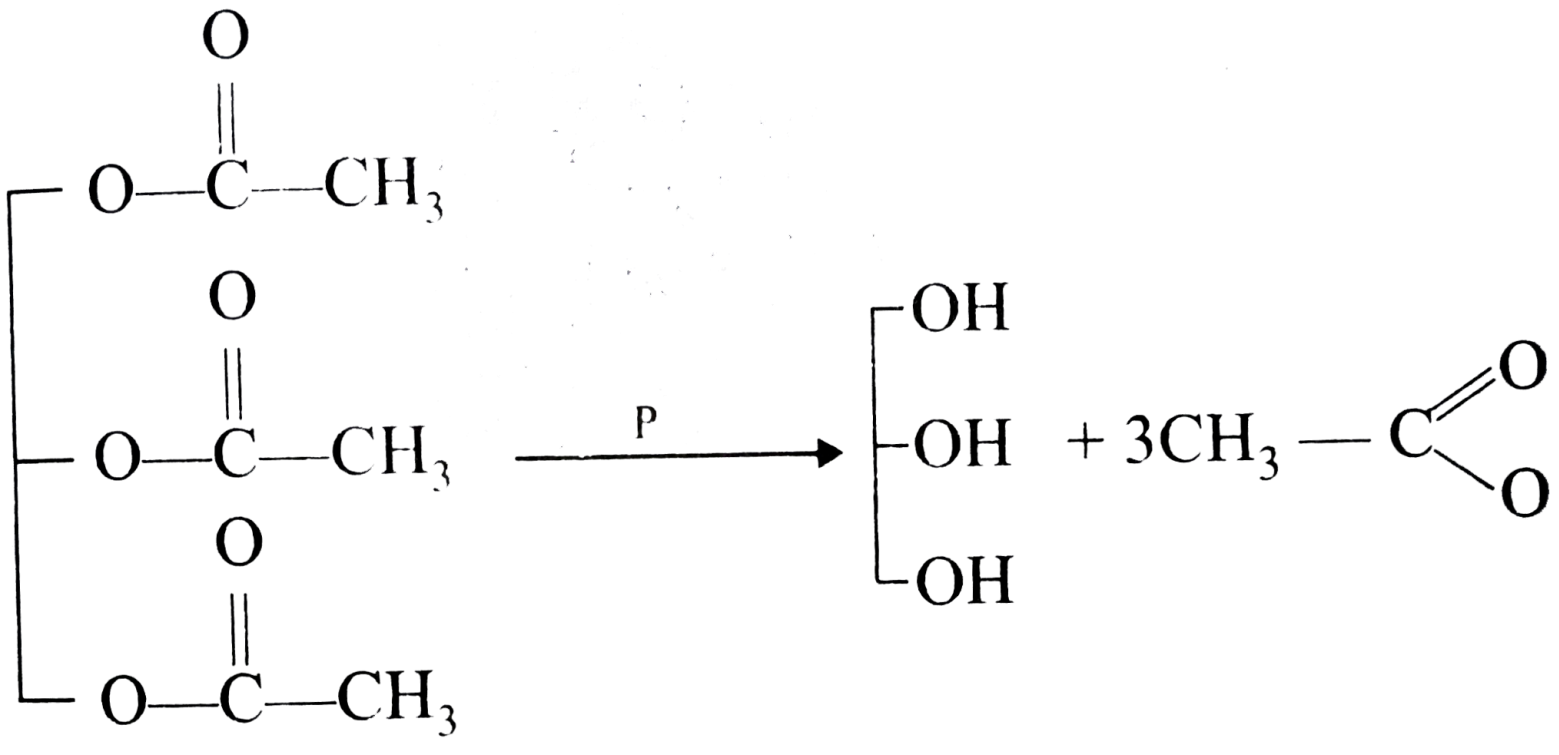
NEET REVISION SERIES

ALCOHOL, PHENOL AND ETHER

Revise Most Important Questions to Crack NEET 2020

Q-1 - 12662316

Reagent P in the given reaction is :



(A) $LiA1H_4$

(B) $NaBH_4$

(C) $DIBA1 - H$

(D) OH^-

CORRECT ANSWER: D

SOLUTION:

As this is alkaline hydrolysis.

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Q-2 - 12662317

Propene, $CH_3 - CH = CH_2$, can be converted to 1-propanol by oxidation. Which set of reagents among the following is ideal to effect the conversion?

(A) Alkaline $KMnO_4$

(B) $B_\circ H_6$and alkaline H_2O_2

(C) O_3 / Zndust

(D) $OsO_4 / NaHSO_3$

CORRECT ANSWER: B

SOLUTION:

Diborane $H_2O_2/OH-$ gives anti-Markownikoff addition of $H-OH$

Q-3 - 12662321

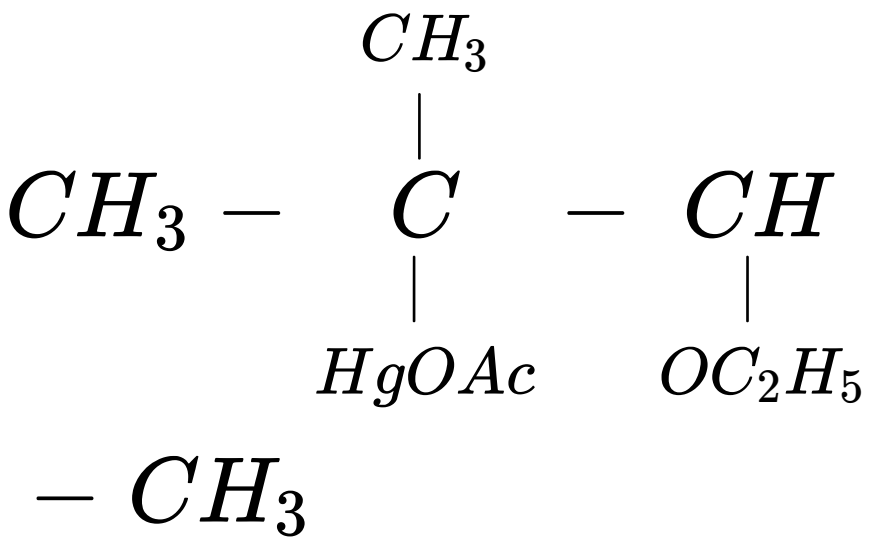
Product$[X]$ of he reaction is

$$CH_3-\overset{CH_3}{\overset{|}{C}}=CH-CH_3 \xrightarrow{Hg(OA)_2, C_2H_5OH} [X]$$

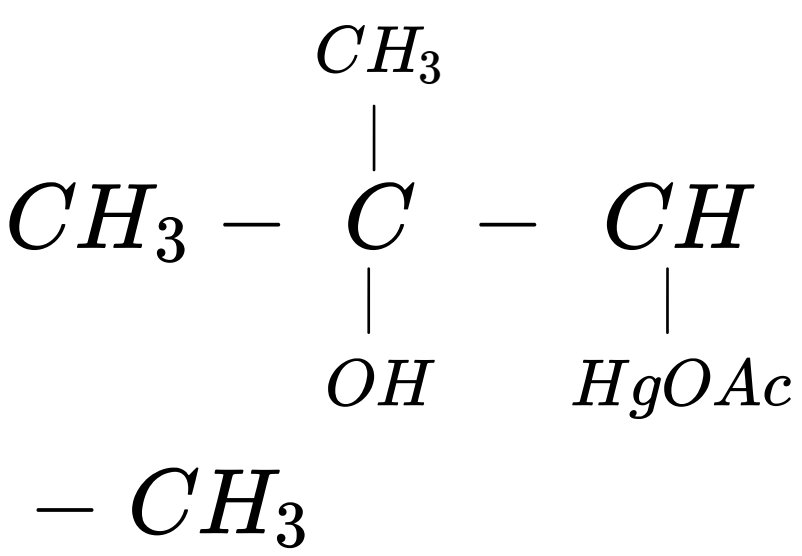
(A)

$$CH_3-\overset{CH_3}{\overset{|}{\underset{OC_2H_5}{\underset{|}{C}}}}-\underset{HgOAc}{\underset{|}{CH}}-CH_3$$

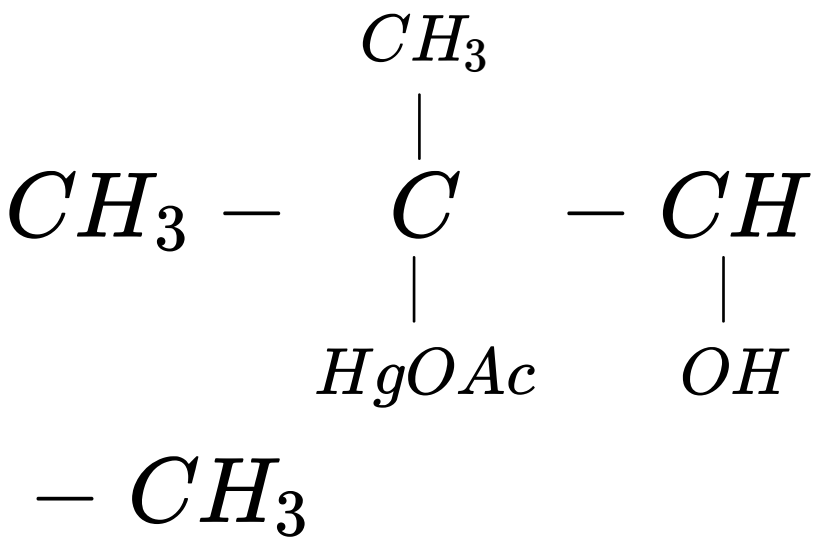
(B)



(C)



(D)

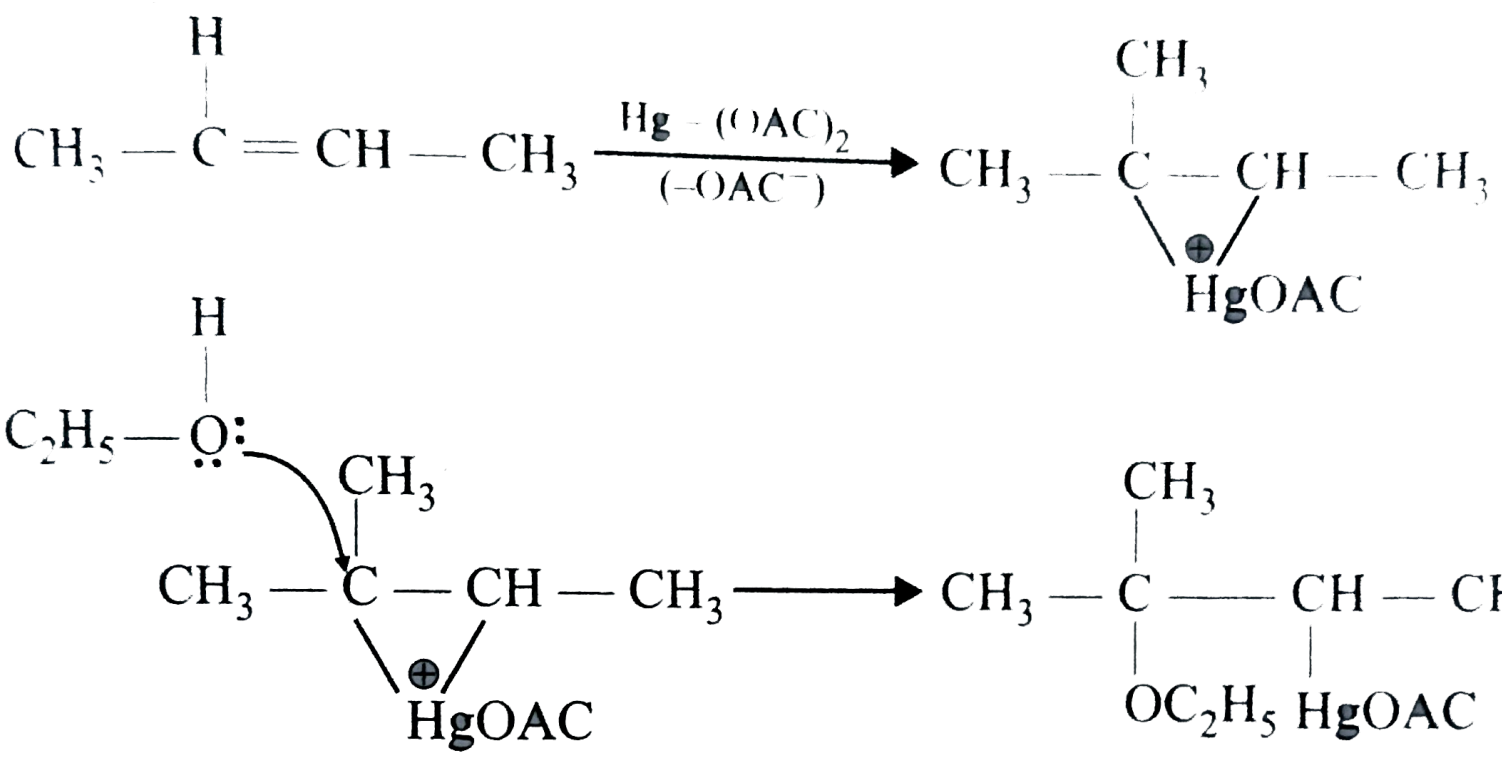


CORRECT ANSWER: A

SOLUTION:

$$CH_3 - \overset{\overset{H}{|}}{C} = CH$$

$$- CH_3 \xrightarrow[(-OC^-)]{Hg-(OAC)_2}$$



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Q-4 - 12662324

Isobuty1alcohol as prepared from the reaction of

(A) CH_3CH_2MgBr and CH_3CHO

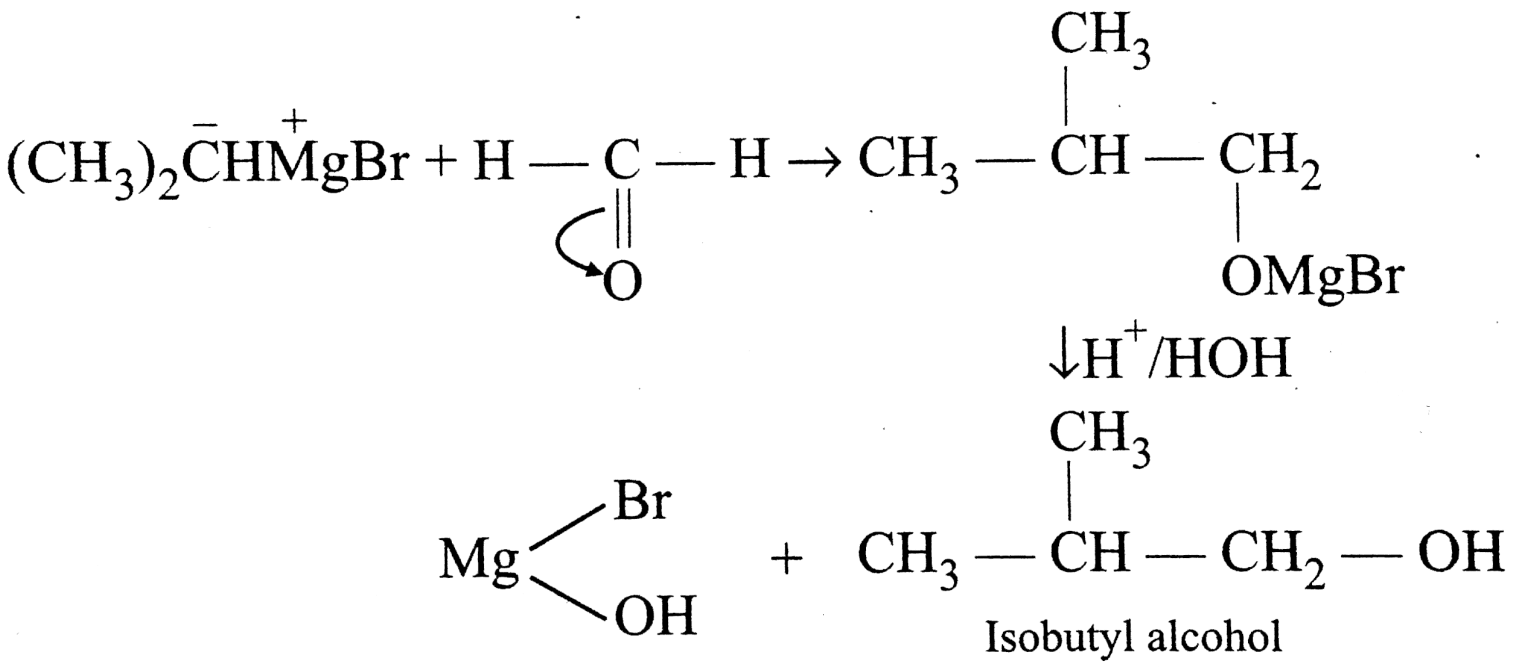
(B) CH_3MGBr and CH_3CH_2CHO

(C) $(CH_3)_2CHMgBr$ and $HCHO$

(D) CH_3MgBr and CH_3COCH_3

CORRECT ANSWER: C

SOLUTION:



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Q-5 - 12662365

$$Ph - \underset{\underset{OH}{|}}{CH} - \overset{\overset{O}{||}}{C} - H \xrightarrow[H_2O]{HO^-} Q$$

$. P$

and$Q$ are isomers. Identify Q

(A) $Ph - CH_2 - \overset{\overset{O}{||}}{C} - OH$

(B) $Ph - \overset{\overset{O}{||}}{C} - OCH_3$

(C) $Ph - \overset{\overset{O}{||}}{O} - CH_2OH$

(D)

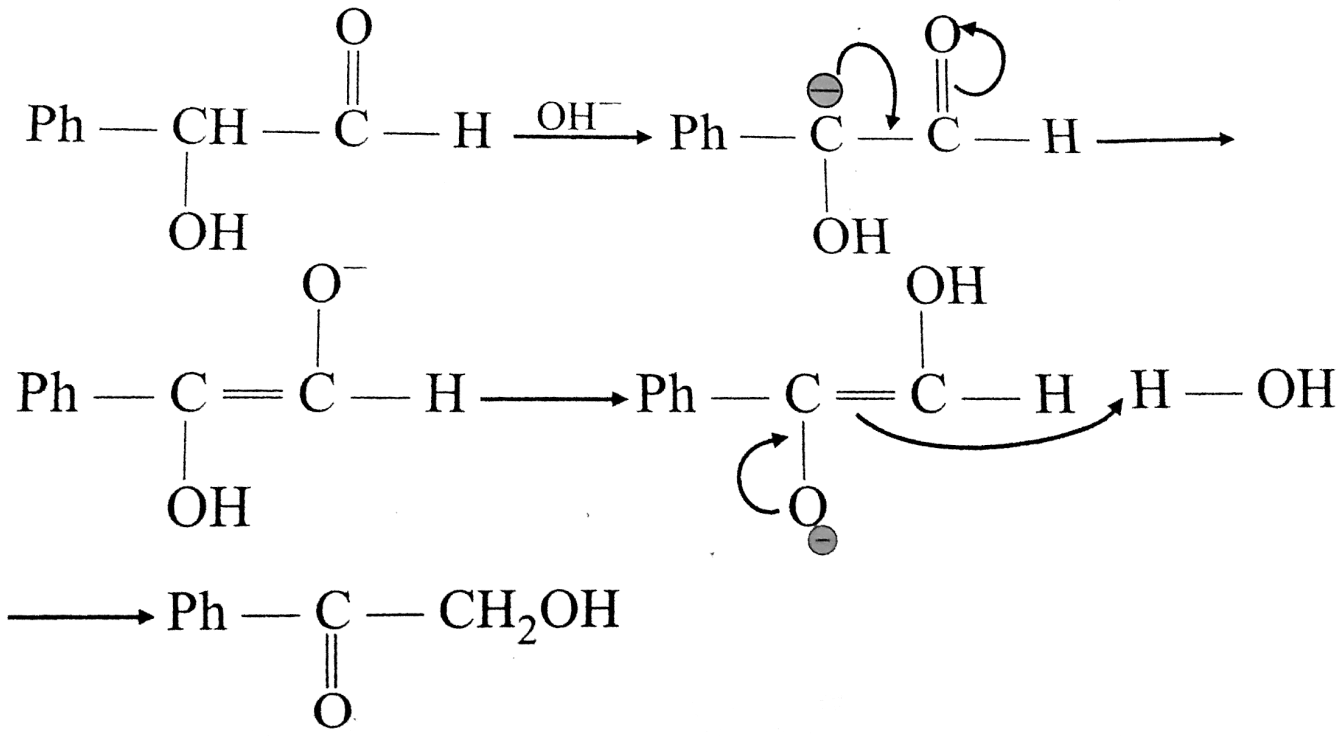
$$H - \overset{\overset{O}{||}}{C} - CH_2 - O - Ph$$

CORRECT ANSWER: C

SOLUTION:

$$Ph - \underset{\underset{OH}{|}}{CH} - \overset{\overset{O}{||}}{C} - H \xrightarrow{OH^-}$$

43. (c)



$$Ph - \underset{\displaystyle OH}{\overset{\displaystyle O^-}{\overset{|}{C}}} = C - H \rightarrow Ph$$

$\rightarrow Ph - \underset{\underset{O}{||}}{C}$

$- CH_2OH$

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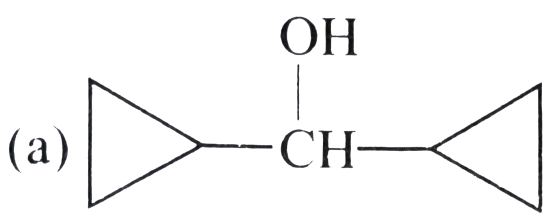
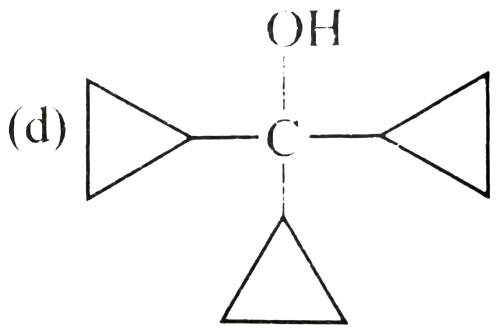
Q-6 - 12662366

Which one of the following will be most recctive for S_{N1} reaction?

(A) 

(B) $C_6H_5 - \underset{\underset{OH}{|}}{CH} - CH_6H_5$

(C) $CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{OH}{|}}{C}} - CH_3$

(D) 

CORRECT ANSWER: D

SOLUTION:

According to carbocation stability

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Q-7 - 12662367

The compound that reacts faster with Lucas reacgent (conc.

$HCI + ZnCI_2$) at room temperature is

(A) butan$-1-ol$

(B) butan$-2-ol$

(C) $2-$ methal1propan$-1-ol$

(D) $2-$ Methylpropan$-2-ol$

CORRECT ANSWER: D

SOLUTION:

Tertiary alcohols rest faster with Lucas regent followed by 2 and 1 alcohols.

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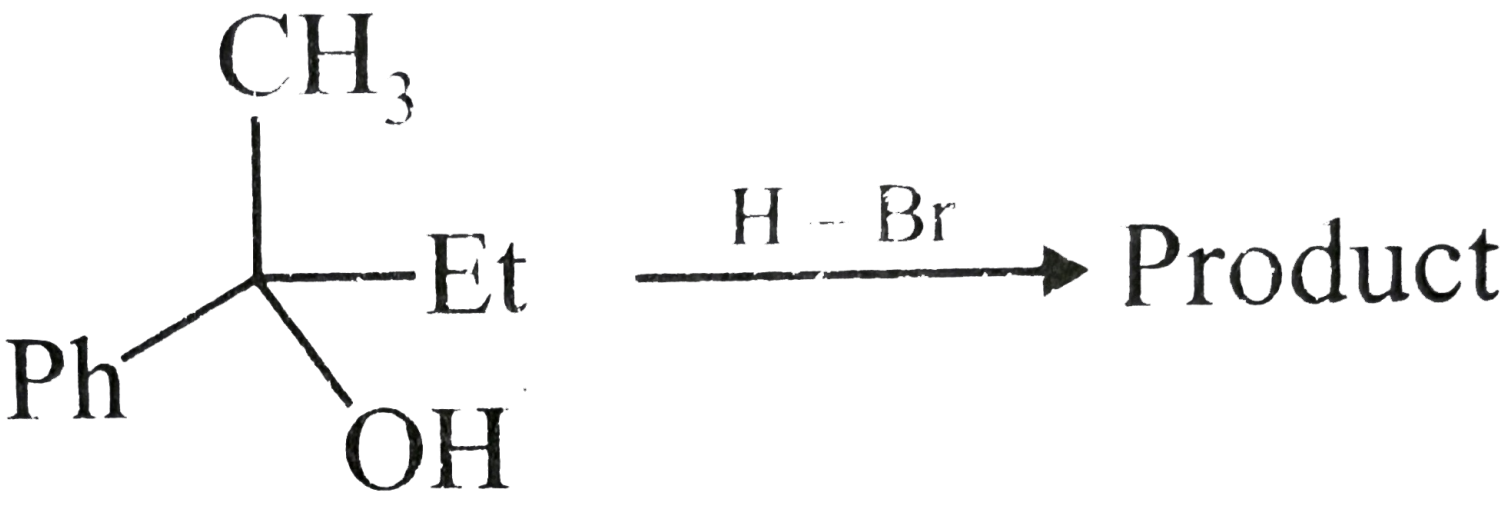
Q-8 - 12662368

Which describes the best stereochemical aspects of the following reaction?



$\xrightarrow{H-Br} Product$

(A) Inversion of configuration occurs at the carbon undergoing substitution.

(B) Retention of configuration occurs at the carbon

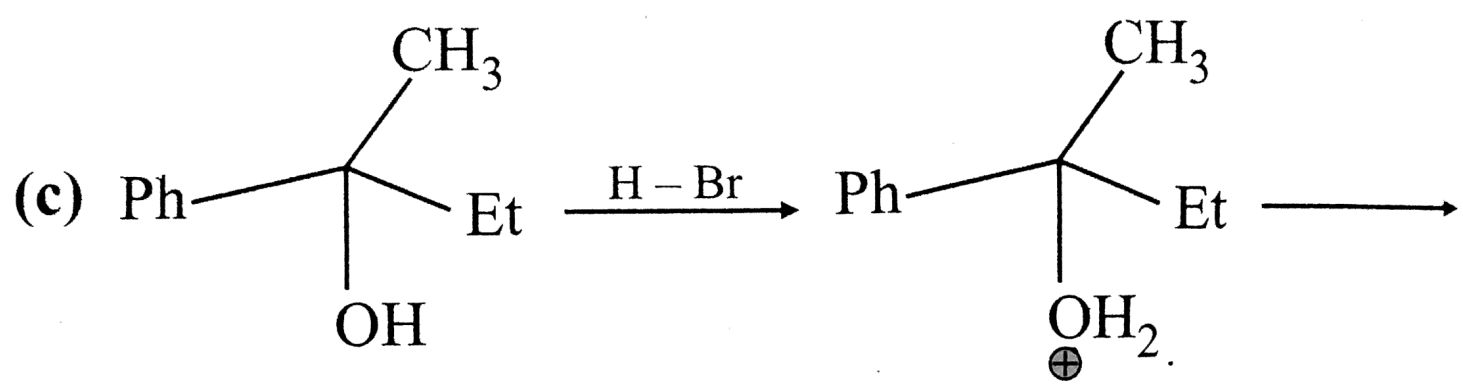
undergoing substitution.

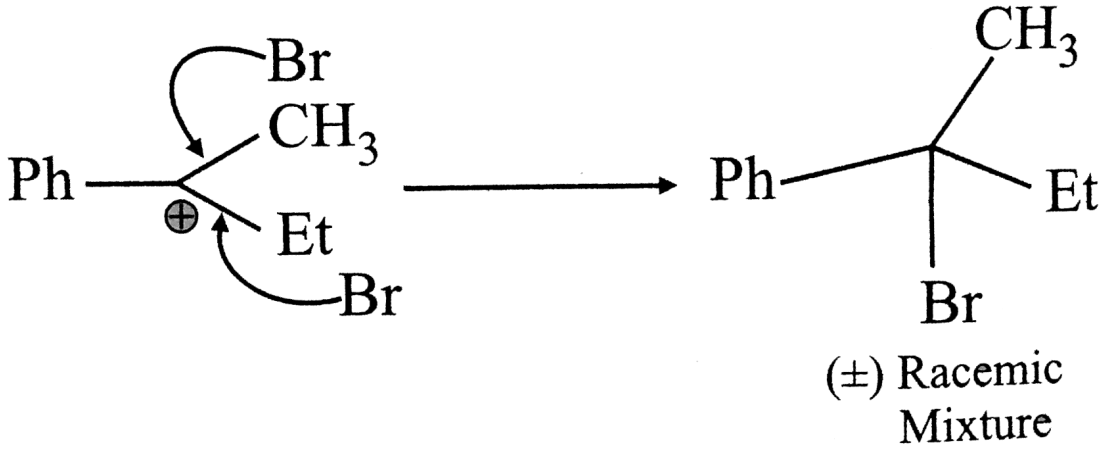
(C) Racemization occurs at the carbon undergoing substitution.

(D) The carbon undergoing substitution is not stereogenic.

