Q1 - 24 June - Shift 2

Hex-4-ene-2-ol on treatment with PCC gives 'A'. 'A' on reaction with sodium hypoiodite gives 'B', which on further heating with soda lime gives 'C'. The compound 'C' is

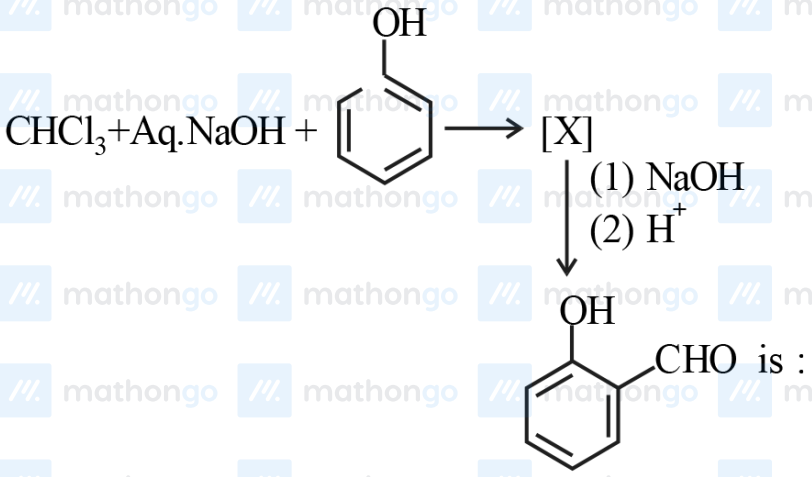
(A) 2- pentene (B) proponaldehyde

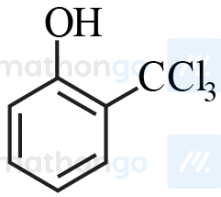
(C) 2-butene (D) 4-methylpent-2-ene

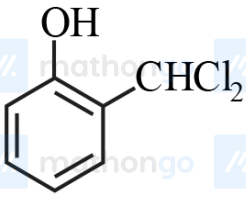
Space for your notes:

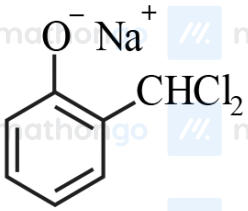
Q2 - 25 June - Shift 1

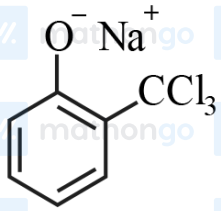
The intermediate X, in the reaction



(A) 

(B) 

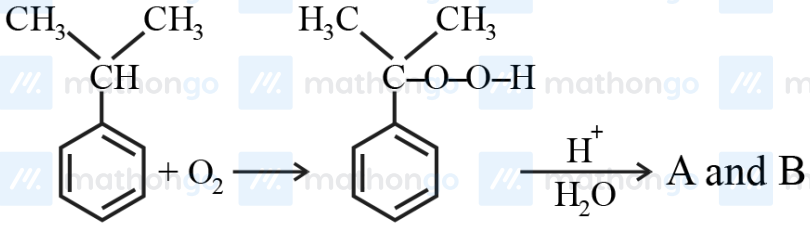
(C) 

(D) 

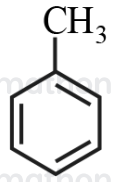
Space for your notes:

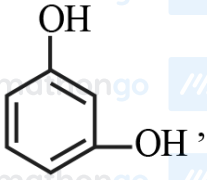
Q3 - 25 June - Shift 1

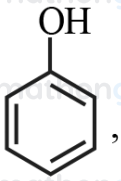
In the following reaction :

