**SOLUTION**

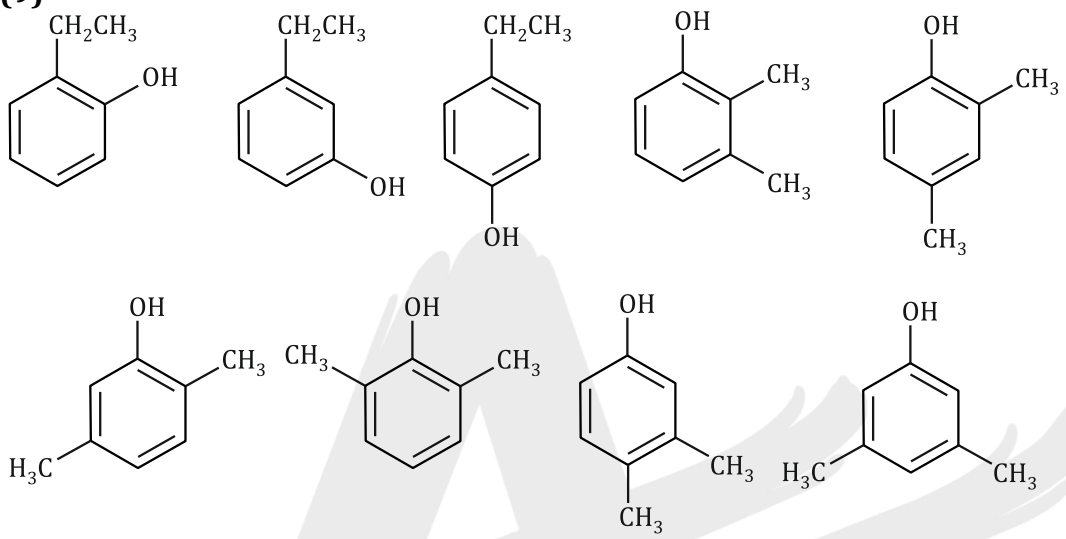
**DPP-03**

**Link to View Video Solution:** Click Here

**Q.1** Total number of benzenoid phenolic structural isomers are possible for the formula $C_8H_{10}O$

**Ans.** **(9)**

**Sol**



**Q.2** How many total open chain structural isomers are possible for $C_4H_8$

**Ans.** **(3)**

**Sol** (i) $CH_3CH_2 \cdot CH = CH_2$ but -1-ene

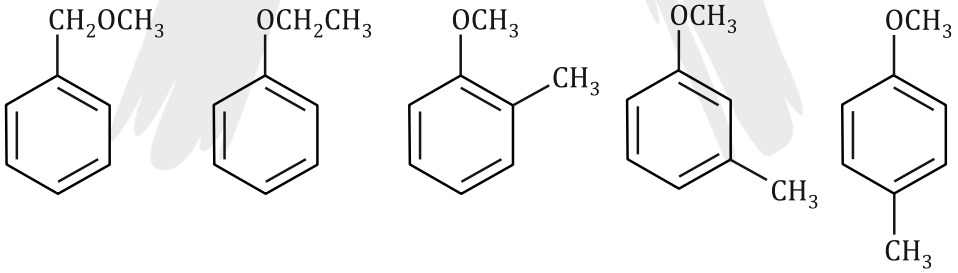
(ii) $CH_3CH = CHCH_3$ but - 2 - ene

(iii) $(CH_3)_2C = CH_2$ 2 - methyl propene

**Q.3** Total number of benzenoid metamers are possible of molecular formula $C_8H_{10}O$

Ans (5)

**Sol**



**Q.4** Total number of possible metamers of $C_4H_{10}O$

Ans (3)

**Sol.** $C_2H_5 - O - C_2H_5$ $CH_3 - CH_2 - CH_2 - O - CH_3$

diethyl ether methyl n-propyl ether

$(CH_3)_2CH - O - CH_3$

methyl iso-propyl ether

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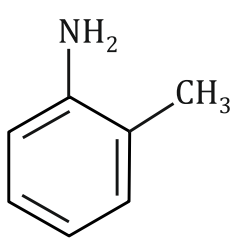
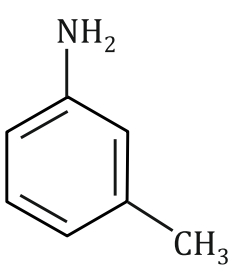
**Q.5** Total number of benzenoid structural isomers are possible of $C_7H_9N$

**Ans.** **(5)**

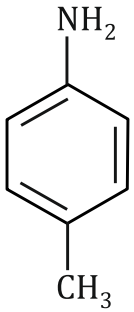
**Sol.**



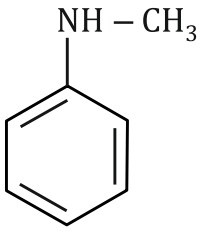
o - Toluidine



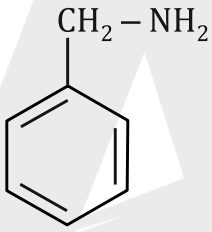
m - Toluidine



p - Toluidine



N - Methyl aniline

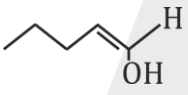


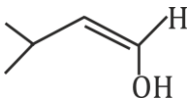
Benzylamine

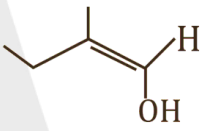
**Q.6** Total number of possible structural isomers of Enol-form having molecular formula $C_5H_{10}O$, which can show Tautomerism

