

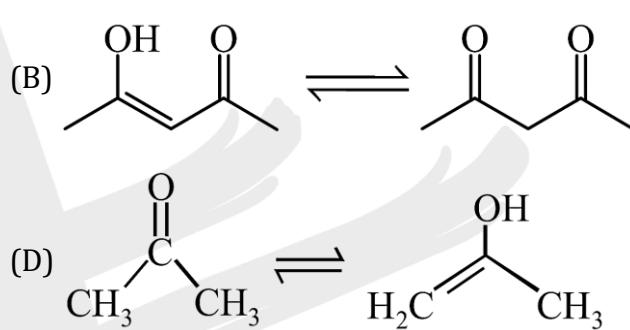
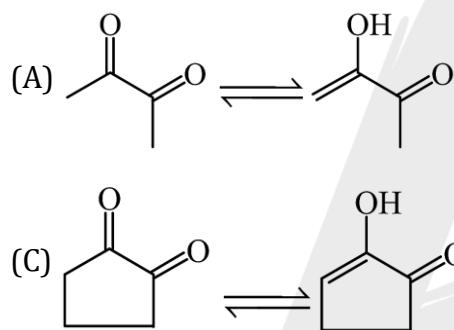
DPP-02

Q.1

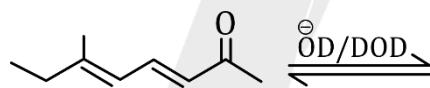
The diagram shows the chemical structure of 2-methylcyclohexanone. It consists of a six-membered ring with two double bonds. A methyl group is attached to one of the ring carbons, and a carbonyl group (C=O) is attached to another carbon, indicating the ketone functional group.

Number of deutorium (D) present in final product obtained on prolong treatment with NaOD/D₂O

Q.2 The tautomerism having K_{eq} more than 1.0



Q.3 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.

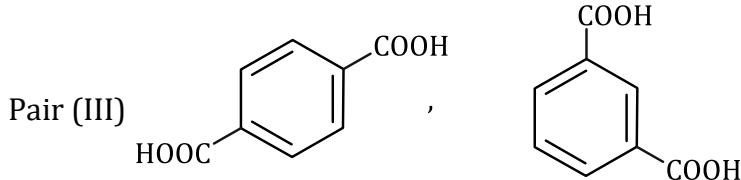
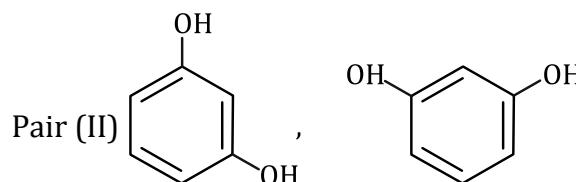
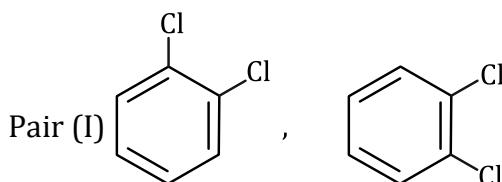


Q.4  and 

- (A) Position isomers
 - (B) Chain isomers
 - (C) Functional isomers
 - (D) Metamers

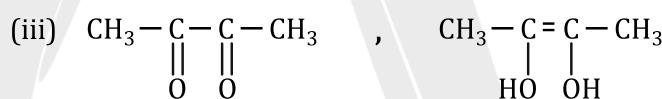
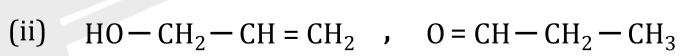
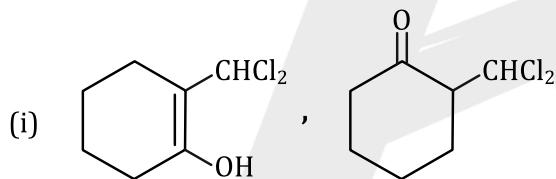


Q.5 Identify the correct relation between the following pairs of compounds.