CORRECT ANSWER: C

SOLUTION:





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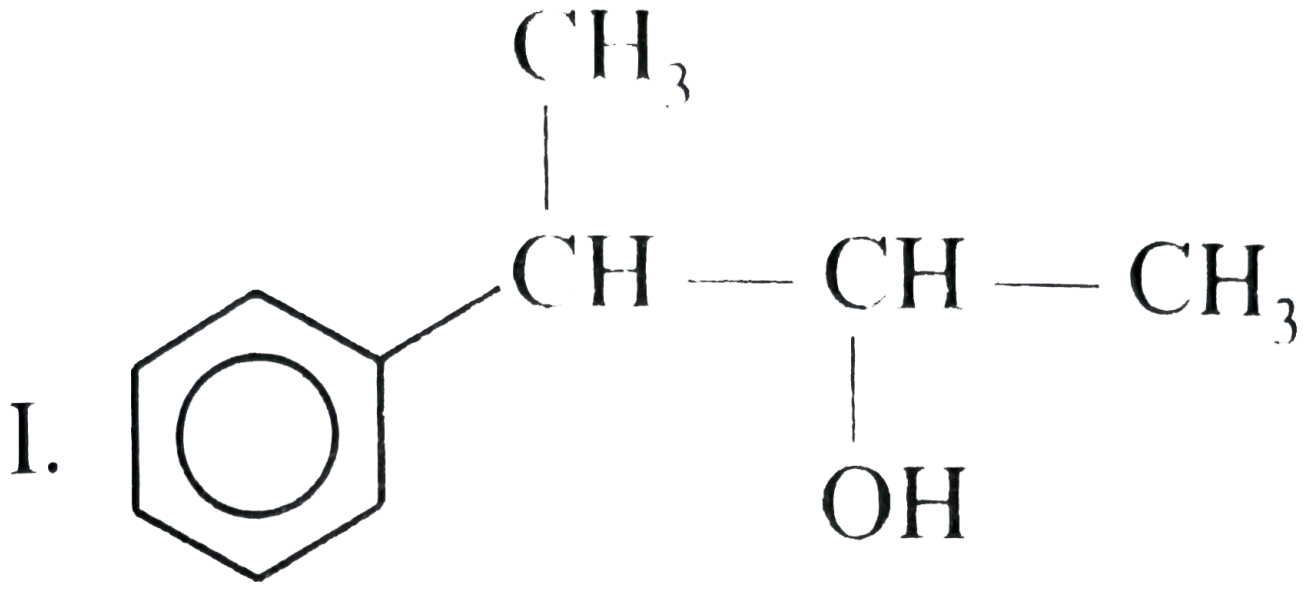
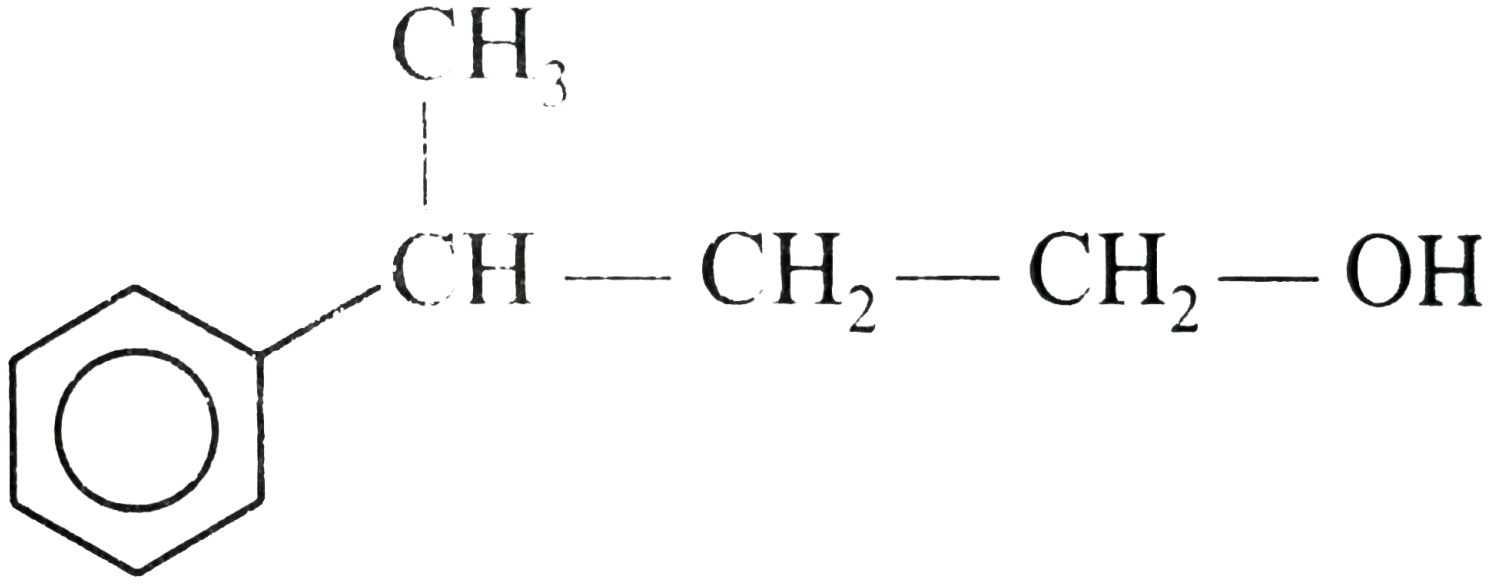
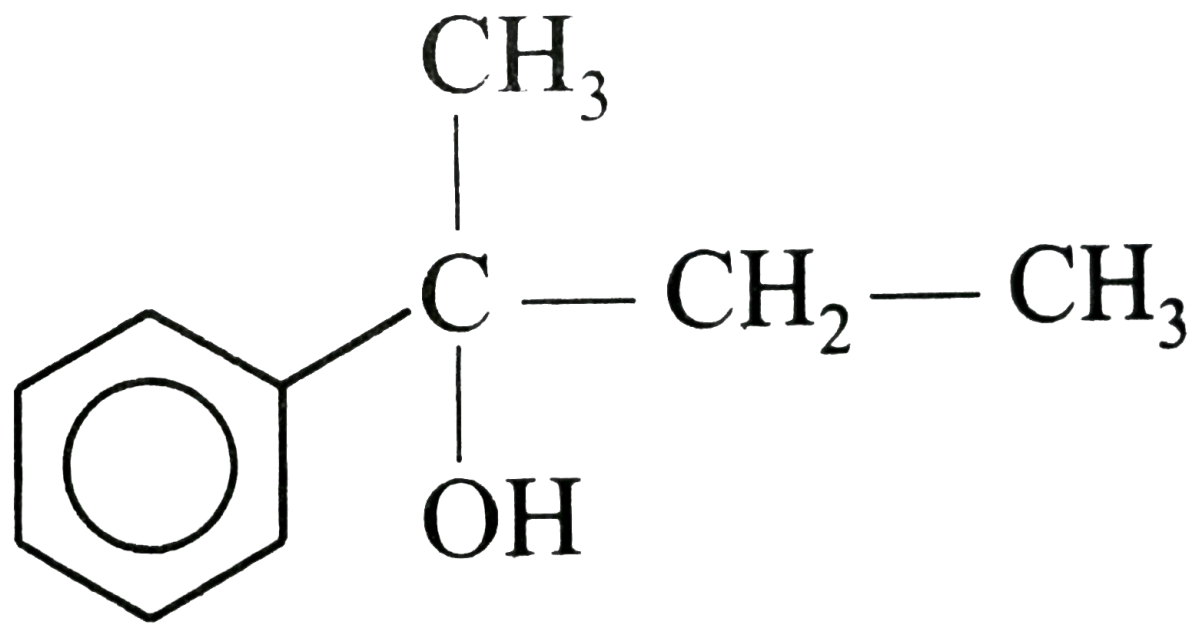
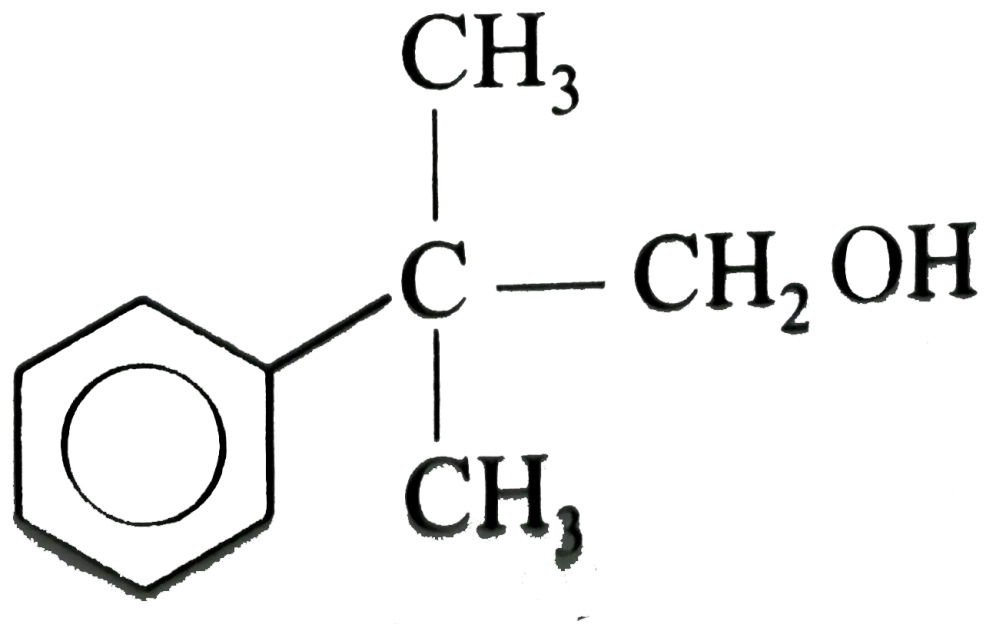
Q-9 - 12662372

The relative rate of acid catalysed dehydration of following alcohols would be

I. 

II. 

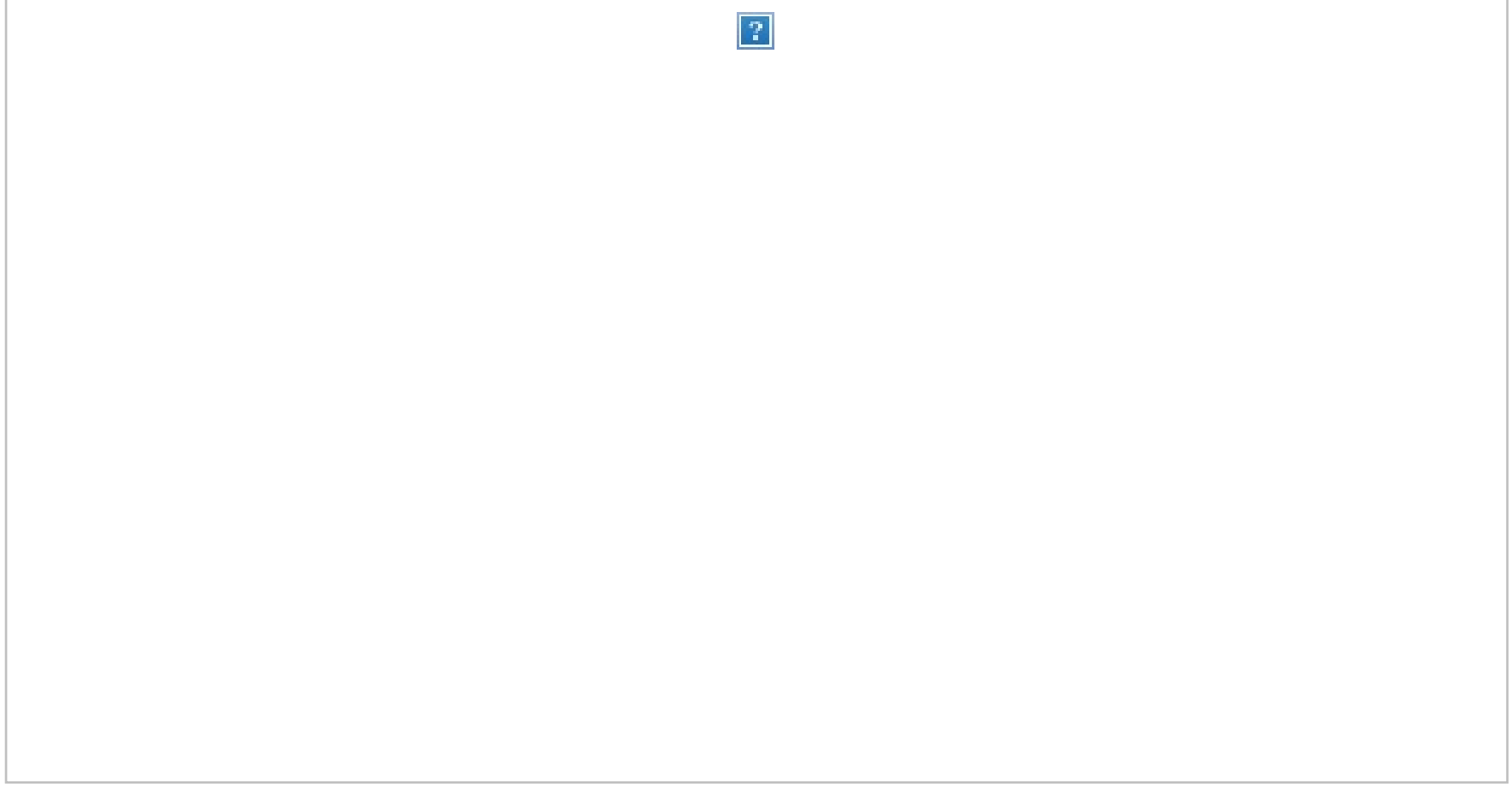
III. 

IV. 

I.

II.

III.

IV. 

(A) $III > I > IV > II$

(B) $III > IV > I > II$

(C) $I > III > IV > II$

(D) $III > IV > I > II$

CORRECT ANSWER: A

SOLUTION:

According to stability of carboncation.

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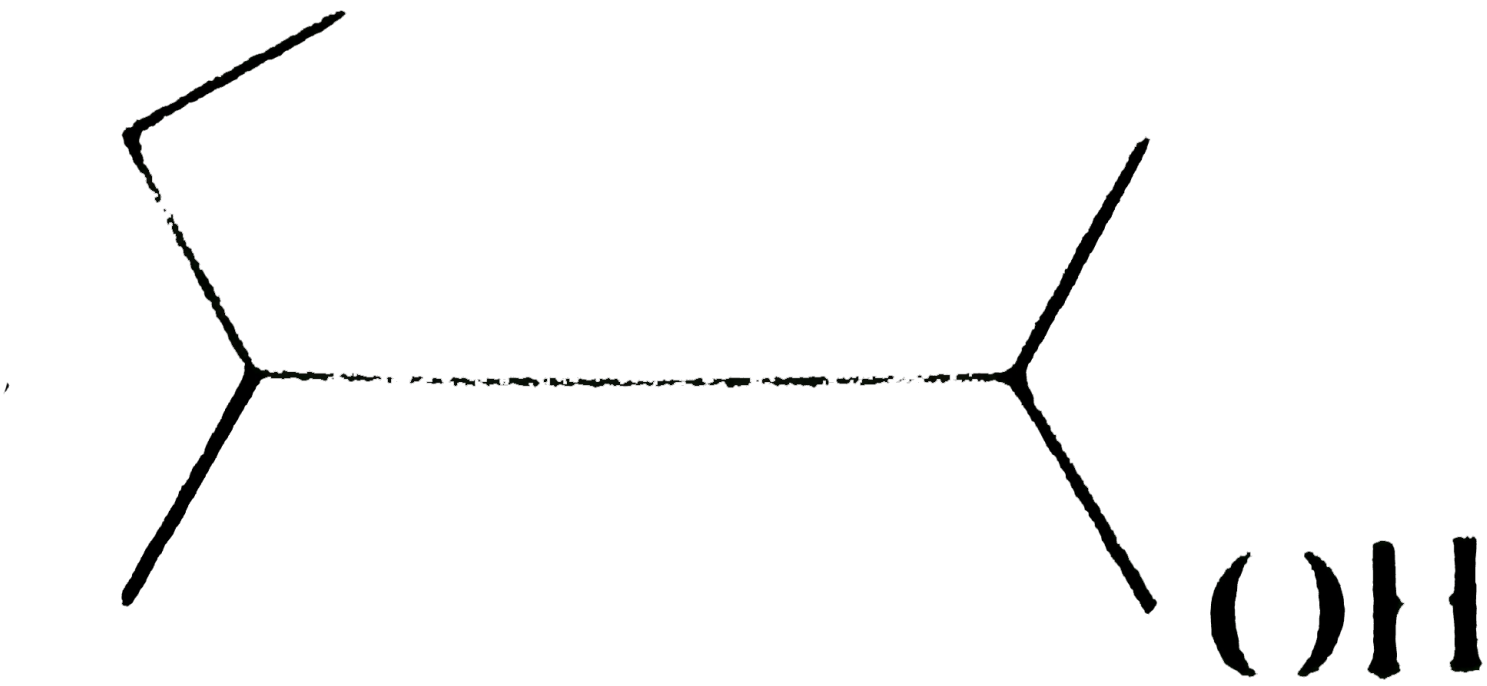
Q-10 - 12662373

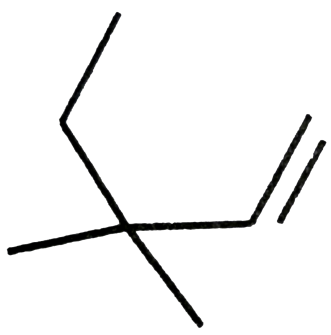


$\xrightarrow{Conc.\ H_2SO_4}$

Major product is

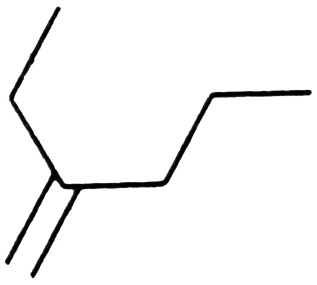
(A)

(a)



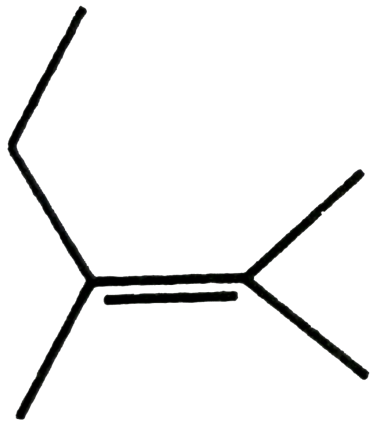
(B)

(b)



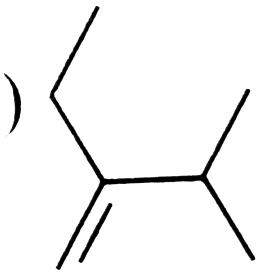
(C)

(c)



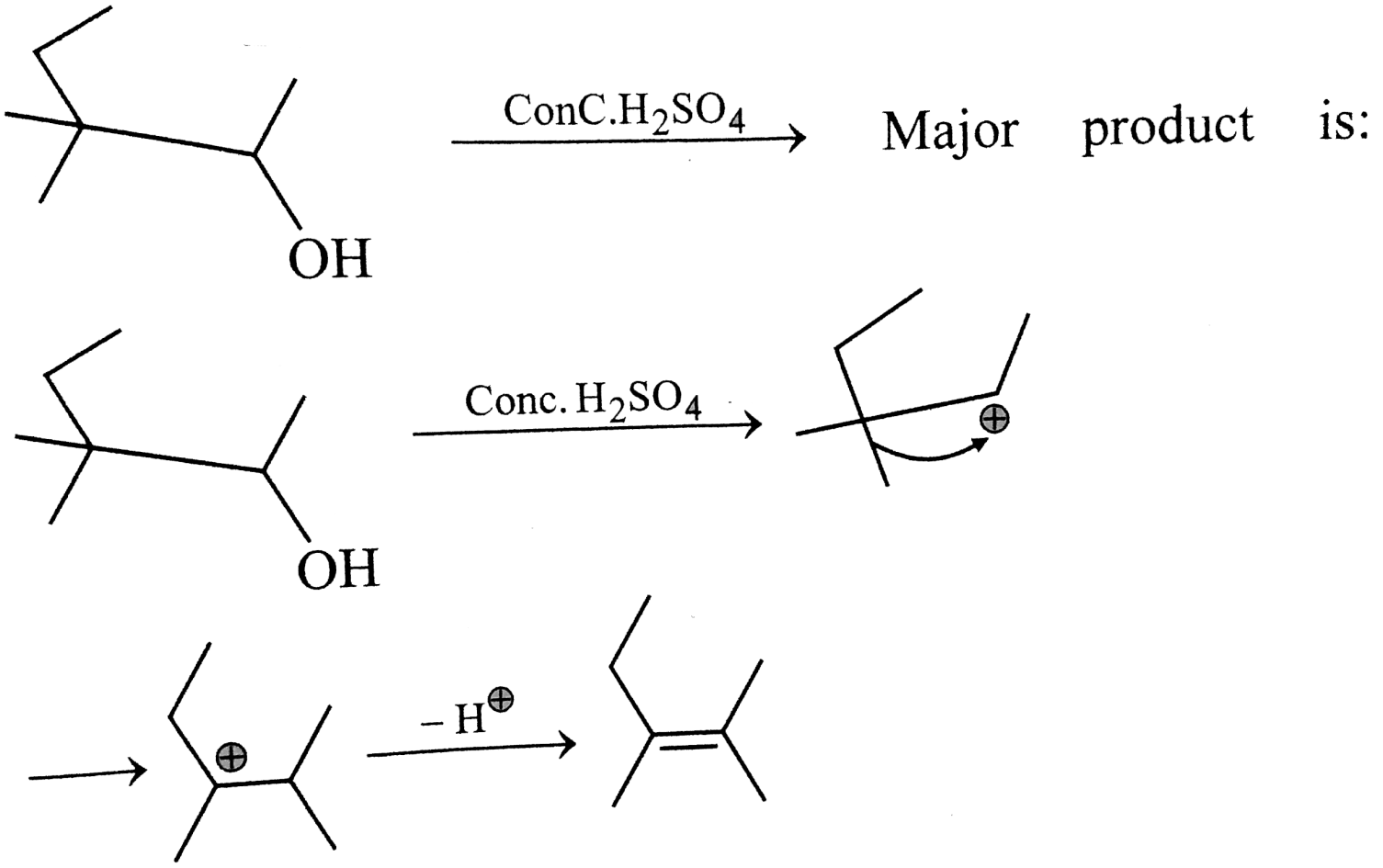
(D)

(d)



CORRECT ANSWER: C

SOLUTION:



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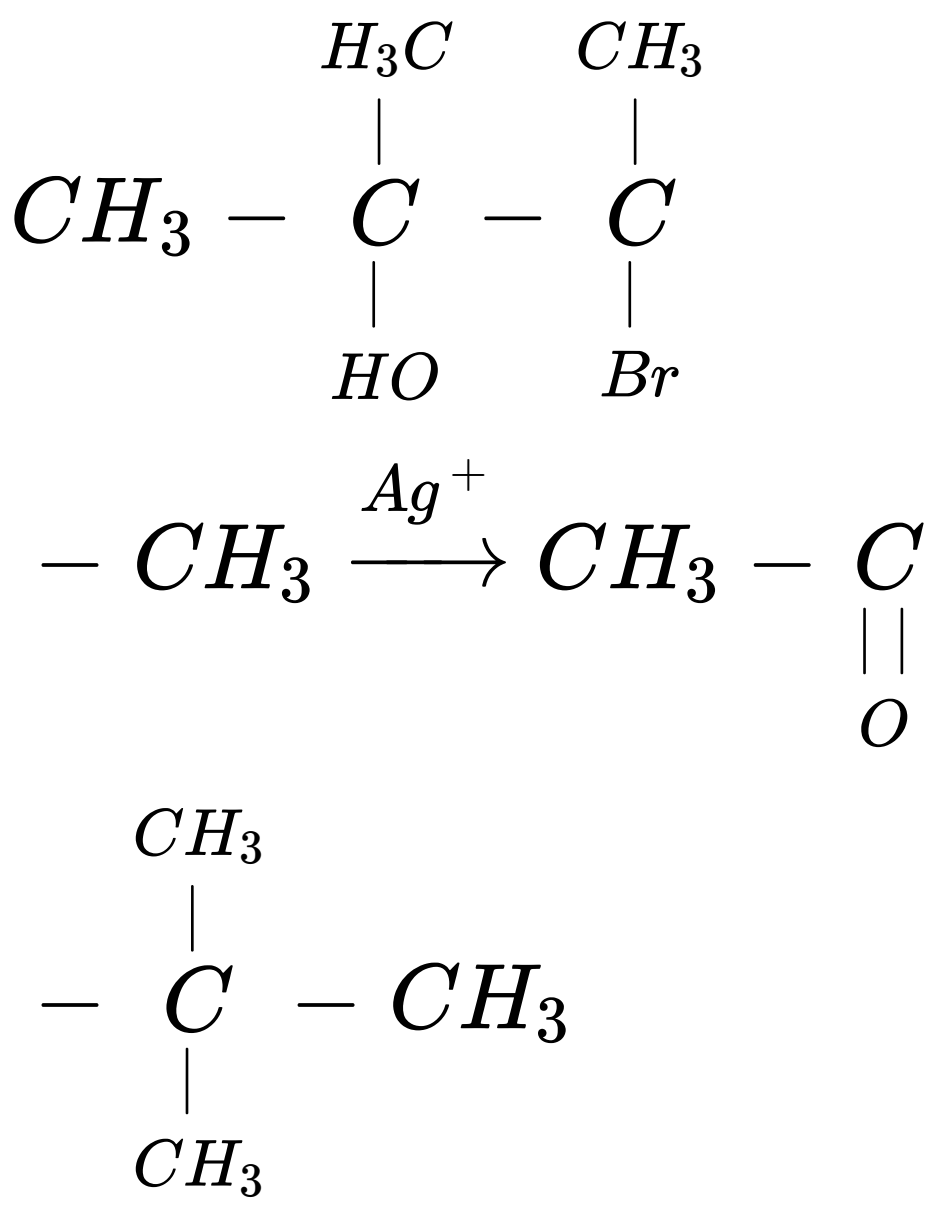
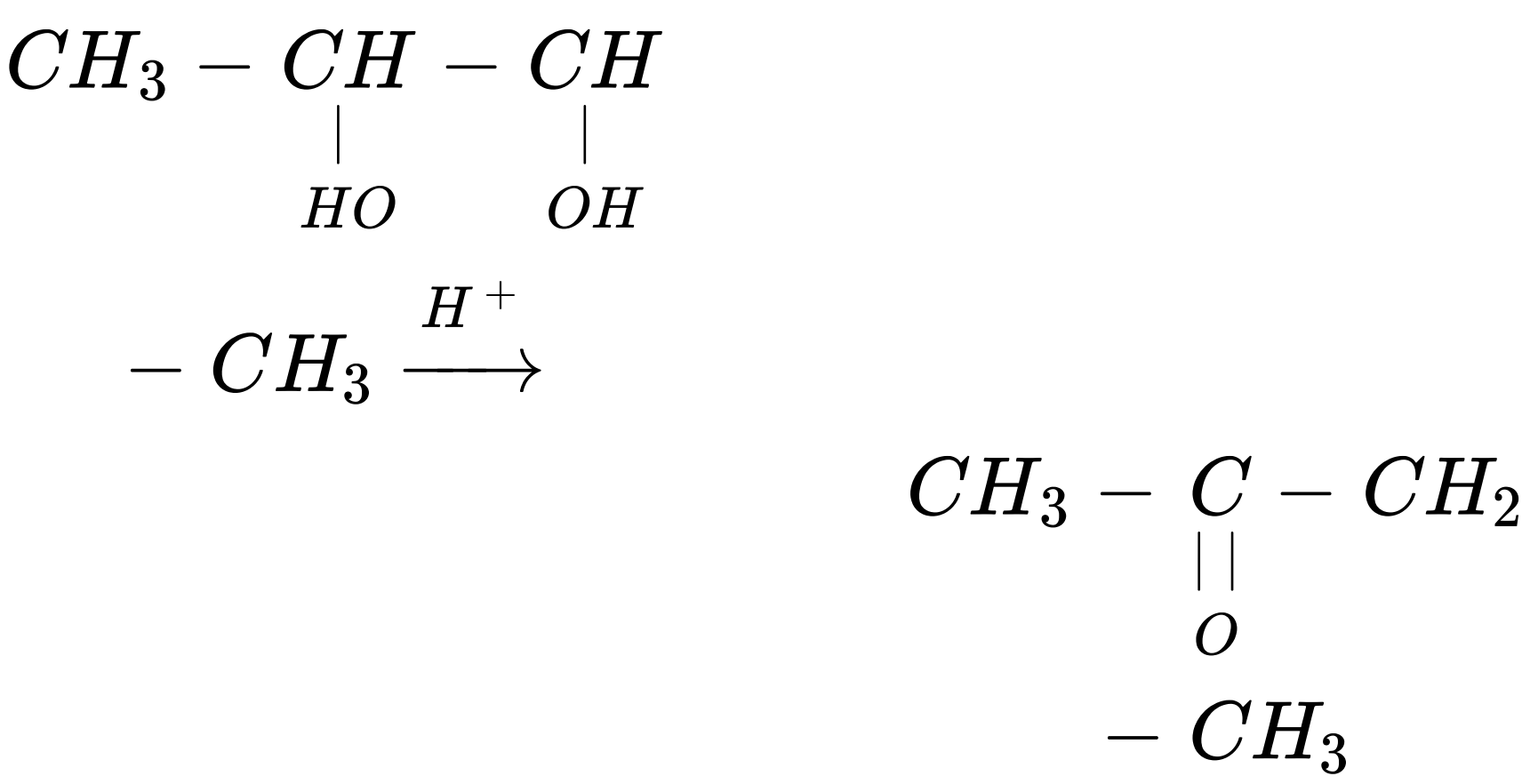
Q-11 - 12662379

Which of the following does not represent the correct product?

