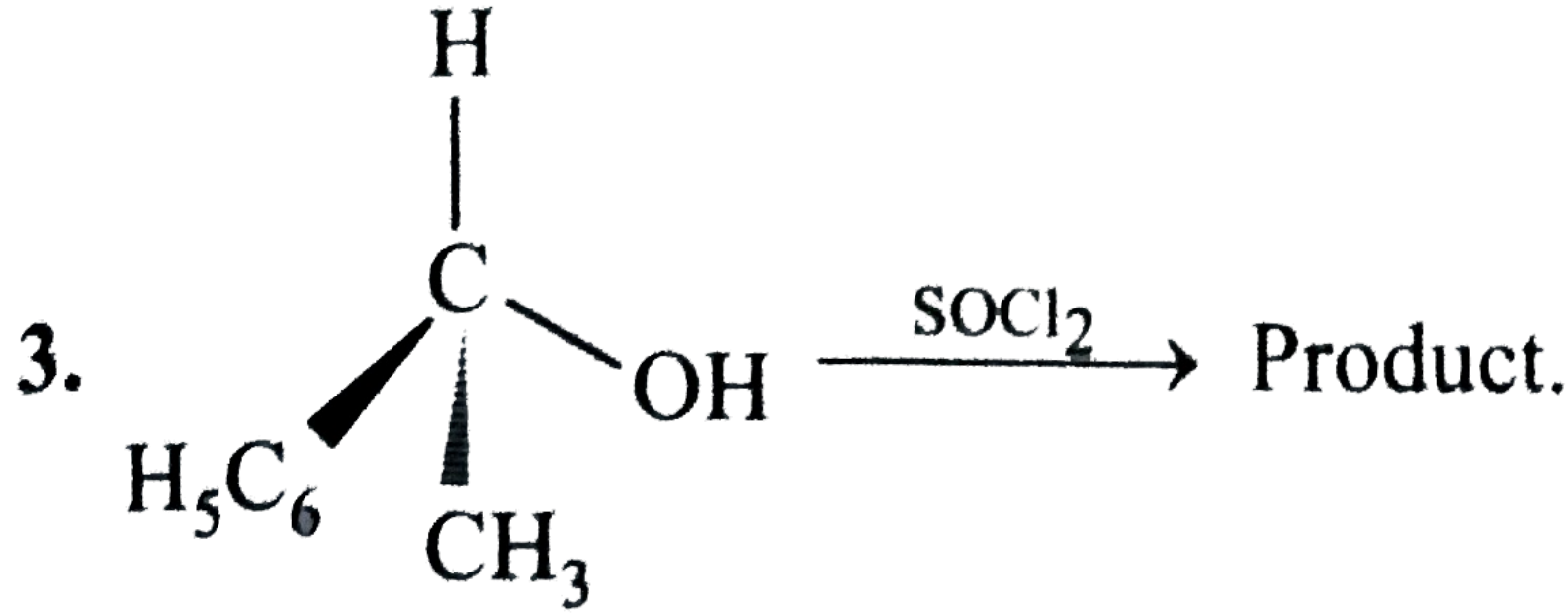
NEET REVISION SERIES

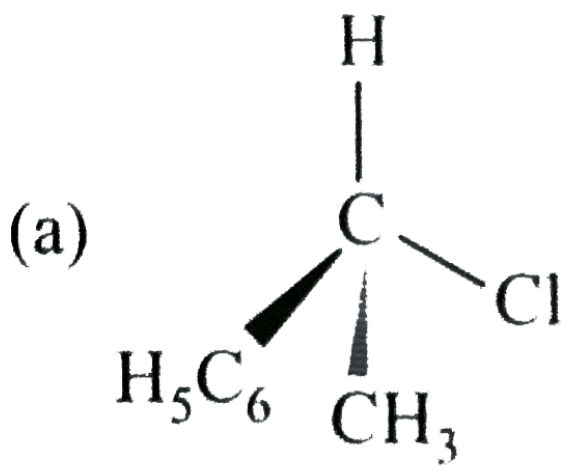
HALOALKANE

Revise Most Important Questions to Crack NEET 2020

Q-1 - 12661984

3. 

Identify the product

(A) 

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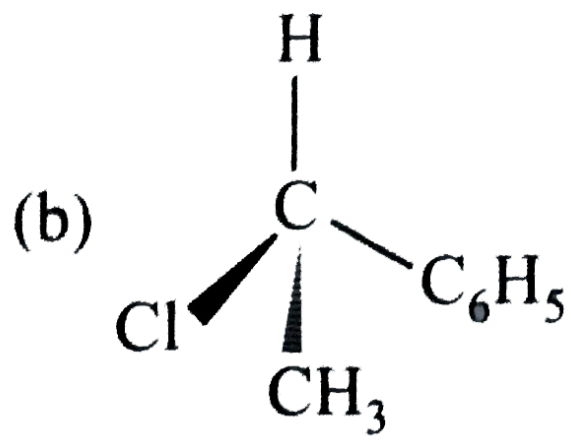
(B) 

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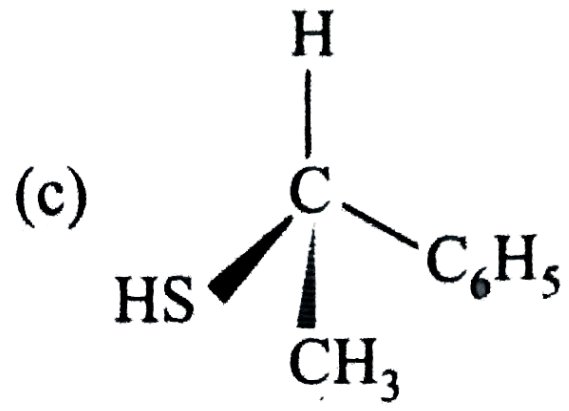
(C) 

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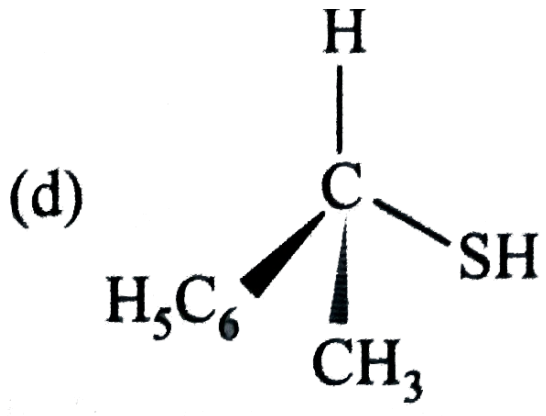
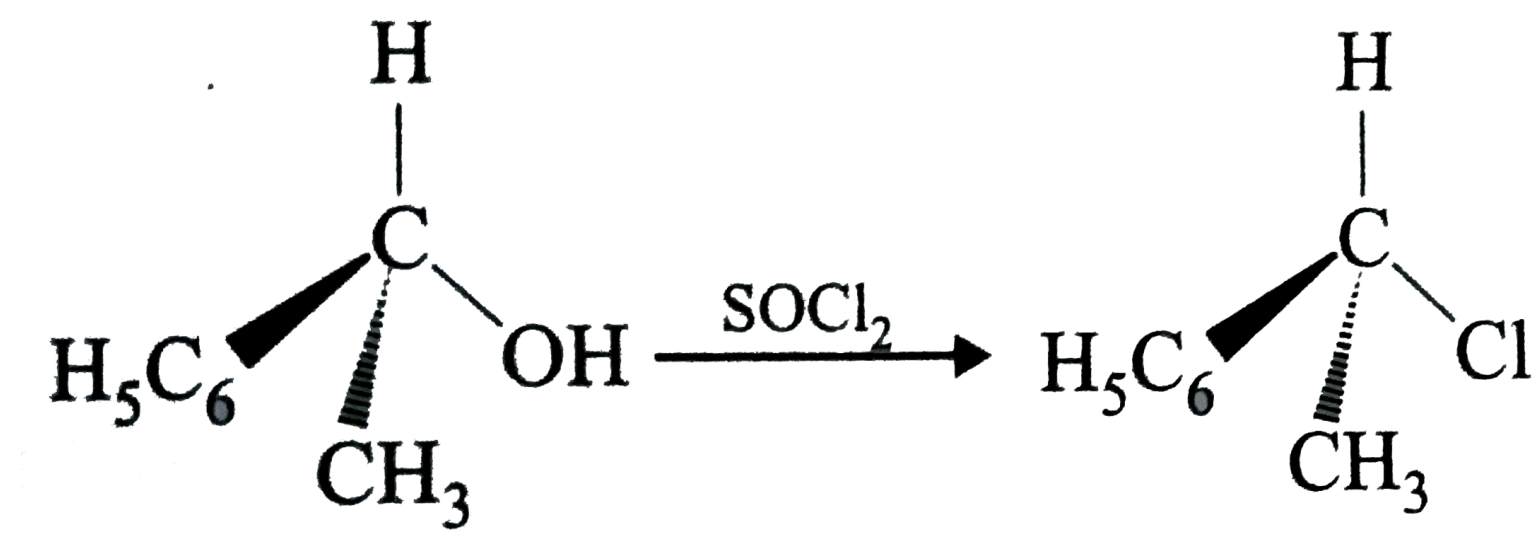
(D) 

.

CORRECT ANSWER: A

SOLUTION:



it isS_{N1} mechanism so retentfor of configuration

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Q-2 - 12661991

What is the final product of reaction

$$CH_3 - C = CH \xrightarrow{Na} \xrightarrow{CH_3 - CH_2 - 1}$$

.

(A) $CH_2CHCH_2CH_3$

(B) $CH_3CH_2CCCH_2CH_3$

(C) $CH\mathbb{C}H_2CH_2CH_3$

(D) $CH_3CCCH_2CH_3$

CORRECT ANSWER: D

SOLUTION:

$$CH_3 - C \equiv CH$$

$$\xrightarrow{Na} CH_3 - C \equiv C$$

$$- Na^+ \xrightarrow[S_N2]{CH_3 - CH_2 - I}$$

$CH_3 - C \equiv C - CH_2$

$- CH_3$

.

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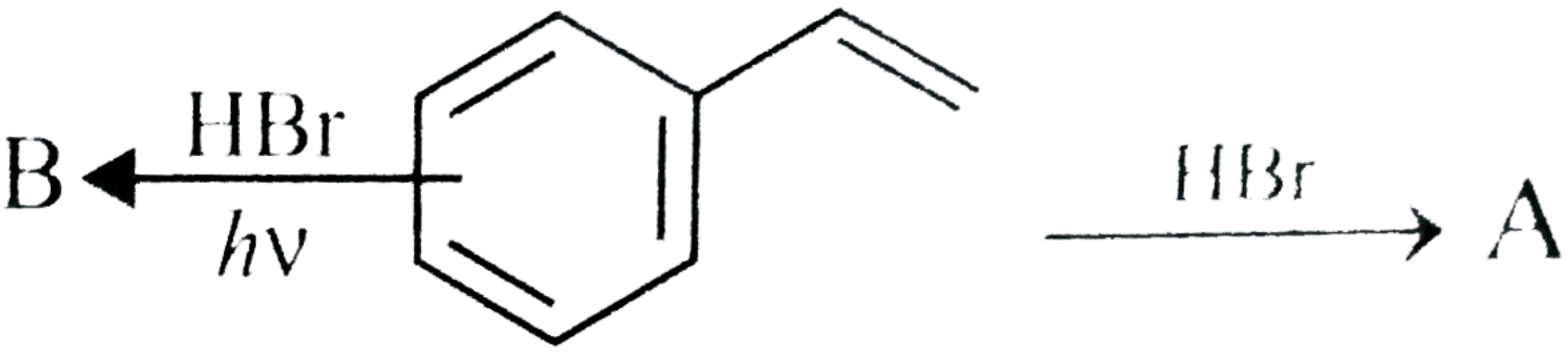
Q-3 - 12662001

Analyes the following reaction and identify the nature of $A$and B



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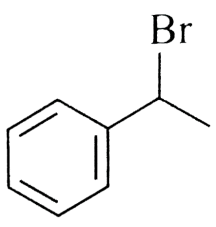
(A) Both A and B are

(a) Both A and B are 

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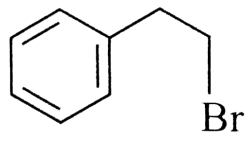
(B) Both A and B are

(b) Both A and B are 

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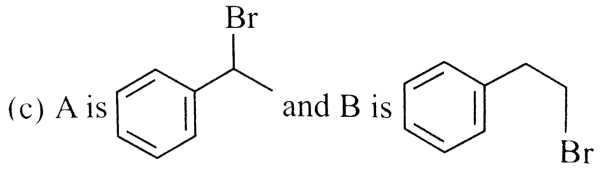
(C) 

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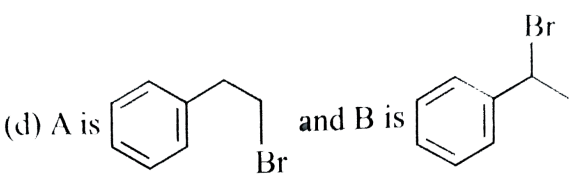
(D) 

