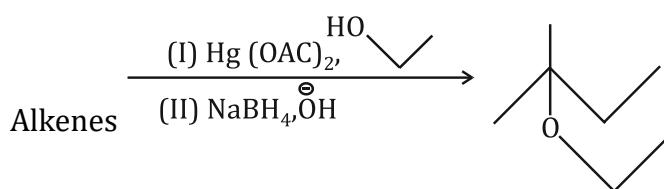
Which of the following statement is/are correct

- (A) (Q) have cyclic ether.
 (B) (Q) is optically inactive compound.
 (C) (Q) have one meso isomer.

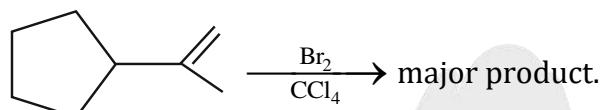


(D) (Q) have two isomers which are optically active.

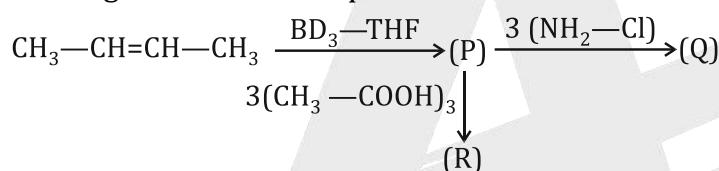
5. Total number of possible alkenes for the given reaction.



6. In the given reaction total number of (non-classical carbocation) NCC is equal to (P) and total number of product is (Q), then find value of (P) + (Q) with be



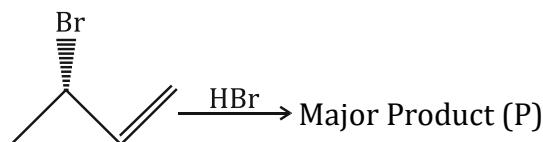
7. In the given Reaction sequences



(Q) and (R), respectively are

- (A) $\text{CH}_3-\text{CH}_2-\underset{\substack{| \\ \text{NH}_2}}{\text{CH}}-\text{CH}_3$, $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CH}_3$
- (B) $\text{CH}_3-\underset{\substack{| \\ \text{D}}}{\text{CH}}-\underset{\substack{| \\ \text{NH}_2}}{\text{CH}}-\text{CH}_3$, $\text{CH}_3-\underset{\substack{| \\ \text{D}}}{\text{CH}}-\text{CH}_2-\text{CH}_3$
- (C) $\text{CH}_3-\underset{\substack{| \\ \text{D}}}{\text{CH}}-\underset{\substack{| \\ \text{Cl}}}{\text{CH}}-\text{CH}_3$, $\text{CH}_3-\underset{\substack{| \\ \text{D}}}{\text{CH}}-\underset{\substack{| \\ \text{CH}_3}}{\text{CH}}-\text{CH}_3$
- (D) $\text{CH}_3-\underset{\substack{| \\ \text{NH}_2}}{\text{CH}}-\underset{\substack{| \\ \text{Cl}}}{\text{CH}}-\text{CH}_3$, $\text{CH}_3-\underset{\substack{| \\ \text{D}}}{\text{CH}}-\text{CH}_2-\text{CH}_3$

8. Total number of possible products are formed in the given reaction is





ANSWER KEY

1. (A) 2. (B) 3. (B) 4. (A,D) 5. (2) 6. (4) 7. (B)
8. (2)