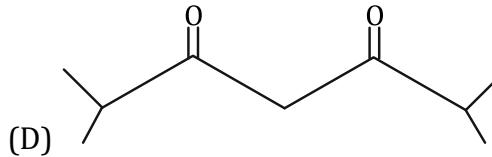
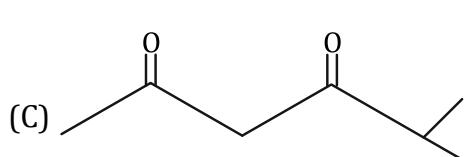
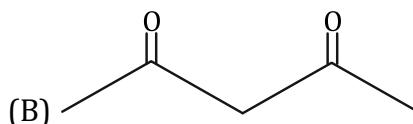
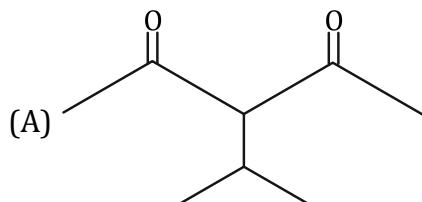
- (A) All Pairs I, II, III, are identical
- (B) All Pairs I, II, III, are isomers
- (C) Pair I, II are identical, Pairs III is isomer
- (D) Pairs I is identical and Pairs II, III are isomer

Q.6 Which of the following pairs are tautomers



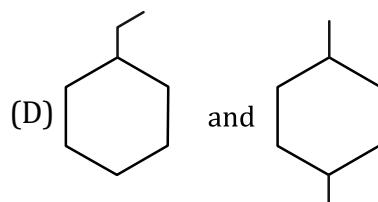
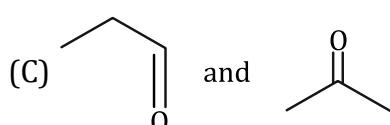
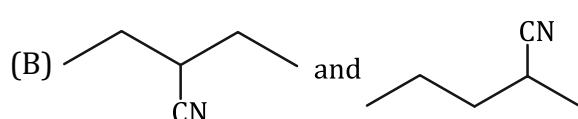
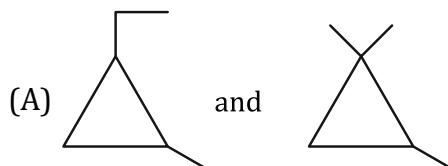
- (A) only (i)and (ii)
- (B) only (ii)
- (C) only (i)
- (D) only (iii)

Q.7 In which of the following compounds % of enol is highest.



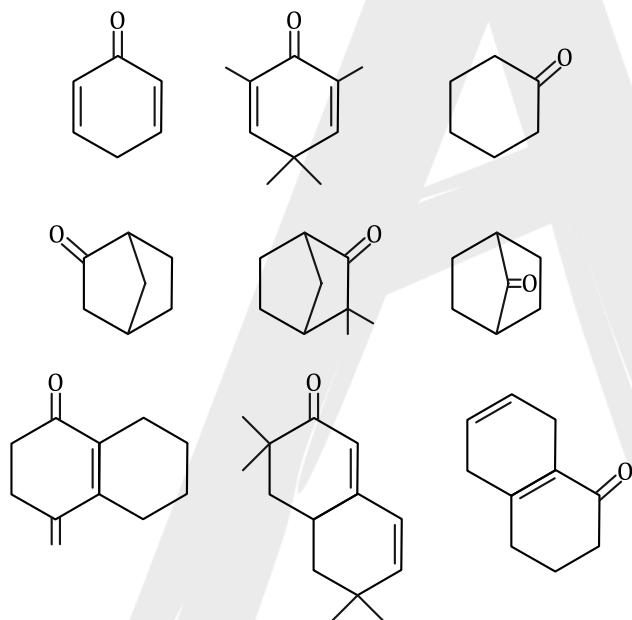


Q.8 Which of the following pairs of compounds are chain isomers.



Q.9 Total number of cyclic structure isomers of C_4H_6 are: -

Q.10 Total number of compounds which can show tautomerism: -





ANSWER KEY

- | | | | | |
|--------|--------|------------|--------|---------|
| 1. (A) | 2. (D) | 3. (C) | 4. (D) | 5. (C) |
| 6. (C) | 7. (D) | 8. (A,B,D) | 9. (5) | 10. (6) |