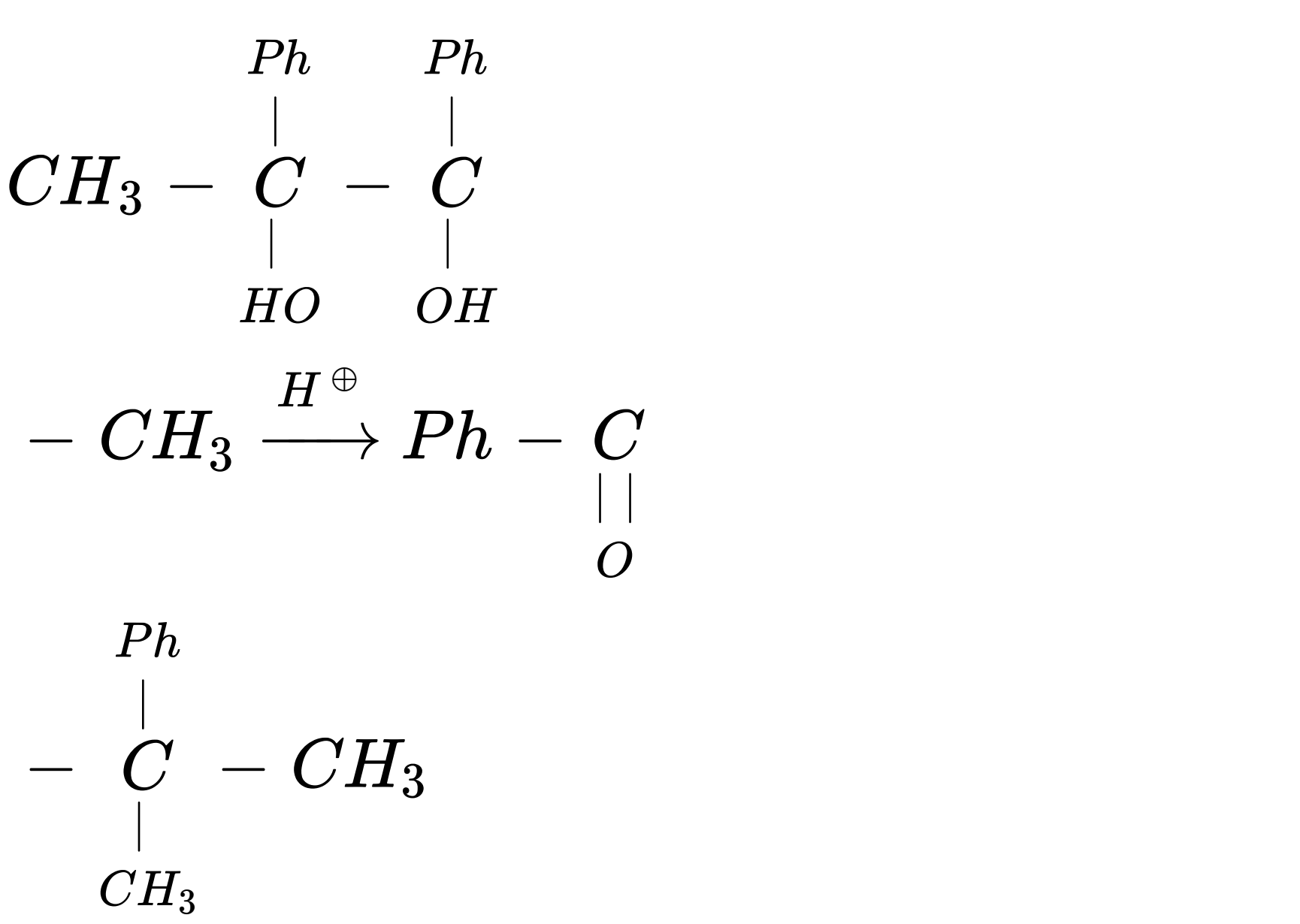
(A)



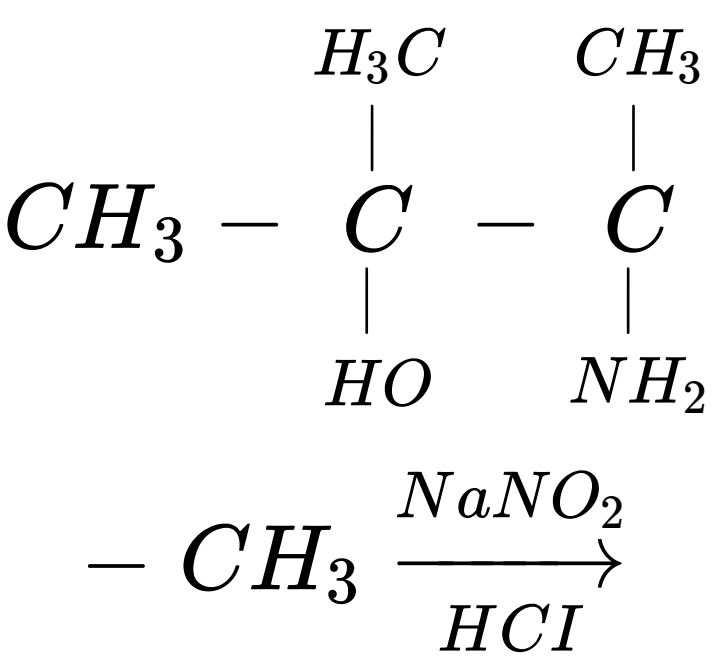
(B)

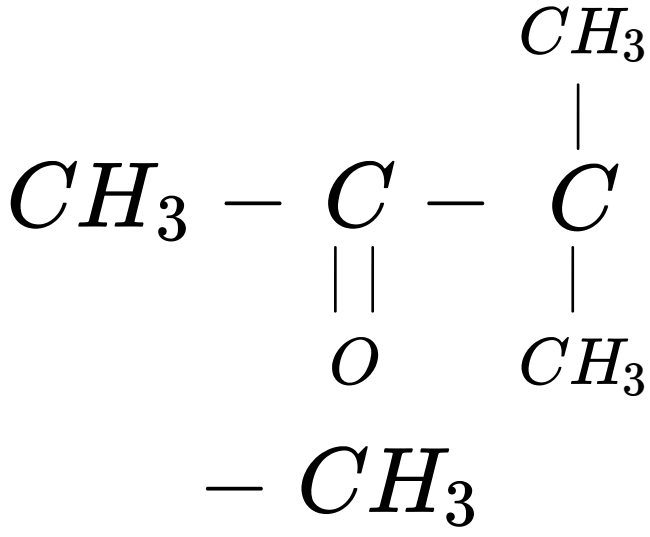


(C)



(D)

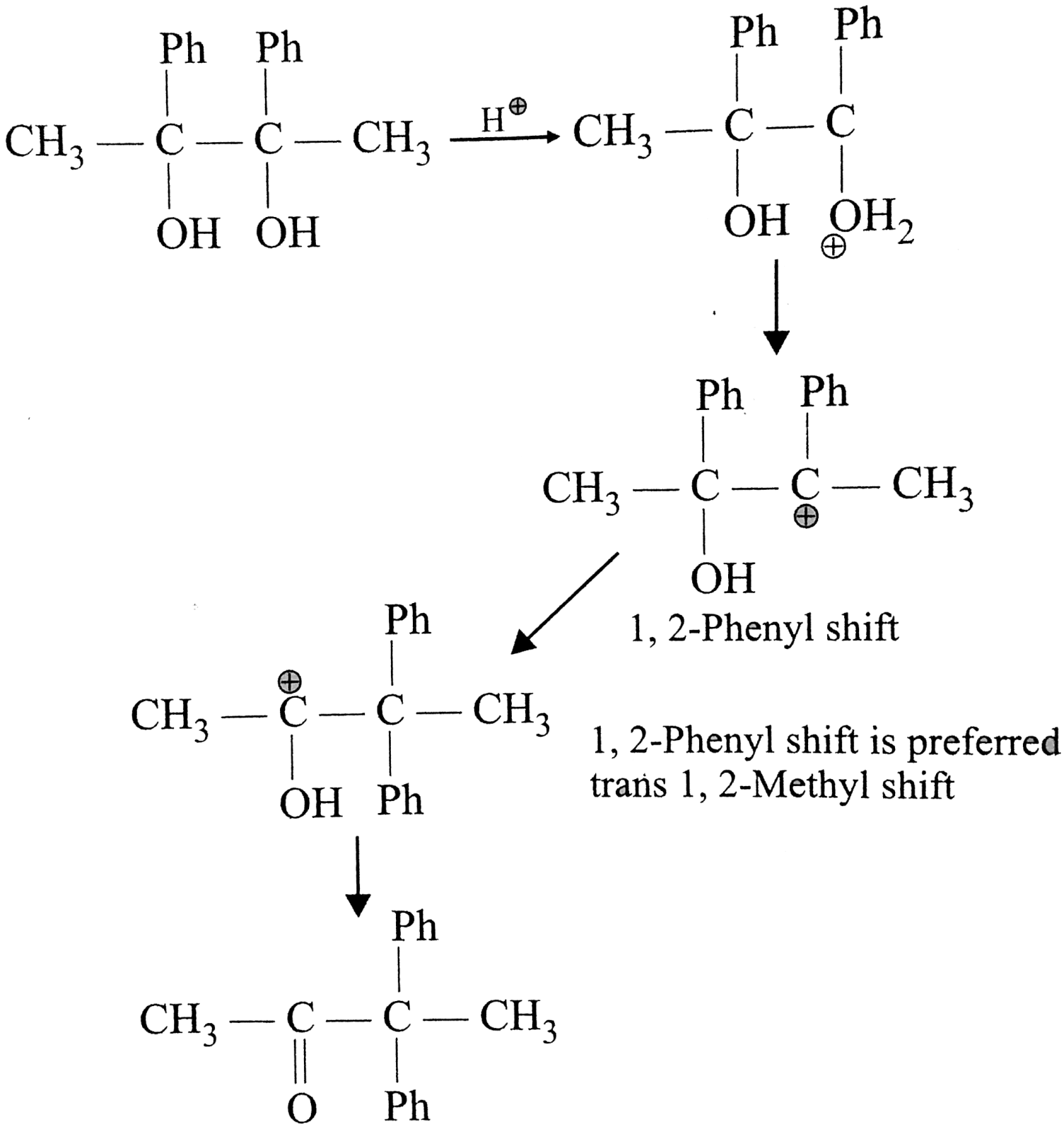




CORRECT ANSWER: C

SOLUTION:

Correct Product for is (c).



Q-12 - 12662380

Methyl alcohol cab be distinguished from Ethyl alcohol using

(A) Sodium hydroxide and iodine

(B) Schiff's reagent

(C) Fechling soultion

(D) Phthalein fusion test

CORRECT ANSWER: A

SOLUTION:

C_2H_5Oh

$$\xrightarrow[\text{Iodoform test}]{NaOH\,/\,I_2} CHI_3$$

(yellow ppt)

$CH_4OH \xrightarrow{NaOH\,/\,I_2}$ No ppt

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Q-13 - 12662381

The missing structures A and B in the recation sequence:

$R - CH_2 - CH_2OH$

$$\xrightarrow[350C]{AI\,(2)\,O_3} R - CH = CH_2$$

$$\xrightarrow[(ii)\,Zn\,/\,H_3O]{(i)\,O_3}$$

$RCHO + A, RCHO \xrightarrow{Reduct} B$, are

(A) $CH_3OH, RCOOH$

(B) Methanal, RCH_2OH

(C) Ethanal, $RCOOH$

(D) Methanal, $RCHOHR$

CORRECT ANSWER: B

SOLUTION:

$R - CH_2CH_2OH$

$\xrightarrow[350C]{Al_2O_3} R - CH = CH_2$

$\xrightarrow[(ii)\, Zn\,, H_3O^{\oplus}]{(i)\, O_3}$

$R - Cho + CH_2O(A)$

$$R - CHO \xrightarrow{\text{Methanol Reduce}} R - CH_2OH \quad (B)$$

Q-14 - 12662382

$$CH_2 = CHCHCH_2CH_2OH \quad (OH) \xrightarrow{MnO_2} A,\ A$$

is

(A) $CH_2 = CHCCH_2CH_2OH \quad (=O)$

(B) $CH_2 = CHCHCH_2CHO \quad (=O)$

(C) $CH_2 = CH\underset{\underset{O}{||}}{C}CH_2CHO$

(D)

$CH_2 = \underset{\underset{O}{||}}{C}HCCH_2\underset{\underset{O}{||}}{C}OH$

CORRECT ANSWER: A

SOLUTION:

MnO_2 is used to oxidize allylic alcohols

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Q-15 - 12662387

The compound `'A' when trated with ceric ammonium nitrate solution gives yellow ppt. the compound 'A' is

(A) Alkane

(B) Aldehyde

(C) Acid

(D) Alcohol

CORRECT ANSWER: D

SOLUTION:

$$R-OH$$
alcohol
$$+(NH_4)_2Ce(NO_3)_6$$
Cerric amm.nitrate
$$\rightarrow Ce(NO_3)_6(ROH)_9$$
$$+2N+14NO_3$$
Yellow ppt.

`

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Q-16 - 12662398

$A \xrightarrow[\delta]{Cu} CH_3CH_2OH \xrightarrow[\Delta]{AI_2O_3} B$. A and B respectively are

(A) `Alkanal, alkene

(B) Alkyne,alkanal

(C) Alkene, alkanal

(D) Alkene,alkyne

CORRECT ANSWER: A

SOLUTION:

$$CH_3CHO$$

$$\xrightarrow[\Delta]{Cu} CH_3CH_2OH$$

$$\xrightarrow[\Delta]{AI_2O_3} CH_2 = CH_2$$

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Q-17 - 12662404

In the following sequence of reactions:

$$CH_3CH_2OH \xrightarrow{P+I_2} A \xrightarrow[\text{dry ether}]{Mg} B$$

$$\xrightarrow{HCHO} C \xrightarrow{H_2O} D$$

the compound D is:

(A) Buthanal

(B) n-buthy1 alcohol

(C) n-propy1 alcohol

(D) Propanal

CORRECT ANSWER: C

SOLUTION:

$$CH_3CH_2Oh$$

$$\xrightarrow{P+I_2} \underset{(A)}{CH_3CH_2I} \xrightarrow[\text{dry ether}]{Mg}$$

$$H-\underset{\underset{H}{|}}{C}=O$$

$$\longrightarrow CH_3$$

$$(C)$$

$$-CH_2OMgI \xrightarrow{H_2O}$$

$$CH_3CH_2CH_2OH$$

$$(D)$$

$$+ Mg(OH)I$$

The compound D is n-propy1 alcohol.

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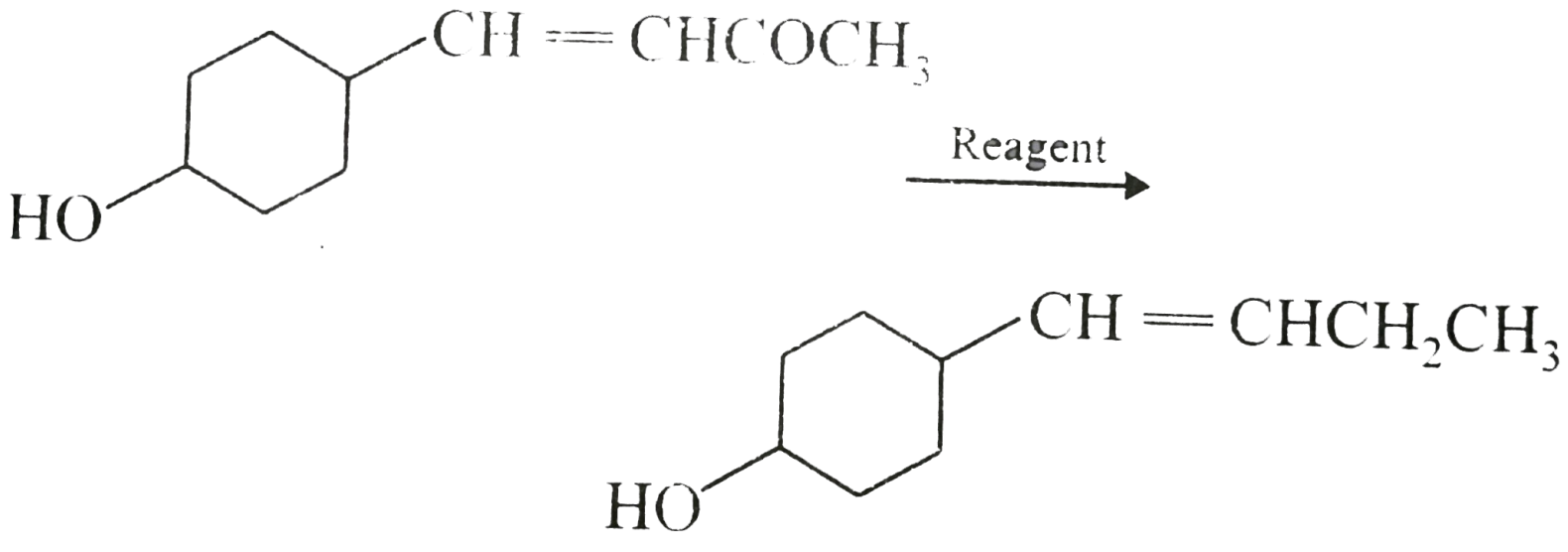
Q-18 - 12662408

In the given transformation which of the following is the most appropriate reagent?



(A) $NH_2NH_2, \overset{\Theta}{O}H$

(B) $Zn - Hg / HCI$

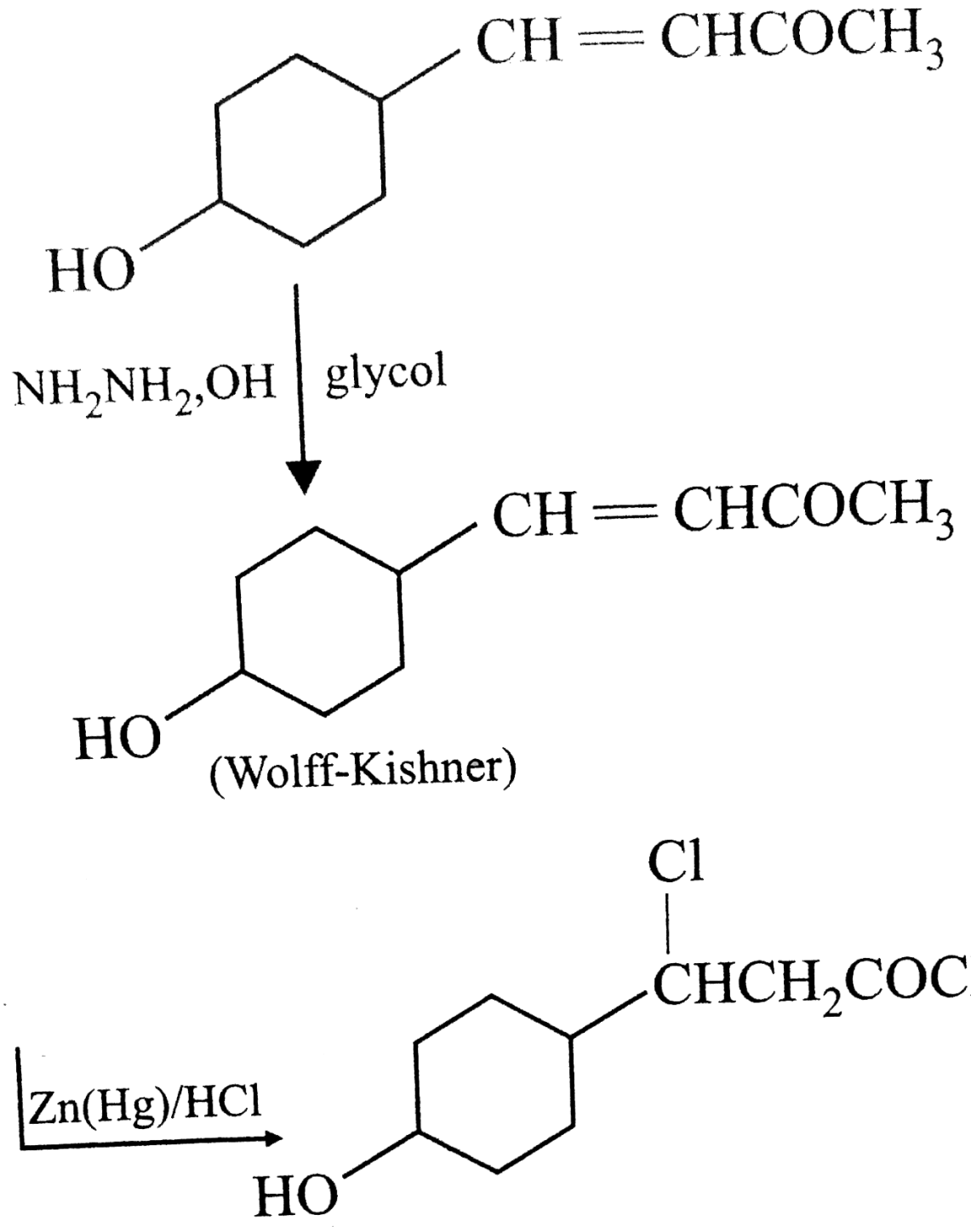
(C) $Na, Liq. NH_3$

(D) $NaBH_4$

CORRECT ANSWER: A

SOLUTION:

(a) (a)

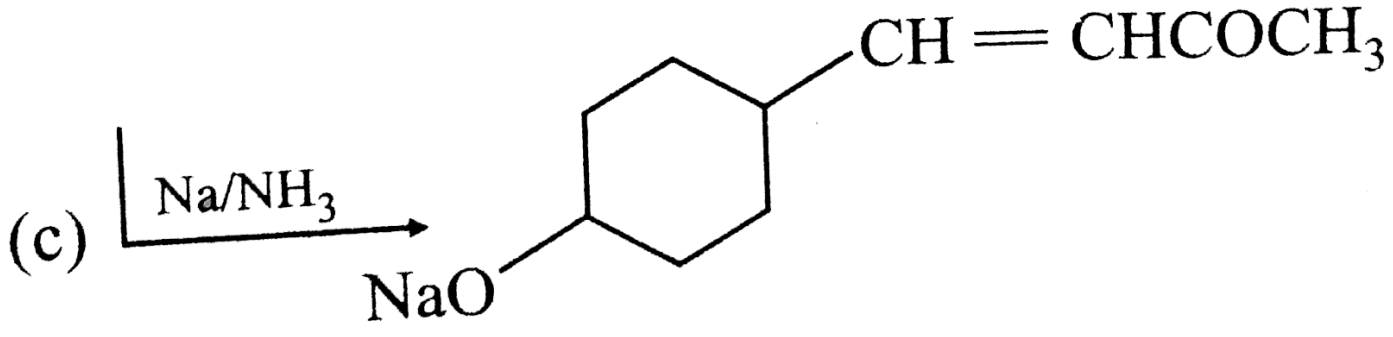


(Wolff-Kishner)

(b)

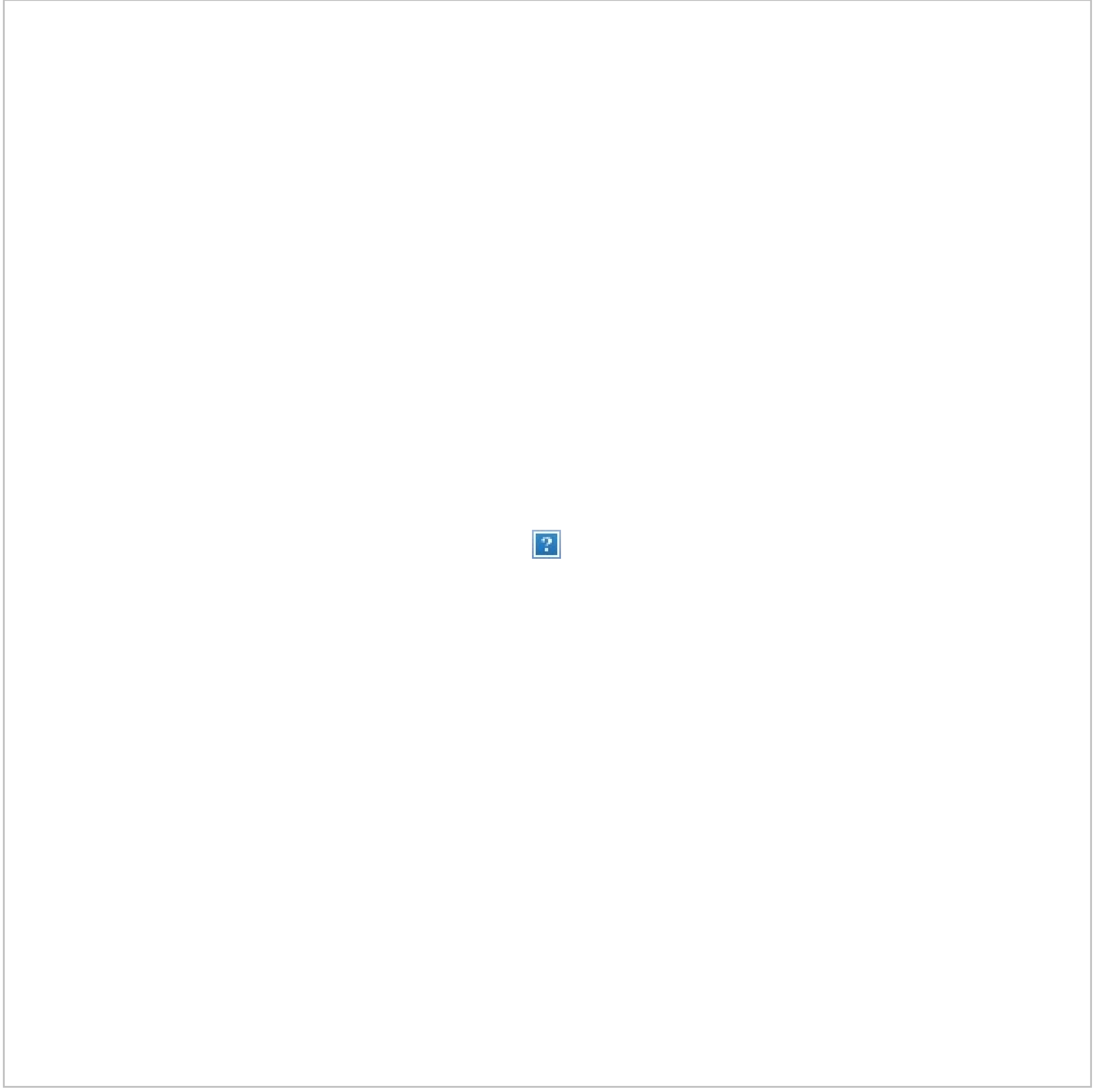
HCl attacks 2° alcohol as well as (C == C) bond.

(c)



(d) $NaBH_4$ → Low yield

(a)

(b) 

(c)

(d)

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Q-19 - 12662420

The best method to prepare cyclohexene from cyclochexanol is by using

(A) Conc.$HCI + ZnCI_2$

(B) Conc.H_3PO_4

(C) HBr

(D) Conc.HCI

CORRECT ANSWER: B

SOLUTION:

Conc. HCI, HBr and conc. $HCI + ZnCI_2$ all are nucleophiles thus convert alcohols to alky1 halides. However, conc. H_3PO_4 is a good dehydrating agent which converts and alcohol to an alkene.

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Q-20 - 12662433

Salicylic acid can be prepared using Reimer-Tiemann's reaction by treatng phenol with

(A) Methyl chlorode in the presence of anhydrous aluminium chloride

(B) Carbon dioxide under pressure in sodium hydroxide solution

(C) Carbon tetrachloride and concentrated sodim hydroxide

(D) Sodium nitrite and a few drops of concentrated sulphuric acid

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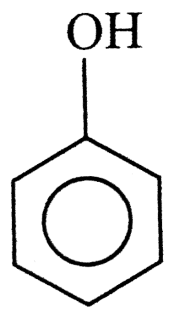
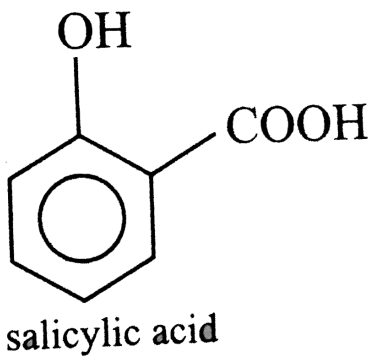
CORRECT ANSWER: C

SOLUTION:

104. (c)  $+ CCl_4 + 4NaOH \rightarrow$



$4NaCl + 2H_2O +$

salicylic acid

Q-21 - 12662434

Phenol

$$\xrightarrow[(ii)\,CO_2\,/\,140C]{(i)\,NaOH} A \xrightarrow{H^+\,/\,H_2O} B$$

$$\xrightarrow[CH_3COOH]{Al_2O_3} C$$

In this reaction, the end product C is

(A) salicyladldehyde

(B) salicylic acid

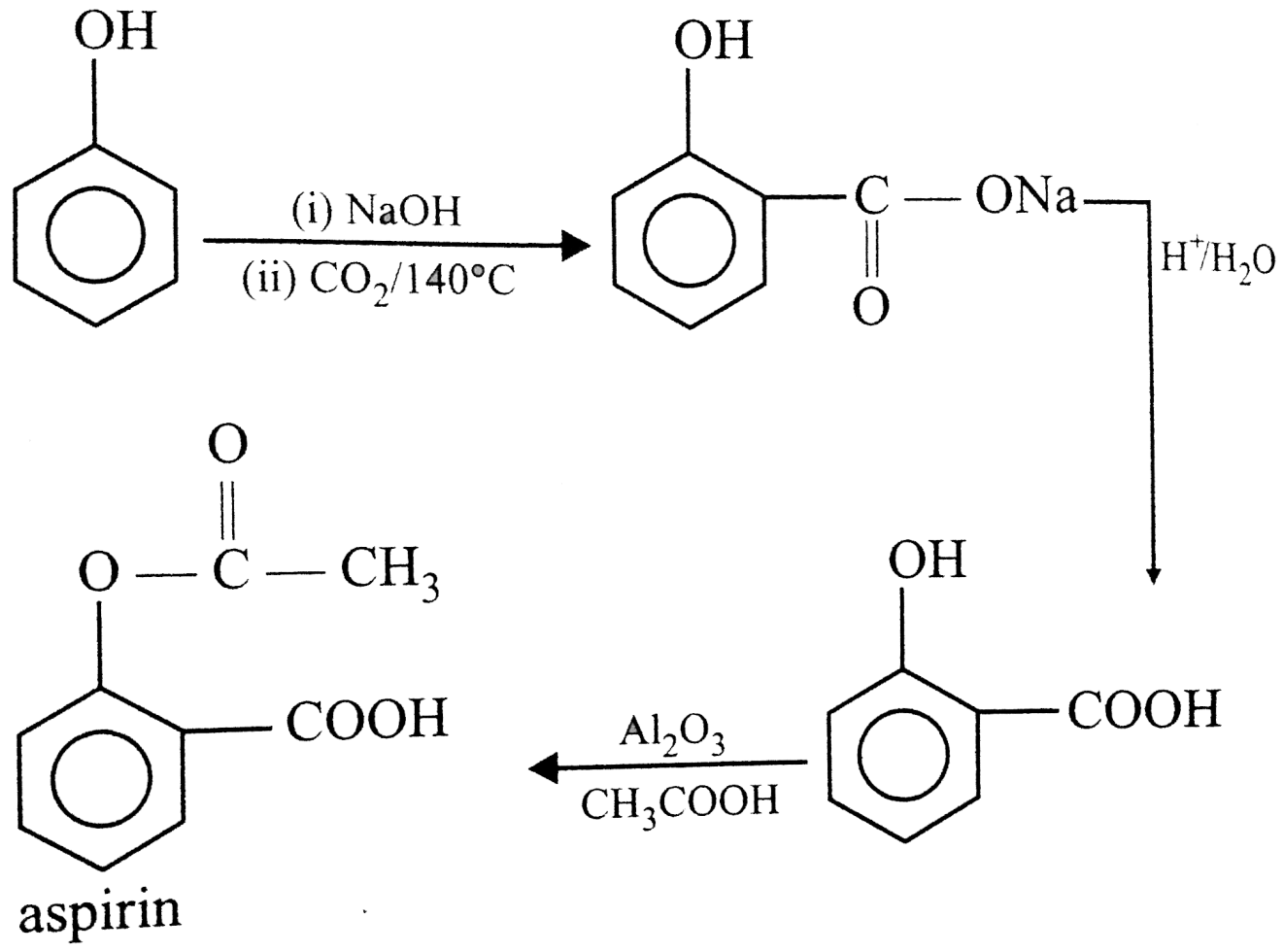
(C) pheny1 aceate

(D) aspirin

CORRECT ANSWER: D

SOLUTION:

105. (d)



aspirin

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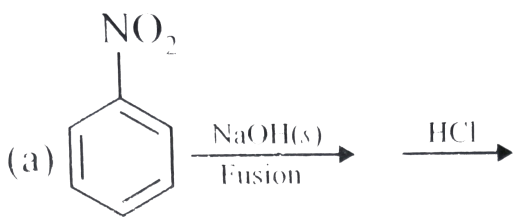
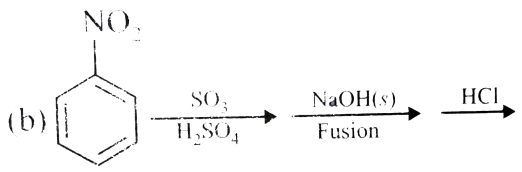
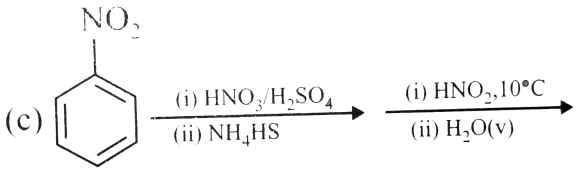
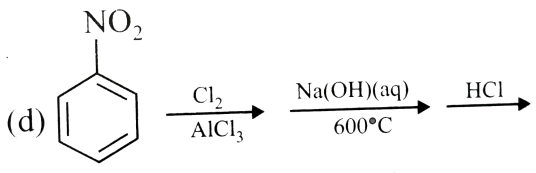
Q-22 - 12662438