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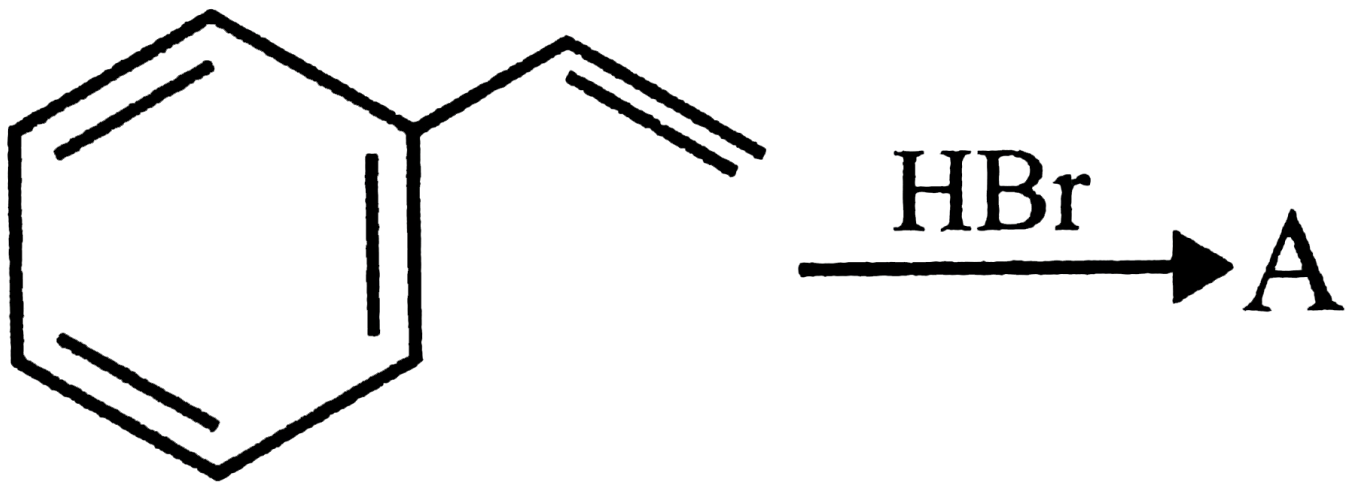
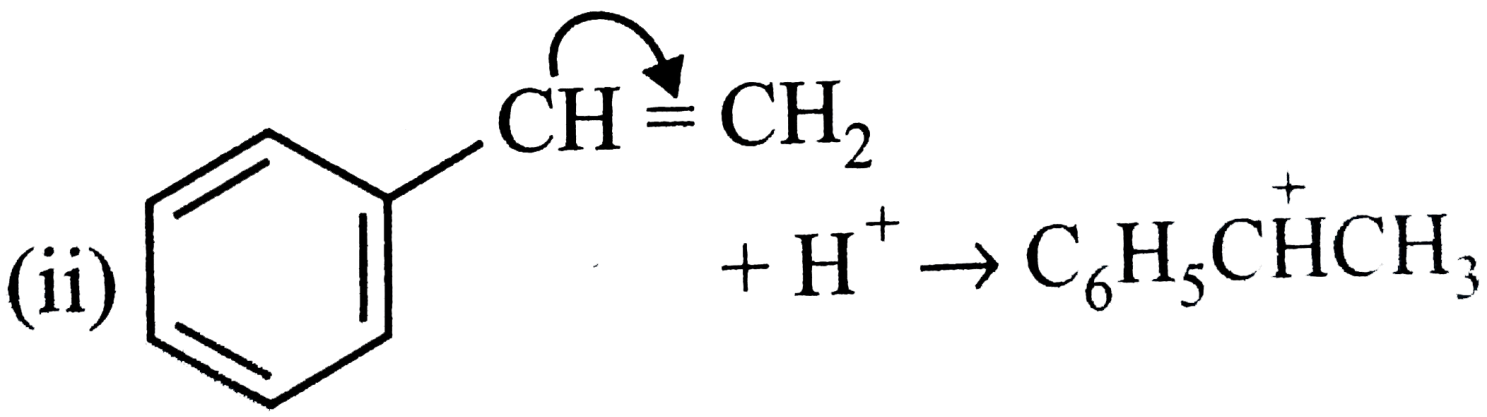
CORRECT ANSWER: C

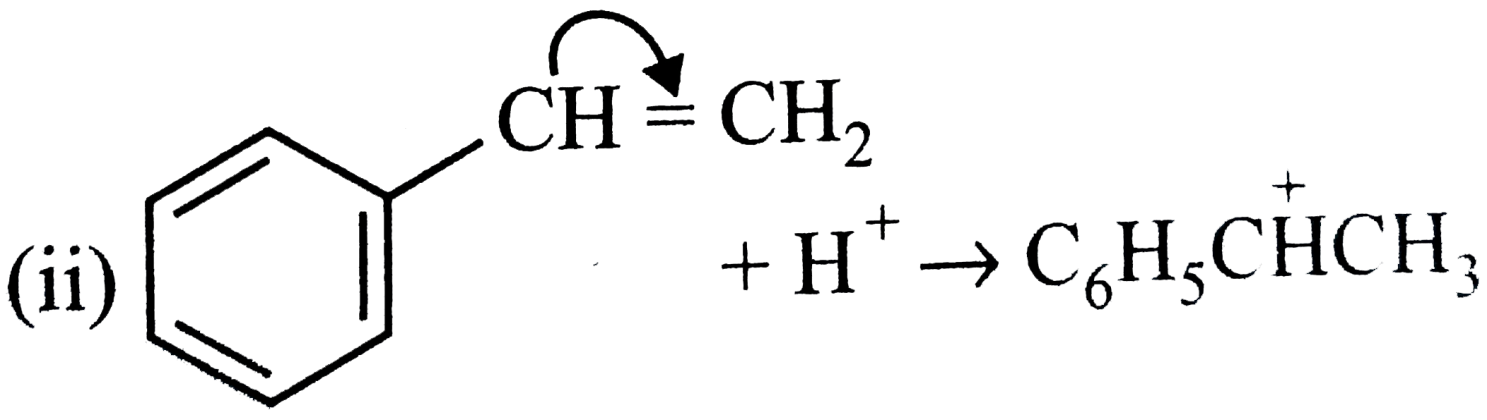
SOLUTION:

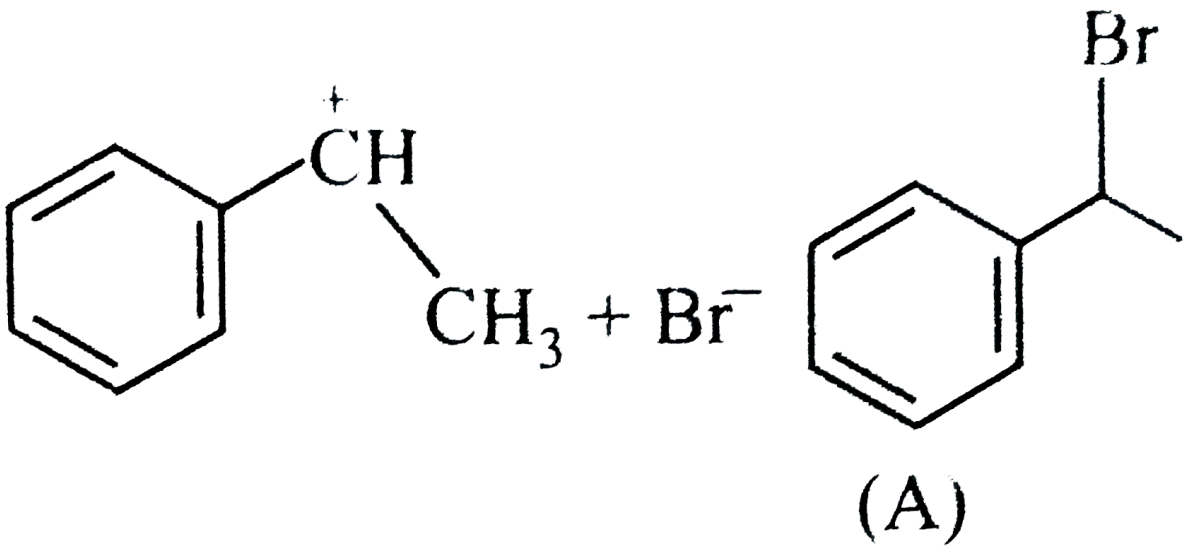


Formation of A is an electrophilic addition reaction

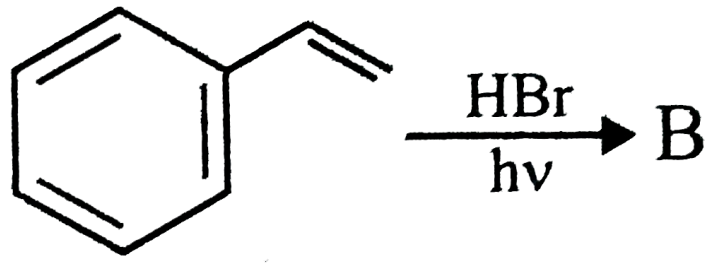
$$HBr \rightarrow H^+ + Br$$



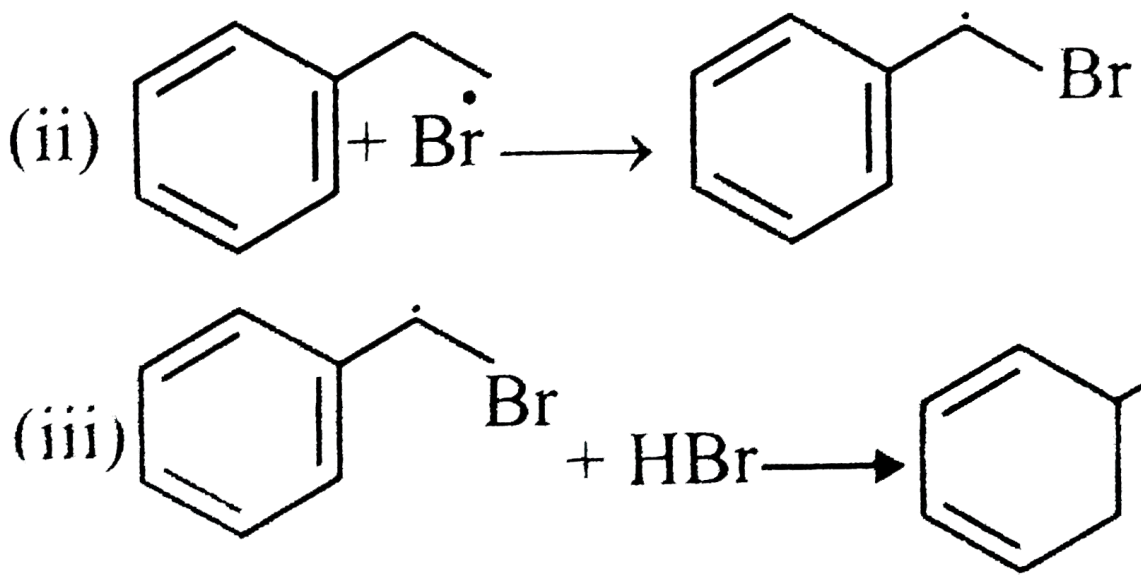




(A)



Formation of B is a free radical addition reaction



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Q-4 - 12662003

Decreasing order of reactivity of HX in the reaction

$ROH + HX \rightarrow RX + H_2O$

(A)

$HI > HBr > HCI$
$> HF$

(B)

$BRr > HCI > HI$
$> HF$

(C)

$HCI > HBr > HI$
$> HF$

(D)

$HF > HBr > HCI$
$> HI$

CORRECT ANSWER: A

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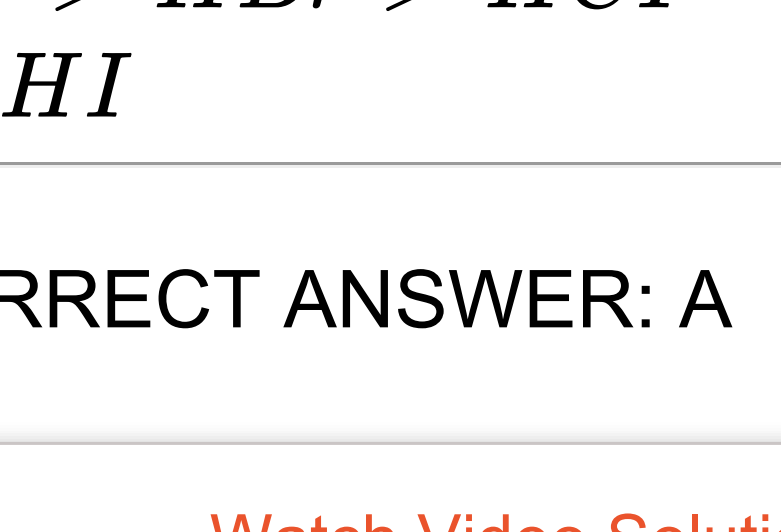
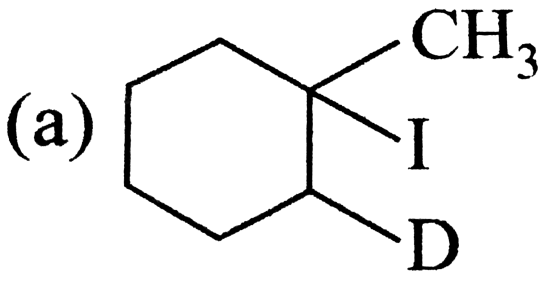
Q-5 - 12662033

47. 

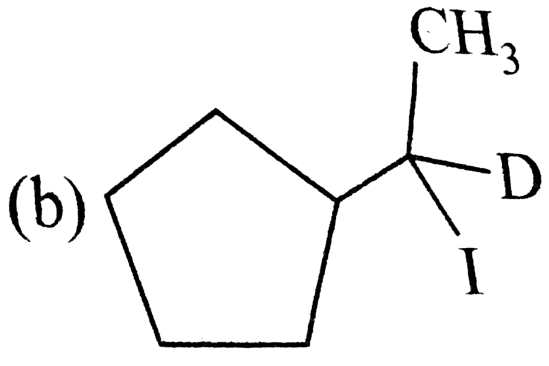
Product.