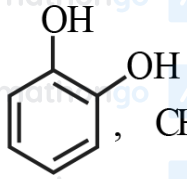


The compounds A and B respectively are :-

(A)  , CH_3COOH

(B)  , CH_3COOH

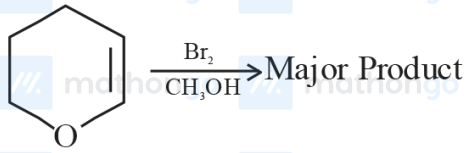
(C)  , CH_3COCH_3

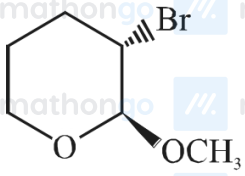
(D)  , CH_3COCH_3

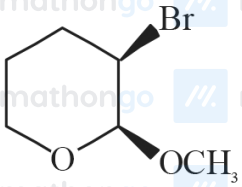
Space for your notes:

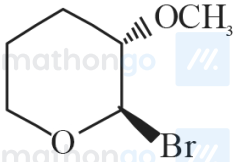
Q4 - 25 June - Shift 2

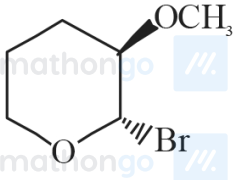
Amongst the following, the major product of the given chemical reaction is



(A) 

(B) 

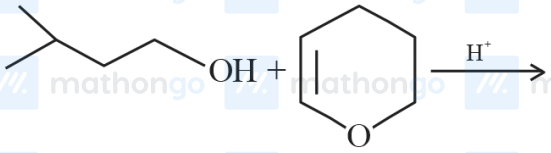
(C) 

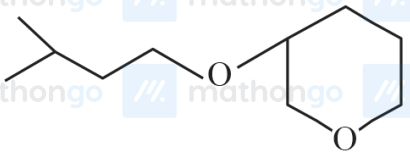
(D) 

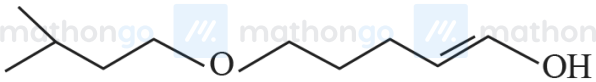
Q5 - 25 June - Shift 2

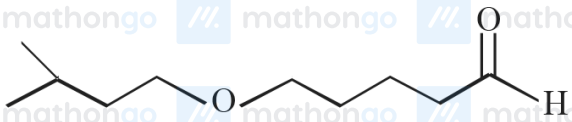
Space for your notes:

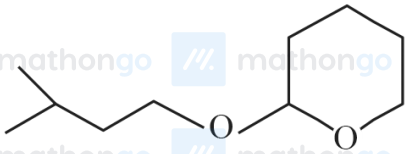
The major product formed in the following reaction, is



(A) 

(B) 

(C) 

(D) 

Space for your notes:

Q6 - 26 June - Shift 1

$$(C_7H_5O_2)_2 \xrightarrow{h\nu} [X] + 2\dot{C}_6H_5 + 2CO_2$$

Consider the above reaction and identify the intermediate 'X'

(A) $C_6H_5-\overset{\overset{O}{\|}}{C}{}^{\oplus}$ (B) $C_6H_5-\overset{\overset{O}{\|}}{C}-O^{\ominus}$

(C) $C_6H_5-\overset{\overset{O}{\|}}{C}-\ddot{O}:$ (D) $C_6H_5-\overset{\overset{O}{\|}}{C}-\dot{\ddot{O}}:$

Space for your notes:

Q7 - 26 June - Shift 2

Oxidation of toluene to Benzaldehyde can be easily carried out with which of the following reagents?