All of the following may give meta nitrophenol except

(A) 

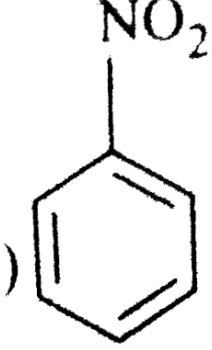
(B) 

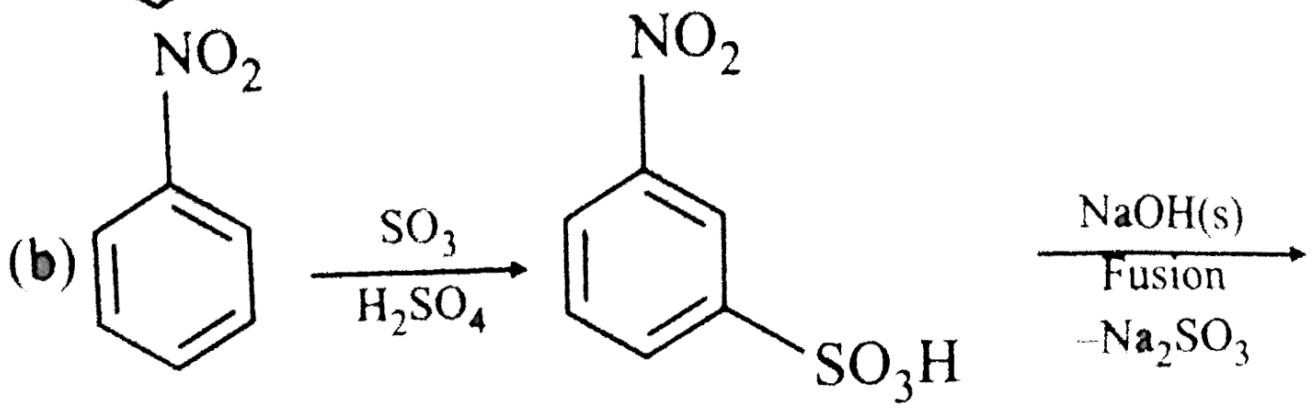
(C) 

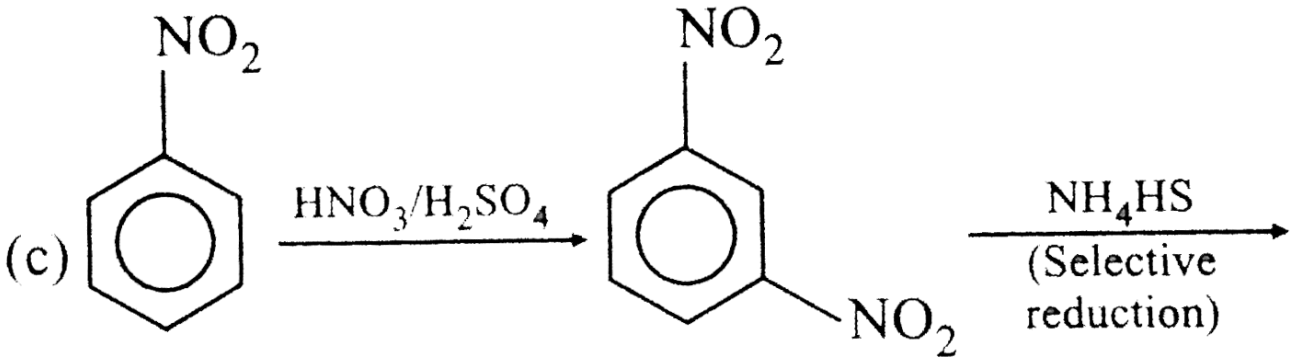
(D) 

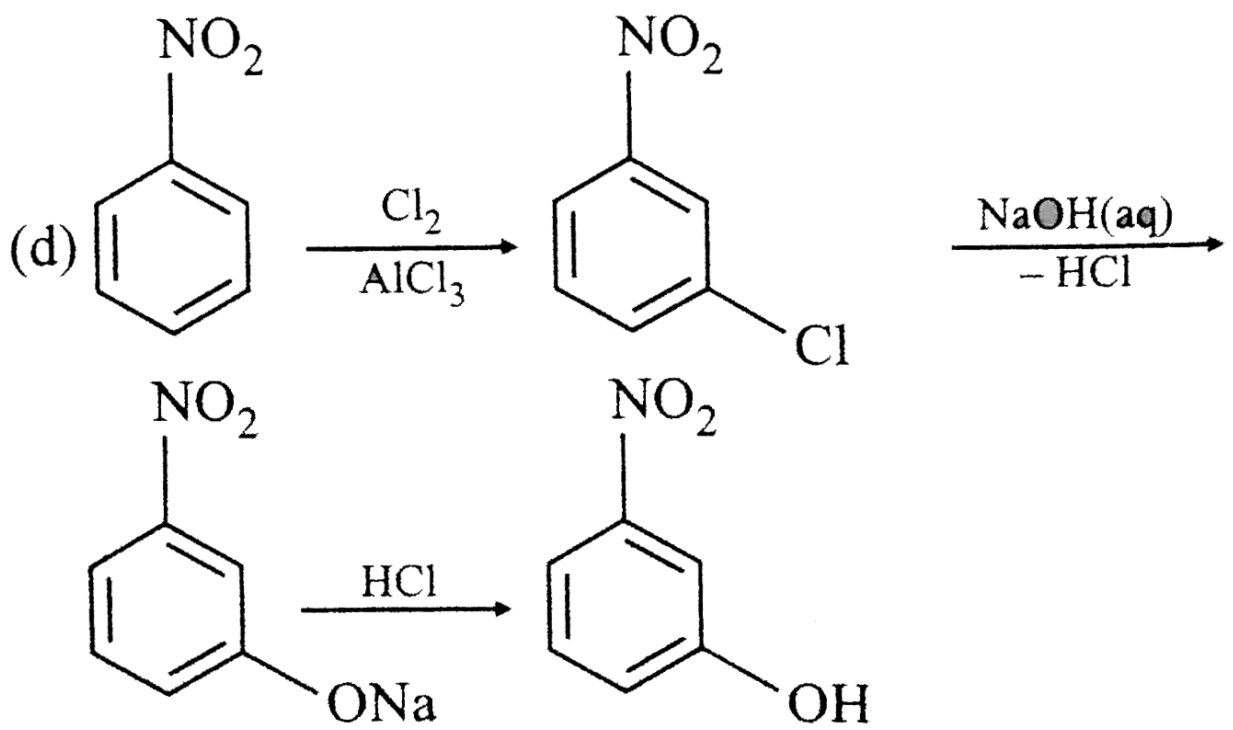
CORRECT ANSWER: A

SOLUTION:

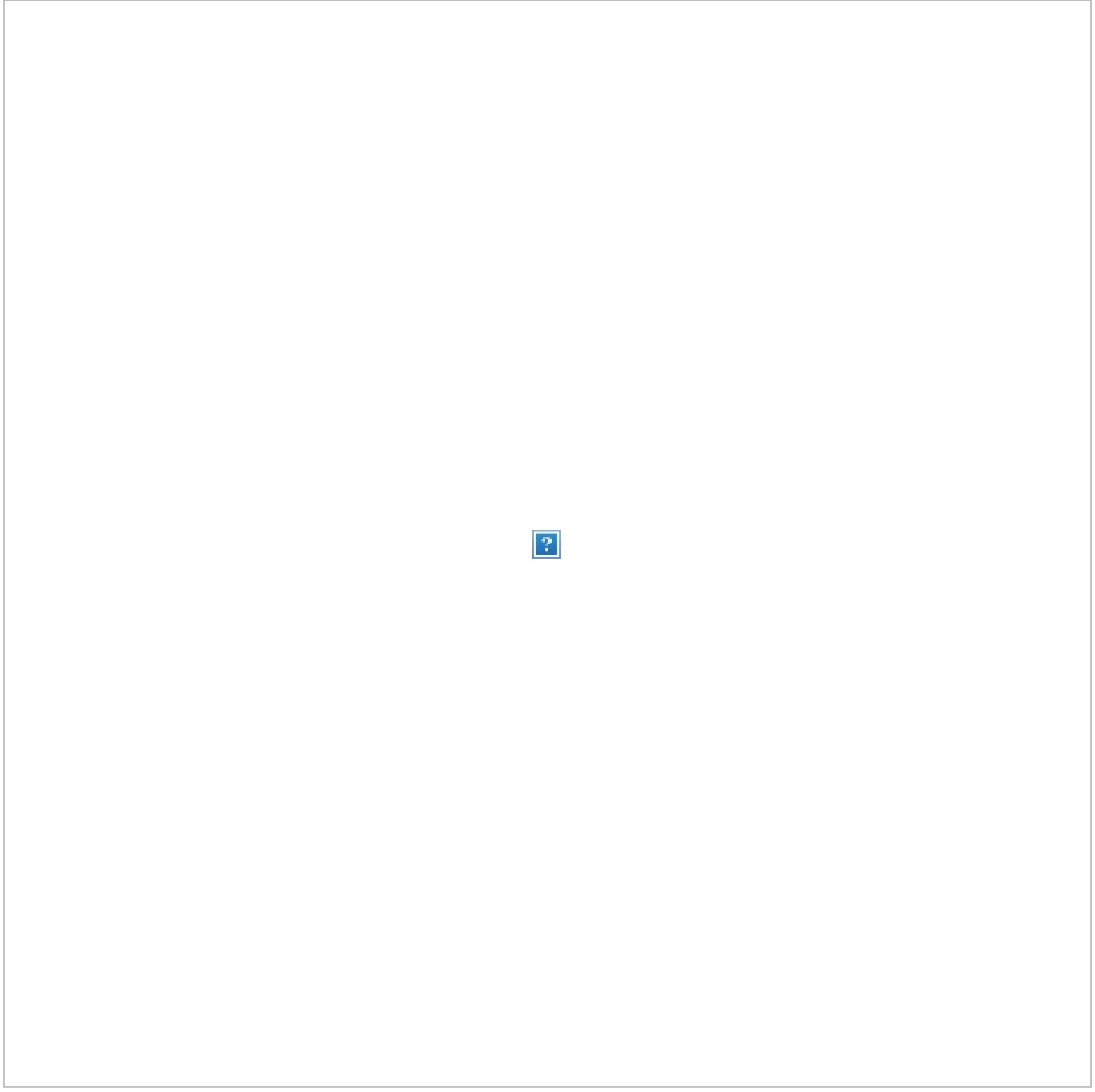
109. (a) (a) 
NO2
NaOH(s)
Fusion
No reaction

(b) 
NO2
SO3
H2SO4
SO3H
NaOH(s)
Fusion
–Na2SO3
NO2
HCl
ONa
NO2
OH

(c) 
NO2
HNO3/H2SO4
NO2
NO2
NH4HS
(Selective
reduction)
NO2
NH2
HNO2
H2O
NO2
OH

(d) 
NO2
Cl2
AlCl3
Cl
NaOH(aq)
– HCl
NO2
ONa
NO2
OH
HCl

(a)



(b)

(c)

(d)

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Q-23 - 12662439

Which of the following is the best perparation of meta cresol, starting form toluene?

(A) $\xrightarrow[H_2SO_4]{HNO_3} \xrightarrow[HCI]{Zn} \xrightarrow[O^\circ C]{HNO_2} \xrightarrow{H_2(O)(v)}$

(B) $\xrightarrow[FeBr_3]{Br_2} \xrightarrow[Heat]{KOH} \xrightarrow{HCI}$

(C)

$\xrightarrow[H_2SO_4]{HNO_3} \xrightarrow[(ii)\ (CH_3CO)_2O]{(i)\ Zn\ /\ HCI}$

$\xrightarrow[H_2SO_4]{HNO_3} \xrightarrow[H_2O]{H^+} \xrightarrow[O^\circ C]{HNO_2} \xrightarrow{H_3PO_2} \xrightarrow[HCI]{Zn}$

$\xrightarrow[O^\circ C]{HNO_2} \xrightarrow{H_2O\,(v)}$

(D)

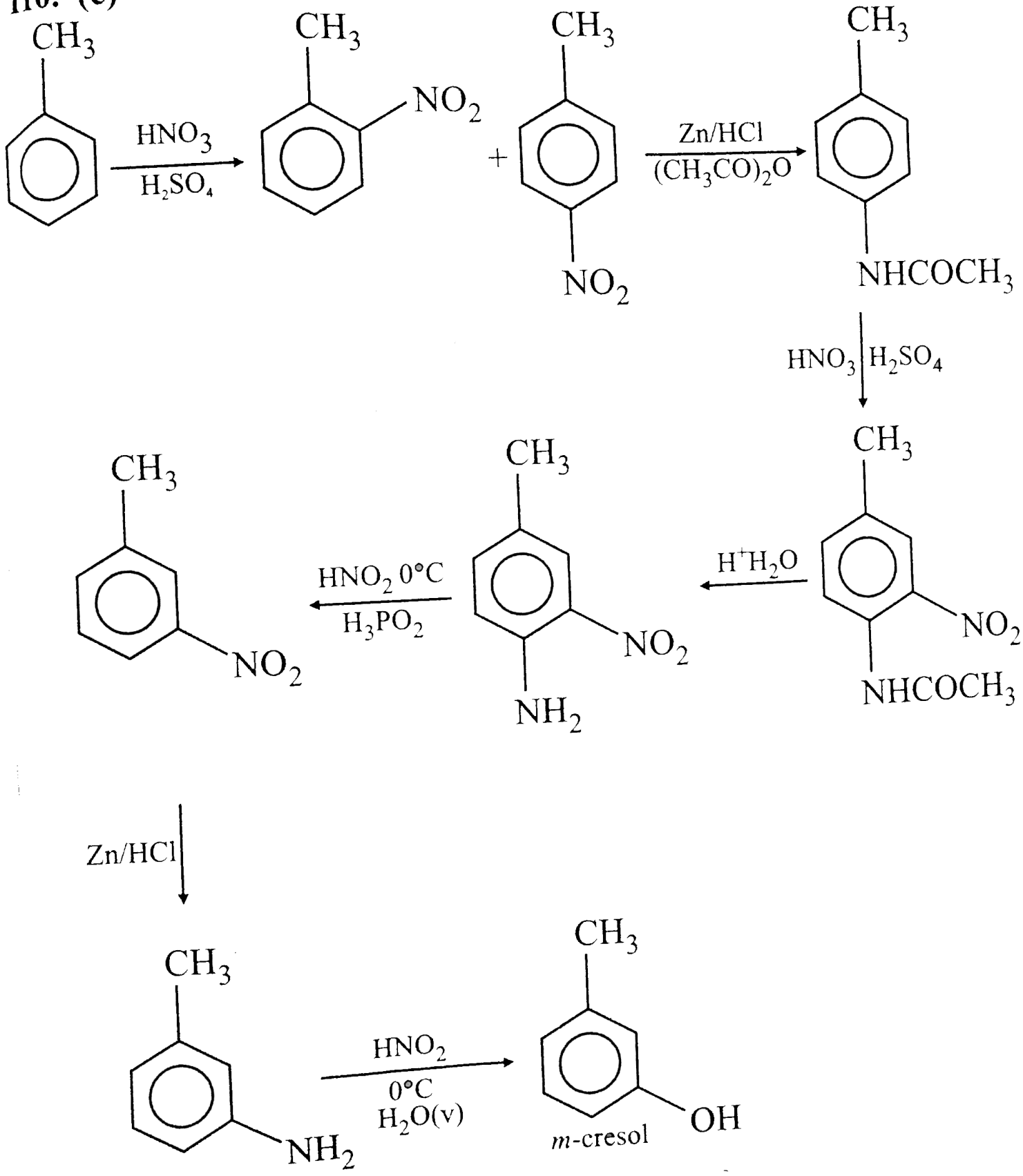
$\xrightarrow[H_2SO_4]{HNO_3} \xrightarrow[(ii)\ (CH_3CO)_2O]{(i)\ Zn\ /\ HCI}$

$\xrightarrow[H_2SO_4]{HNO_3} \xrightarrow[HCI]{Zn} \xrightarrow[O^\circ C]{HNO_2} \xrightarrow{H_2O\,(v)}$

CORRECT ANSWER: C

SOLUTION:

110. (c)



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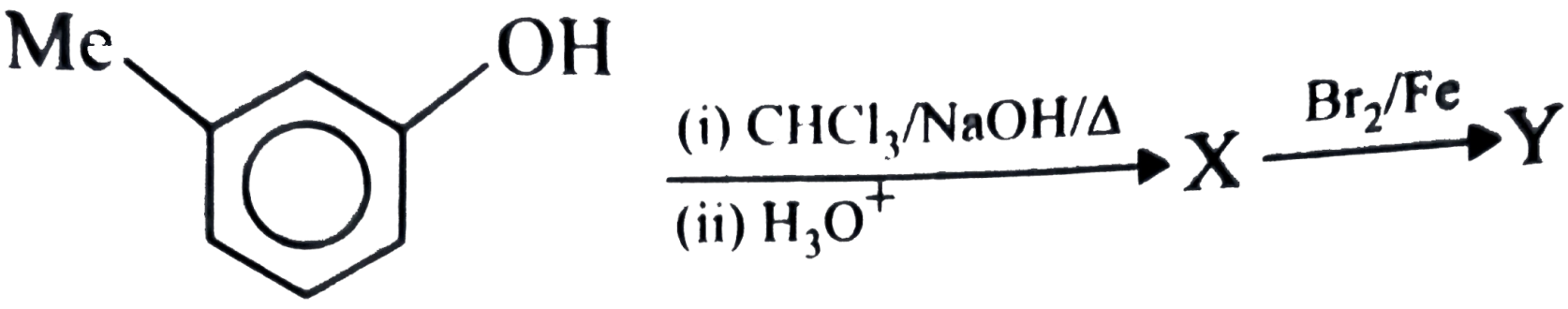
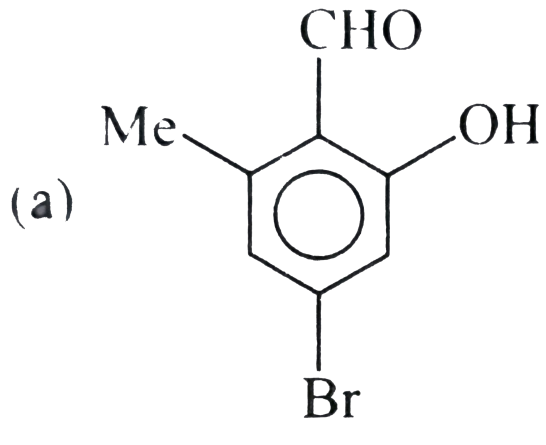
Q-24 - 12662441

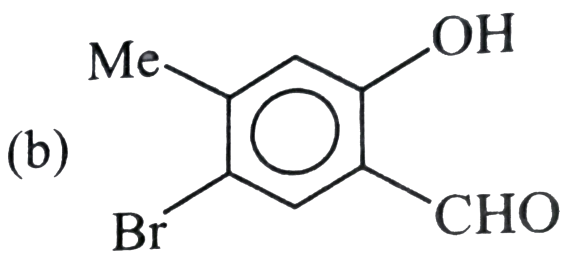
The product (Y) of the following sequence of the reactions would be



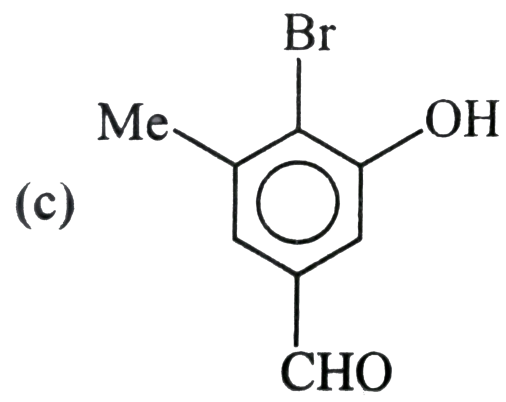
(A)



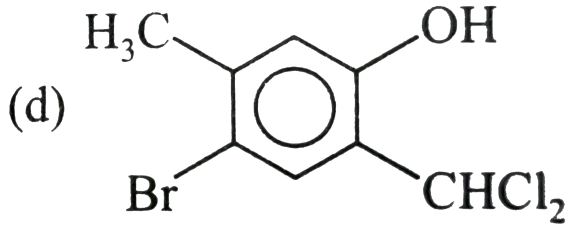
(B)



(C)



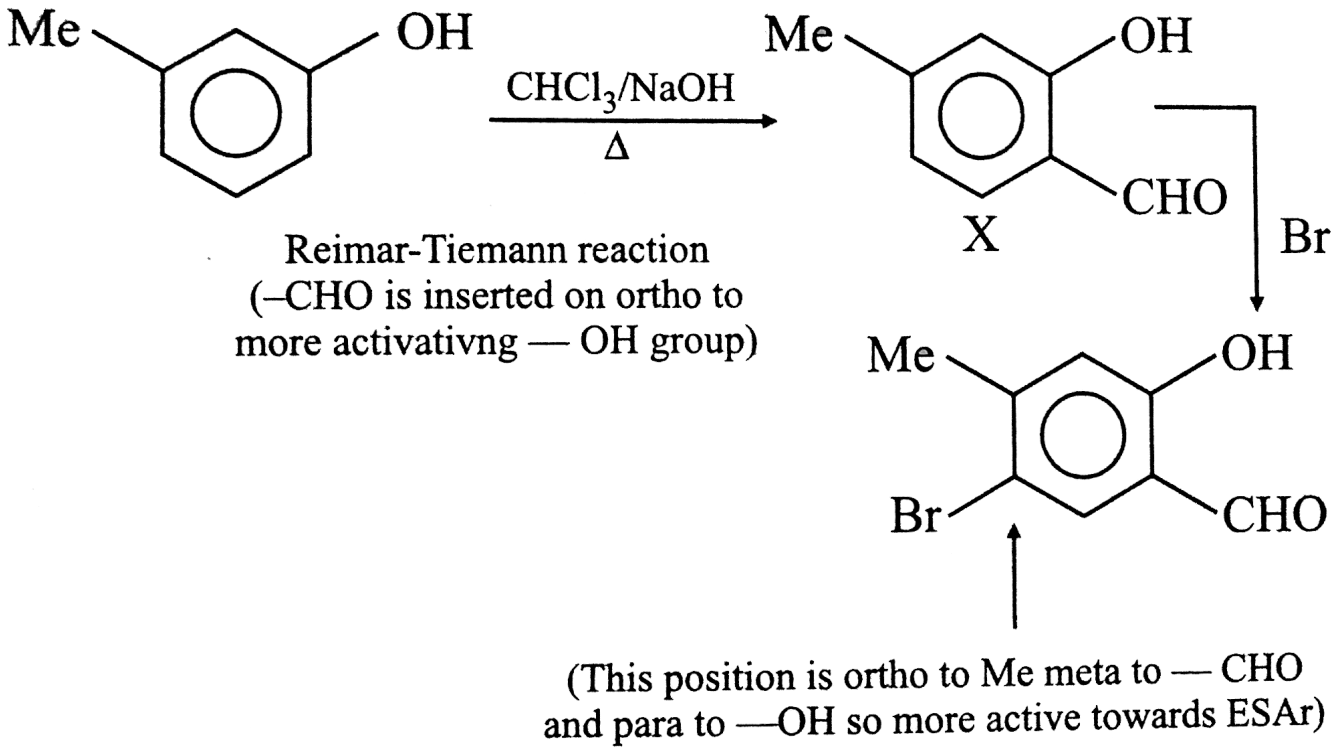
(D)



CORRECT ANSWER: B

SOLUTION:

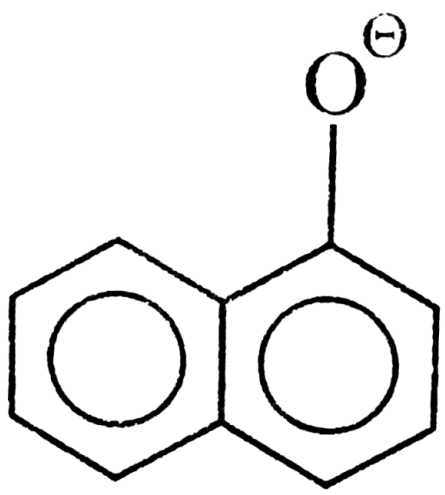
112. (b)



Reimar-Tiemann reaction
(–CHO is inserted on ortho to more activativng — OH group)

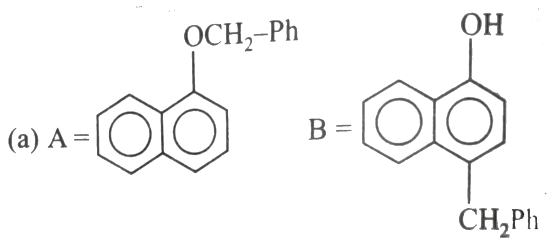
(This position is ortho to Me meta to — CHO and para to —OH so more active towards ESAr)

Q-25 - 12662445

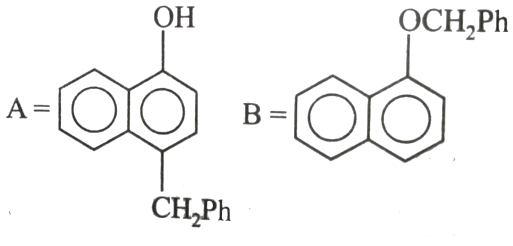
15. A $\xleftarrow[CF_3CH_2OH]{PhCH_2-I}$  $\xrightarrow[DMSO]{Ph-CH_2-I}$ **B**

'A' and 'B' respectively are

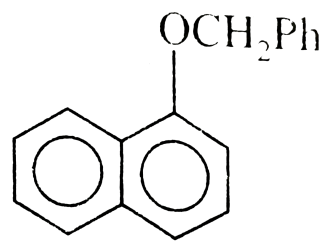
(A)



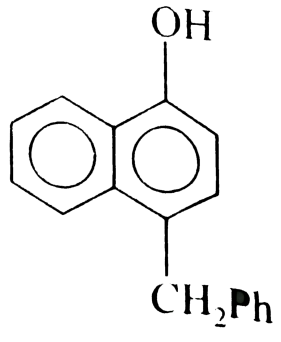
(B)



(C)

(c) A = B = 

(D)

(d) A = B = 

CORRECT ANSWER: B

SOLUTION:

In $DMSOS_N2$ mechanisum occurs in CF_3CH_2OH, it accepts proton $Ph - \overset{\oplus}{C}H_2$ and attack at p-position

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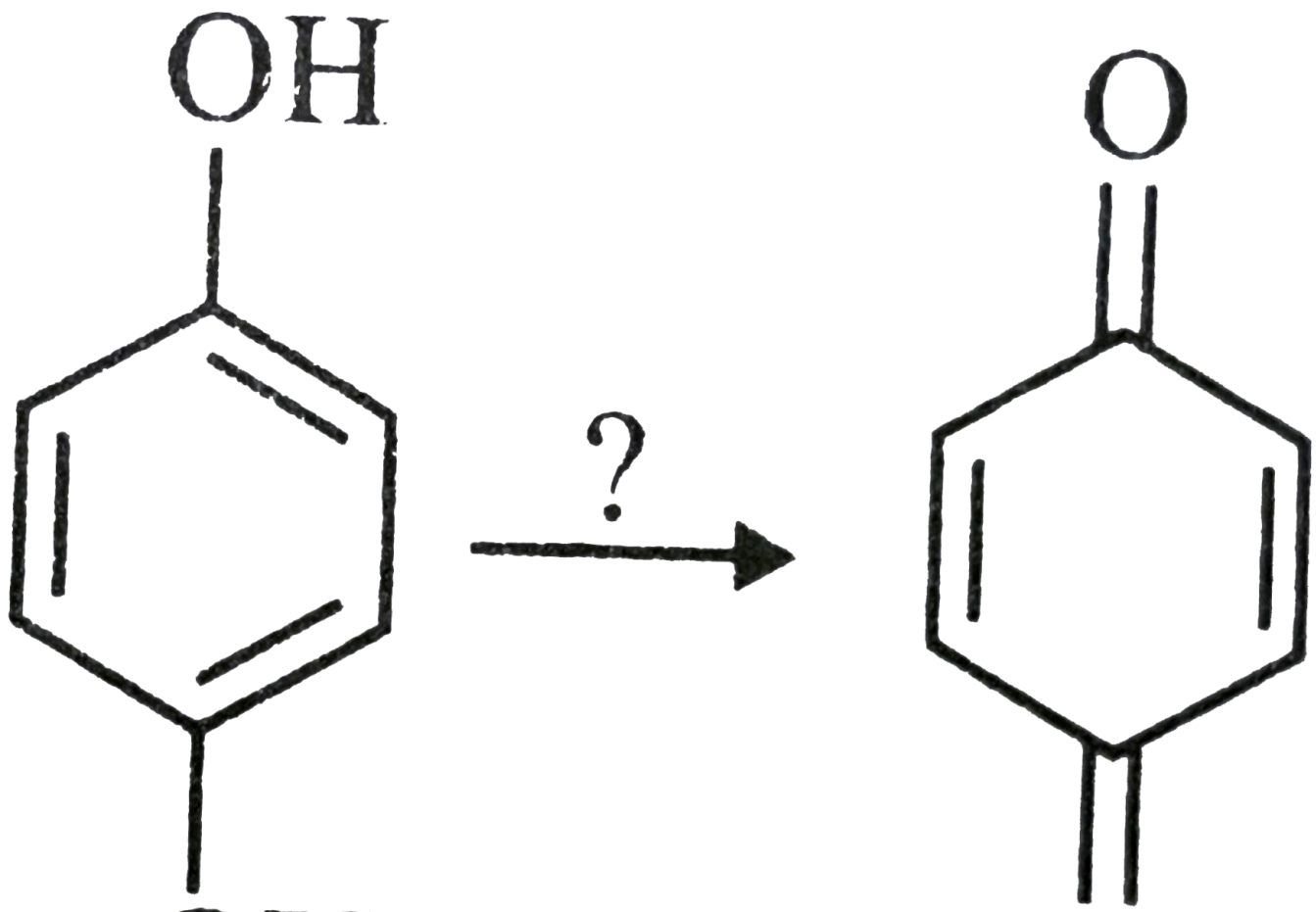
Q-26 - 12662443

Identify the reagent (s) needed to carry out the following reaction.