Identify the major product

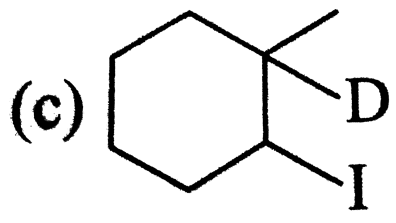
(A)



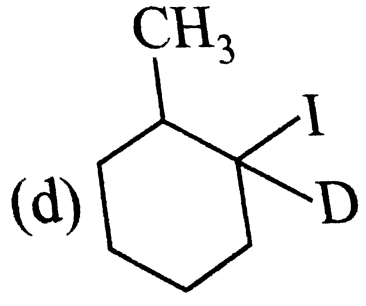
(B)



(C)

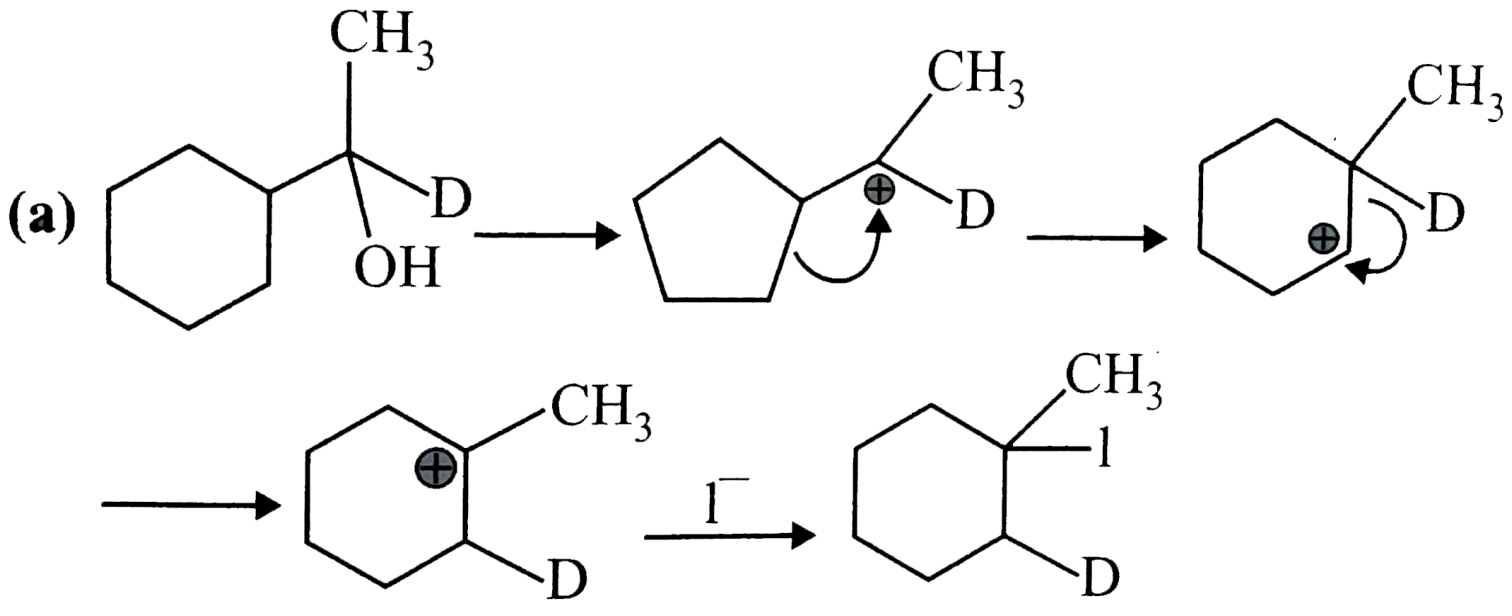


(D)



CORRECT ANSWER: A

SOLUTION:



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Q-6 - 12662038

The increasing order of reactivity of the following isomeric halides with $AgNO_3(H_2O + alcohol)$ is

(I)

$C_6H_5 - CH = CH - CH_2$

$- CH_2 - CI$

(II)

$C_6H_5 - CH = CH - \underset{\underset{Cl}{|}}{CH}$

$- CH_3$

(III)

$$C_6H_5 - \underset{\underset{CI}{|}}{C} = CH - CH_2$$

$$- CH_3$$

(IV) $C_6H_5 - \overset{\overset{C_6H_5}{|}}{\underset{\underset{Cl}{|}}{C}} = CH = CH_2$

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

(B) $III < IV < II$

(C) `III It I It II It IV

(D)

$III < I < II < IV$

$< III$

CORRECT ANSWER: C

SOLUTION:

On the basis of carbocation stability .

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Q-7 - 12662041

Which of the follwing is the example of S_N2 reaction .

(A)

$CH_3Br + OH$

$- CH_3OH + Br$

(B)

$$CH_3\underset{\underset{Br}{|}}{C}HCH_3 + OH$$

$$\rightarrow CH_3\underset{\underset{OH}{|}}{C}HOH$$

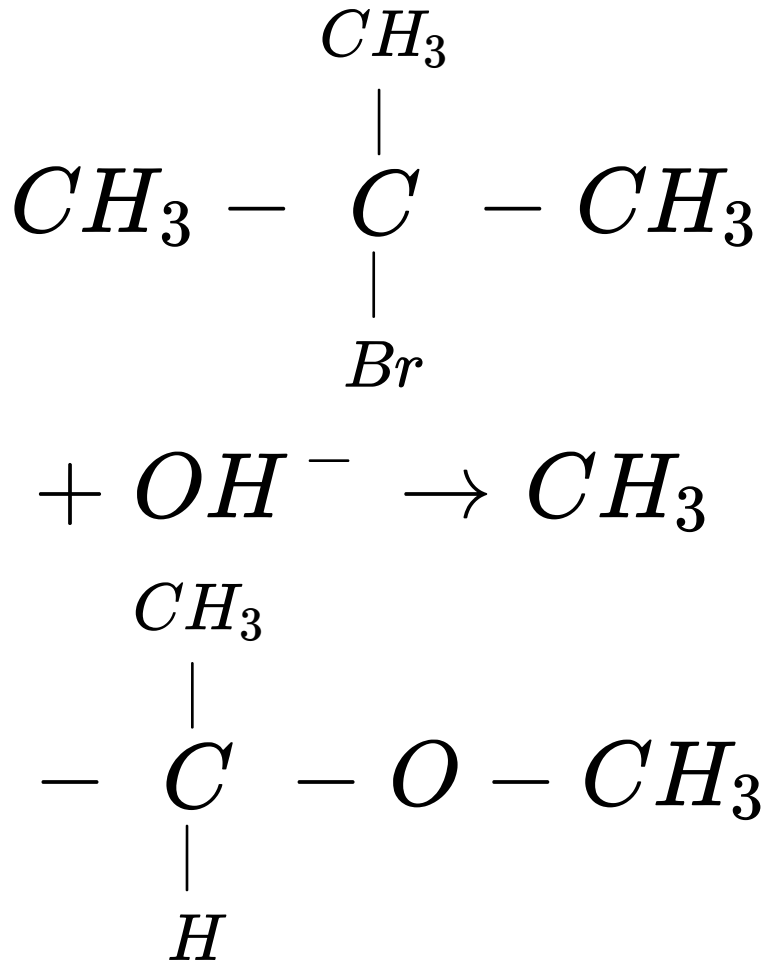
$+ Br^-$

(C)

$CH_3CH_2OH \xrightarrow{-H_2O} CH_2$

$= CH_2$

(D)



$$+ OH^- \rightarrow$$

$$+ Br^-$$

CORRECT ANSWER: A

SOLUTION:

Only 1 alky 1 halides I .e CH_3Br undergoes S_N2

reaction .

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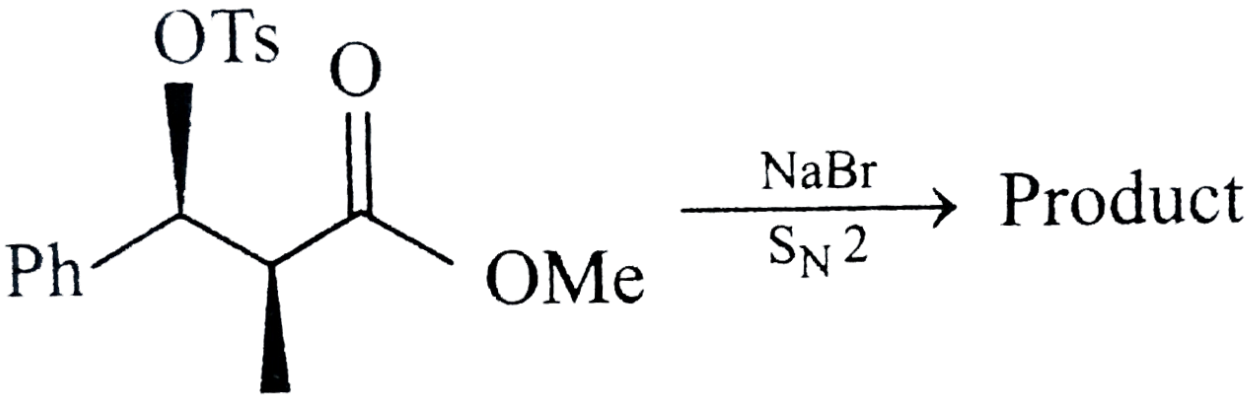
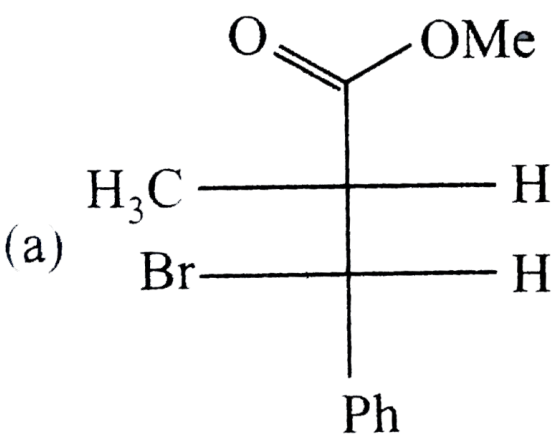
Q-8 - 12662054

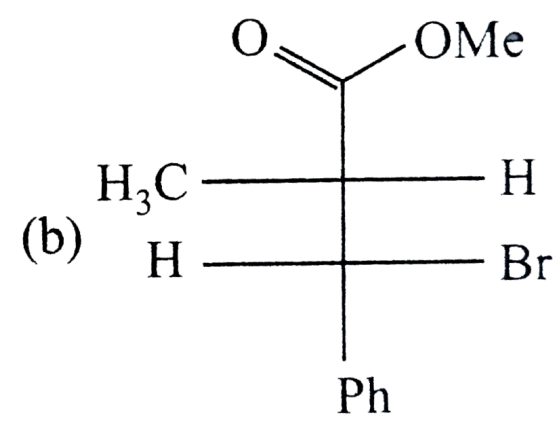
What is the product of the following S_N2 reaction ?


OTs
O
Ph
OMe
NaBr
S_N2
Product

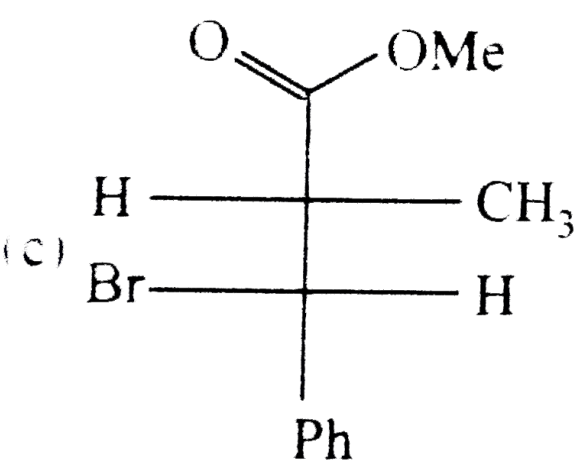
(A)


O
OMe
H_3C
H
(a)
Br
H
Ph

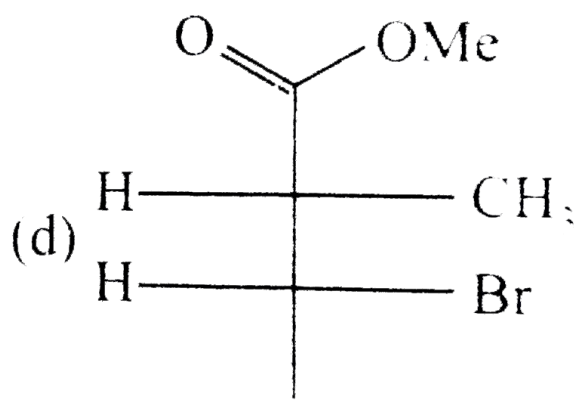
(B)


O
OMe
H_3C
H
(b)
H
Br
Ph

(C)


O
OMe
H
CH_3
(c)
Br
H
Ph

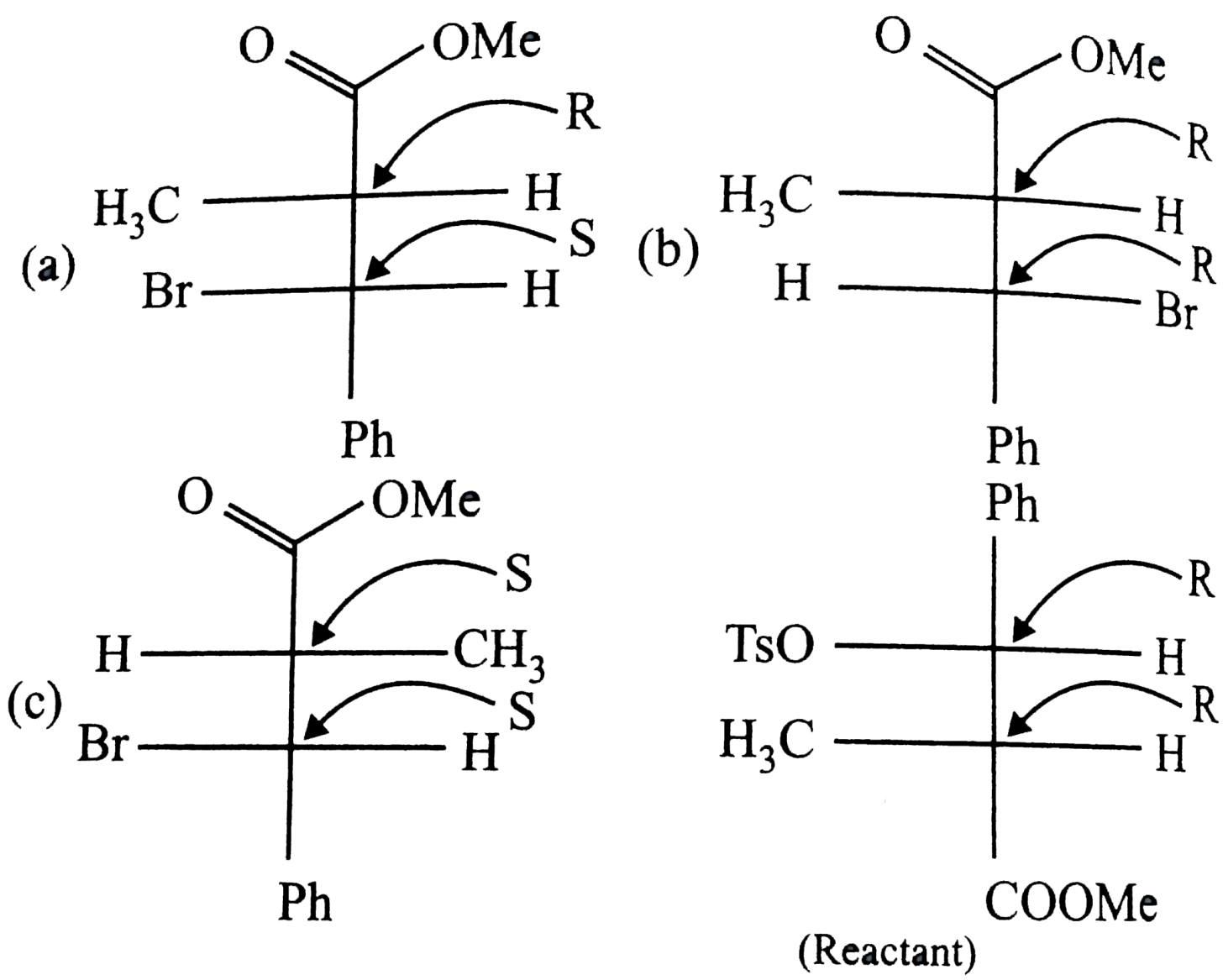
(D)