(1) CrO_3/acetic acid, H_3O^+

(2) CrO_3/acetic anhydride, H_3O^+

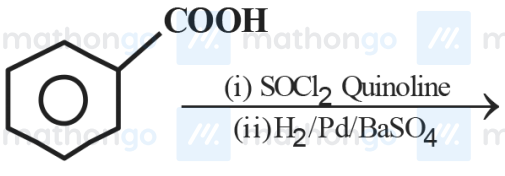
(3) $KMnO_4$/HCl, H_3O^+

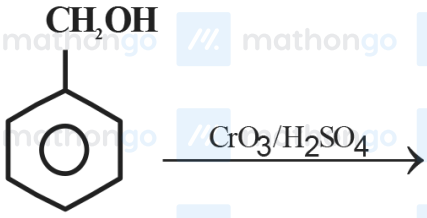
(4) CO/HCl, anhydrous $AlCl_3$

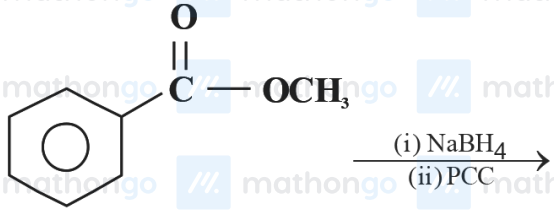
Space for your notes:

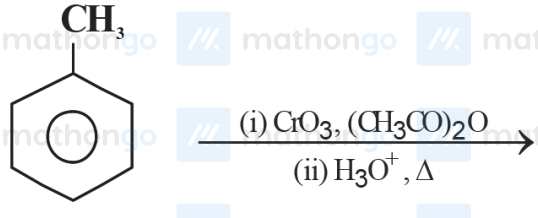
Q8 - 27 June - Shift 1

Which of the following reactions will yield benzaldehyde as a product?

(A) 

(B) 

(C) 

(D) 

(A) (B) and (C)

(B) (C) and (D)

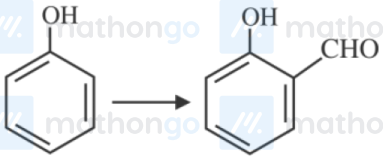
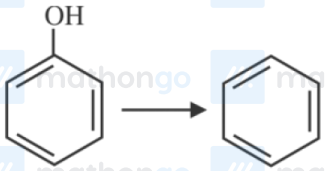
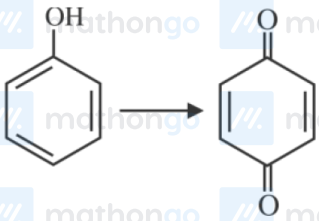
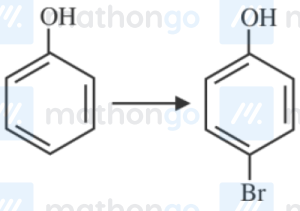
(C) (A) and (D)

(D) (A) and (C)

Space for your notes:

Q9 - 27 June - Shift 2

Match List I with List II

List I	List II
A. 	I. Br_2 in CS_2
B. 	II. $Na_2Cr_2O_7/H_2SO_4$
C. 	III. Zn
D. 	IV. $CHCl_3/NaOH$

Choose the correct answer from the options given below:

(A) A-IV, B-III, C-II, D-I

(B) A-IV, B-III, C-I, D-II

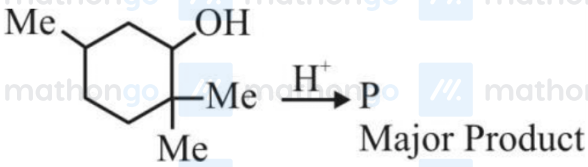
(C) A-II, B-III, C-I, D-IV

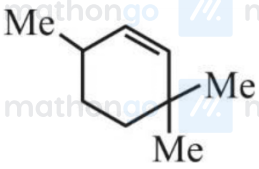
(D) A-IV, B-II, C-III, D-I

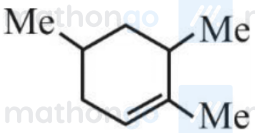
Space for your notes:

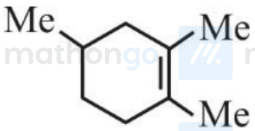
Q10 - 28 June - Shift 2

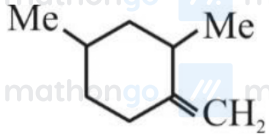
The major product (P) of the given reaction is (where, Me is $-CH_3$)



(A) 

(B) 