OH O

(A) $NaOH$

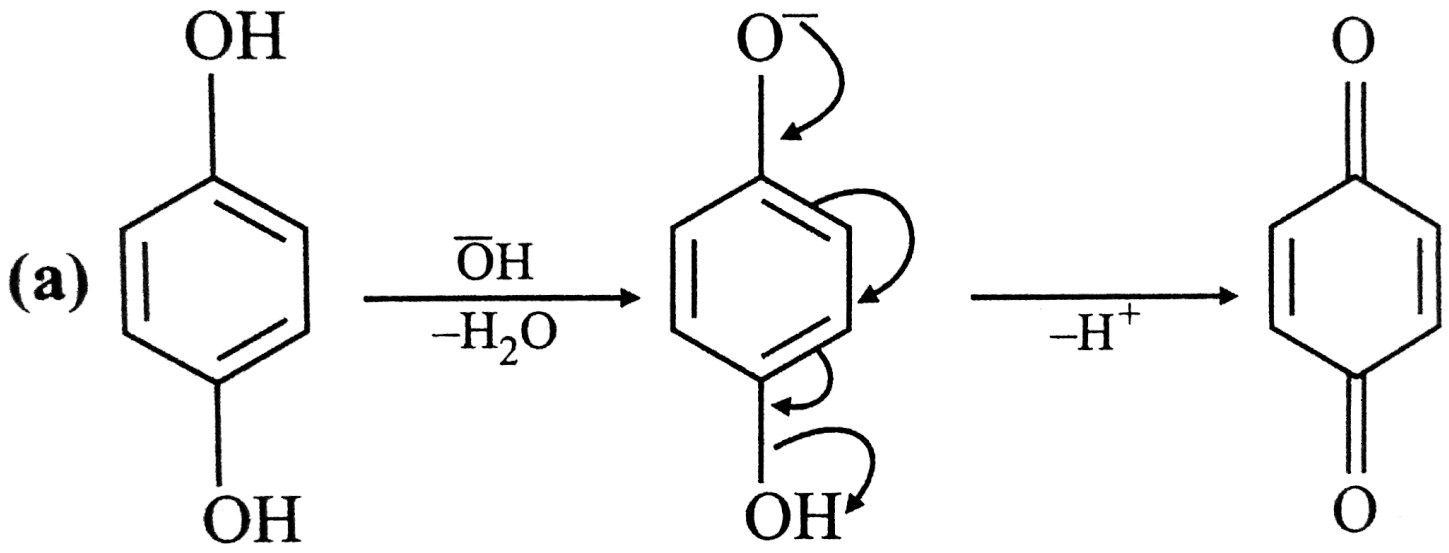
(B) $LiAIH_4$

(C)
$Na_2Cr_2O_7, H_2SO_4$
$/ H_2O$

(D) Na

CORRECT ANSWER: A

SOLUTION:



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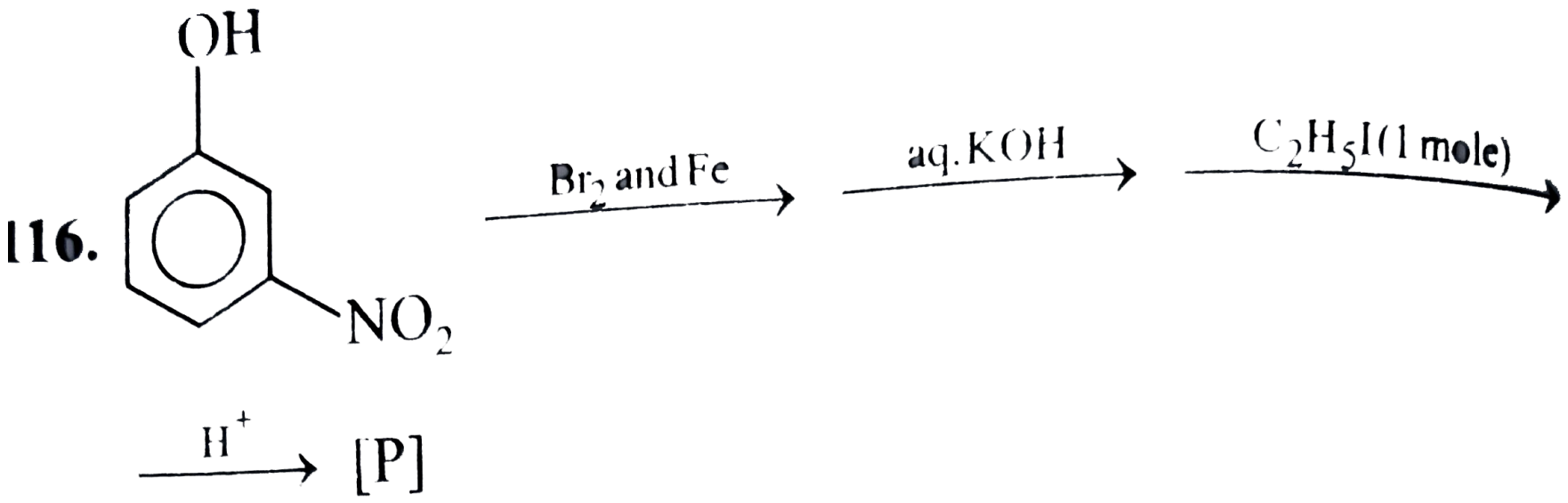
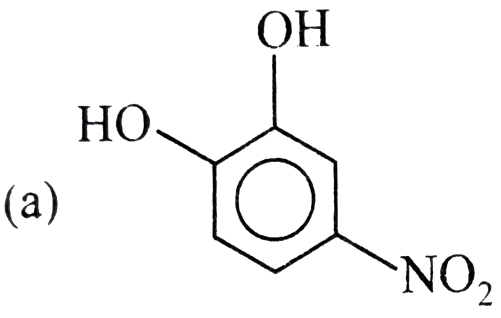
Q-27 - 12662446

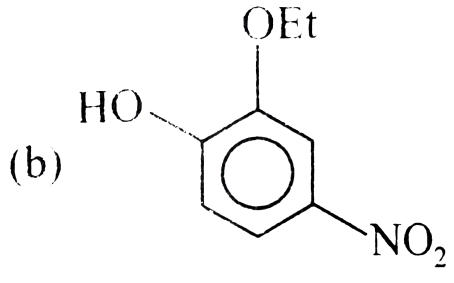


The major product $[P]$ is

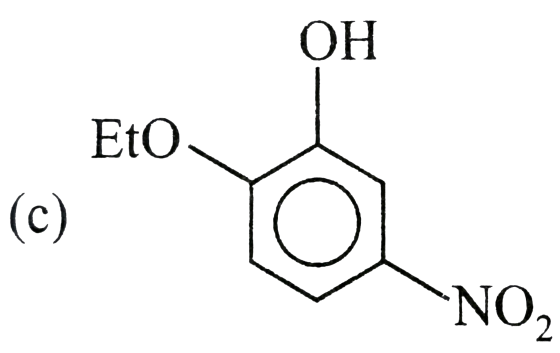
(A)



(B)

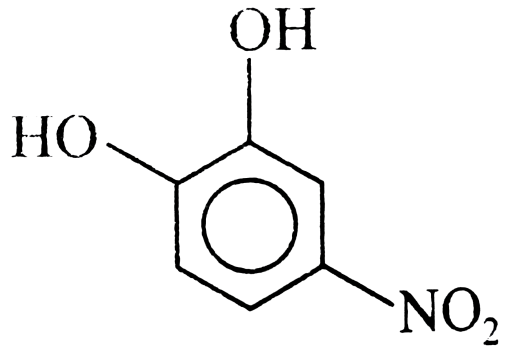


(c)



(C)

(d)



(D)

CORRECT ANSWER: B

SOLUTION:

Due to lesser steric hindrane of $-OH$ than of $-NO_2$.

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Q-28 - 12662483

Ortho -nitrophenol is less soluble in water than p-and m $-$ nitrophenols because

(A) o-nitrophenol is more volatile stema than those of the

and p-isomers.

(B) o-nitrophenol shows interamolecular H-bonding

(C) o-bitrophenol shows intermolecular H-bonding

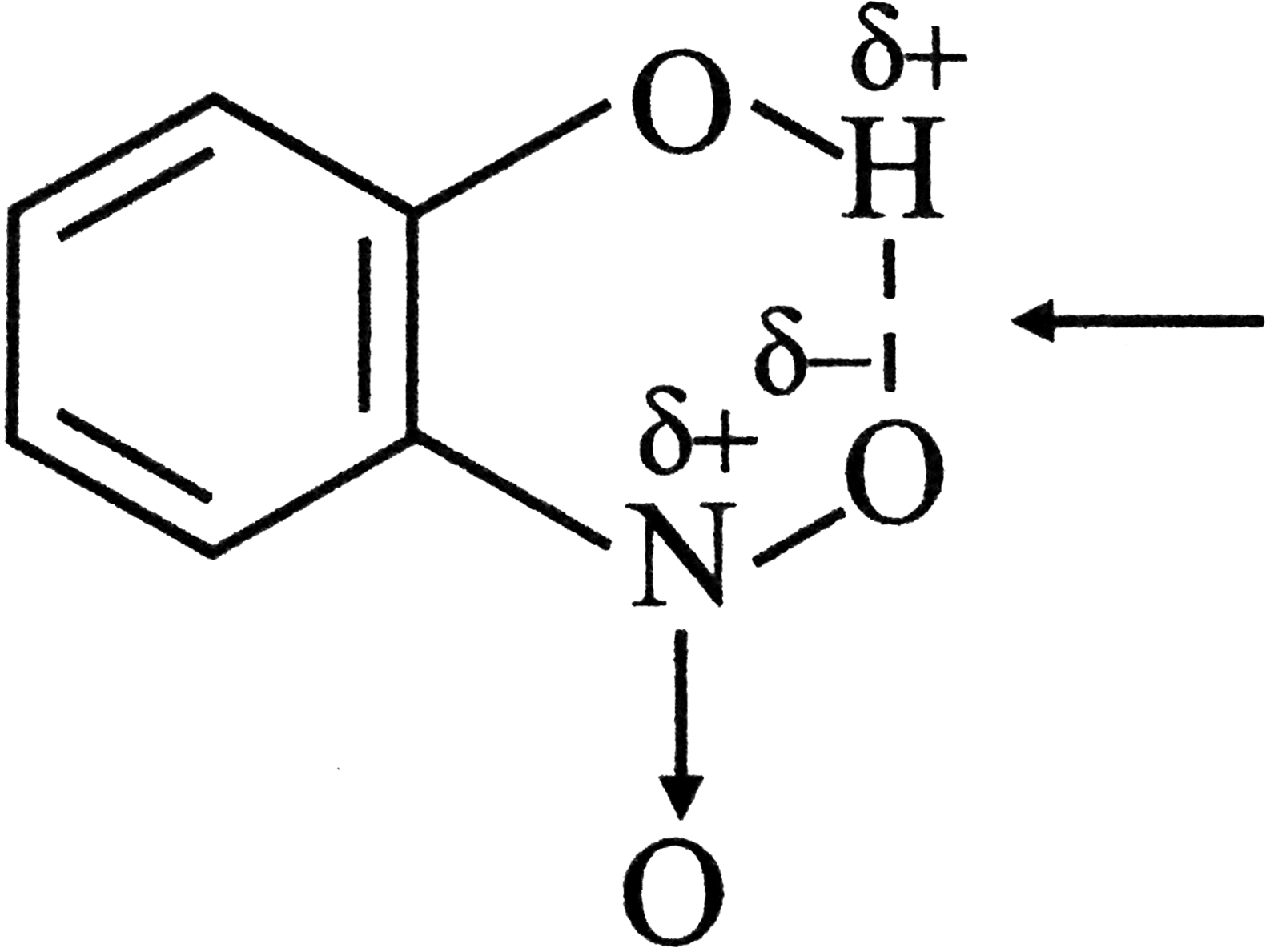
(D) meting point of o-nitrophenol is lower than those of m-and $p-$ isomers

---

CORRECT ANSWER: B

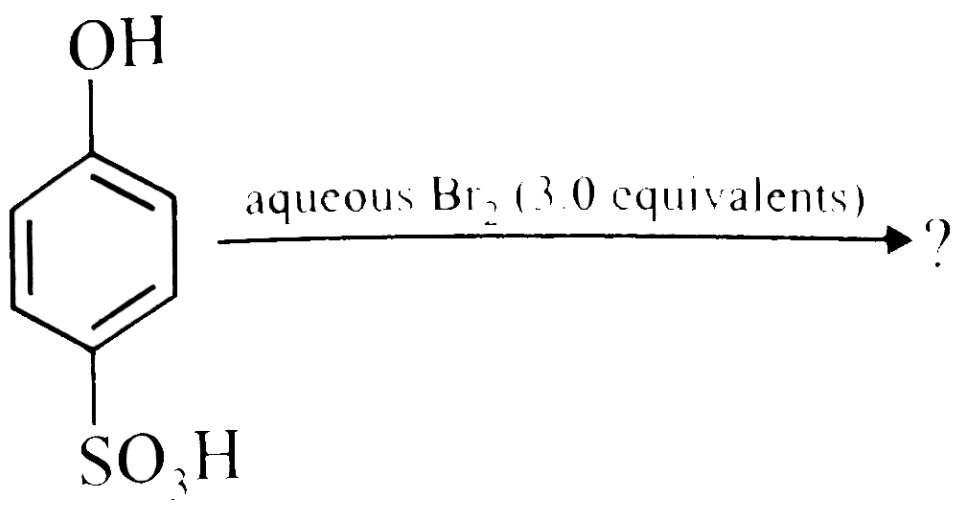
SOLUTION:

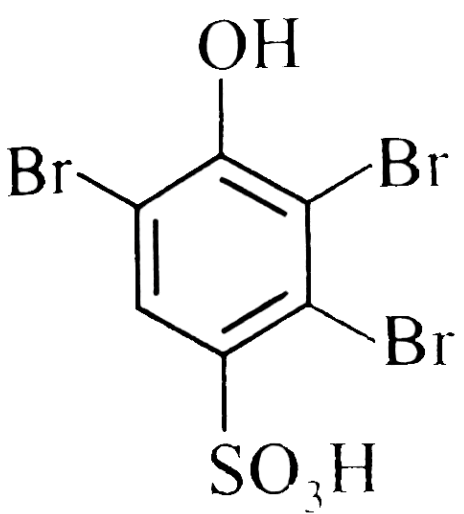
There is intramolecular H-bonding in o-nitrophenol and thus solubility in water is decreased.



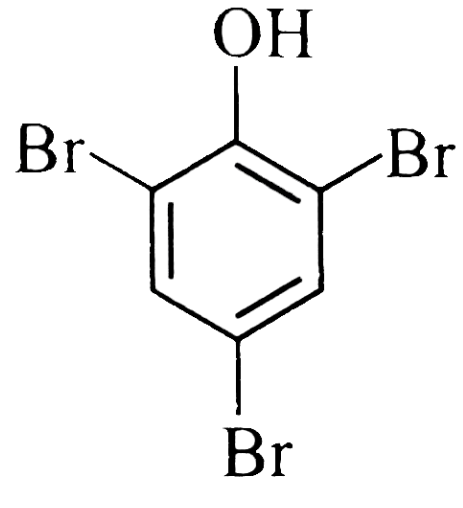
Q-29 - 12662493

The major product (s) of the following reaction is (are)

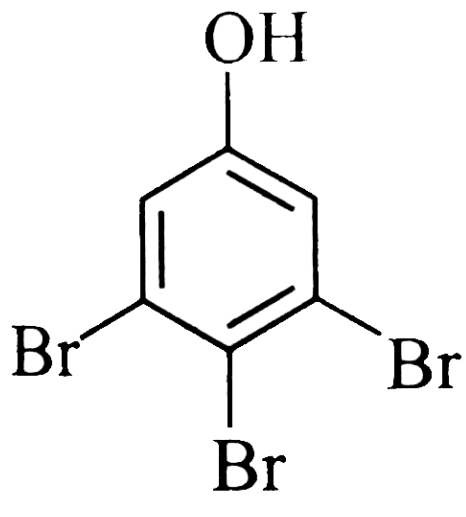

OH
aqueous Br_2 (3.0 equivalents)
?
SO_3H


OH
Br
Br
Br
SO_3H

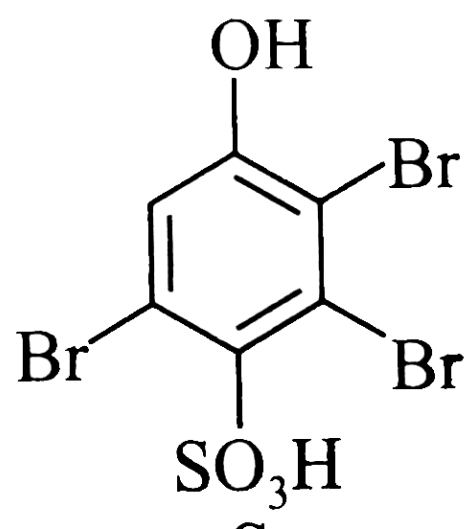
P


OH
Br
Br
Br

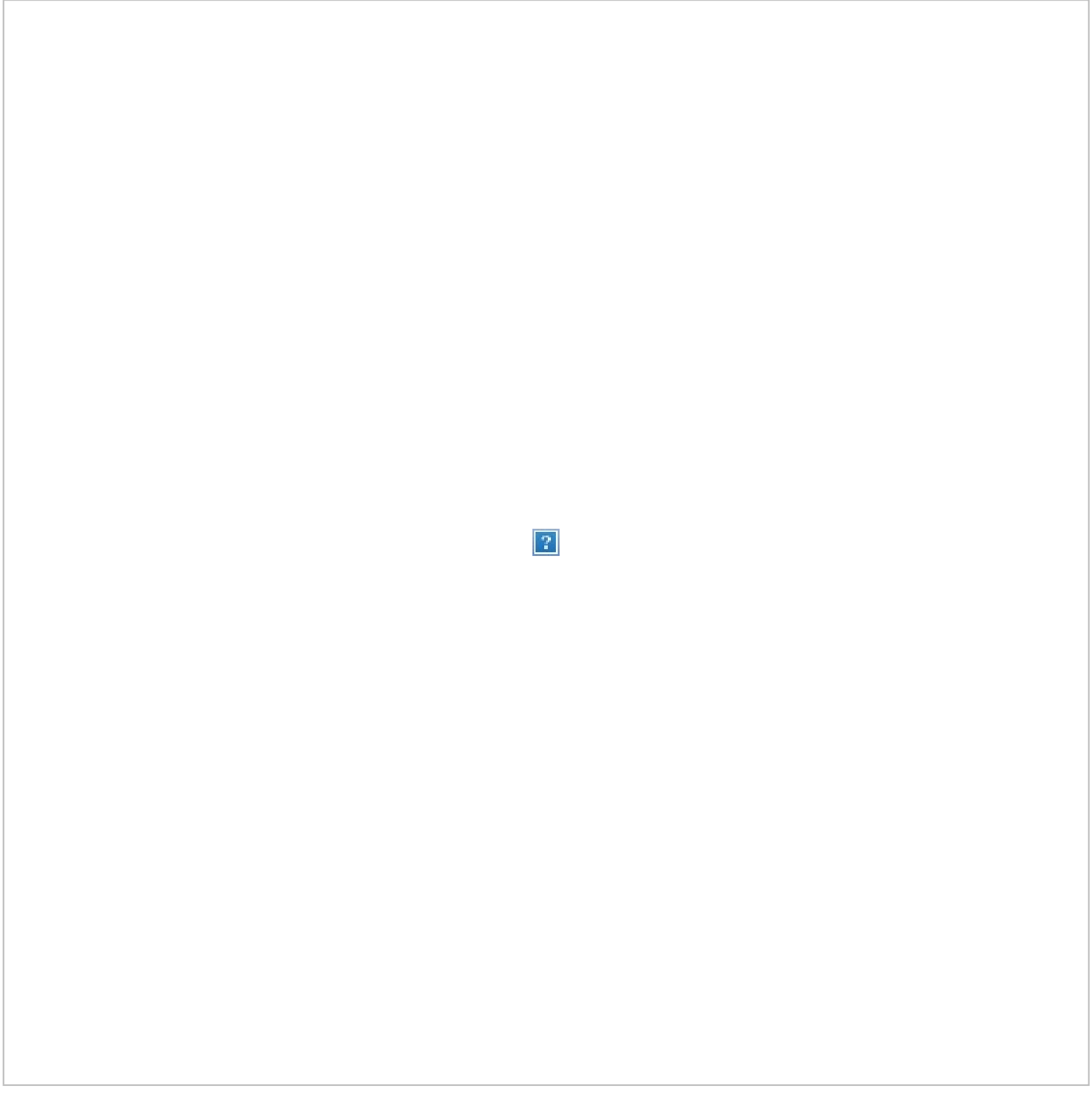
Q

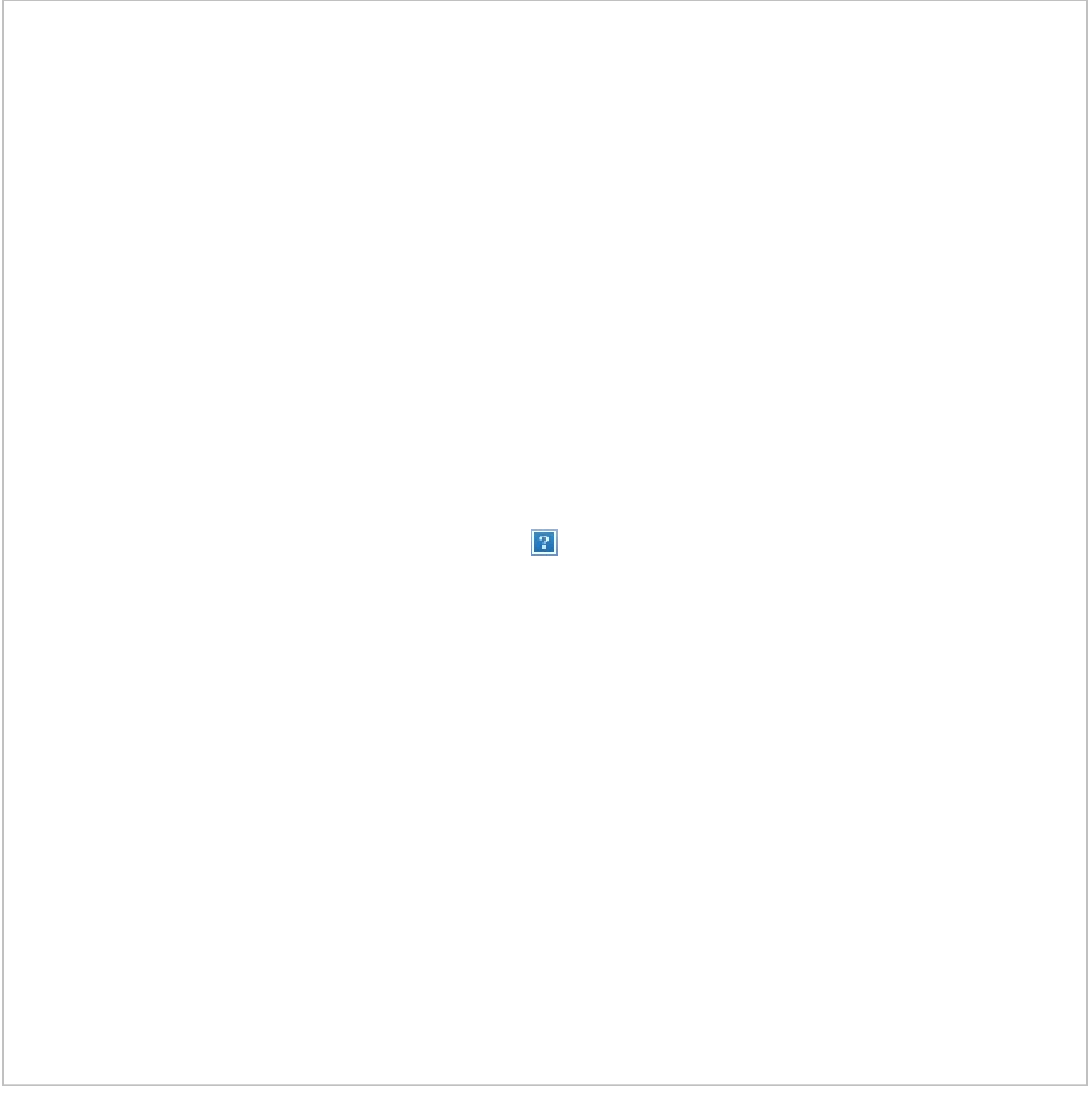

OH
Br
Br
Br

R


OH
Br
Br
Br
SO_3H

S


P
Q


R
S

(A) P

(B) Q

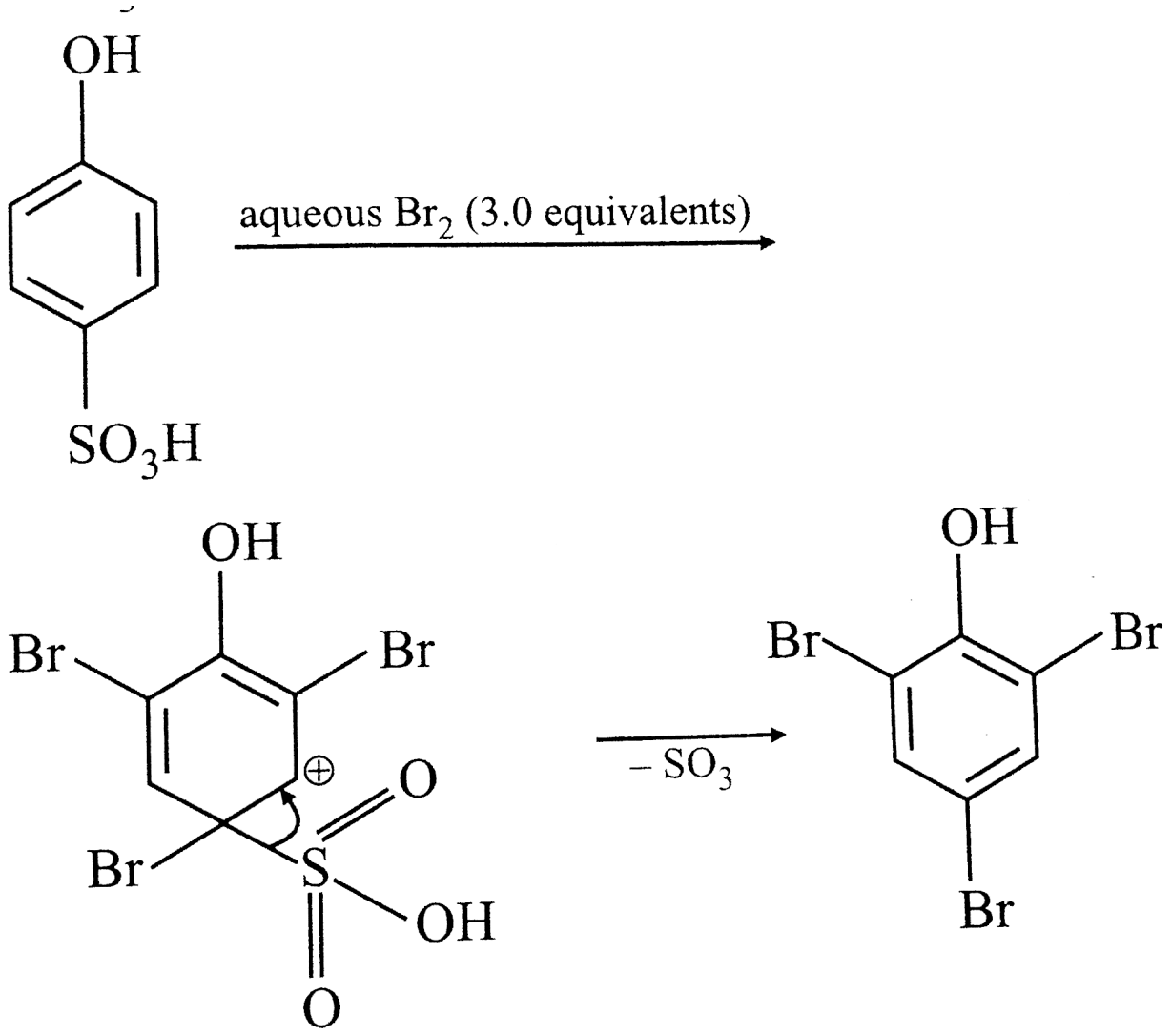
(C) R

(D) S

CORRECT ANSWER: B

SOLUTION:

152. (b)



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Q-30 - 12662496

In the Liebermann's nitroso reaction, sequential changes in the colour of phenol occurs as

(A) Brown or red $\rightarrow$ green $\rightarrow$ red $\rightarrow$ depp blue

(B) Red $\rightarrow$ depp blue $\rightarrow$ greeen

(C) Red $\rightarrow$ green $\rightarrow$ white

(D) White $\rightarrow$ red $\rightarrow$ green

CORRECT ANSWER: A

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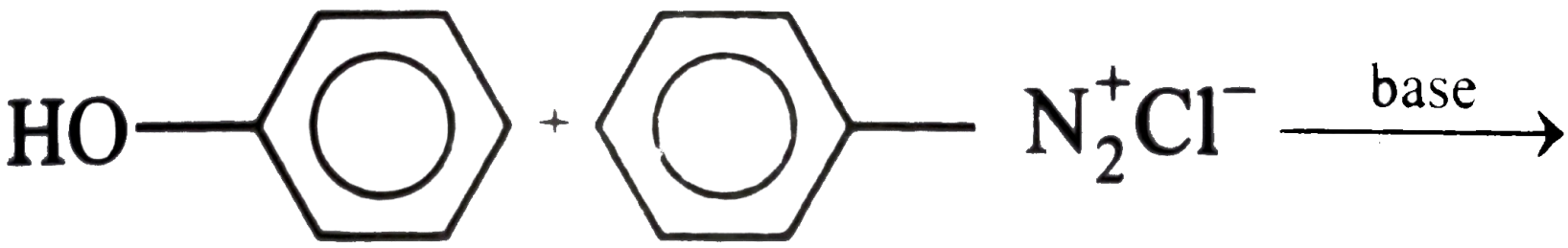
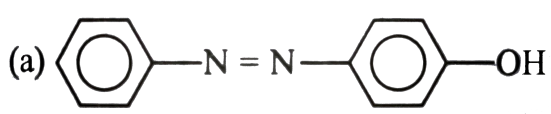
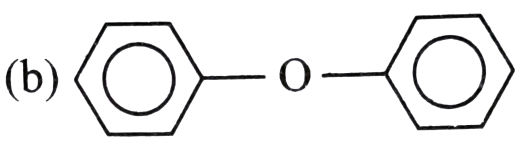
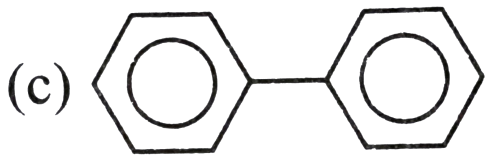
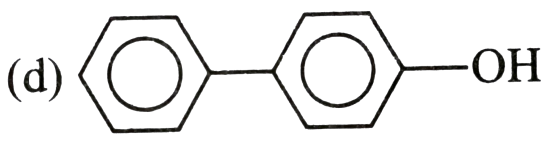
Q-31 - 12662497



(A) 

(B) 

(C) 

(D) 

CORRECT ANSWER: A

SOLUTION:

This is an example of coupling reaciton.