O
OMe
H
CH_3
(d)
H
Br
Ph

CORRECT ANSWER: C

SOLUTION:

In S_N2 there is complete inverstion



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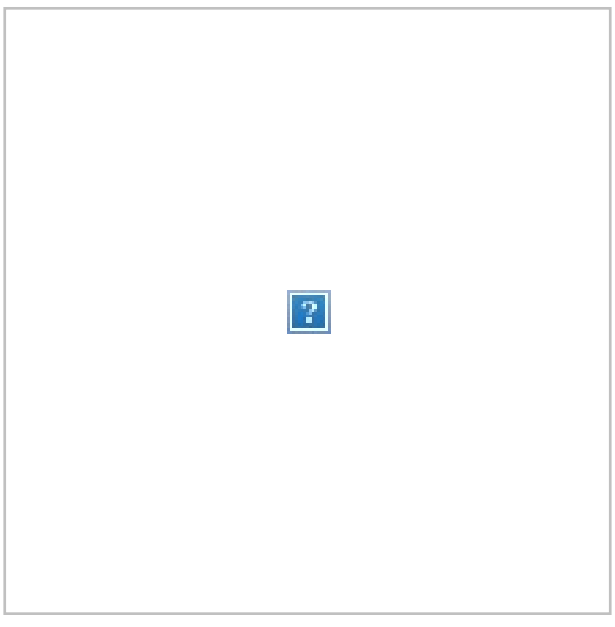
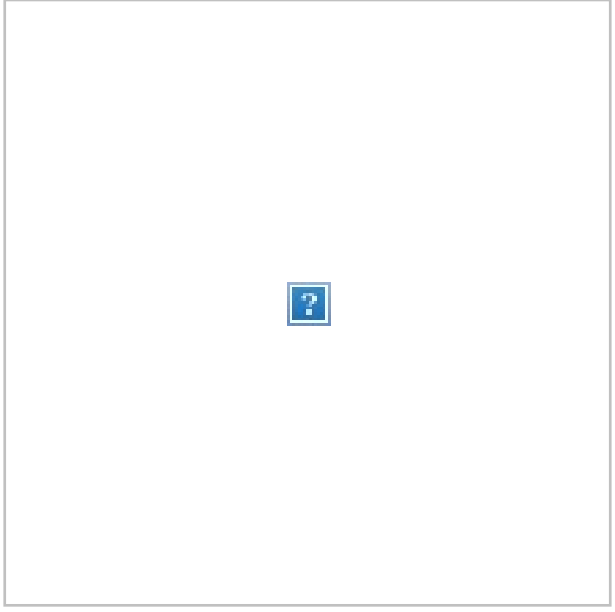
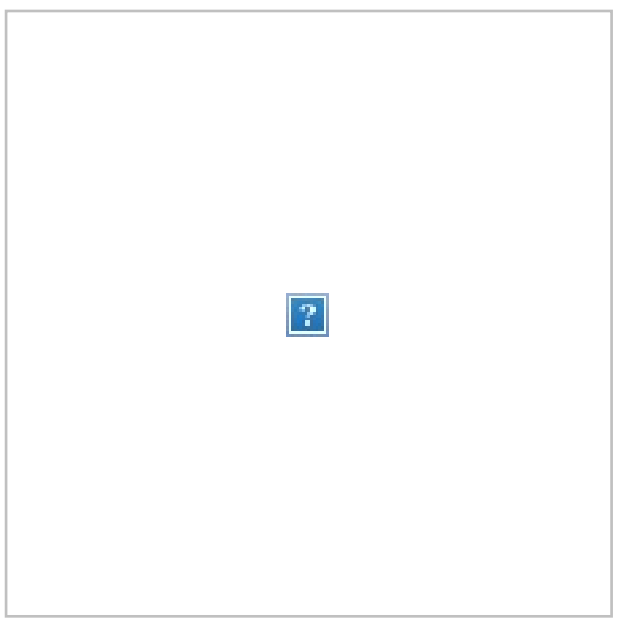
Q-9 - 12662055

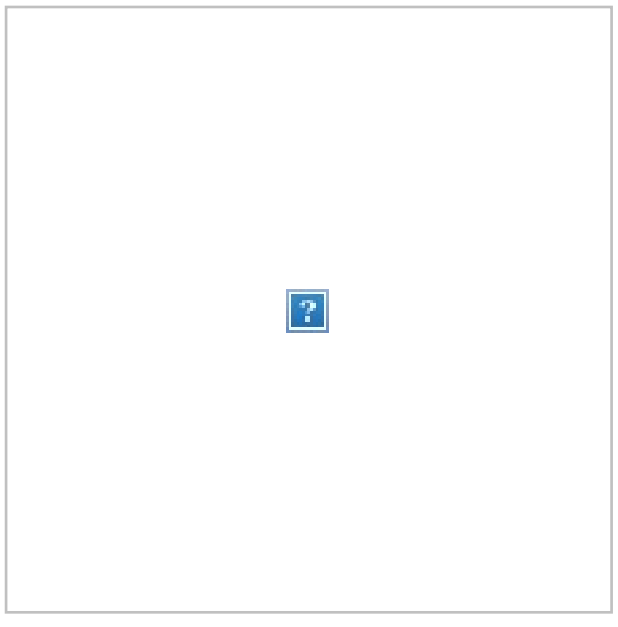
Which is the correct reaction coordinate diagram for the following solvolysis reaction ?.



(A)

(B) 

(C) 

(D) 

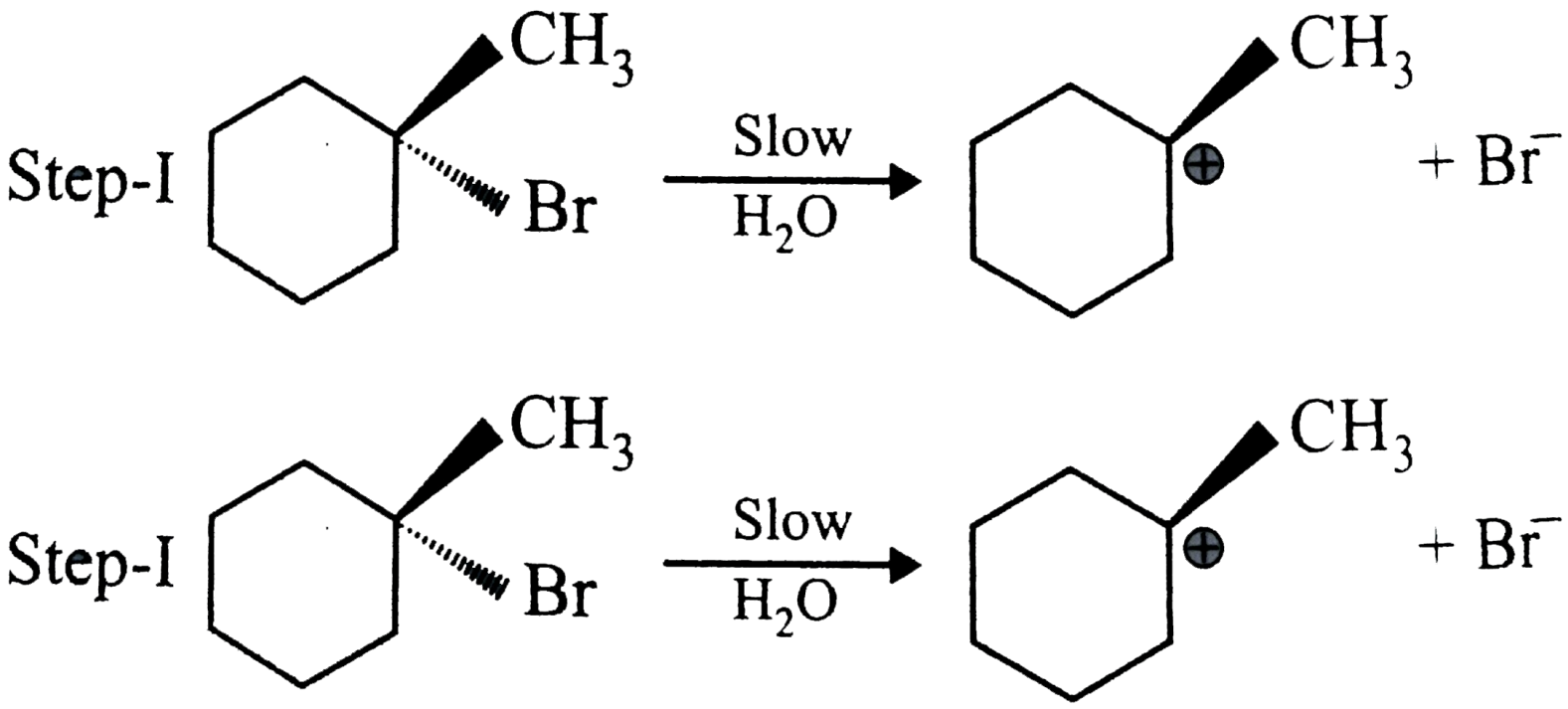
CORRECT ANSWER: B

SOLUTION:

Highly endothermic so has high ΔG of activation

3 carbocation is stabilised by H_2O

This S_N1 reaction has three transition states and two intermediates



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Q-10 - 12662062

Which one of following compounds undergoes EI reaction most readily?

(A)

$$CH_3 - \underset{\underset{Br}{|}}{\overset{\overset{CH_3}{|}}{C}} - CH_2 - CH_3$$

(B)

$CH_3\_CH_2-CH_2$

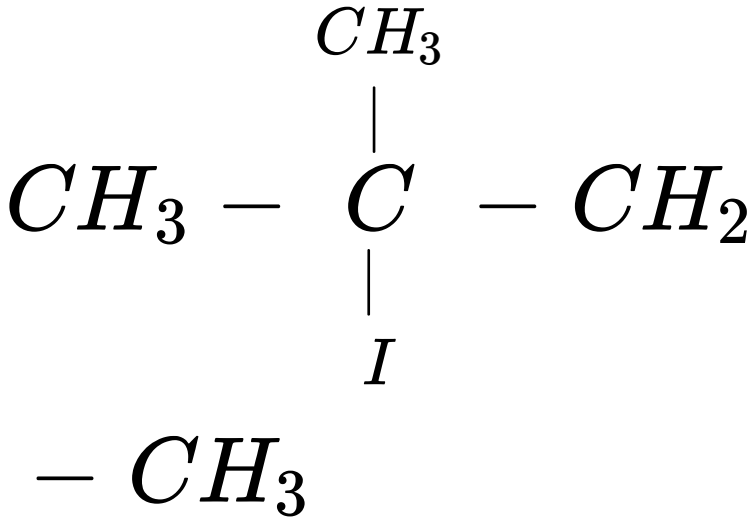
$-Br$

(C)

$CH_3-CH_2-CH_2$

$-I$

(D)



$CH_3-\underset{\underset{I}{|}}{\overset{\overset{CH_3}{|}}{C}}-CH_2$

$-CH_3$

CORRECT ANSWER: D

SOLUTION:

AC Cording to stability of carbocation and leaving ability of leaving group .

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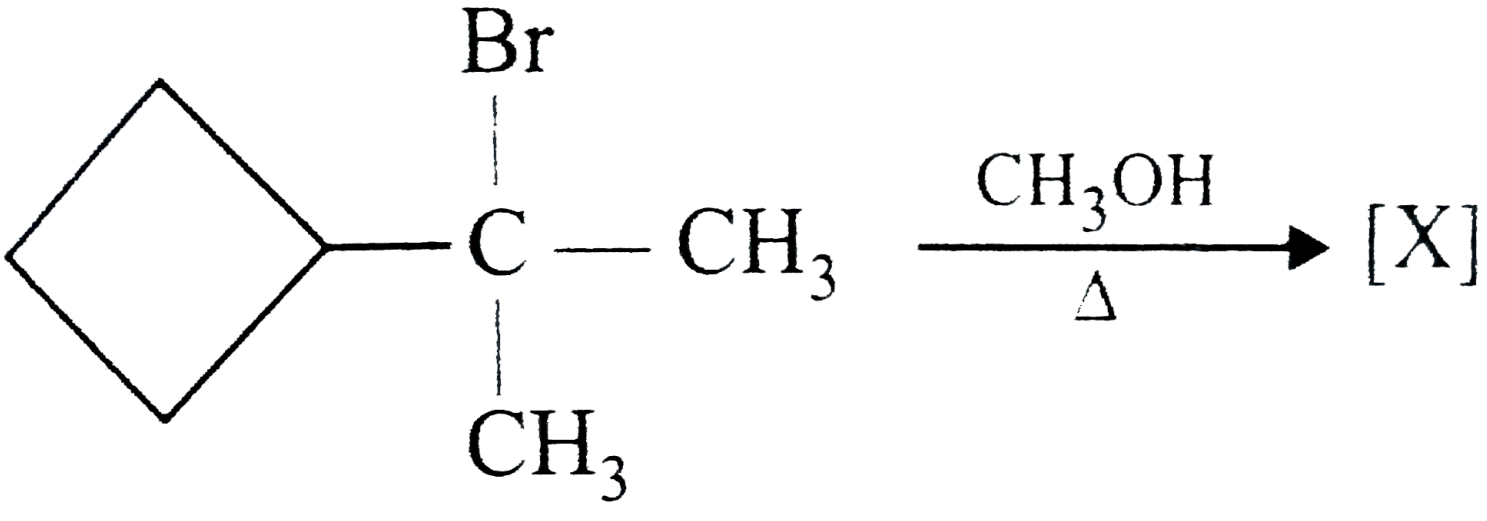
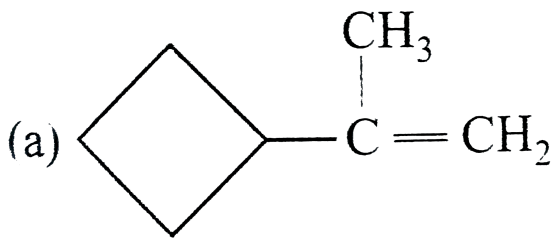
Q-11 - 12662069

In the given reaction

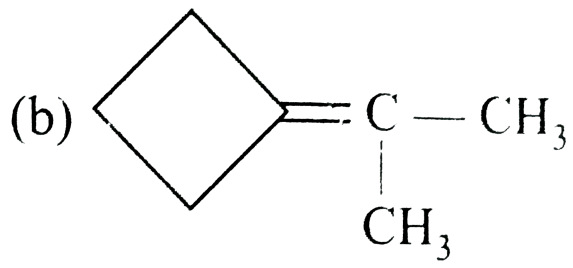
[X] as the major product among the elimination products is