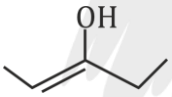
**Ans.** **(8)**

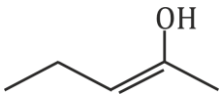
**Sol**

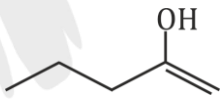
(1) 

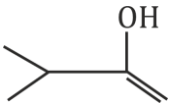
(2) 

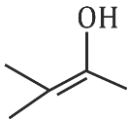
(3) 

(4) 

(5) 

(6) 

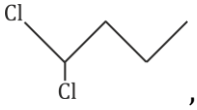
(7) 

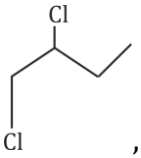
(8) 

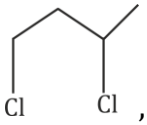
**Q.7** Total number of possible structural isomers of molecular formula $C_4H_8Cl_2$

**Ans** **9**

**Sol.** There are 9 isomers C4H8Cl2 as shown is below figure.



,1,1-dichlorobutane 

,1,2- dichlorobutane 

,1,3- dichlorobutane

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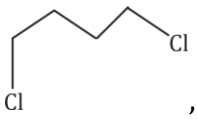
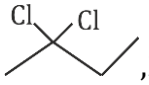
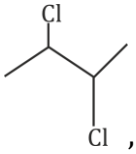
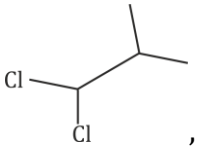
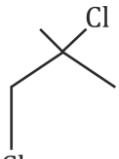
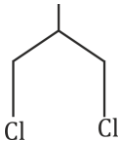

,14- dichlorobutane

,2,2- dichlorobutane

,2,3- dichlorobutane

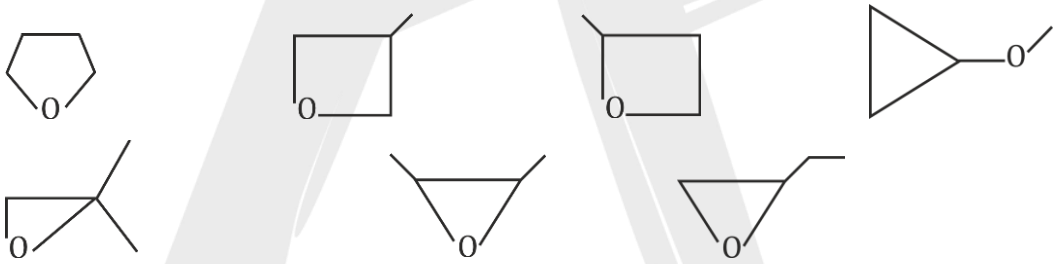

,1,1-dichloro-2methylpropane

,1,2-dichloro-2-methylpropane


,1,3- dichloro-2methylpropane

**Q.8** Total number of structural isomers of cyclic ethers having molecular formula $C_4H_8O$

**Ans** **7**

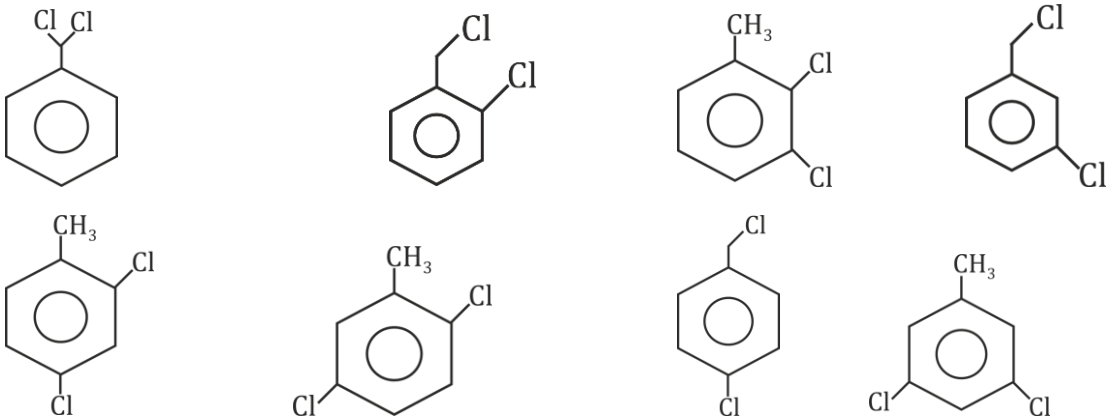
**Sol.** Total number of structural isomers of molecular formula $C_4H_8O$ having only cyclic ethers. are



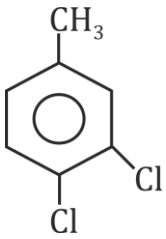
**9.** Total number of Benzenoid aromatic isomers of molecular formula $C_7H_6Cl_2$

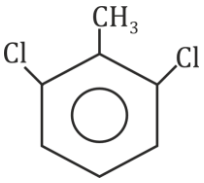
**Ans.** **10**

**Sol.**



**Link to View Video Solution:** Click Here




**10.** Total number of structural Isomers of cyclic ketone having four and there membered ring which can show tautomerism of molecular formula $C_7H_{12}O$

**Ans.** **9**

**Sol.**