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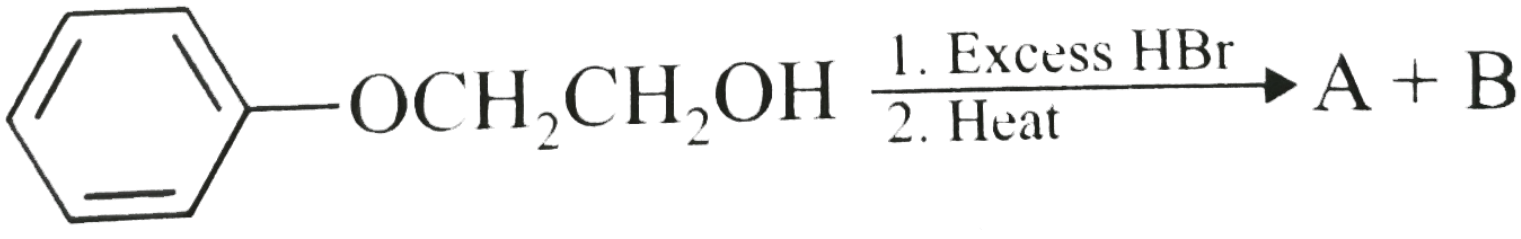
Q-32 - 12662500

What are the products of the following reaction?



(A)

$$Br - C_6H_4 - OCH_2CH_2 - Br$$

(B)

$$Ph - Br + Br - CH_2CH_2 - OH$$

(C)

$$Ph - Br + Br - CH_2CH_2 - Br$$

(D)

$$Ph - OH + CH_3 - CHBr_2$$

CORRECT ANSWER: D

SOLUTION:

$$Ph - O - CH_2 - CH_2 - OH \xrightarrow[-H_2O]{H} Ph - O - CH_2 \oplus_{CH_2}$$

$$\rightarrow Ph - O - \overset{+}{C}H$$

$$- CH_3 \xrightarrow{\overset{\oplus}{Br}} Ph - O$$

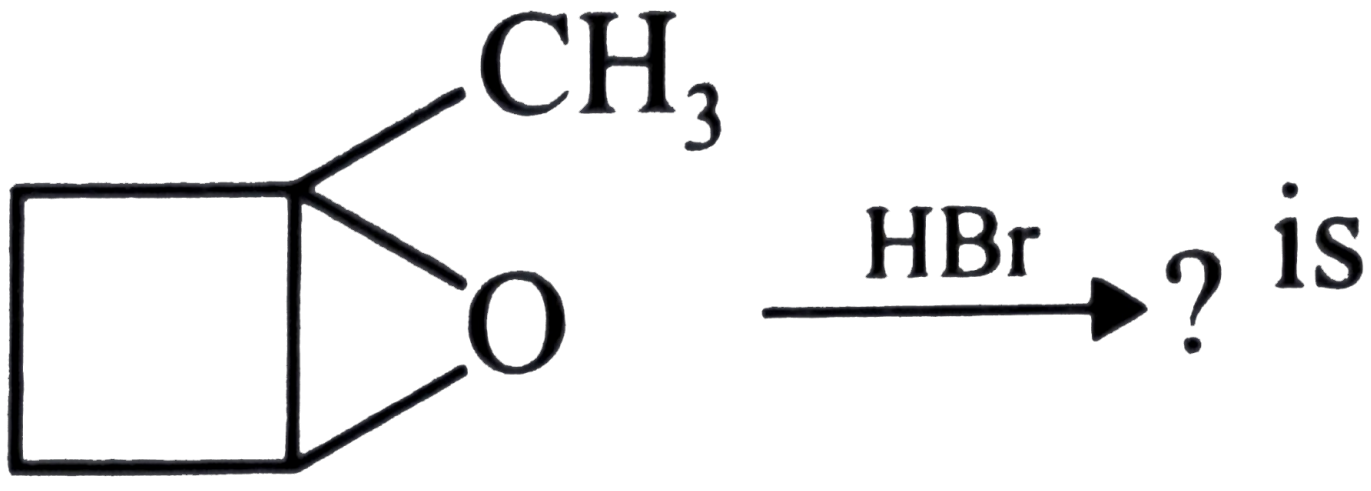
$$\begin{array}{c} CH_3 \\ | \\ - CH \\ | \\ Br \end{array}$$

$$\xrightarrow[S_NI]{HBr} Ph - OH + Br$$

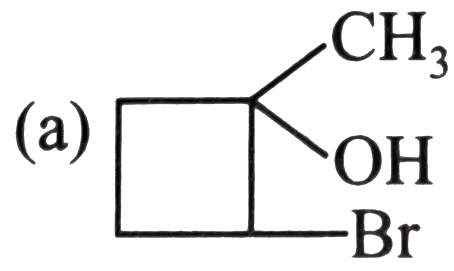
$$\begin{array}{c} - CH - CH_3 \\ | \\ Br \end{array}$$

Q-33 - 12662502

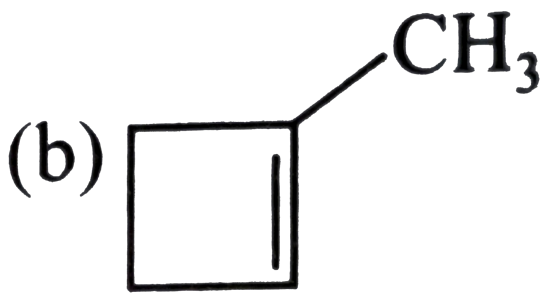
The product in the reaction



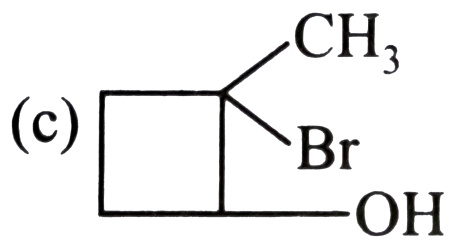
(A)



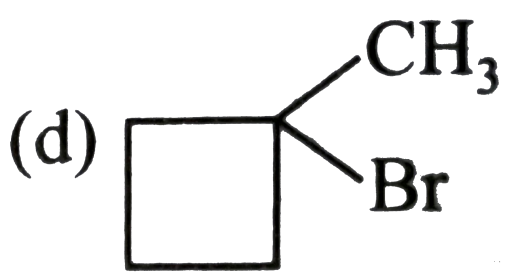
(B)



(C)



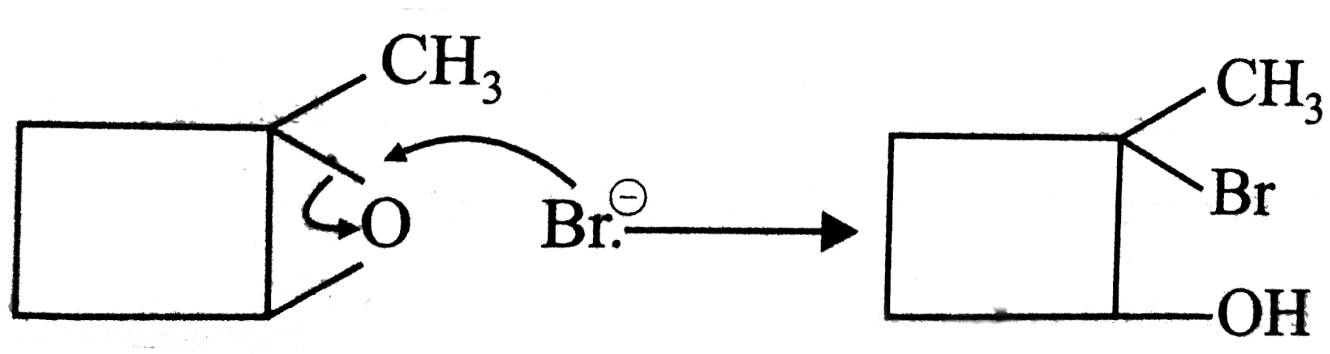
(D)



CORRECT ANSWER: C

SOLUTION:

Acid-catalysed ring opening of epoxides involves a nucleophilic attack at a more substituted carbon atom.



Q-34 - 12662503

The Williamson ether synthesis follows the following mechanism-

(A) Nucleophilic substitution

(B) Nucleophilic addition

(C) Electrophilic addition

(D) Electrophilic substitution

CORRECT ANSWER: D

SOLUTION:

Factual

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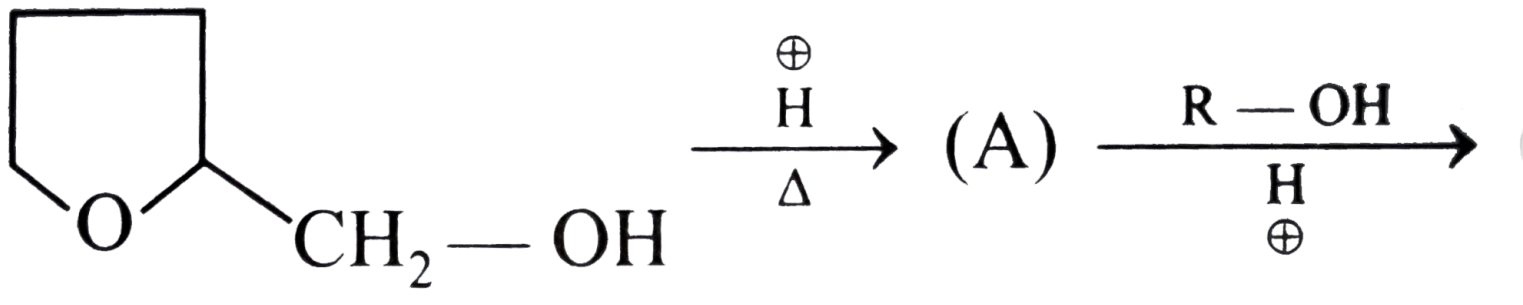
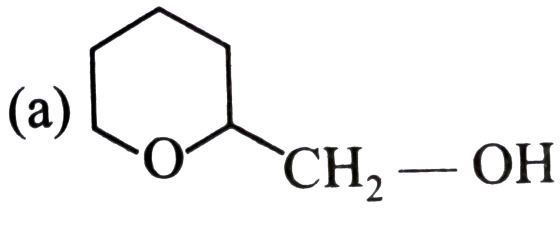
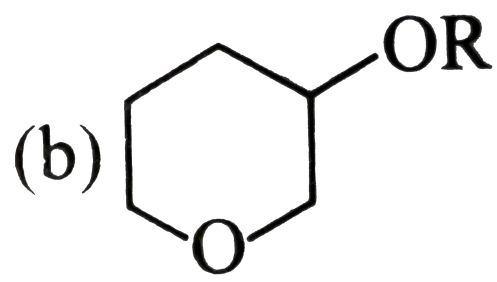
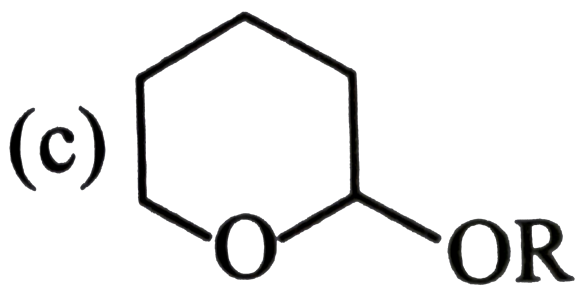
Q-35 - 12662504

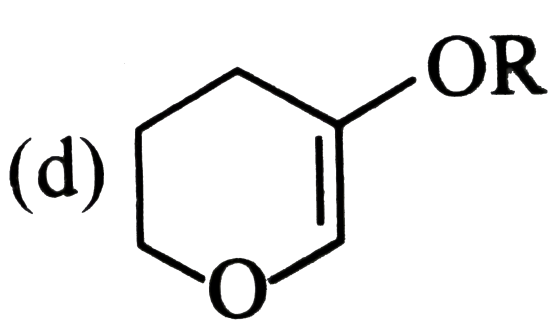
Product (B) in the following reaction is



(A) 

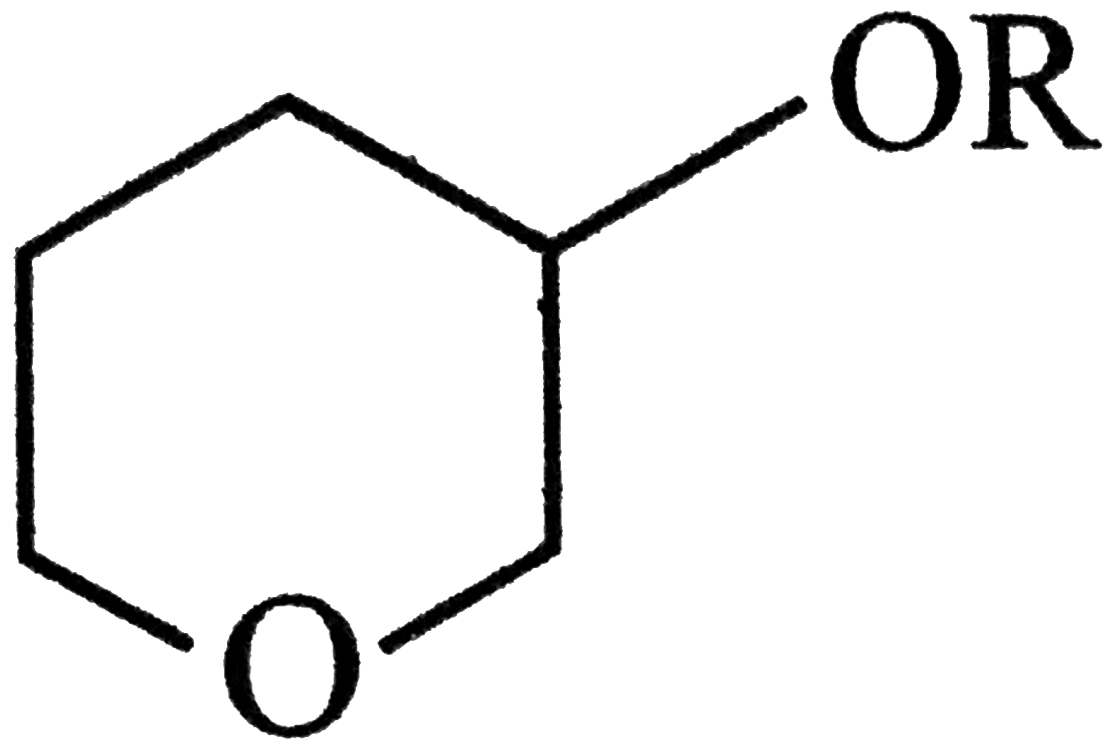
(B) 

(C) 

(D) 

CORRECT ANSWER: B

SOLUTION:

(b) 

Q-36 - 12662517

The products formed in the following reaction

$C_6H_5 - O - CH_3 + HI \xrightarrow{heat}$ are

(A) $C_6H_5 - I$ and $CH_3 - OH$

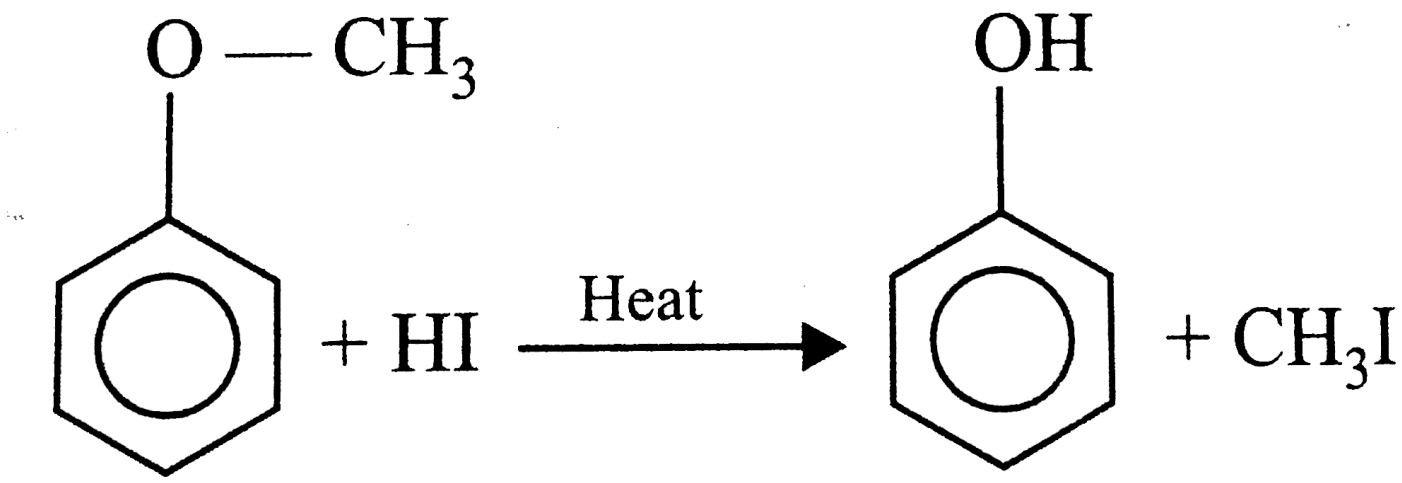
(B) C_6H_6 and CH_3OI

(C) $C_6H_5 - CH_3$ and HOI

(D) $C_6H_5 - OH$ and $CH_3 - I$

CORRECT ANSWER: D

SOLUTION:



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Q-37 - 12662518

$(CH_3)_3 - C - O - CH_2$
$- C_6H_5$
can be prepared from Williamson's synthesis, using:

(A) $(CH_3)_3 - C - CI$ and $C_6H_5CH_2ONa$

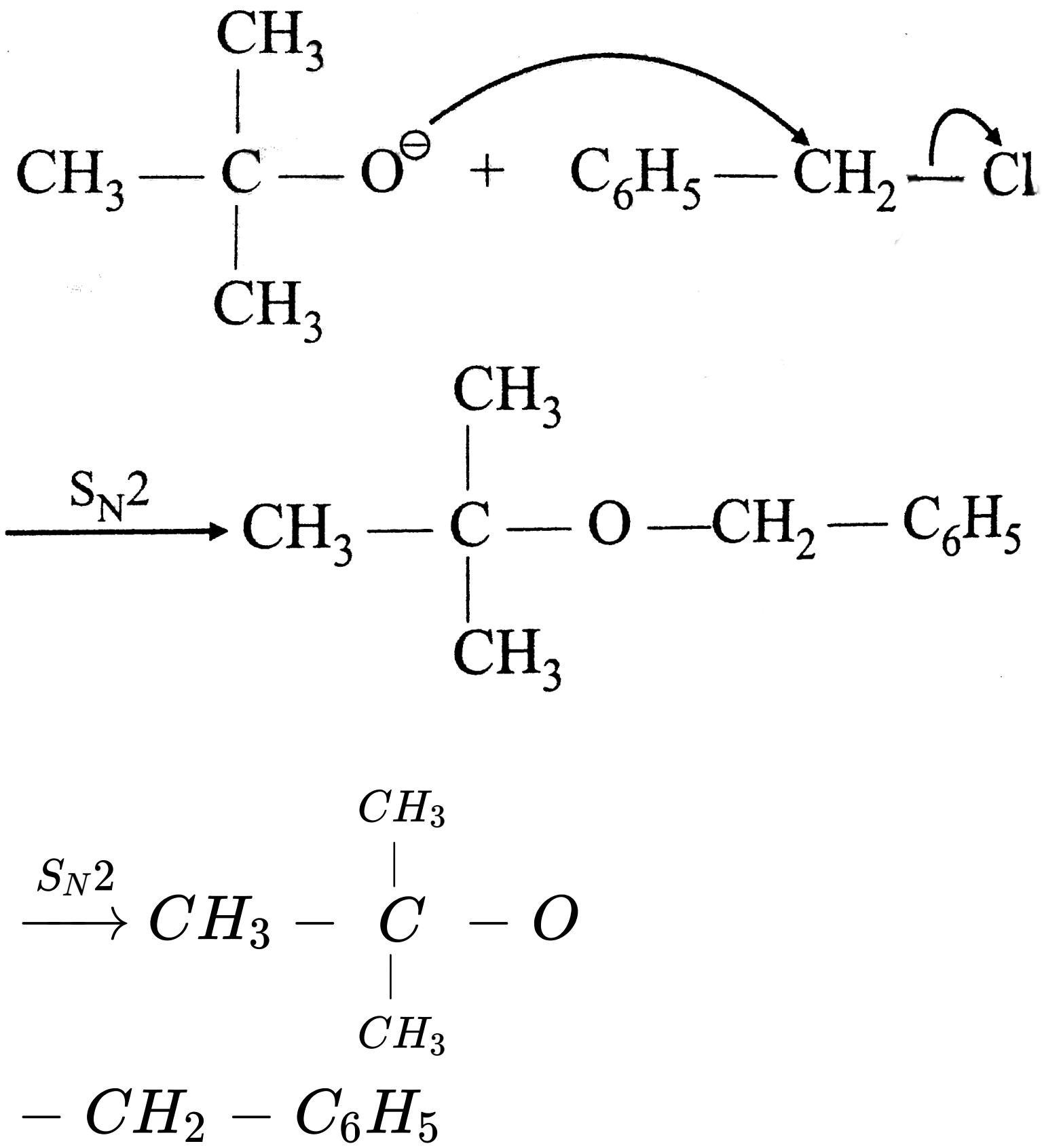
(B) $C_6H_5CH_2CI$ and $(CH_3)_3C - ONa$

(C)
$(CH_3)_3C - O - CH_2$
$- CI$
and C_6H_5ONa

(D) All of these

CORRECT ANSWER: B

SOLUTION:



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Q-38 - 12662520

Methy1 $-$ tert-buty1 ether on heating with HI of one molar concentration gives

(A) $CH_3OH + (CH_3)_3CI$

(B) $CH_3I + (CH_3)_3COH$

(C) $CH_3I + (CH_3)_3CI$

(D) None of the above

CORRECT ANSWER: B

SOLUTION:

$$CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}} - O$$

$- CH_3 + HI$

$\rightarrow CH_3I$

$+ (CH_3)_3COH$

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Q-39 - 12662524

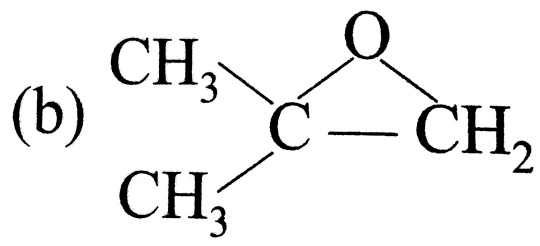
$$(CH_3)_3CCI \xrightarrow[\Delta]{alc.KOH} X \xrightarrow{CF_3CO_3H} Y$$

The product $'Y'$ is

(A)

$CH_2 = CH$

$-CH_2OH$

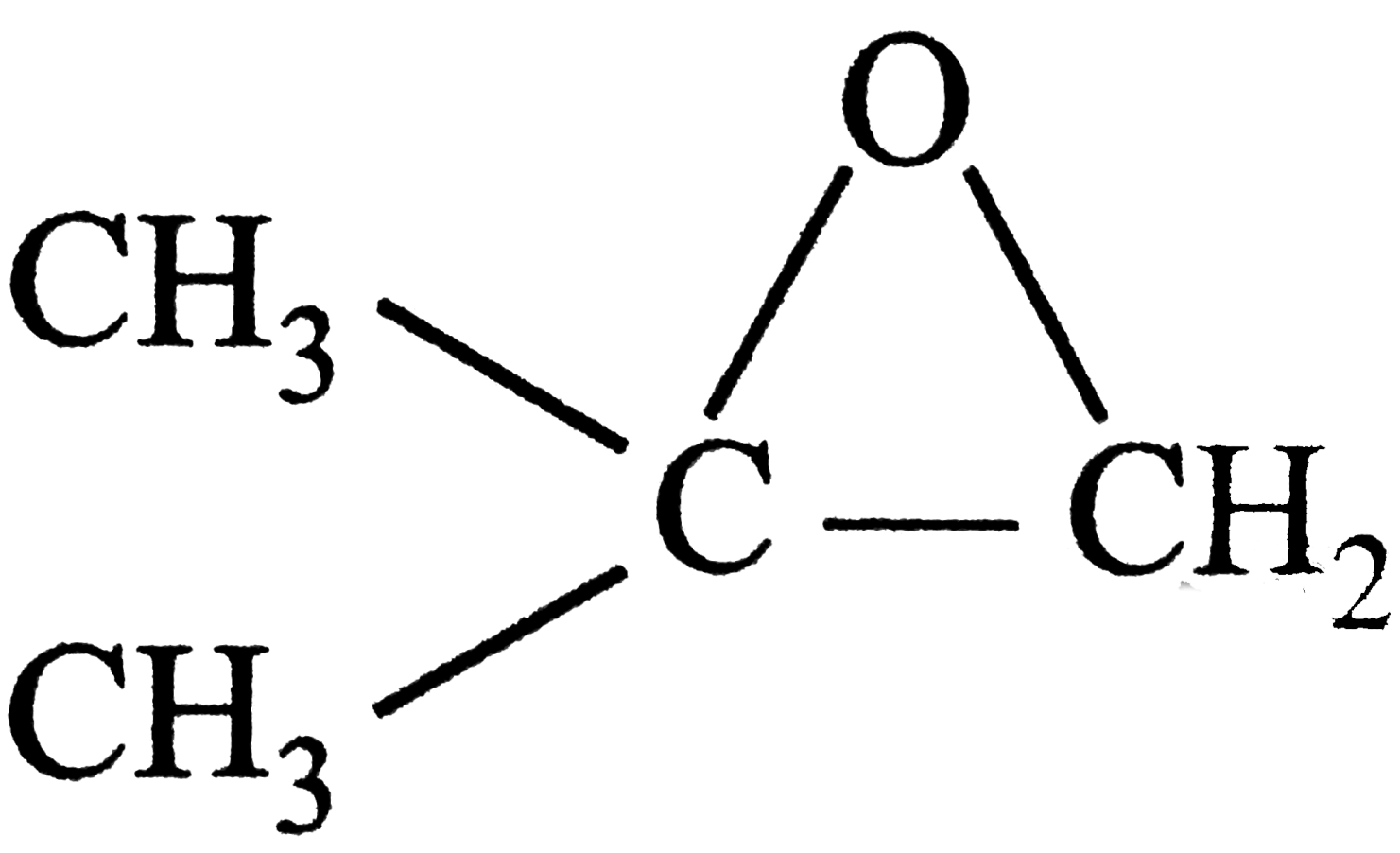
(B) (b) 

(C) $CH_3COCH_2CH_3$

(D) $(CH_3)_2CHCH_2OH$

CORRECT ANSWER: B

SOLUTION:



Q-40 - 12662569

Which of the following reagents convert the propene to 1-propanol?

(A) H_2O, H_2SO_4

(B) Aqueous KOH

(C)
$MgSO_4, NaBH_4$
$/ H_2O$

(D) B_2H_6, H_2O_2, OH^-

CORRECT ANSWER: B

SOLUTION:

$$CH_3 - CH = CH_2$$
$$+ aq.\ KOH$$
$$\rightarrow CH_3 - CH_2$$
$$- CH_2OH$$

Propenol-1

Propene-1

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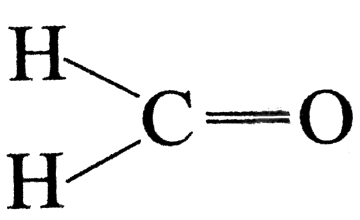
Q-41 - 12662578

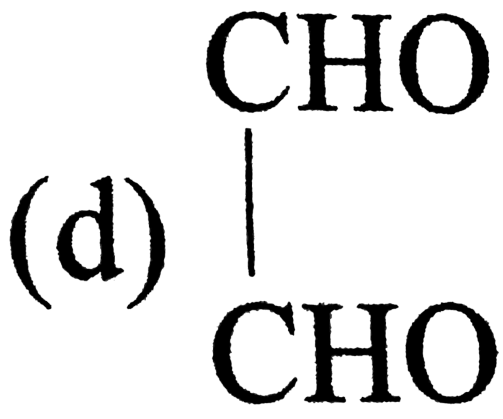
CH_2OHCH_2OH on heating with periodic acid gives

(a) 2 

(A)

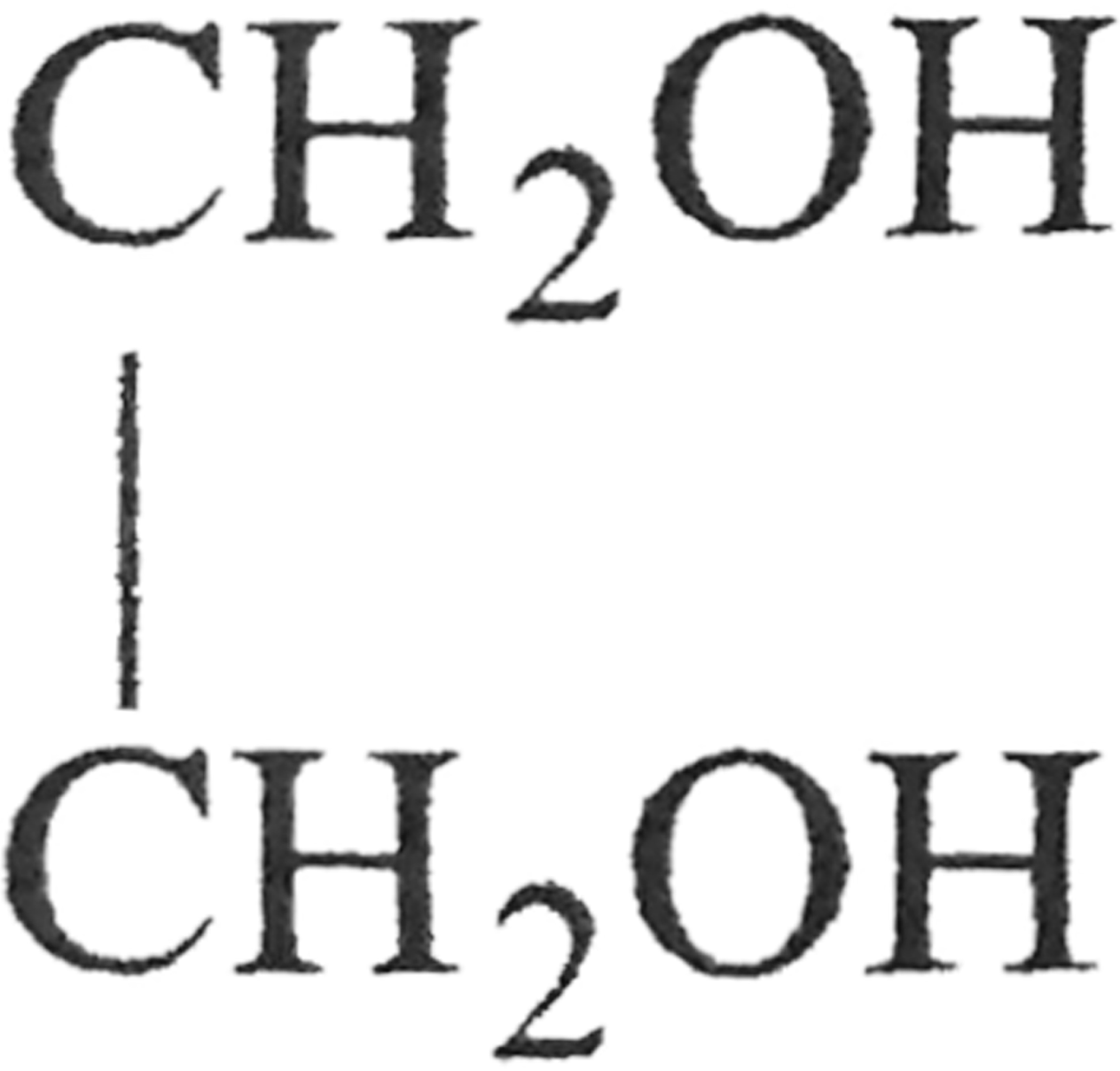
(B) $2CO_2$

(C) $2HCOOH$

(D) 

CORRECT ANSWER: A

SOLUTION:



HIO_4 oxidies $-CH_2OH$ to $HCHO$ and breaks the $C-C$ bond of terminal CH_2OH groups.