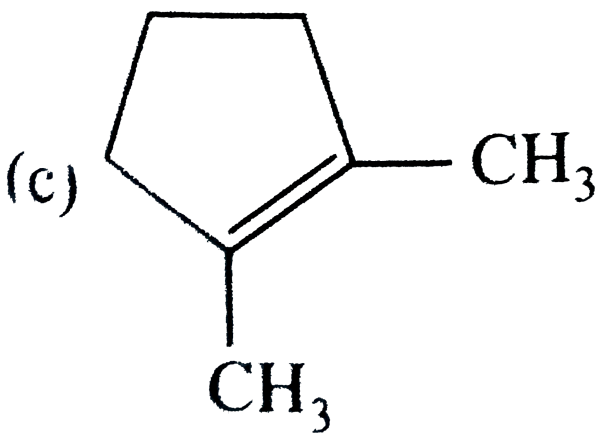
(A)



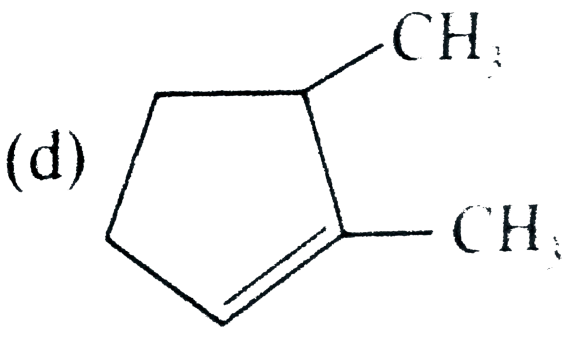
(B)



(C)

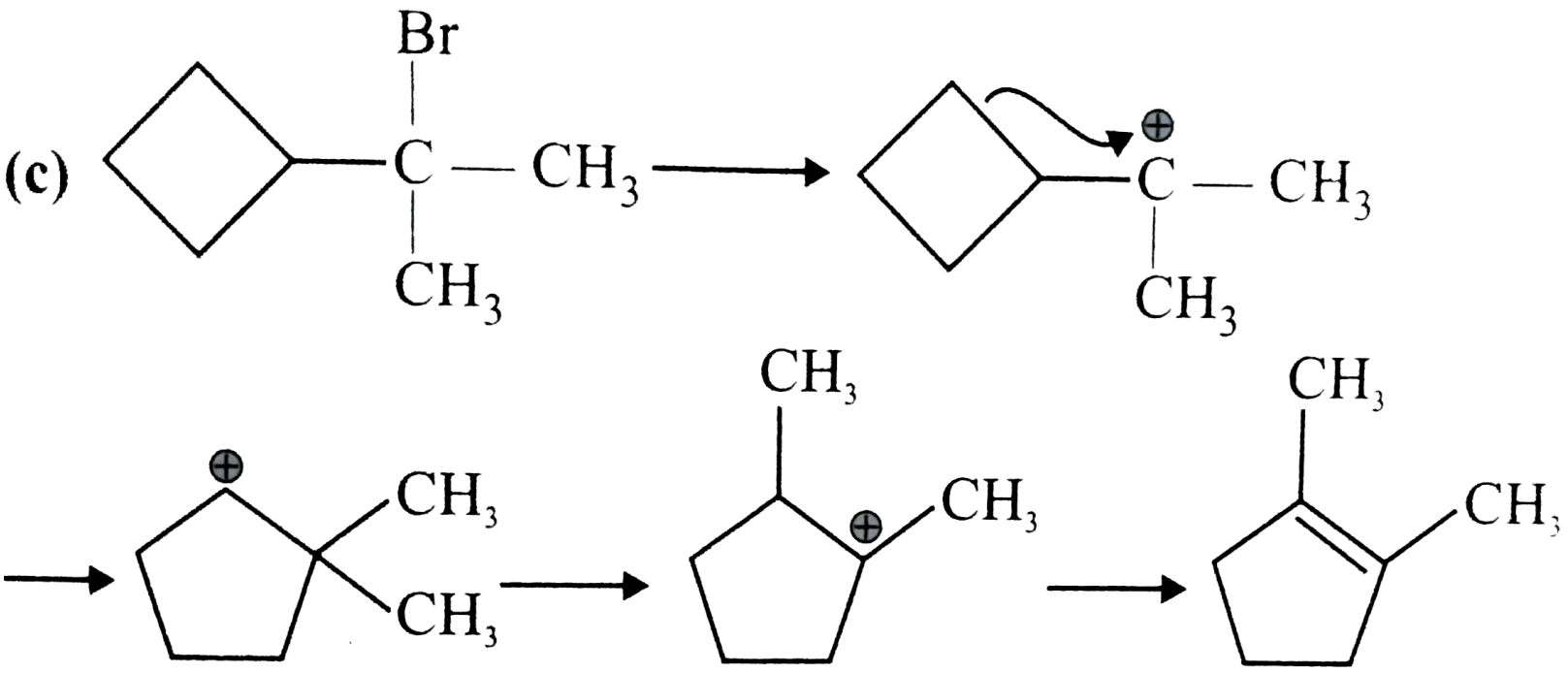


(D)



CORRECT ANSWER: C

SOLUTION:



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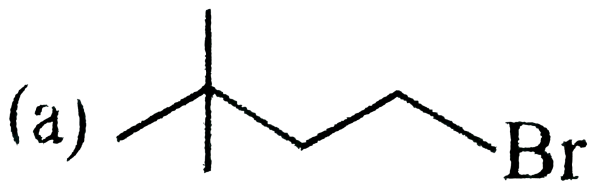
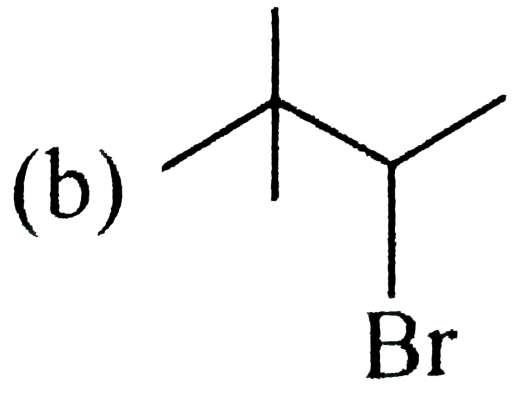
Q-12 - 12662071

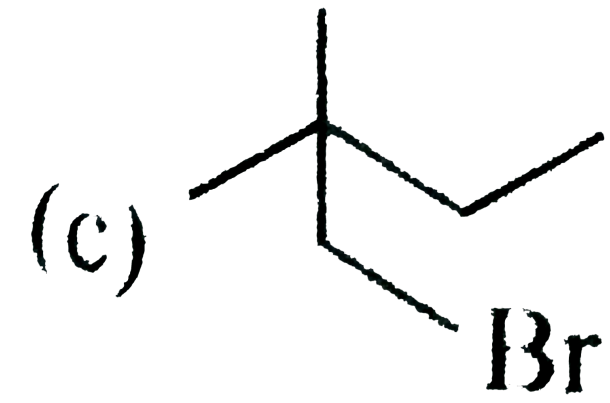
Which of the following cannot undergo $E2$ reaction ? .



(A) .



(B) .

(C) 

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(D) None of these

CORRECT ANSWER: C

SOLUTION:

Beta-Hydrogen is absent .

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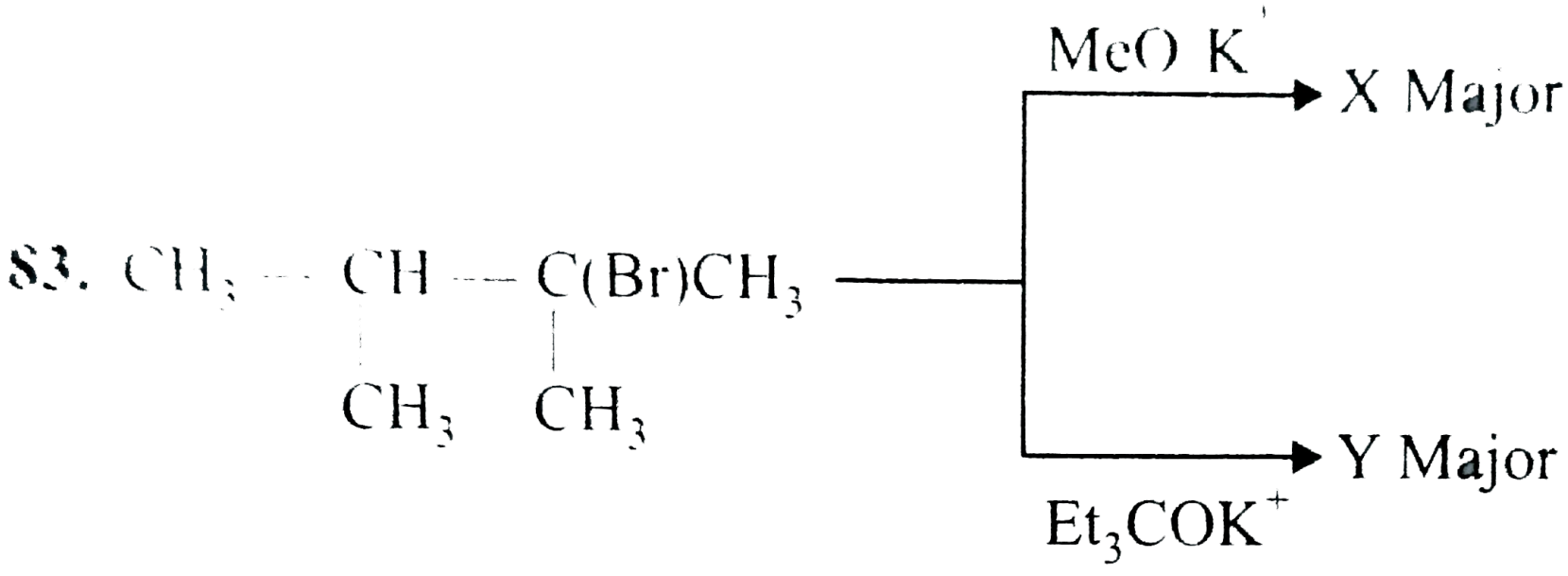
Q-13 - 12662078



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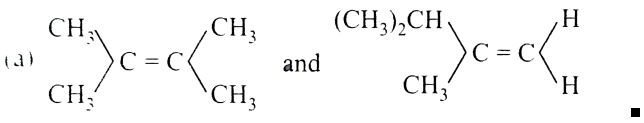
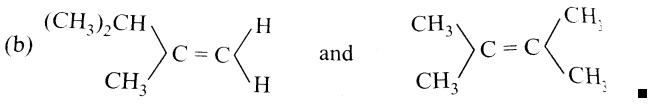
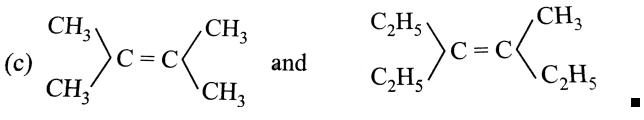
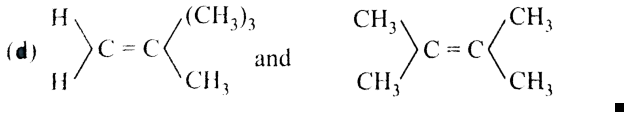
(A)  .

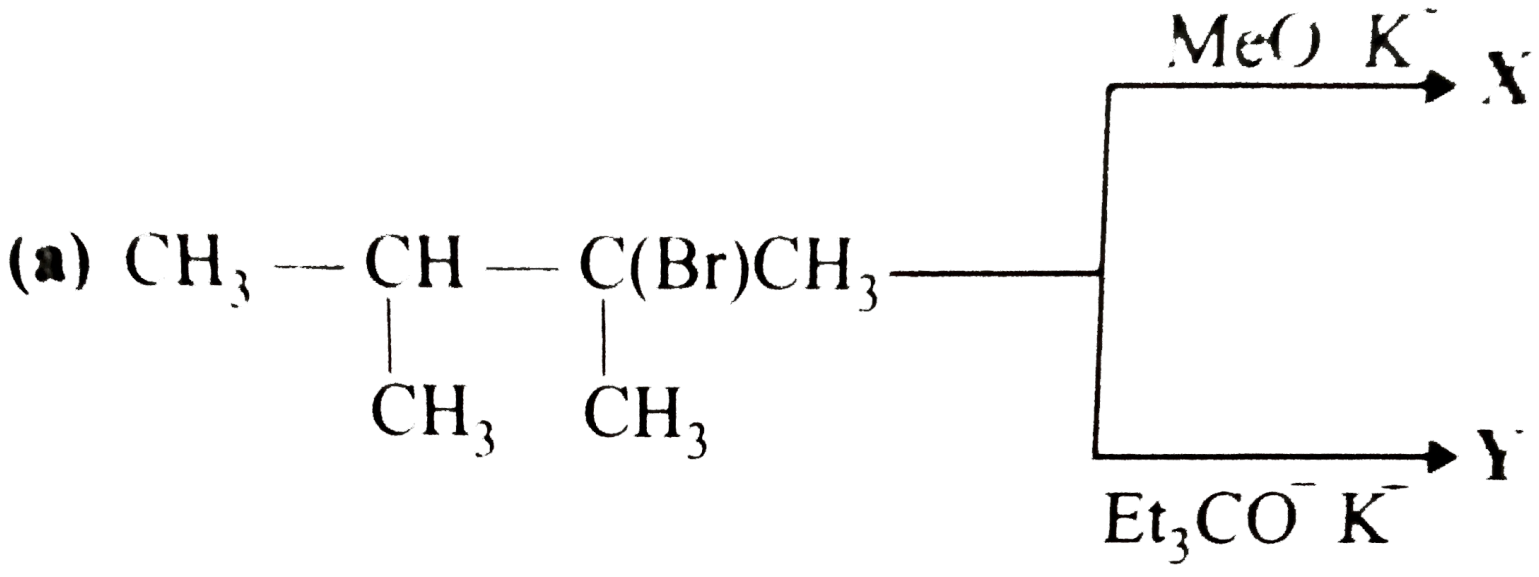
(B)  .

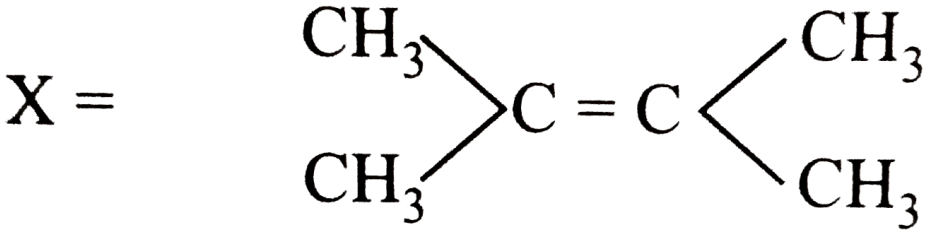
(C)  .

