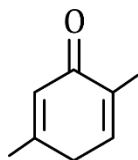


## DPP-01

1. Which of following pairs of compounds are position isomers.

- (A)  $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{OH}$  and  $\text{CH}_3-\text{CH}_2-\text{CH}(\text{OH})-\text{CH}_3$
- (B)  $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CN}$  and  $\text{CH}_3-\text{CH}(\text{CN})-\text{CH}_3$
- (C)  $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{COOH}$  and  $\text{H}_3\text{C}-\text{CH}(\text{OH})-\text{CH}_2-\text{COOH}$
- (D)  $\text{C}_6\text{H}_5\text{CH}_2\text{OH}$  and  $\text{C}_6\text{H}_4(\text{OH})\text{CH}_3$

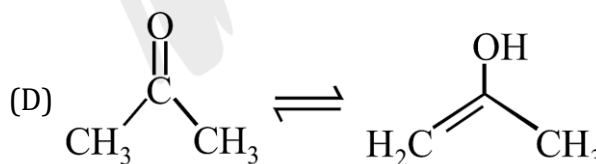
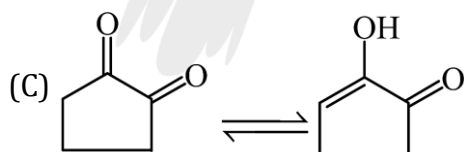
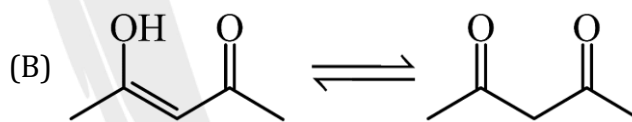
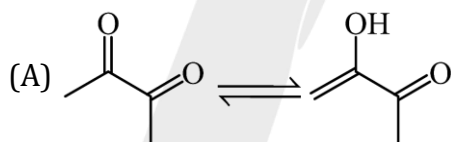
2.



Number of deuterium (D) present in final product obtained on prolong treatment with NaOD/D<sub>2</sub>O

- (A) 6 (B) 9 (C) 10 (D) 5

3. The tautomerism having  $K_{eq}$  more than 1.0



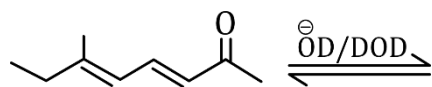
4. (a) How many alcohols are structural isomers with the formula C<sub>5</sub>H<sub>12</sub>O ?

(b) How many pair of metamer are possible for C<sub>5</sub>H<sub>12</sub>O.

5. Correct statements regarding compounds having molecular formula C<sub>5</sub>H<sub>10</sub>O is :

- (A) It has four structurally isomeric aldehyde, all can show tautomerism
- (B) It has four structurally isomeric aldehyde, out of four three can show tautomerism
- (C) It has three structurally isomeric ketones, all can show tautomerism
- (D) It has three structurally isomeric ketones, no one can show tautomerism

6. How many H (Hydrogens) will be replaced by D (Deuterium) in given compound when it is kept in mild basic medium for a long time.



(A) 3

(B) 6

(C) 10

(D) 8

7. How many total number of structural isomers of  $C_4H_6Cl_2$  are possible having cyclic structures.