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Q-42 - 12662579

Consider the following reaction

ethanol

$$\xrightarrow{PBr_3} X \xrightarrow{alc.KOH} Y \xrightarrow[(ii)\,H_2O\,,heat]{(i)\,H_2SO_4\,,\text{room temp.}} Z$$

the product Z is

(A) CH_3CH_2OH

(B) $CH_2 = CH_2$

(C)

$CH_3CH_2 - O - CH_2$

$- CH_3$

(D)

$CH_3 - CH_2 - O$

$- SO_3H$

CORRECT ANSWER: A

SOLUTION:

$$CH_3CH_2Oh \xrightarrow{PBr_3} CH_3CH_2Br$$

$$\xrightarrow{KOHalc.} CH_3CHO$$

$$\xrightarrow[H_2O\,,\,\Delta]{H_2SO_4} CH_3CH_2OH$$

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Q-43 - 12662580

Consider the following reaction

$$\text{Phenol} \xrightarrow[\text{dust}]{Zn} X \xrightarrow[\substack{\text{Anhydrous}\\ AlCl_3}]{CH_3Cl} Y \xrightarrow[KMnO_4]{\text{Alkaline}} Z$$

The product Z is

(A) benzoic acid

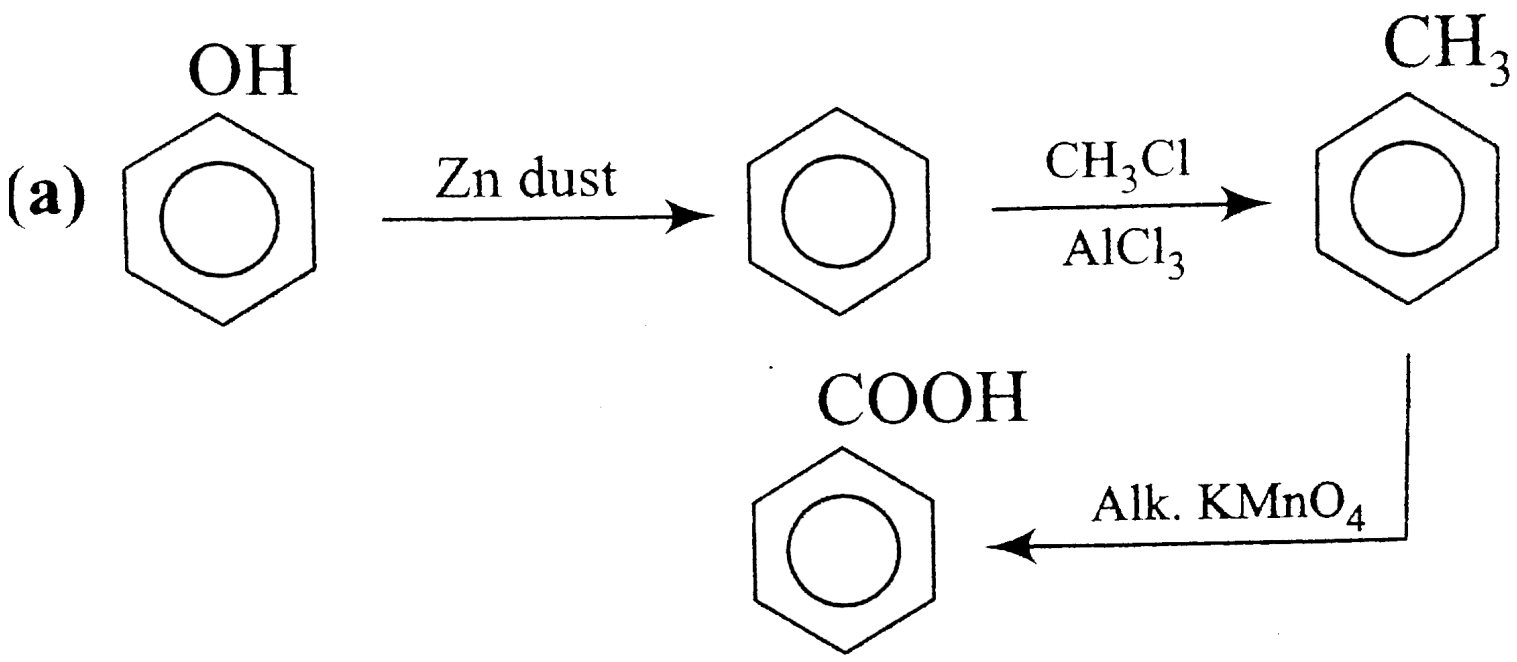
(B) toulene

(C) benzaldeyde

(D) benzene

CORRECT ANSWER: A

SOLUTION:



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Q-44 - 12662584

Among the following sets of reactants which one produces anisole?

(A) $CH_3CHO, RMgX$

(B)

$C_6H_5OH, NaOH,$

CH_3I

(C) $C_6H_5OH,$ netural $FeCI$

(D)

$C_6H_5CH_3,$

$CH_3COCI, AICI_3$

CORRECT ANSWER: B

SOLUTION:

Phenols react with alky1 halides in alkaline medium to

form ethers. Therefore,

`(#3A2Z_CHM_XII_C11_E01_225_S01.png"

width="80%">

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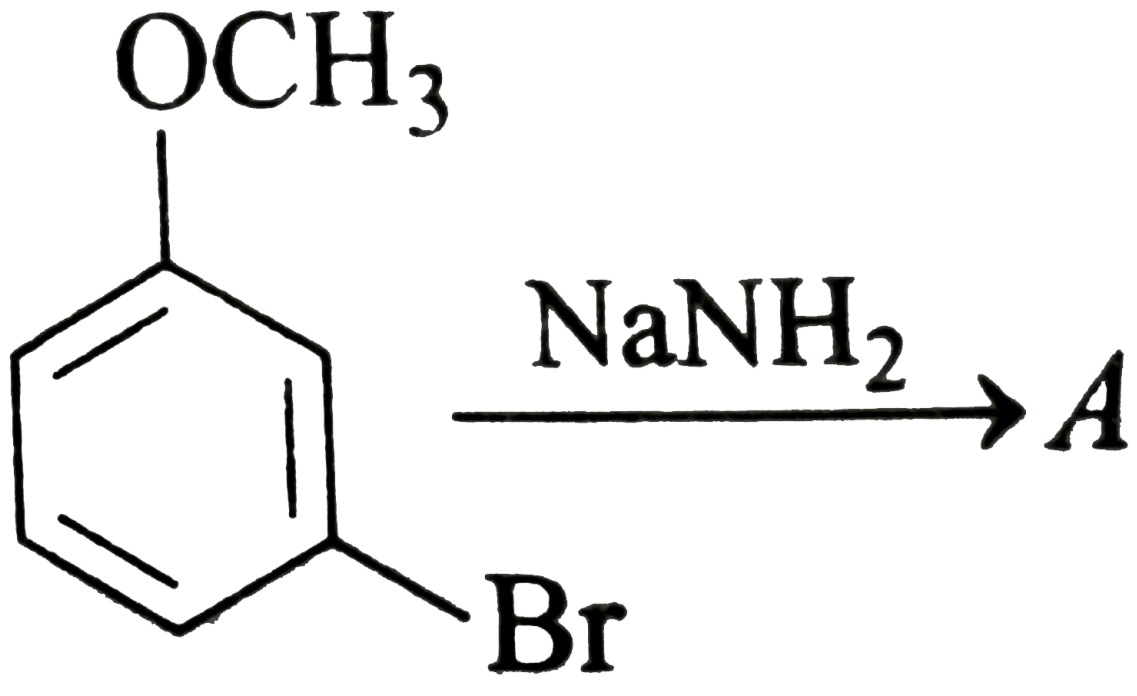
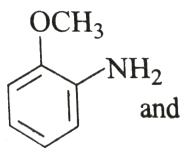
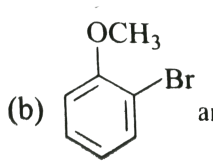
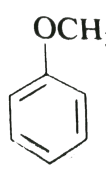
Q-45 - 12662597

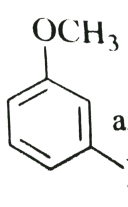
Identify *A* and predict the type of reaction



(A)  and elimination addition reaction

(B)  and cine substitution reaction

(C)  and cine substituion reaction

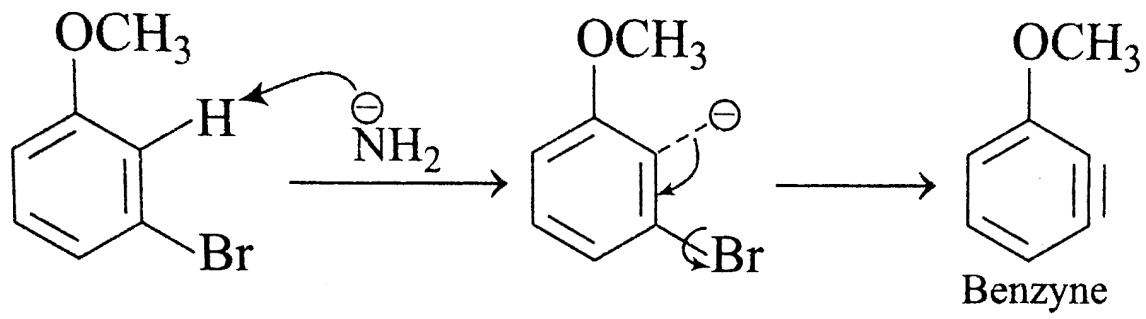
(D)  and cine substituion reaction

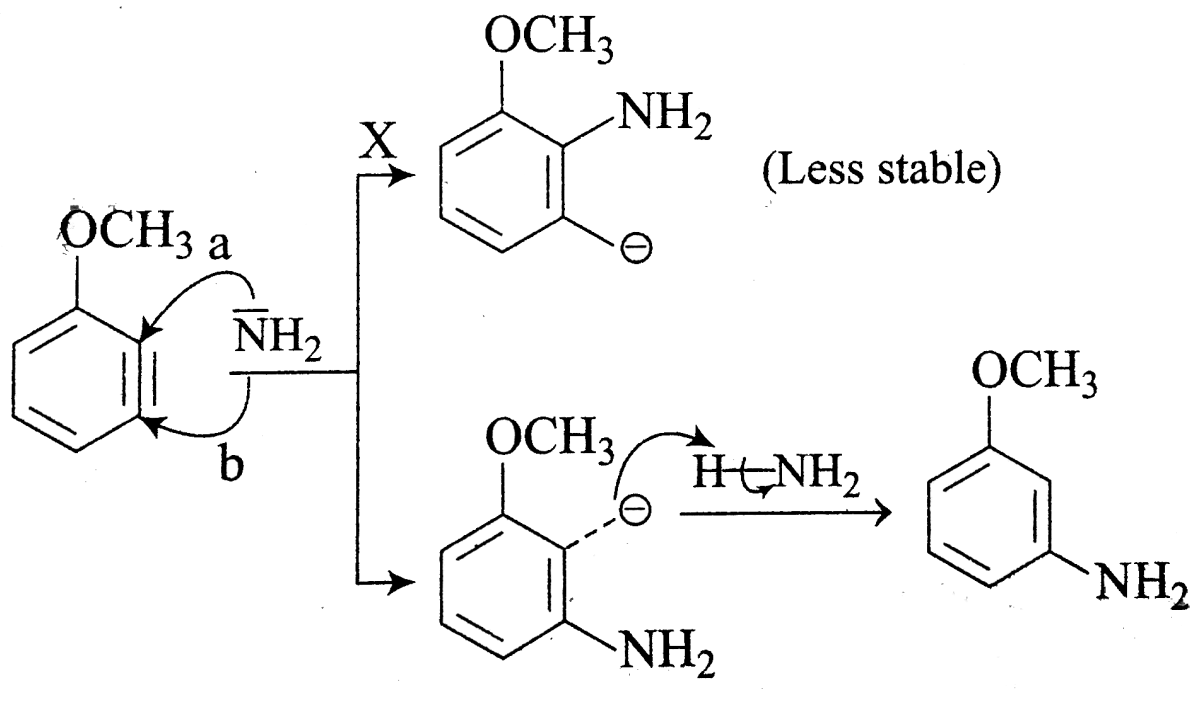
---

CORRECT ANSWER: D

SOLUTION:

24. (d)





More stable as-ve change is close to electron withdrawing group, because incoming nucleophile ends on same 'C' on which 'Br' (Leaving Group) was present.

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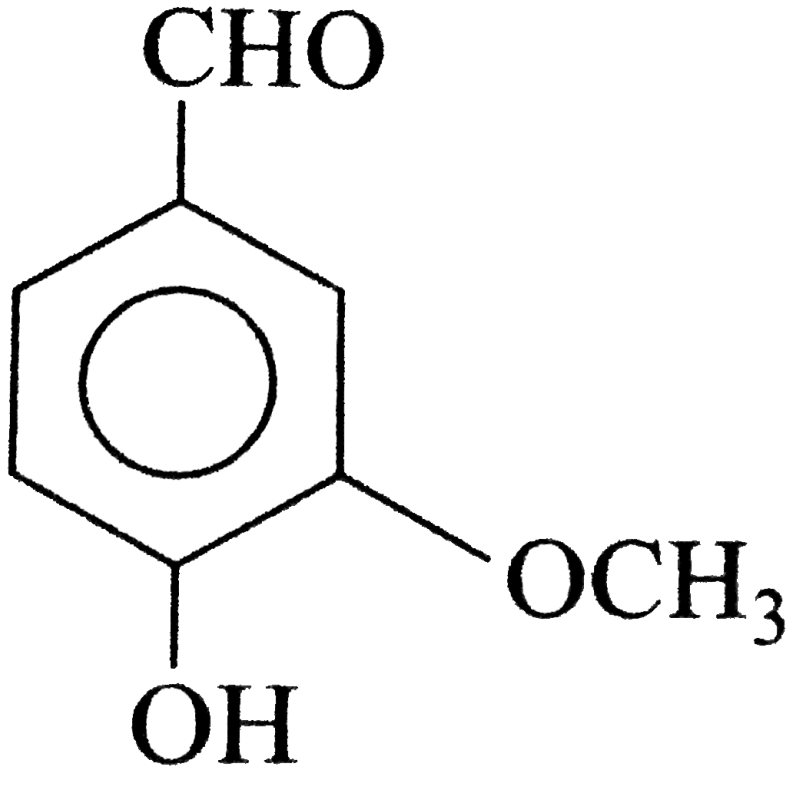
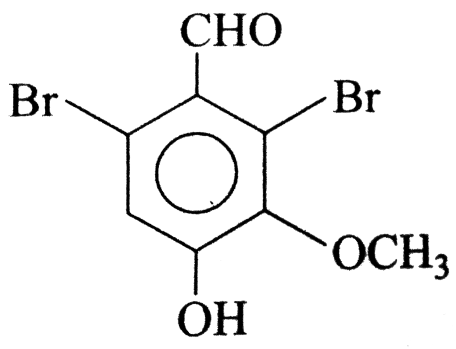
Q-46 - 12662628

48.



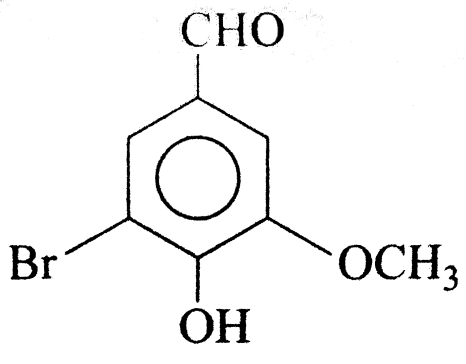
$\xrightarrow{Br_2/CCl_4}$

(a)



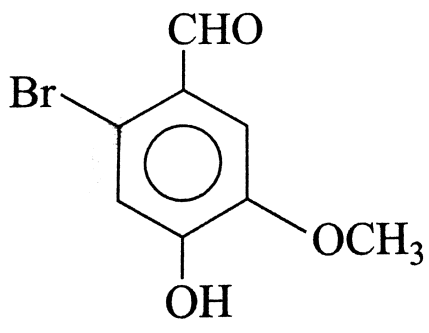
(A)

(b)

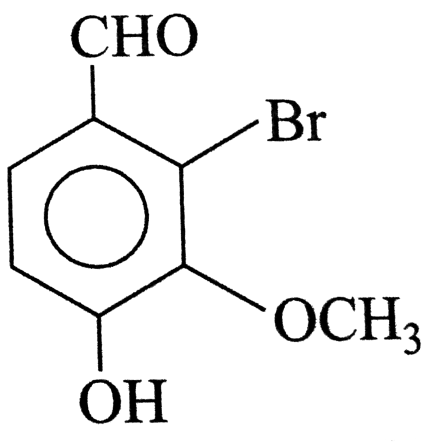


(B)

(c)



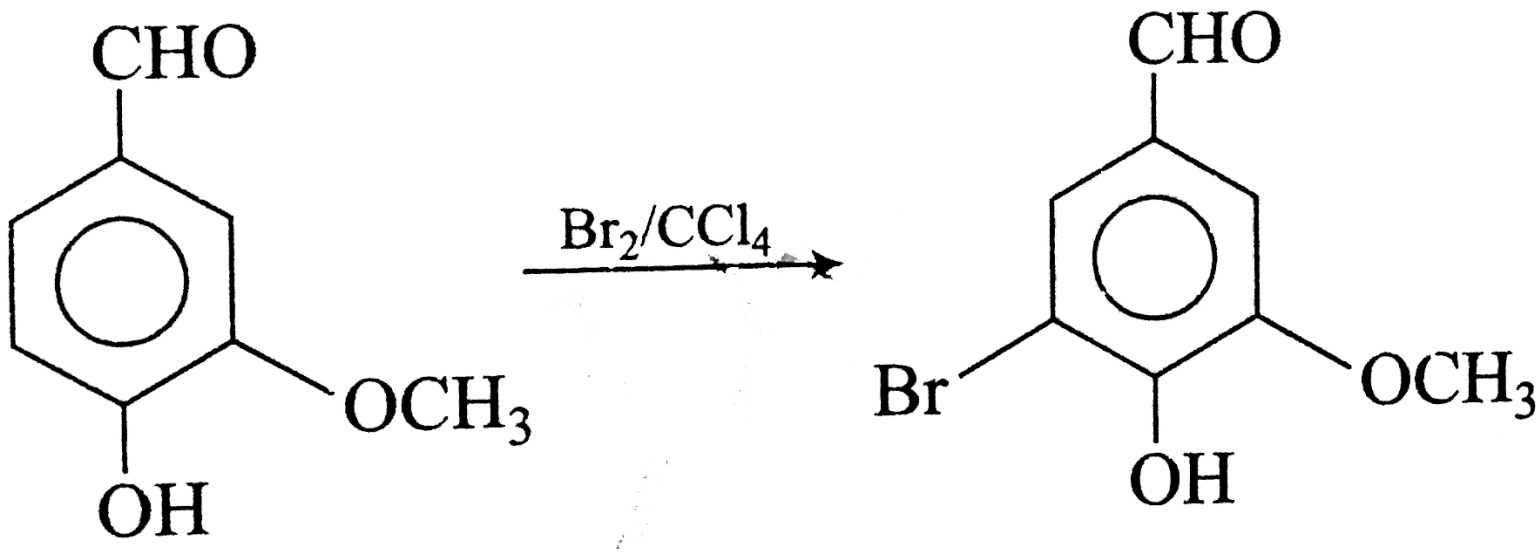
(C)

(d) 

(D)

CORRECT ANSWER: B

SOLUTION:



$-OH$ group is more activiting so attack of Br^+ (electrophile) occurs at ortho position of $-OH$ group during ESR

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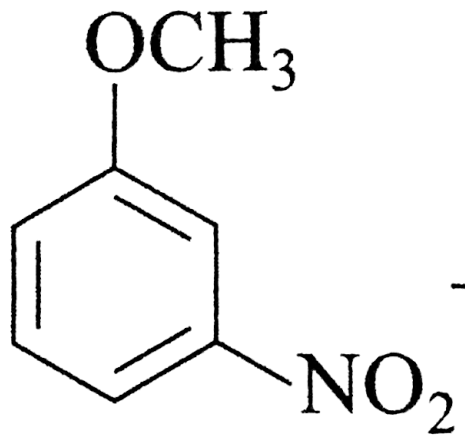
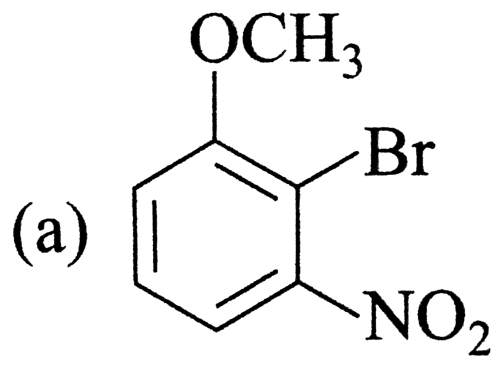
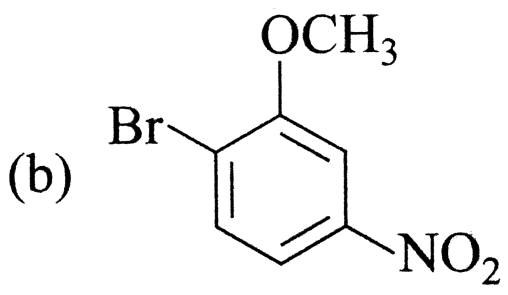
Q-47 - 12662626

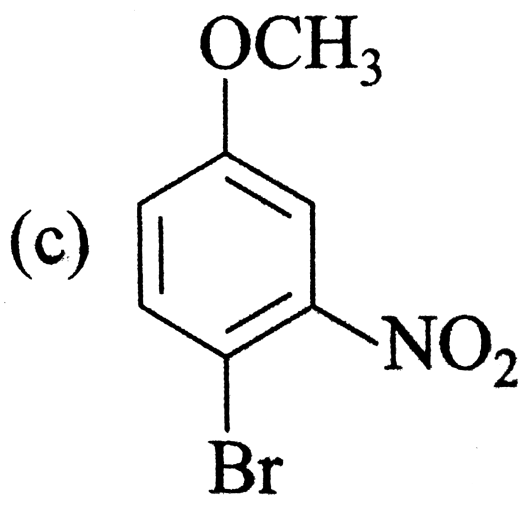
47. 

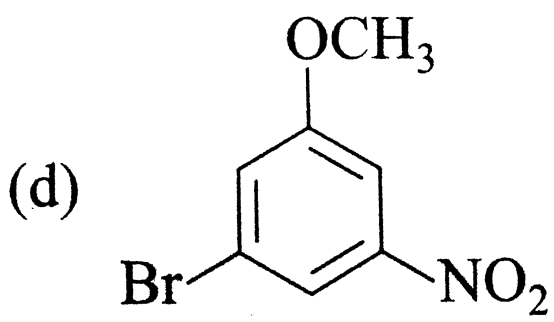
$\xrightarrow{Br_2, Fe}$ X + Y
(Major) (Minor)

Identify X.

(A) 

(B) 

(C) 

(D) 

CORRECT ANSWER: C

SOLUTION:

Activating neture of $-OCH_3$ group dominates over

deactivating power of $-NO_2$.

So, Para product w.r.t. -OCH_3 is major.

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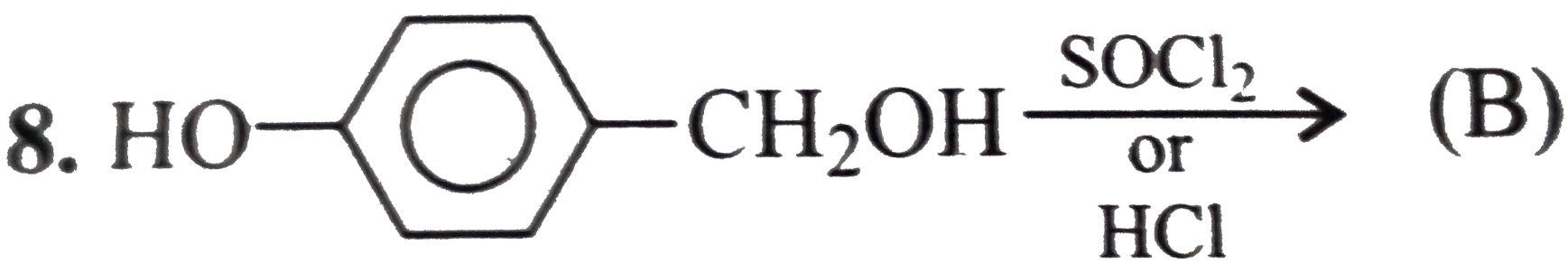
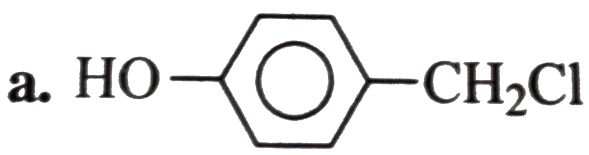
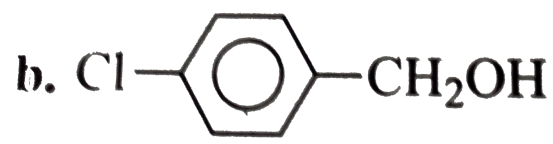
Q-48 - 11485460

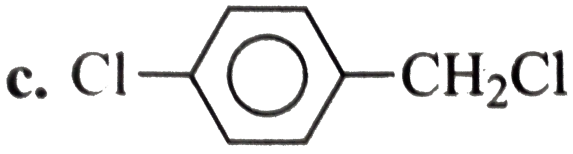
8. 

(A)

The product (B) is:

(A) 

(B) 

(C) 

(D) All

CORRECT ANSWER: A

SOLUTION:

The cleavage of $(C - OH)$ bond is feasible rather than cleavage of $(Ar - OH)$ bond because of resonance stabilisation in ArOH.

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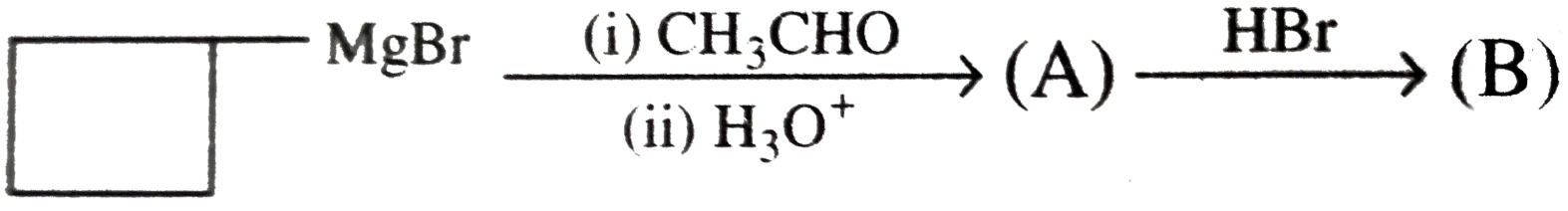
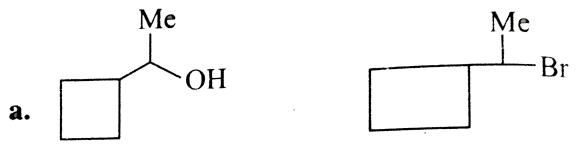
Q-49 - 11485475

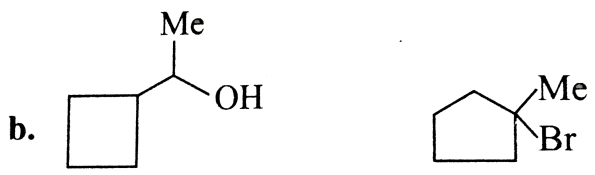


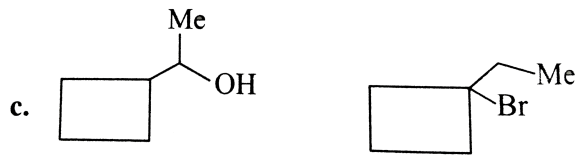
$\xrightarrow[(ii)\, H_3O^+]{(i)\, CH_3CHO}$

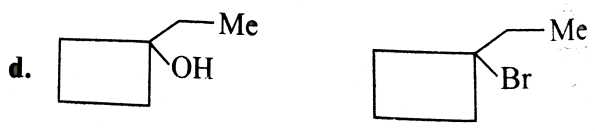
(A) $\xrightarrow{HBr}$ (B)

The compounds (A) and (B)

(A) A. 