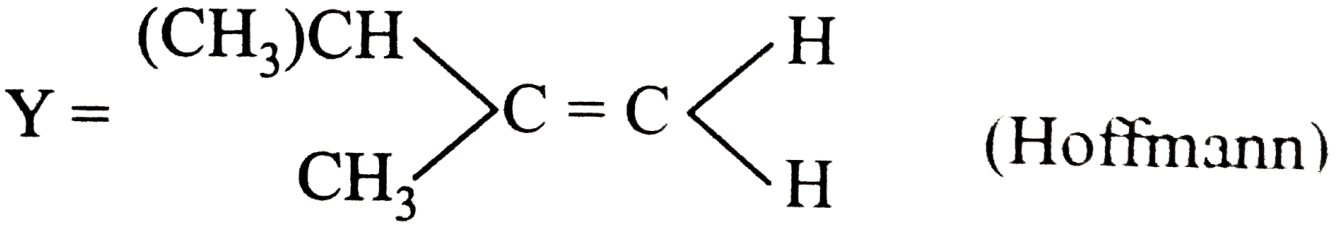
(D)  .

CORRECT ANSWER: A

SOLUTION:







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Q-14 - 12662086

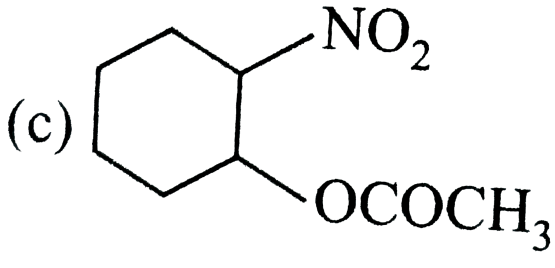
E_1 cB reaction is gives by which of the following

(A) $CF_3 - CHCI_2$

(B)

$C_6H_5 - \underset{\underset{NO_2}{|}}{C}\ H$

$- CH_2Br$

(C) 

.

(D) All of these

CORRECT ANSWER: D

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Q-15 - 12662094

The corrent order of $S_N2\,/\,E_2$ ratio for the $\%$ yield of product of the following halide is

(P) $CH_3-CH_2-\underset{\underset{I}{|}}{\overset{\overset{Ph}{|}}{C}}-CH_3$

(Q) $CH_3-\underset{\underset{Ph}{|}}{CH}-\underset{\underset{I}{|}}{CH}-CH_3$b

(R) CH_3-CH_2-I

(S) $CH_3CH-\underset{\underset{I}{|}}{CH}-CH_3$.

(A) $R>S>Q>P$

(B) $R>Q>S>P$

(C) $P>R>S>Q$

(D) $Q>P>R>S$

CORRECT ANSWER: A

SOLUTION:

Rate of SN_2 reaction $1 > 2 > 3$ as Beta- branching

increases

steric crowding increases in transition state so it makes

less stable transition state .

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Q-16 - 12662095

In Wurtz reaction alkyl halide react with

(A) Sodium in ether

(B) Sodium in dry ether

(C) Sodium only

(D) Alkyl halide in ether

CORRECT ANSWER: B

SOLUTION:

Alkyl halides give alkane when react with sodium in

ether This is called Wurtz reaction

$$R - CI + 2Na + R - CI \xrightarrow{ether} \underset{alkane}{R - R} + 2NaCI$$

.

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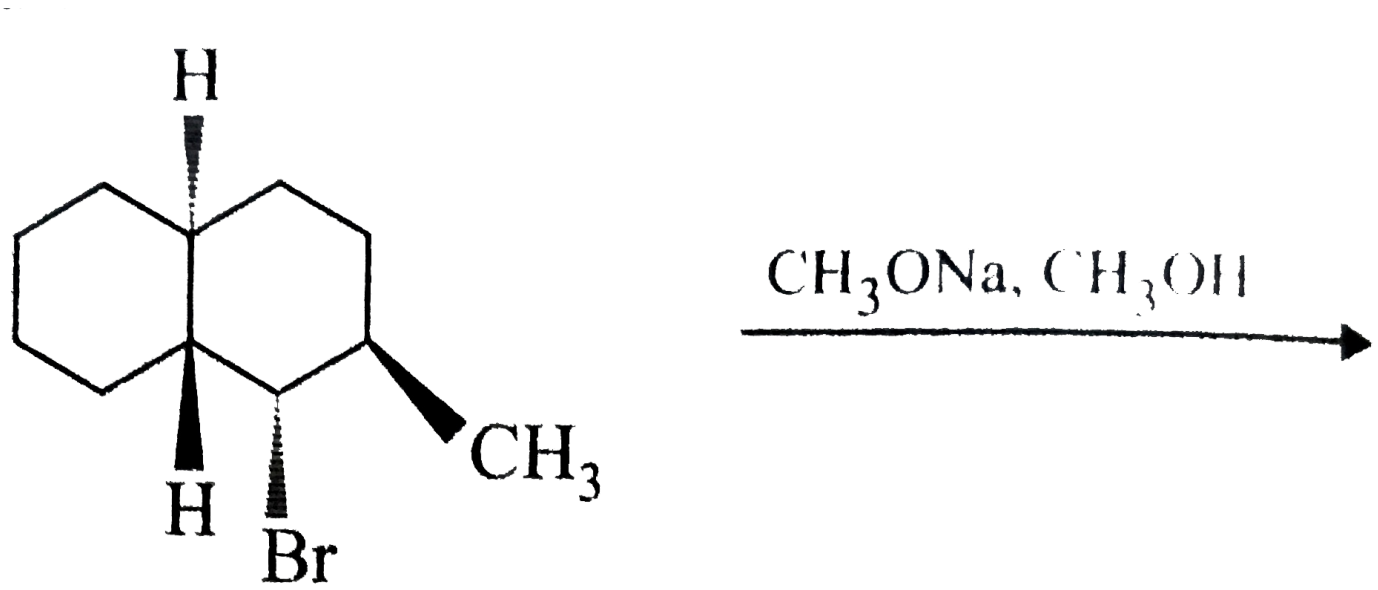
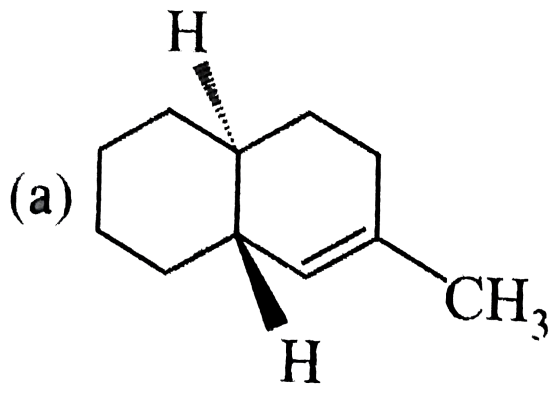
Q-17 - 12662098

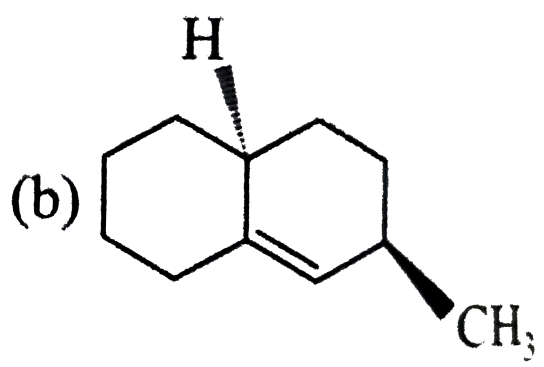
Provide the structure of the major organic product which results in the following reaction.



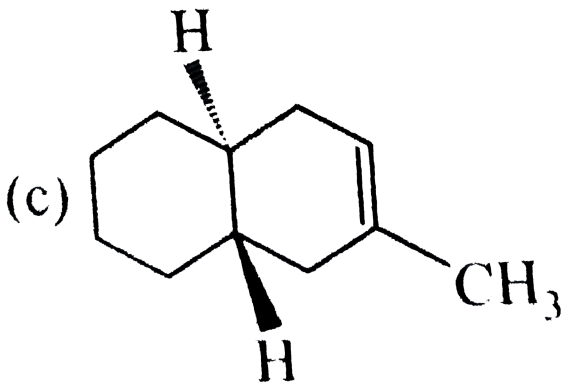
(A)



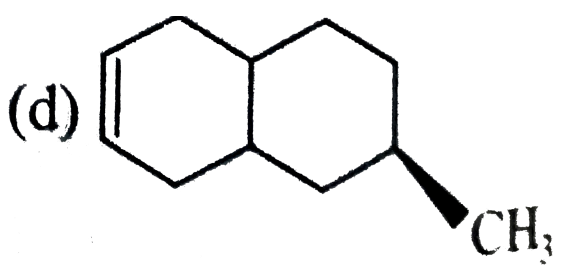
(B)



(C)



(D)



CORRECT ANSWER: B

SOLUTION:

$B\eta - H$ at the bridging carbon is anti to leaving group

lost in E_2 reaction .

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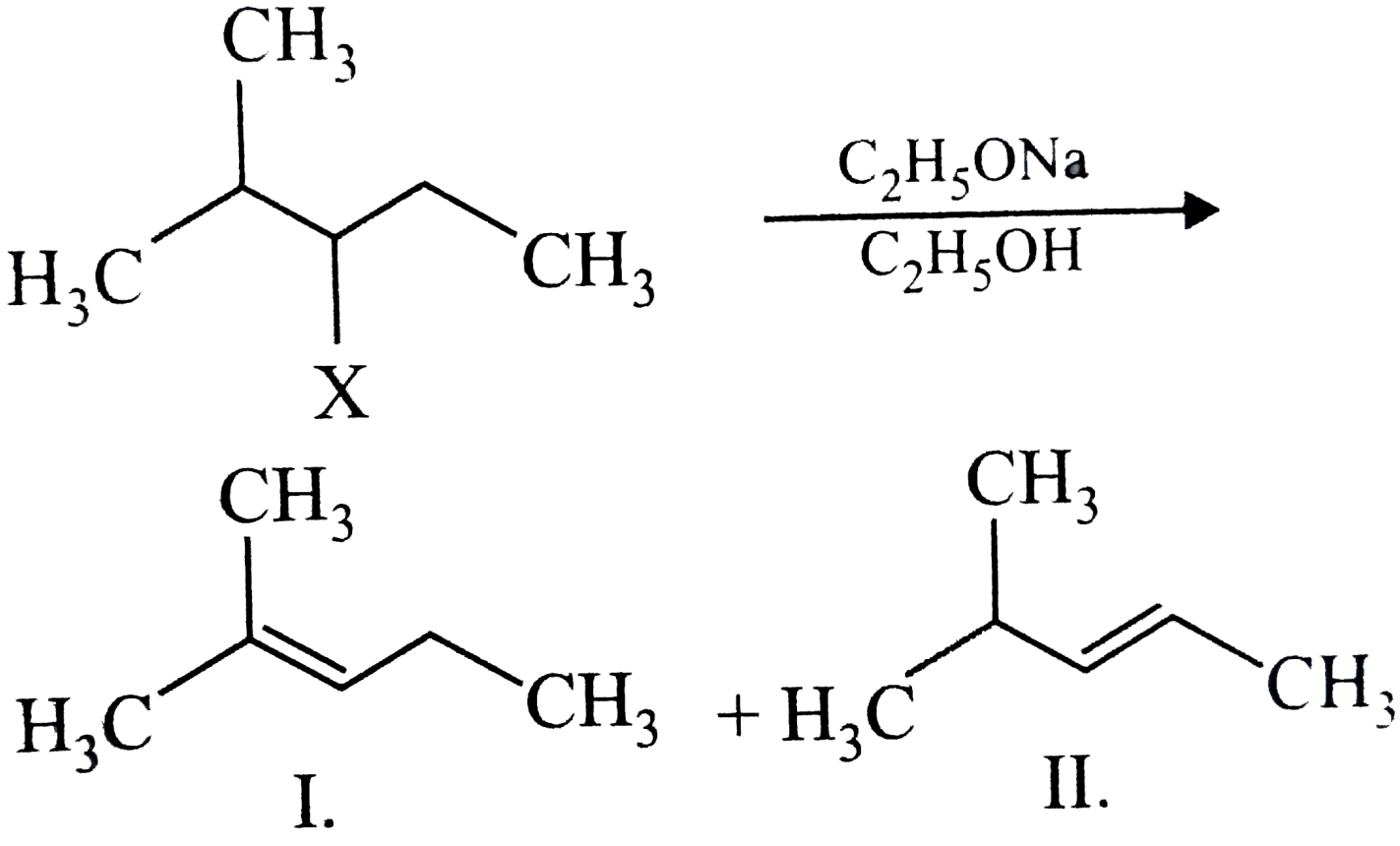
Q-18 - 12662110

In the reaction the given below

The incorrect statement concerning the above reation is are



(A) (I) is the major elimination product

(B) (II) is formed at faster rate than (I)

(C) (I) is formed at faster rate than (II)

(D) increasing order of reactivity with different X is

$F < CI < Br < I$.

CORRECT ANSWER: C

SOLUTION:

With ethoxide base most substituted alkene (I) is formed as the major product in the formation of (II) C_2H_5O takes proton from less hindered Beta -carbon hence less activation energy and greater rate of reaction althought stability of product determines it content at equilibrium Also since $E2$ reaction is an elementary reaction in which halogen leaves in the rate determining step iodide leaves most easily and fluoride with maximum difficulty .

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Q-19 - 12662113

Consider the following reaction and the product formed

$$A - CH_2 - \underset{\underset{Br}{|}}{CH} - CH_3$$

$$\xrightarrow[C_2H_5ONa]{C_2H_5OD} A - \overset{\overset{D}{|}}{C} = CH$$

$$- CH_3$$

.