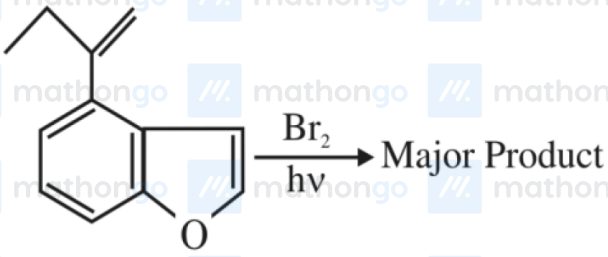
(C) 

(D) 

Space for your notes:

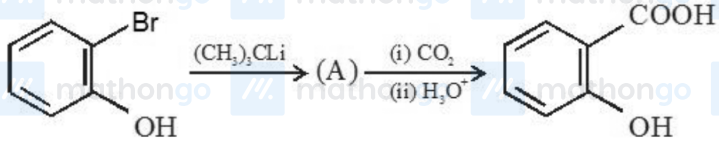
Q11 - 28 June - Shift 2

The major product of the following reaction contains _____ bromine atom(s).

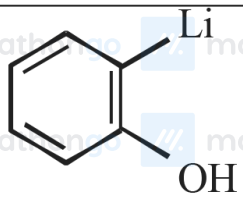
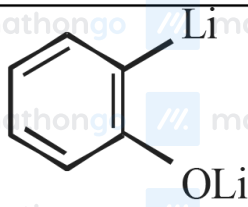
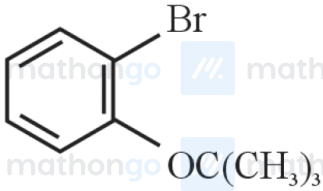
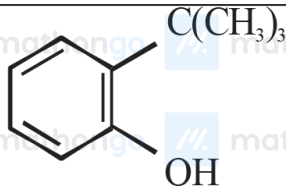


Space for your notes:

Q12 - 29 June - Shift 1



In the given conversion the compound A is:

(A)	
(B)	
(C)	
(D)	

Space for your notes:

Q13 - 29 June - Shift 1

Given below are two statements.

Statement I : Phenols are weakly acidic.

Statement II : Therefore they are freely soluble in NaOH solution and are weaker acids than alcohols and water.

Choose the **most appropriate** option:

(A) Both **Statement I** and **Statement II** are correct.

(B) Both **Statement I** and **Statement II** are incorrect.

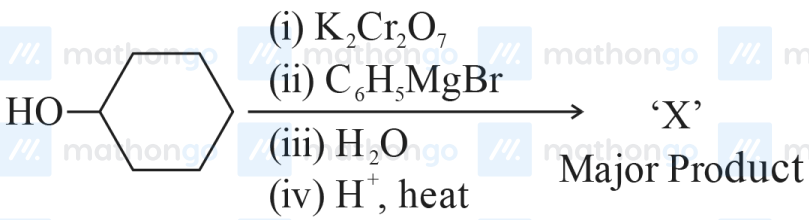
(C) **Statement I** is correct but **Statement II** is incorrect.

(D) **Statement I** is incorrect but **Statement II** is correct.

Space for your notes:

Q14 - 29 June - Shift 2

In the given reaction



the number of sp^2 hybridised carbon (s) in compound 'X' is_____.

Space for your notes:

Answer Key

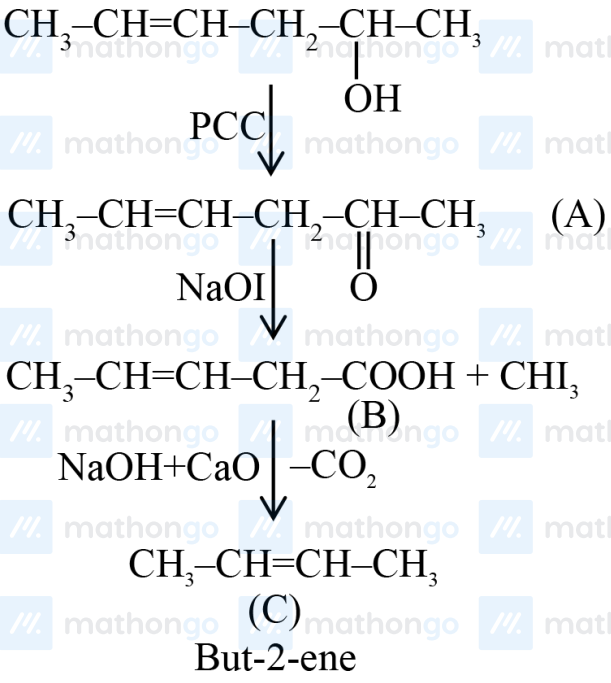
Q1 (C) **Q2** (C) **Q3** (C) **Q4** (A)

Q5 (D) **Q6** (D) **Q7** (B) **Q8** (C)

Q9 (A) **Q10** (C) **Q11** (1) **Q12** (B)

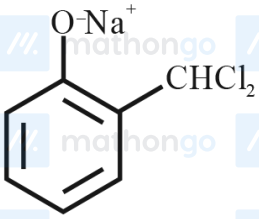
Q13 (C) **Q14** (8)

Q1 (C)



Q2 (C)

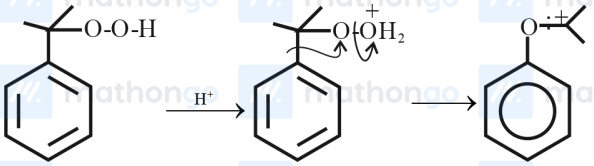
It's a classic Reimer-Tiemann reaction.

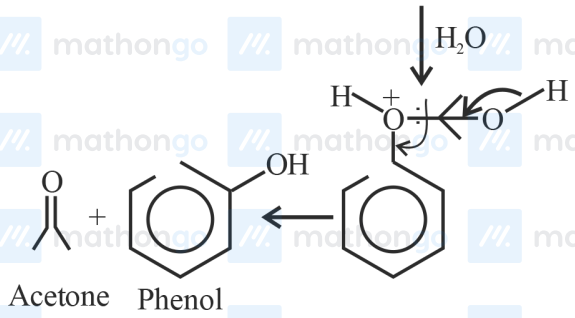


Will be the intermediate formed.

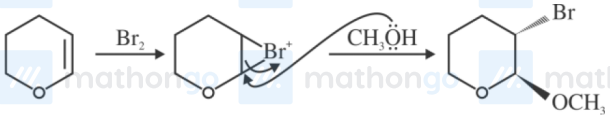
Q3 (C)

Given reaction is cumene-Peroxide method for the preparation of phenol.
In this reaction