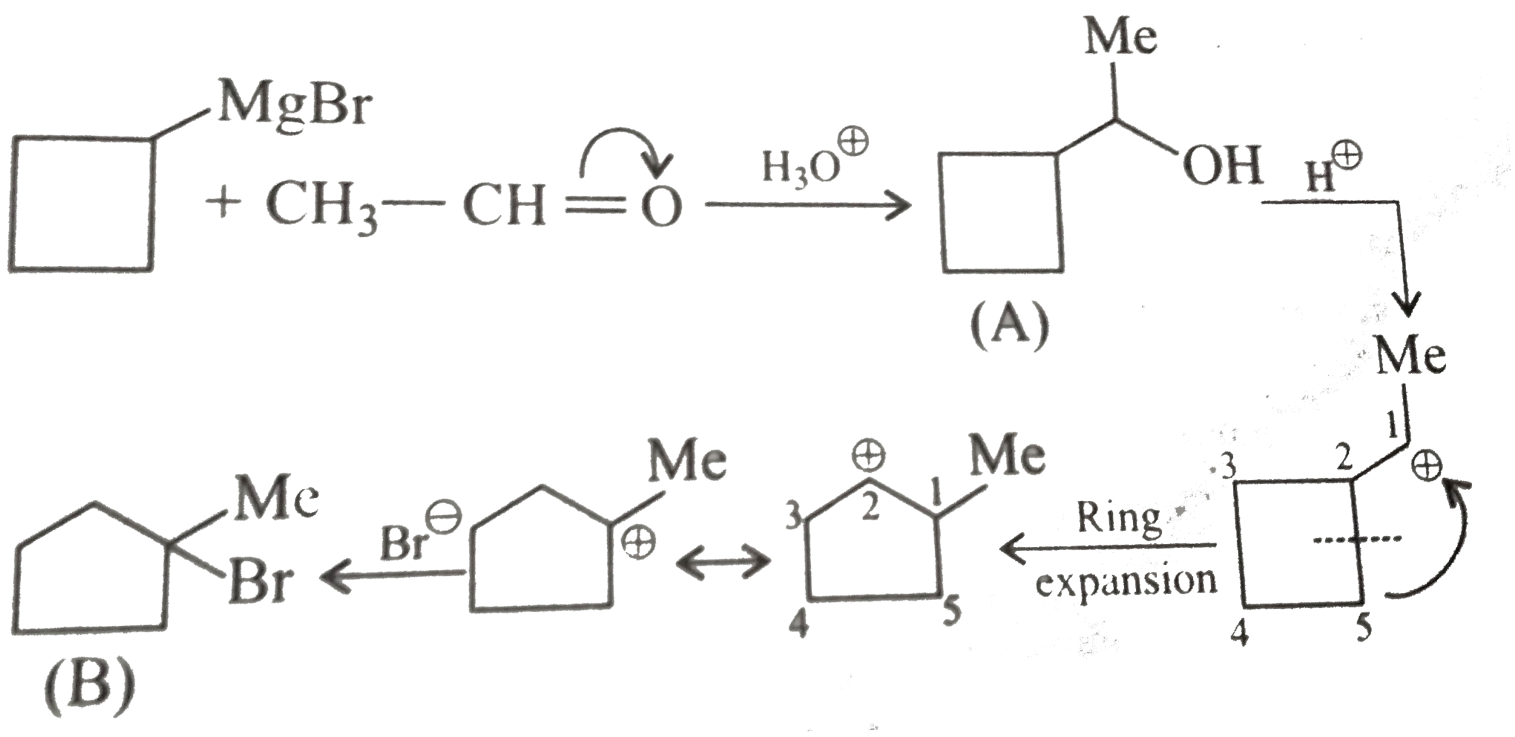
(B) 

(C) 

(D) 

CORRECT ANSWER: B

SOLUTION:



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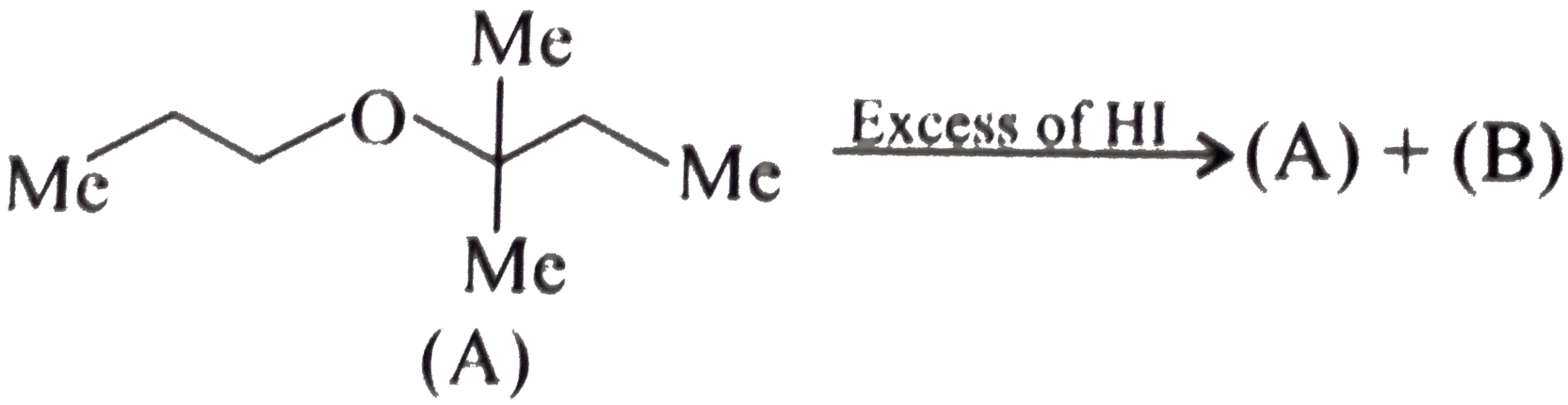
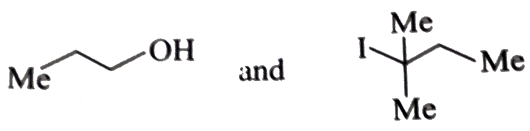
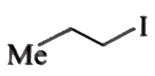
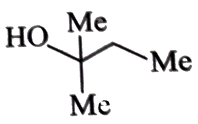
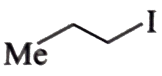
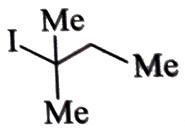
Q-50 - 11485499



The products (A) and (B) are:

(A) A. a.  and

(B) A. b.  and 

(C) A. c.  and 

(D) All

CORRECT ANSWER: C

SOLUTION:

NA

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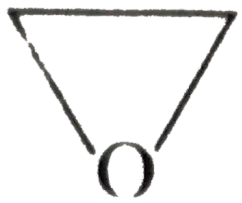
Q-51 - 11485512

57.  + $CH_3NH_2 \xrightarrow{H^{\oplus}} (x) \xrightarrow[H^{\oplus}]{} (y)$

The products (x) and (y) are:

(A)

$x = HOCH_2 - CH_2$
$- NH - CH_3$

$y = HOH_2C - CH_2$
$- \underset{\underset{CH_3}{|}}{N} - CH_2CH_2OH$

(B)

$x = HOCH_2$
$- CH_2CH_2 - NH_2$

$y = HOH_2C - CH_2$
$- CH_2 - NH - CH_2$
$- CH_2OH$

(C)

$x = HOCH_2 - CH_2$

$- NH - CH_3$

$y = HOCH_2 - CH_2$

$- CH_2 - NH - CH_2$

$- CH_2OH$

(D)

$x = HO - CH_2$

$- CH_2 - CH_2NH_2$

$y = HO - CH_2$

$- CH_2 -$

$CH_3N - CH_2CH_2OH$

.

CORRECT ANSWER: A

SOLUTION:

NA

Q-52 - 11485518

Which of the following alcohols is expected to give haloform test ?

(A) 1-Pentanol

(B) 3-Pentanol

(C) 2-Propanol

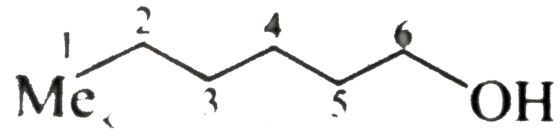
(D) None of above

CORRECT ANSWER: C

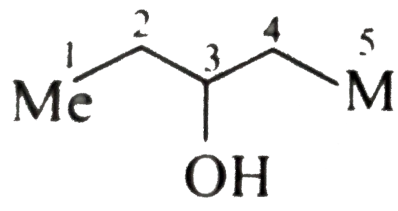
SOLUTION:

Alcohols having $\left(CH_3 - \underset{|}{CH} - OH \right)$ group give

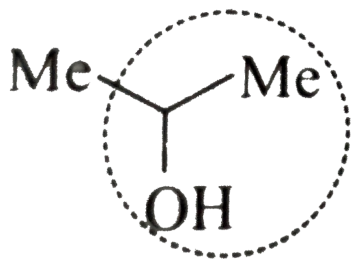
Iodoform test.

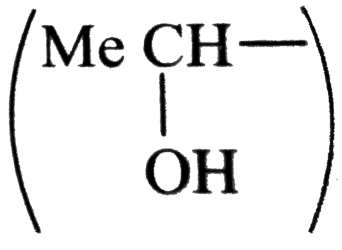
a. 

negative test

b. 

negative test

c. 

positive test 

group

a.

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Q-53 - 11485534

An organic compound (A) with molecular formula C_7H_8O dissolves in NaOH and gives characteristic colour with $FeCI_3$. On treatement with Br_3, it gives a tribromo product $C_7H_5Br_3$. The compound is:

(A) p-Hydroxybenzene

(B) 2-Methoxy-2-phenyl propane

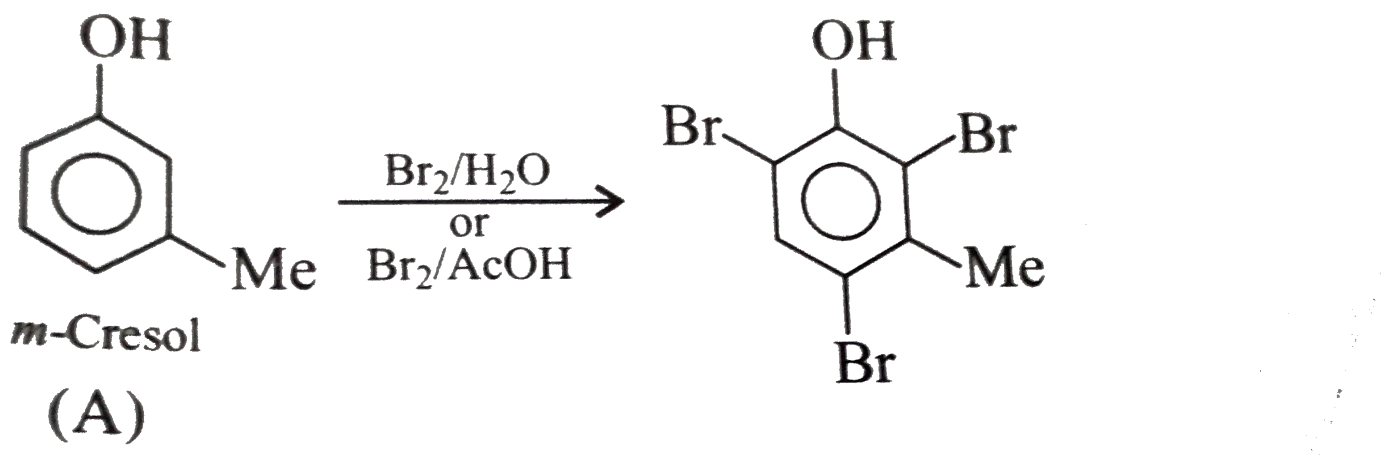
(C) m-Cresol

(D) p-Cresol

CORRECT ANSWER: C

SOLUTION:

Four DU in A and $(C : H \approx 1 : 1)$ suggest benzene ring with one extra C atom. Reactivity with NaOH and $FeCI_3$ suggests (A) to be a phenol. The formation of a tribrommo product suggest that o- and p-positions are vacantg. So methyl group should be present at m-position. Hence, (A) is m-cresol.



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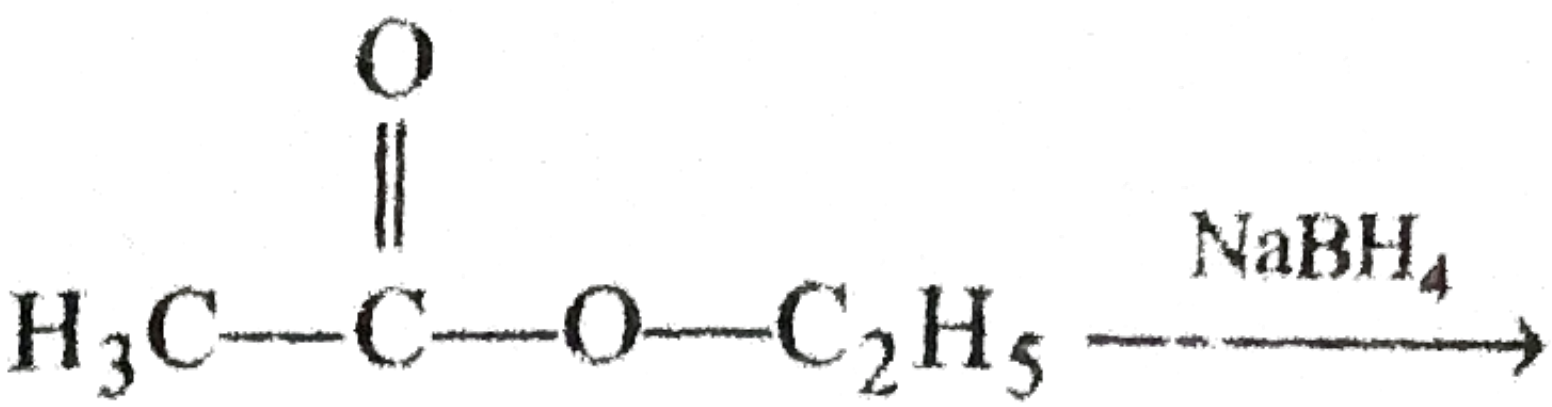
Q-54 - 20884986

Perdict product of the following reaction,



(A) $CH_3 - CH_2 - OH$

(B) No reaction

(C) $H_3C - \overset{\overset{O}{||}}{C} - OH$

(D) $H_2C = CH_2$

CORRECT ANSWER: B

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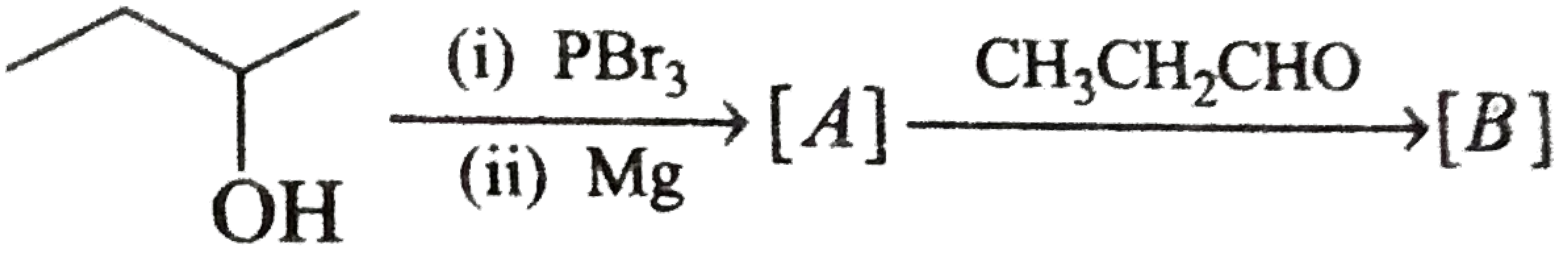
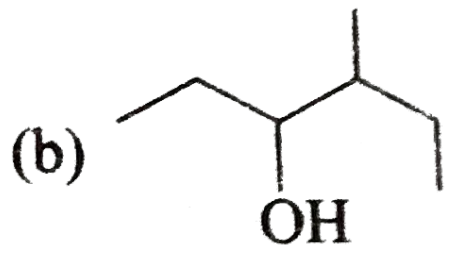
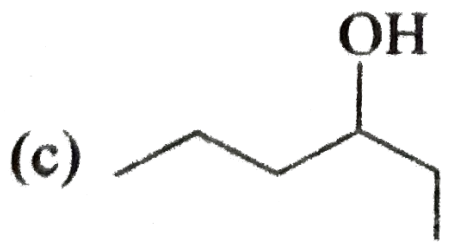
Q-55 - 20884999

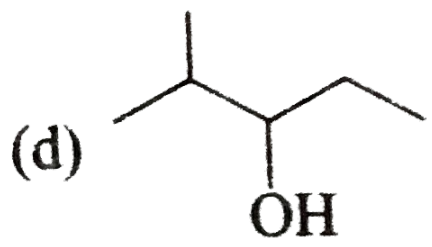
The correct structure for compound B will be:



(A) 

(B) 

(C) 

(D) 

CORRECT ANSWER: B

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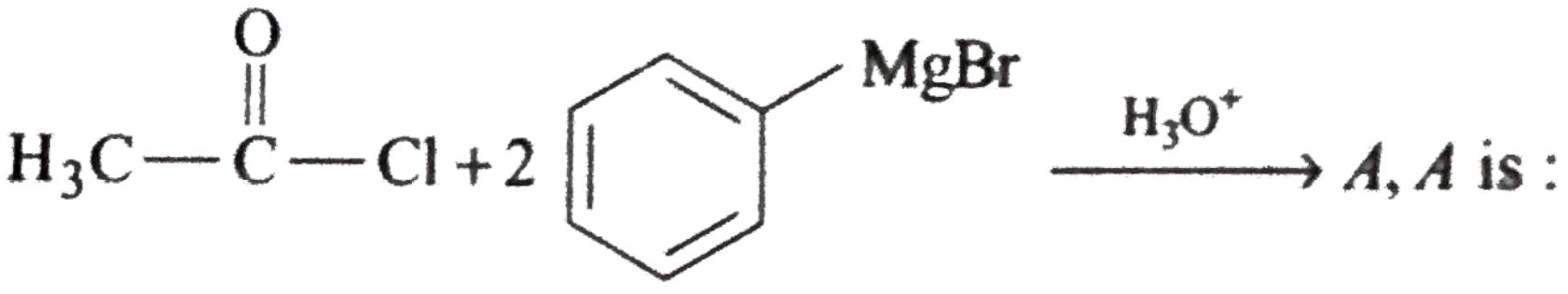
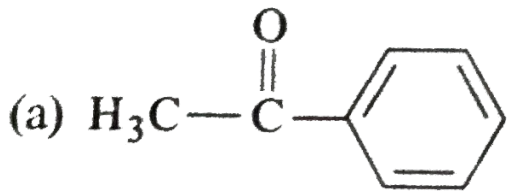
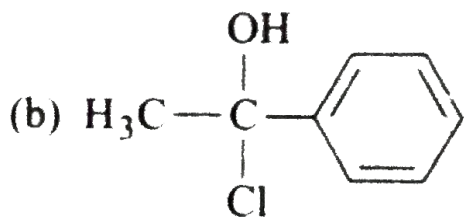
Q-56 - 20885005



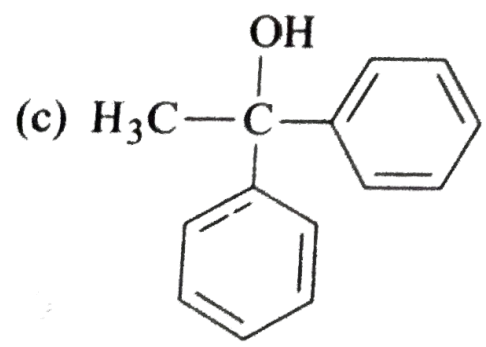
(A)



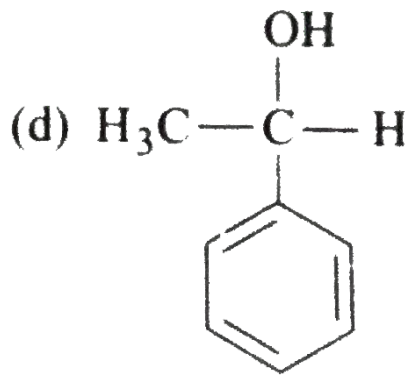
(B)



(C)



(D)



CORRECT ANSWER: C

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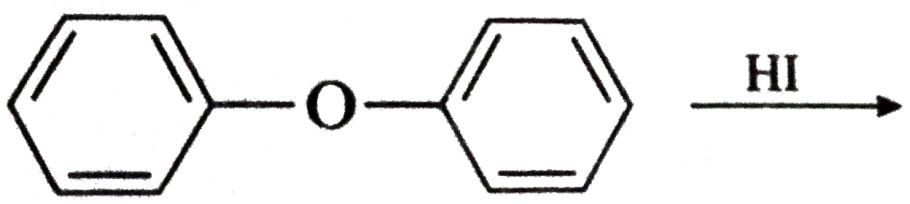
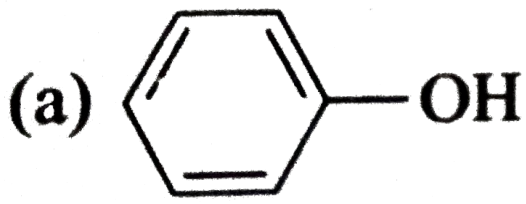
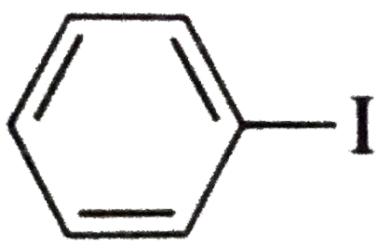
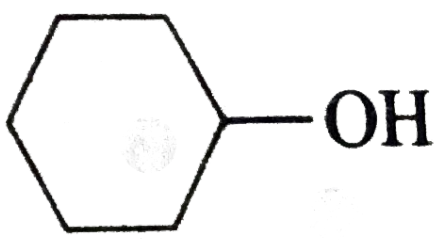
Q-57 - 20885012



, Predict the correct option :

(A) (a) 

(B) (b) 

(C) (c) 

(D) No reaction

CORRECT ANSWER: D

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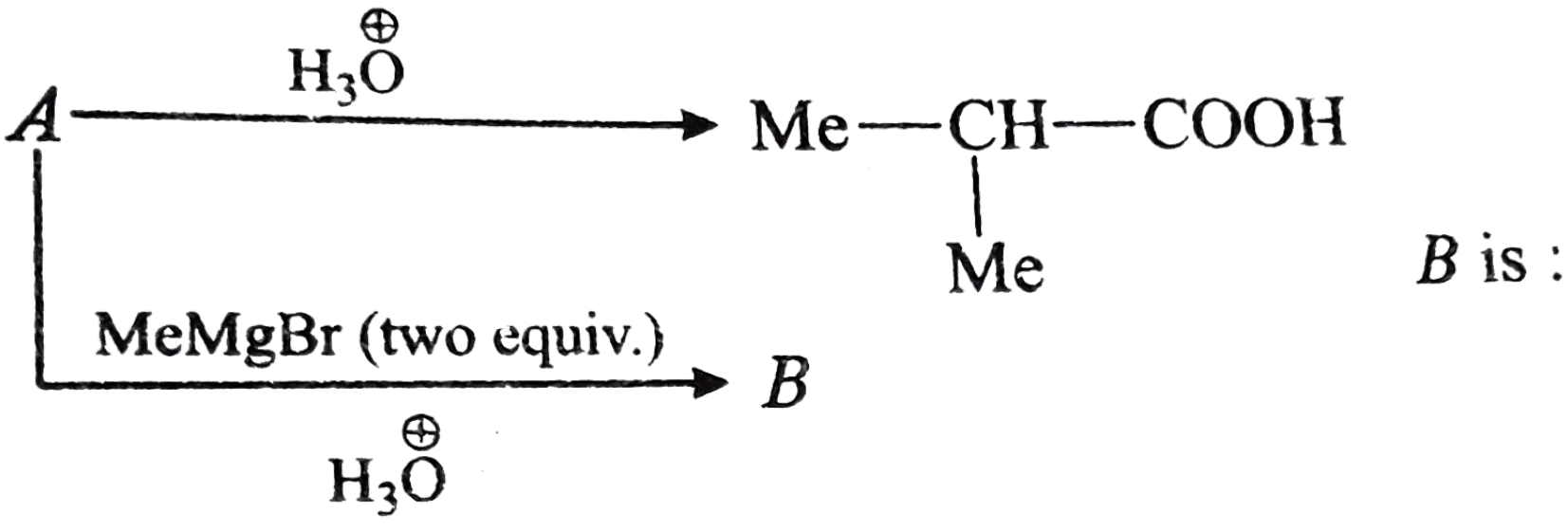
Q-58 - 20885026



(A) $Me_2CHCOMe$

(B) $Me_2CH - \underset{\underset{OH}{|}}{CMe_2}$

(C) $Me_2CHCOCHMe_2$

(D) $Me_2\,\underset{\underset{OH}{|}}{C}\,HCHCHMe_2$

CORRECT ANSWER: B

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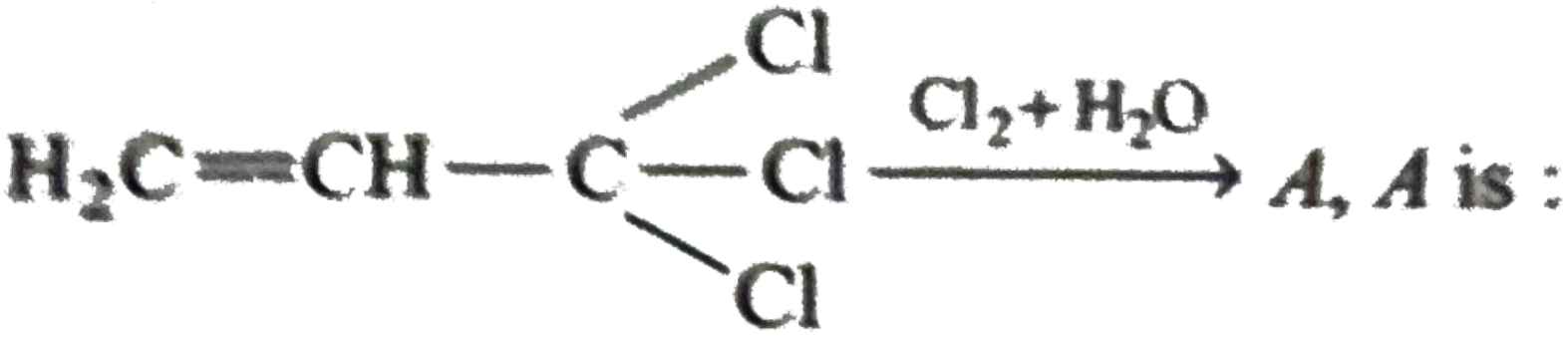
Q-59 - 20885029



(A) $CCl_3\underset{\underset{OH}{|}}{C}H - CH_2Cl$

(B) $CCl_3CH(Cl) - CH_2OH$

(C) $CCl_3CH(Cl) - CH_2Cl$

(D) $CCl_3CH(OH) - CH_2(OH)$

CORRECT ANSWER: B

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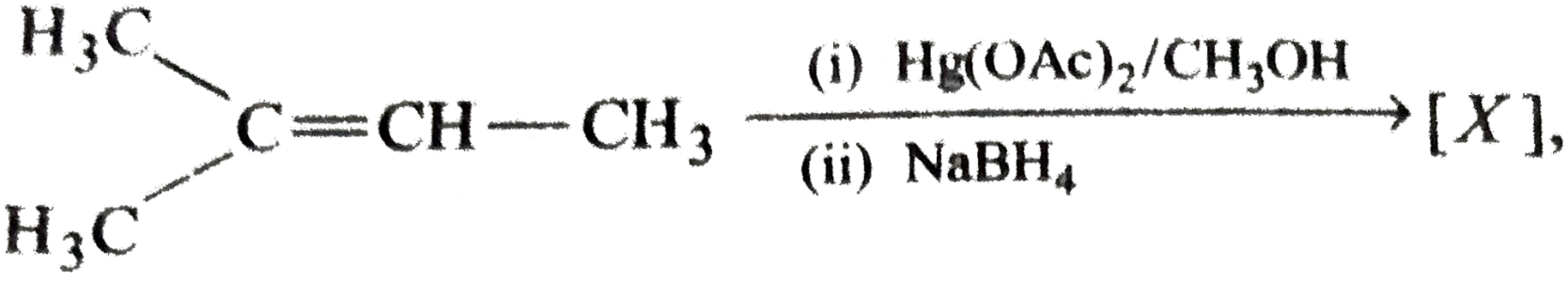
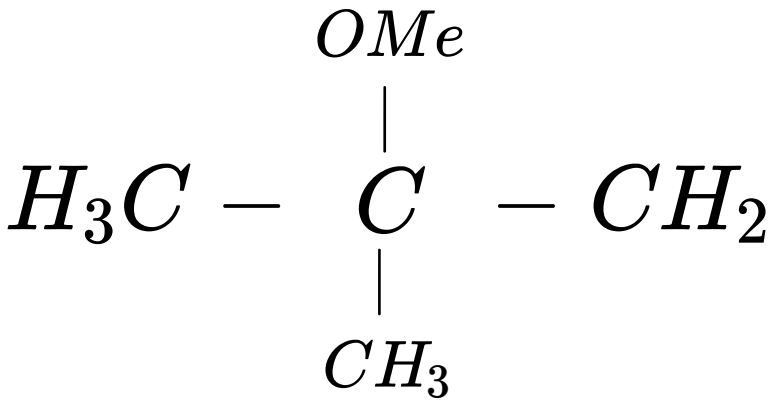
Q-60 - 20885038

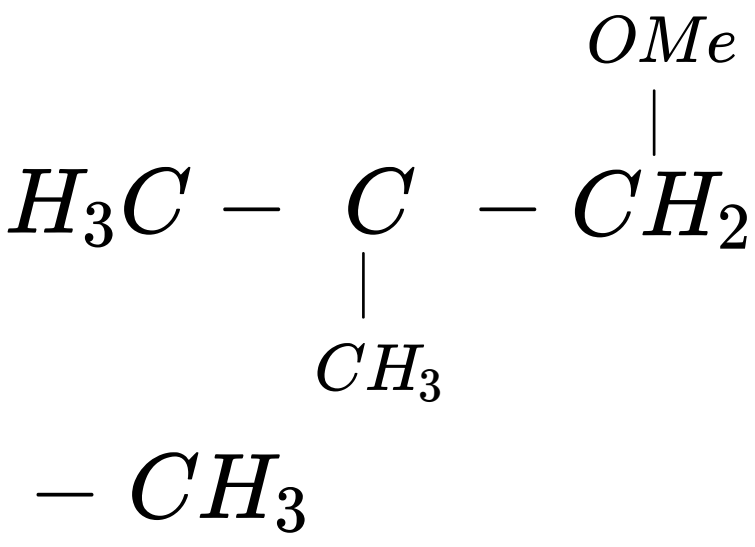
In the give reaction



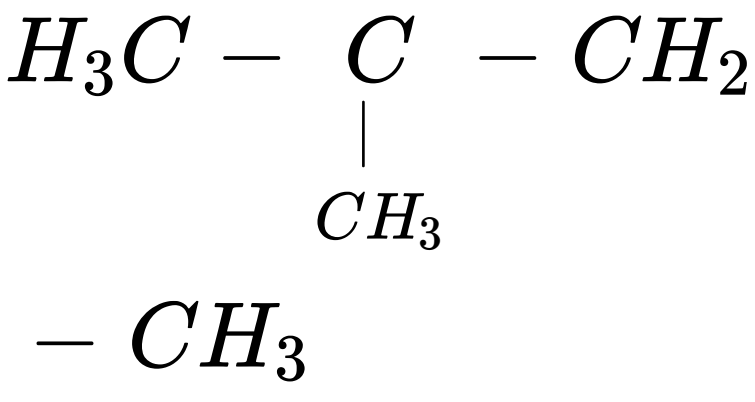
(A)



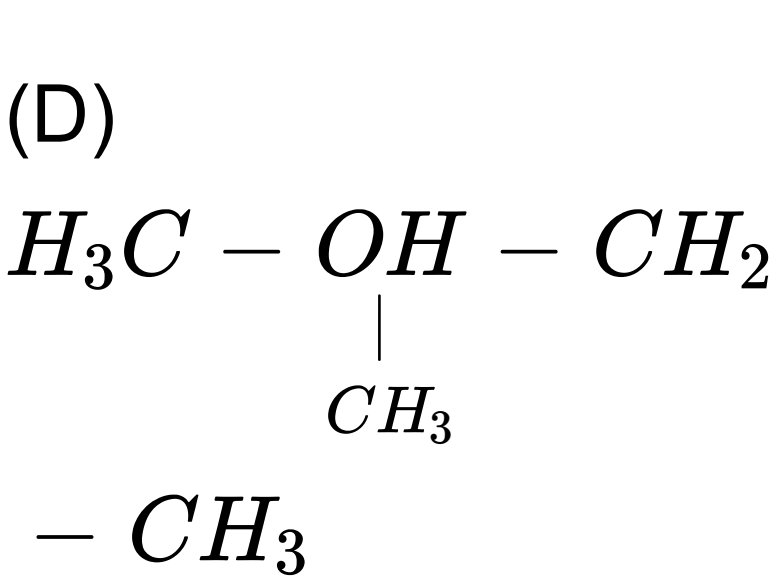
(B)



(C)



(D)



CORRECT ANSWER: A

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