One of various product

The most likely machanism of the above reaction is

(A) E_2

(B) E_1cb

(C) E_1

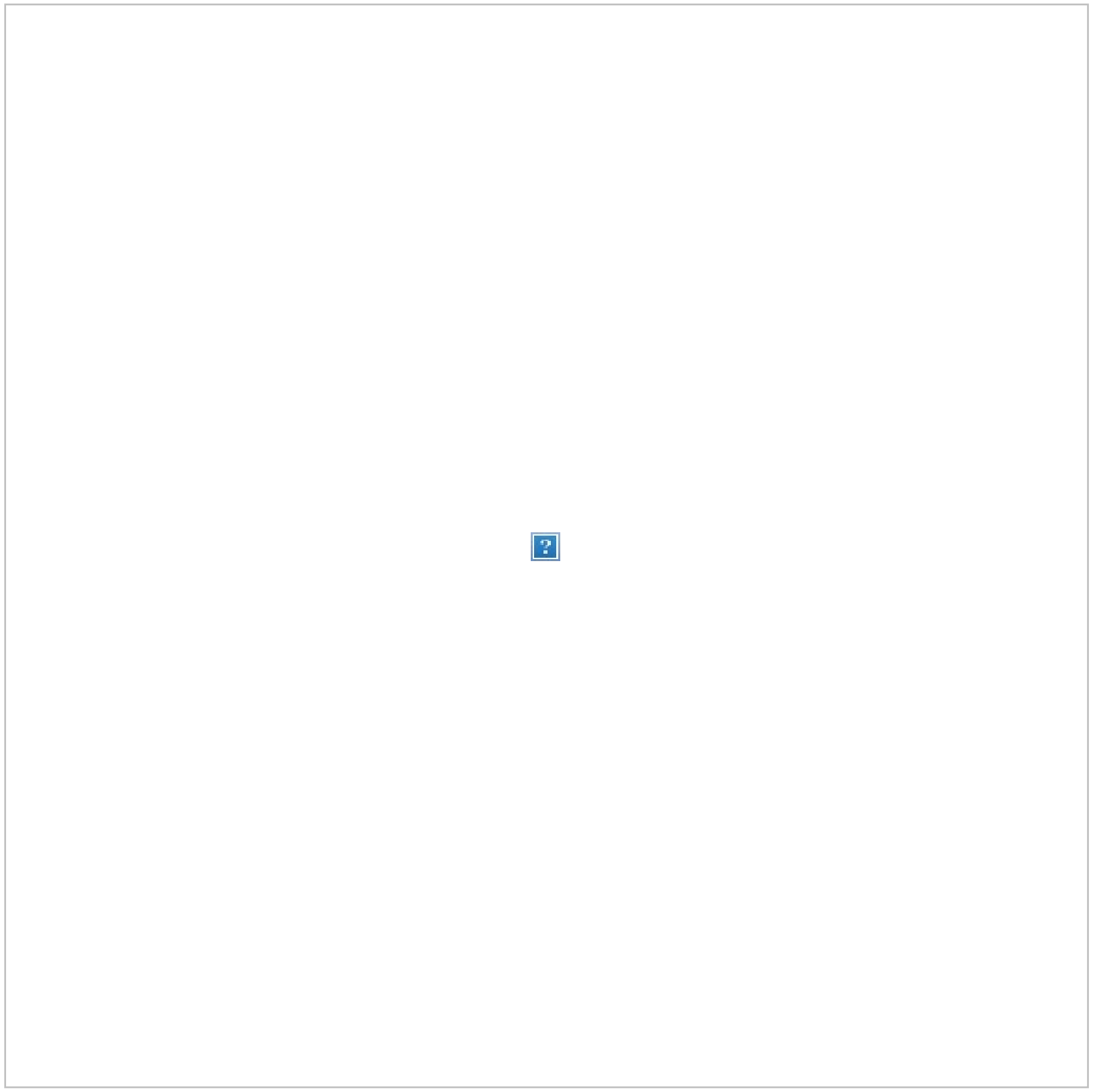
(D) E_2c

CORRECT ANSWER: B

SOLUTION:

Above equilibrium can explain the formation of given product hence reaction must proceed by $E1$ cb

mechanism



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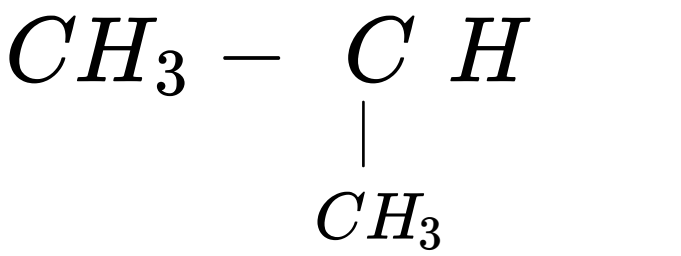
Q-20 - 12662128

Isobutyl magneisum bromide with dry ether and absolute alcohol

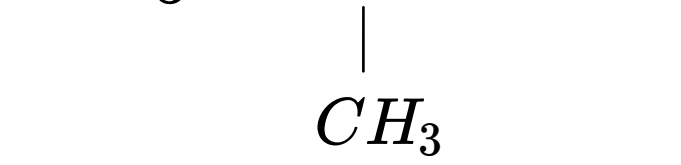
gives

(A)



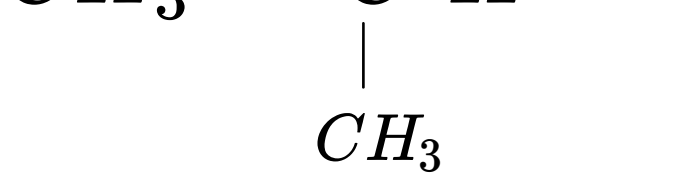
$-CH_2OH$ and CH_3CH_2MgBr

(B)



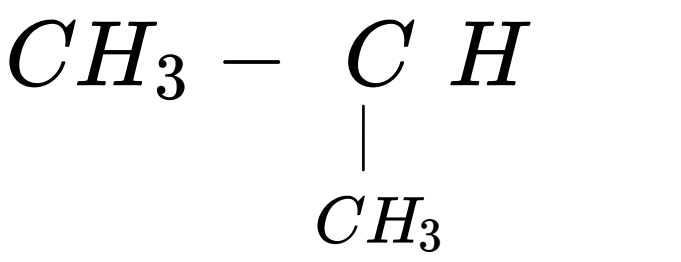
$-CH_3OH$ and $MgBr(OC_2H_5)$

(C)



$-CH_3OH$ and $Mg(OH)Br$

(D)



$-CH_3$ and CH_3CH_2OMgBr

CORRECT ANSWER: B

SOLUTION:

$$(CH_3)_2CHCH_2MgBr$$
$$\xrightarrow{C_2H_5OH} (CH_3)_2CHCH_3$$
$$+ C_2H_5O$$

MgBr as R of Grignard s reagent will take proton and

from alkene .

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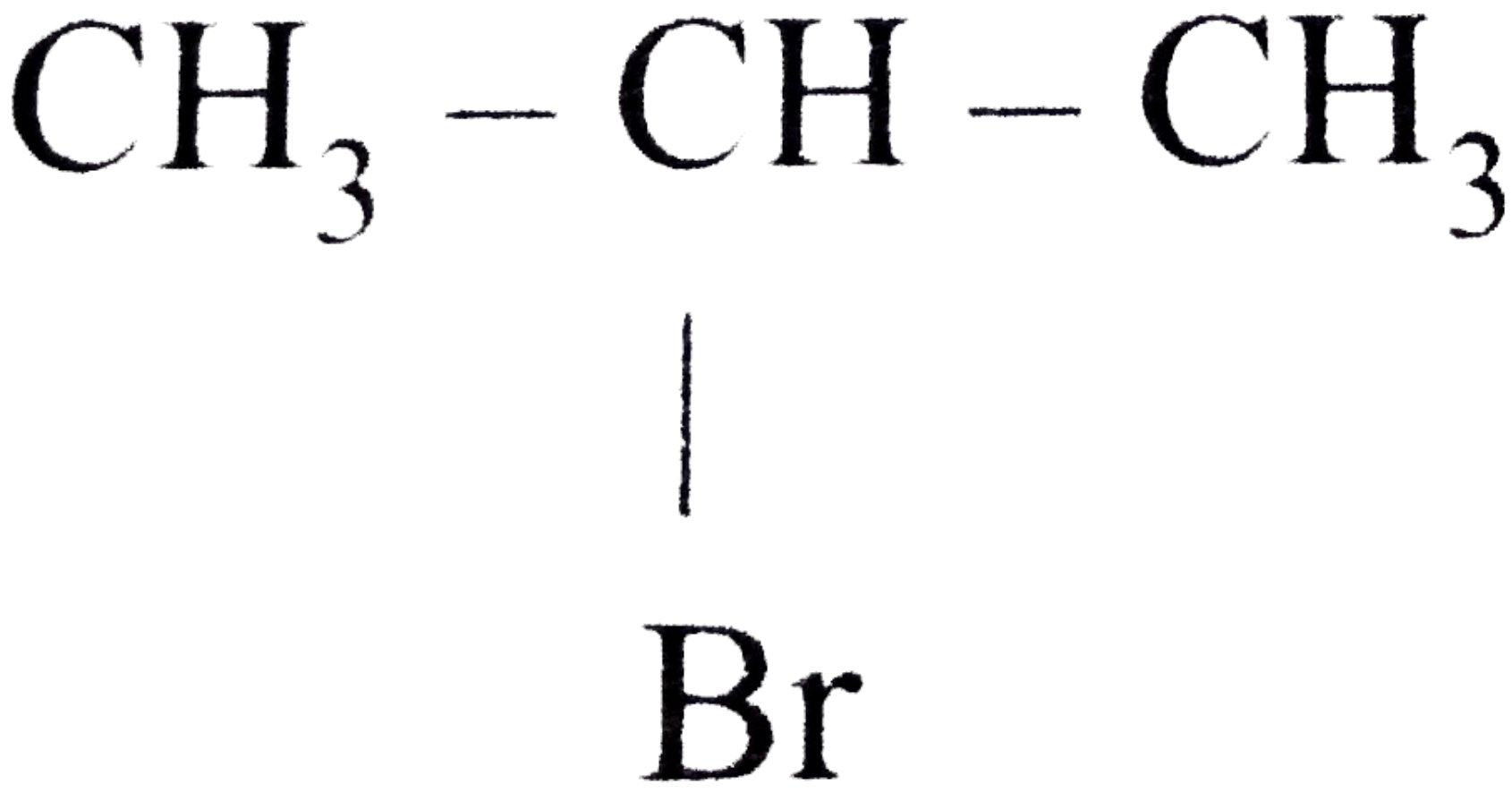
Q-21 - 12662131

Identify the set of reagents / reaction conditions $'X'$ and $'Y'$ in

the following set of transformations.

$$CH_3 - CH_2CH_2Br$$
$$\xrightarrow{X} Product \xrightarrow{Y}$$



(A) X =dilute aqueous $NaOH, 20^\circ C, Y = HB /$ acetic acid $20^\circ C$.

(B) $X =$ concentrated alcoholic $NaOH, 80^\circ C, Y = HBr /$ acetic acid, $20^\circ C$.

(C) $X =$ dilute aqueous Na $OH, 20^\circ C, Y = Br_2 / CHCI_3, 0^\circ C$.

(D) $X =$ concentrated alcoholic

$NaOH, 80^{\circ}C, Y$

$= Br_2/CHCI_3$

.

CORRECT ANSWER: B

SOLUTION:

Dehydrobromination by strong base (alcNaOH) followed by Markownikoff addition of HBr Dil bas carries out substitution Strong base at high temperature favours elimination .

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Q-22 - 12662132

How many structures for *F* are possible

.

(A) 2

(B) 5

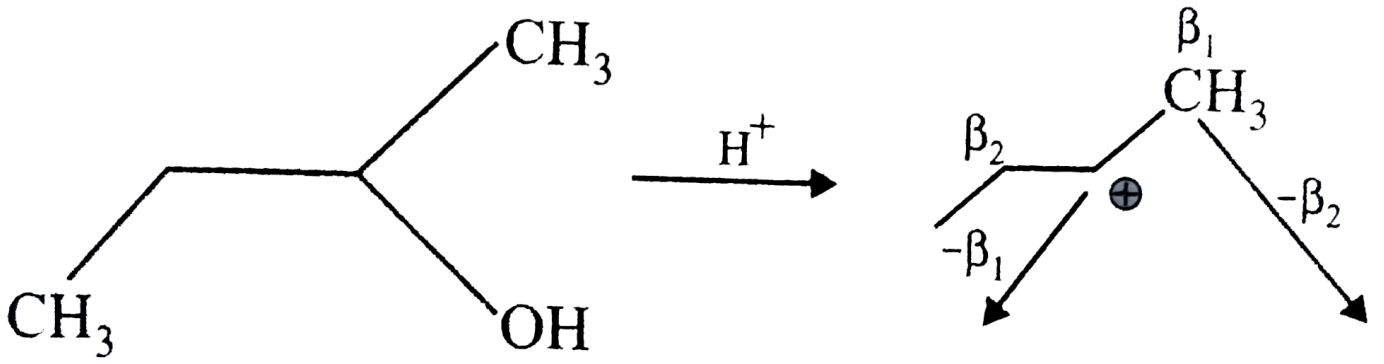
(C) 6

(D) 3

CORRECT ANSWER: D

SOLUTION:

So F can have three possible structures



$$CH_3CH_2CH = CH_2 + CH_3CH = CHCH_3$$

Butene-1 — Butene-2 (*cis* and *trans*)