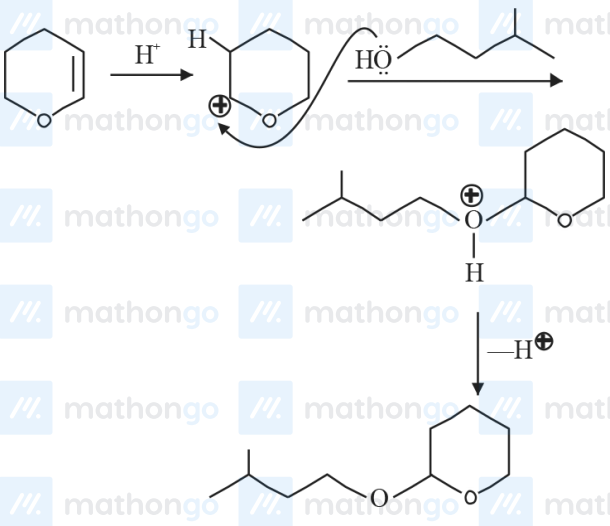




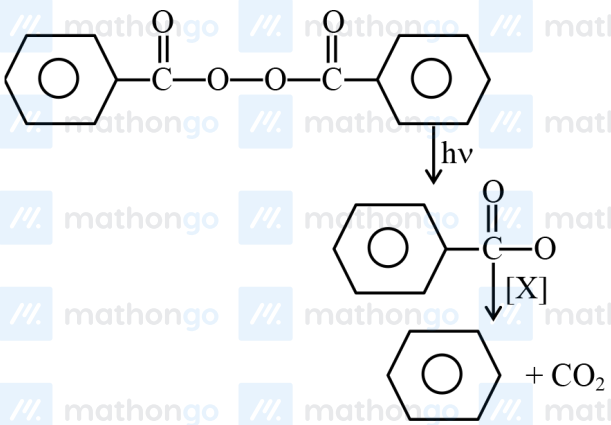
Q4 (A)



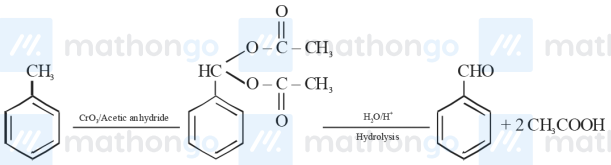
Q5 (D)



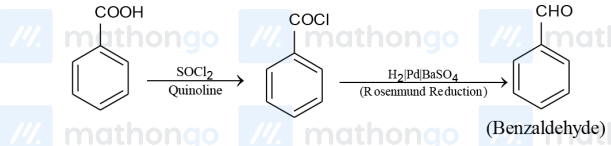
Q6 (D)

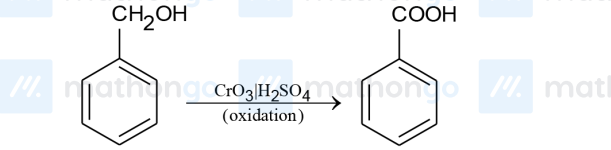

hν
[X]
+ CO2

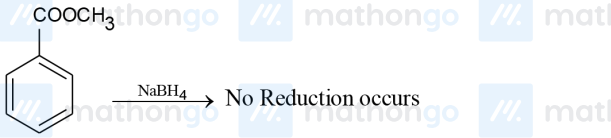
Q7 (B)

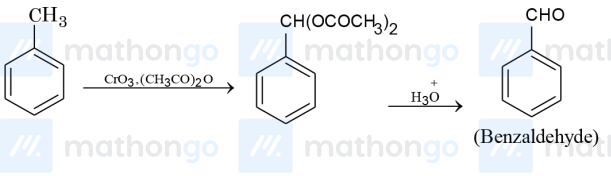

CrO3/Acetic anhydride
H3O+
Hydrolysis
+ 2 CH3COOH

Q8 (C)


SOCl2
Quinoline
H2/Pd|BaSO4
(Rosenmund Reduction)
(Benzaldehyde)

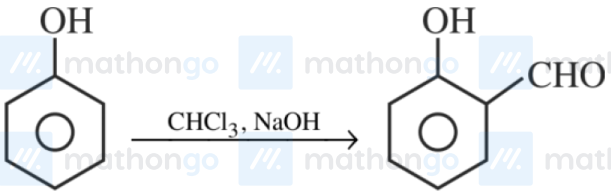

CrO3|H2SO4
(oxidation)


NaBH4
No Reduction occurs

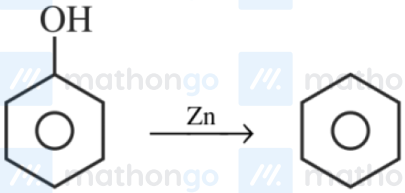

CrO3,(CH3CO)2O
H3O+
(Benzaldehyde)

Q9 (A)

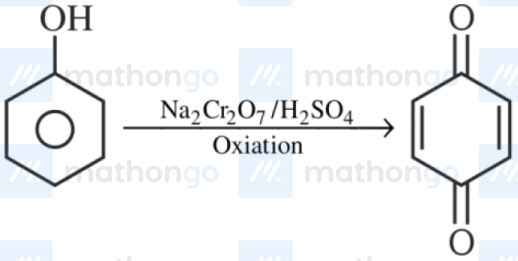
(A)



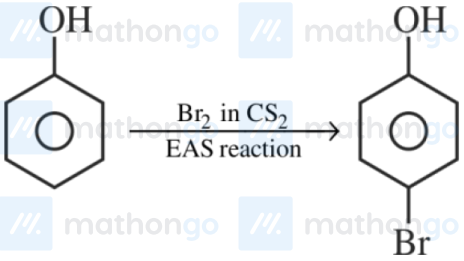
(B)



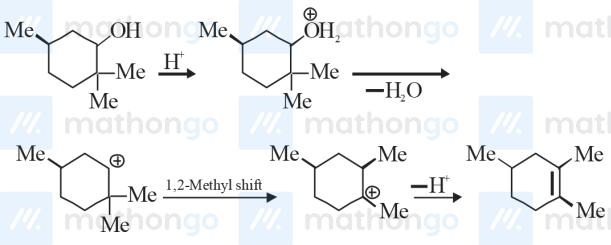
(C)



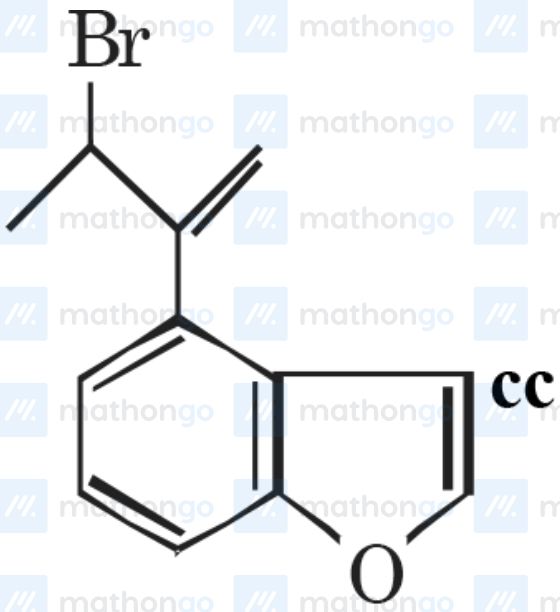
(D)



Q10 (C)

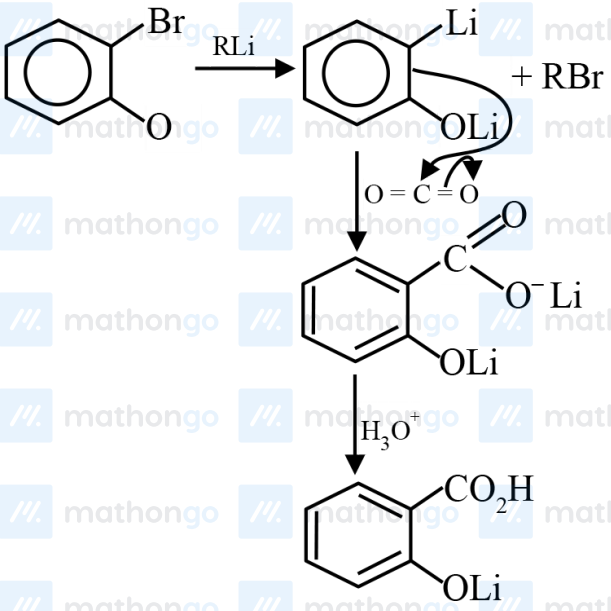


Q11 (1)



No. of Br atoms = 1

Q12 (B)



Q13 (C)

Phenol are weakly acidic. Phenol is more acidic than alcohol & H_2O statement (I) is correct. (II) is incorrect.

Q14 (8)