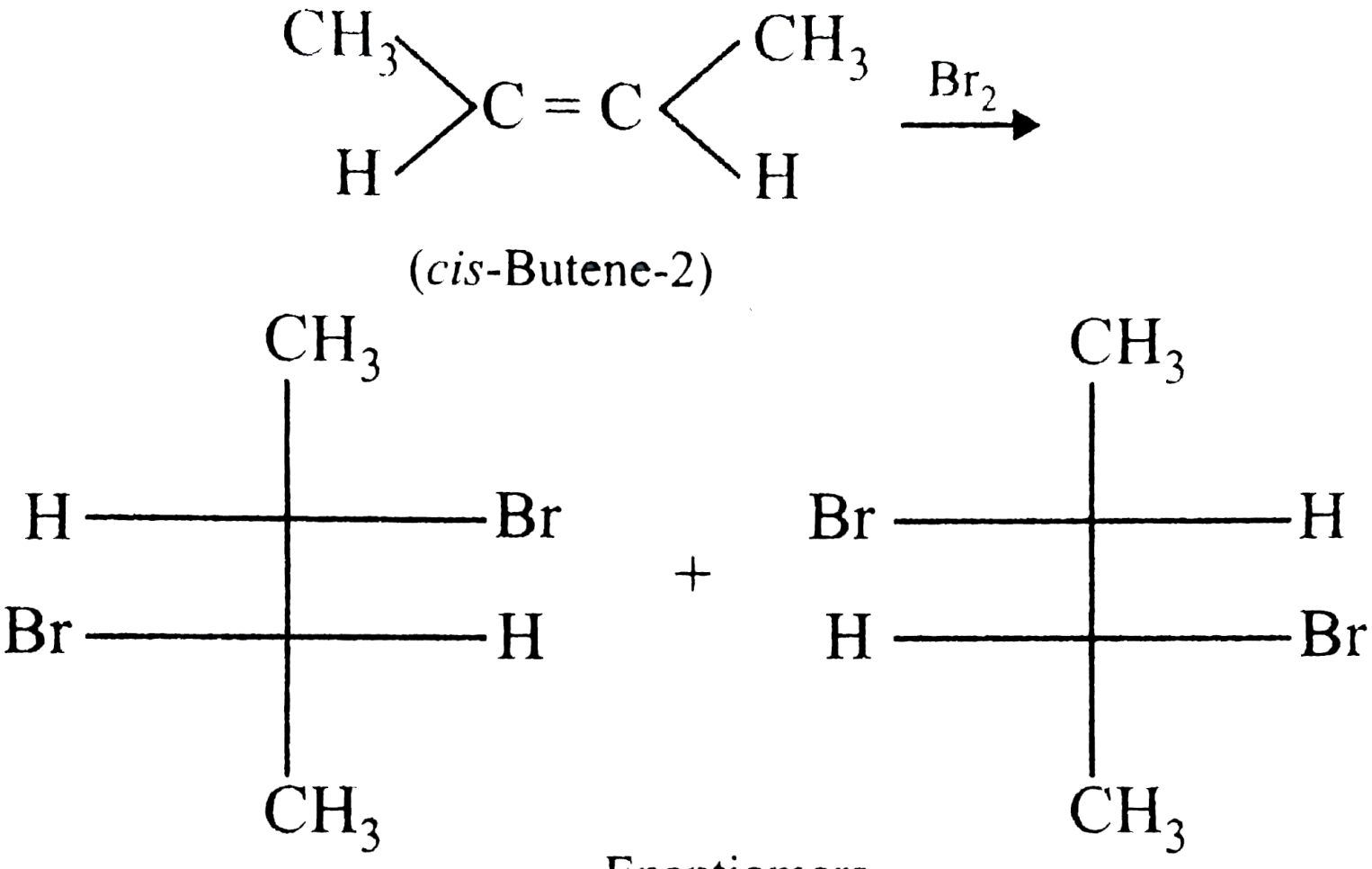
F

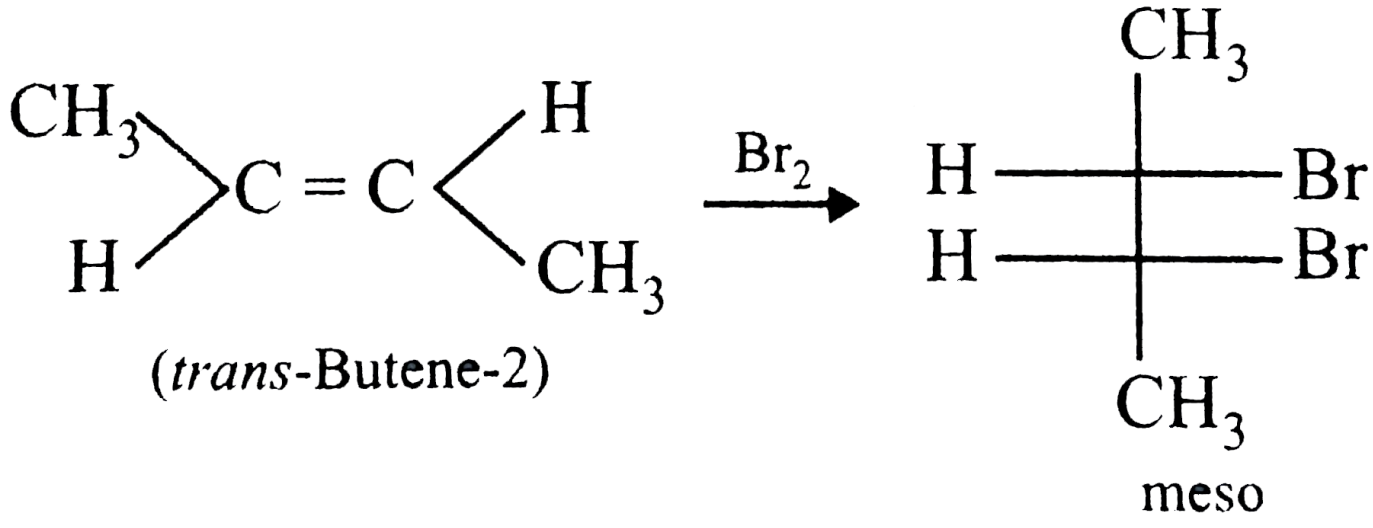
$$CH_3CH_2CH = CH_2 \xrightarrow{Br_2} CH_3CH_2\overset{*}{C}HCH_2Br$$

Butene-1

Br

(+) – an (–) enantiomer





So F can have three possible structures.

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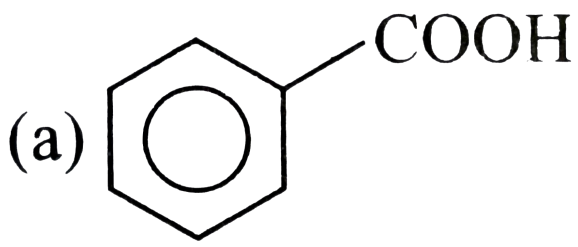
Q-23 - 12662147

Toluene reacts with excess of CI_2 in presence of sunlight to give a product which on hydrolysis followed by reaction with $NaOH$ gives .

(A) (a) 

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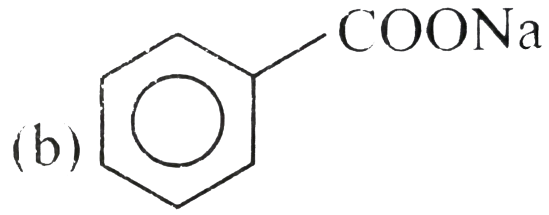
(B) (b) 

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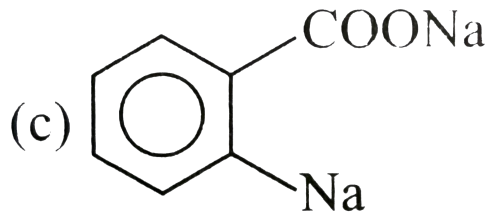
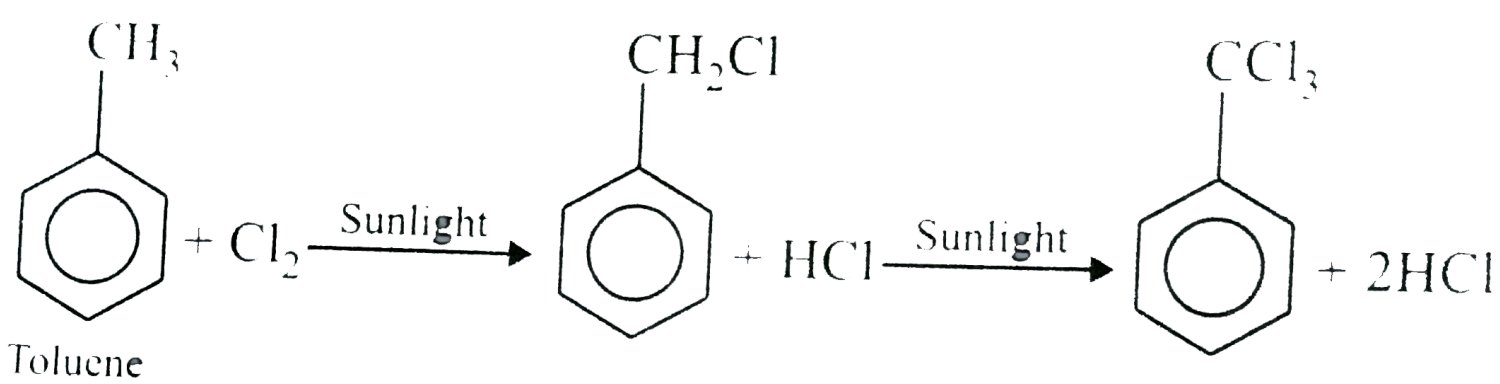
(C) (c) 

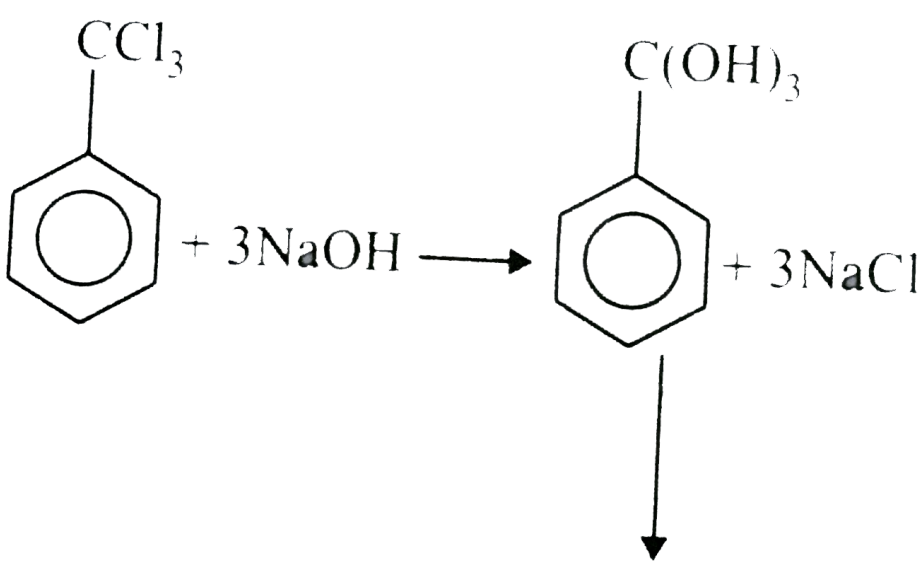
.

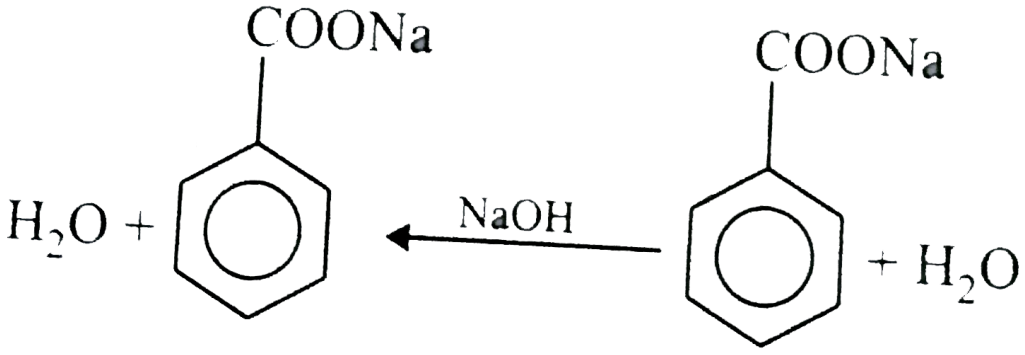
(D) None of these

CORRECT ANSWER: B

SOLUTION:







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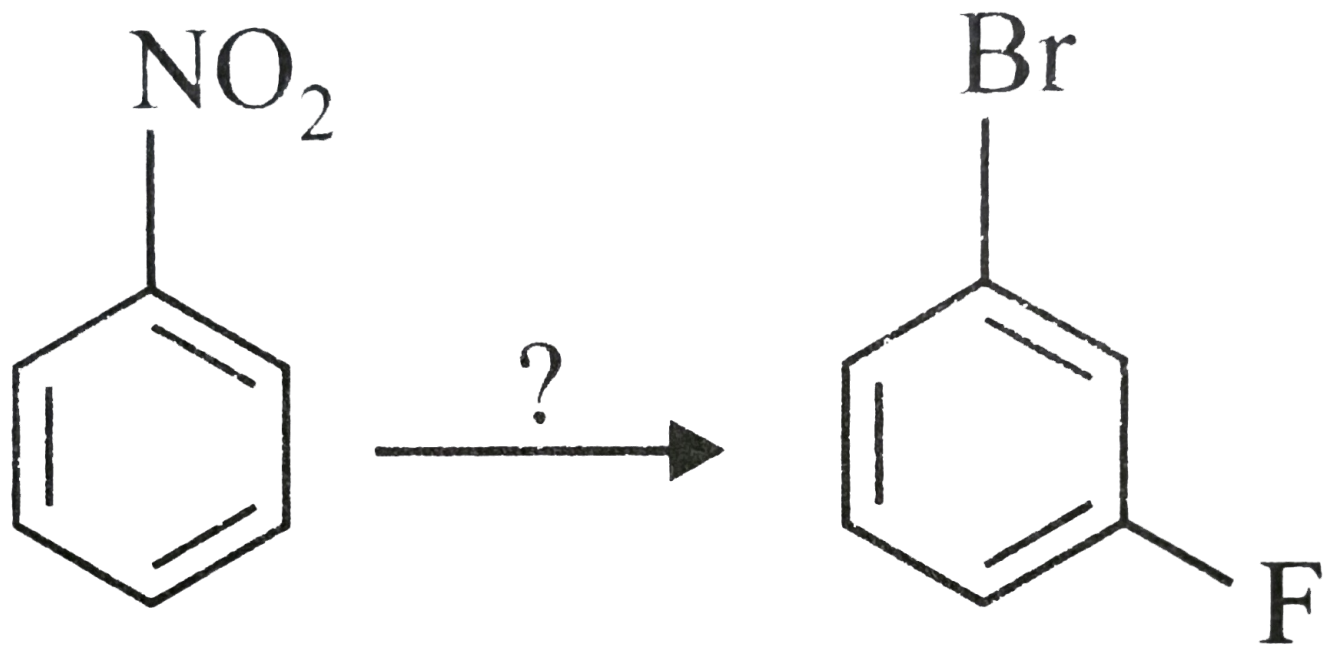
Q-24 - 12662148

Which of the following will best convert nitobenzene into 3-

fluorobromobenzene



(A)

$F_2 / AICI_3, Zn / HCI,$
$NaNO_2 / HCI$
$-0^\circ C, CuBr$

.

(B)

$SnCI_2 / Hci, Br$
$/ FeBr_2, NaNO_2$
$/ HBF_4 - 0^\circ C, heat$

.

(C)

$SnCI_2 / HCI, NaNO_2$
$/ HBF_4 - 0^\circ C, heat,$
$Br_2 / FeBr_3$

.

(D)

$Br_2 / FeBr_3 SnCI_2$

$/ HCI, NaNO_2$

$/ HBF_4)^\circ C, heat$

.

CORRECT ANSWER: D

SOLUTION:

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Q-25 - 12662160

An aromatic compound of molecular formula $C_6H_4Br_2$ was nitreated then three isomers of formual $C_6H_3Br_2NO_2$ were obtained The original compound is .

(A) o-dibromobenzene

(B) m-dibromobenzene

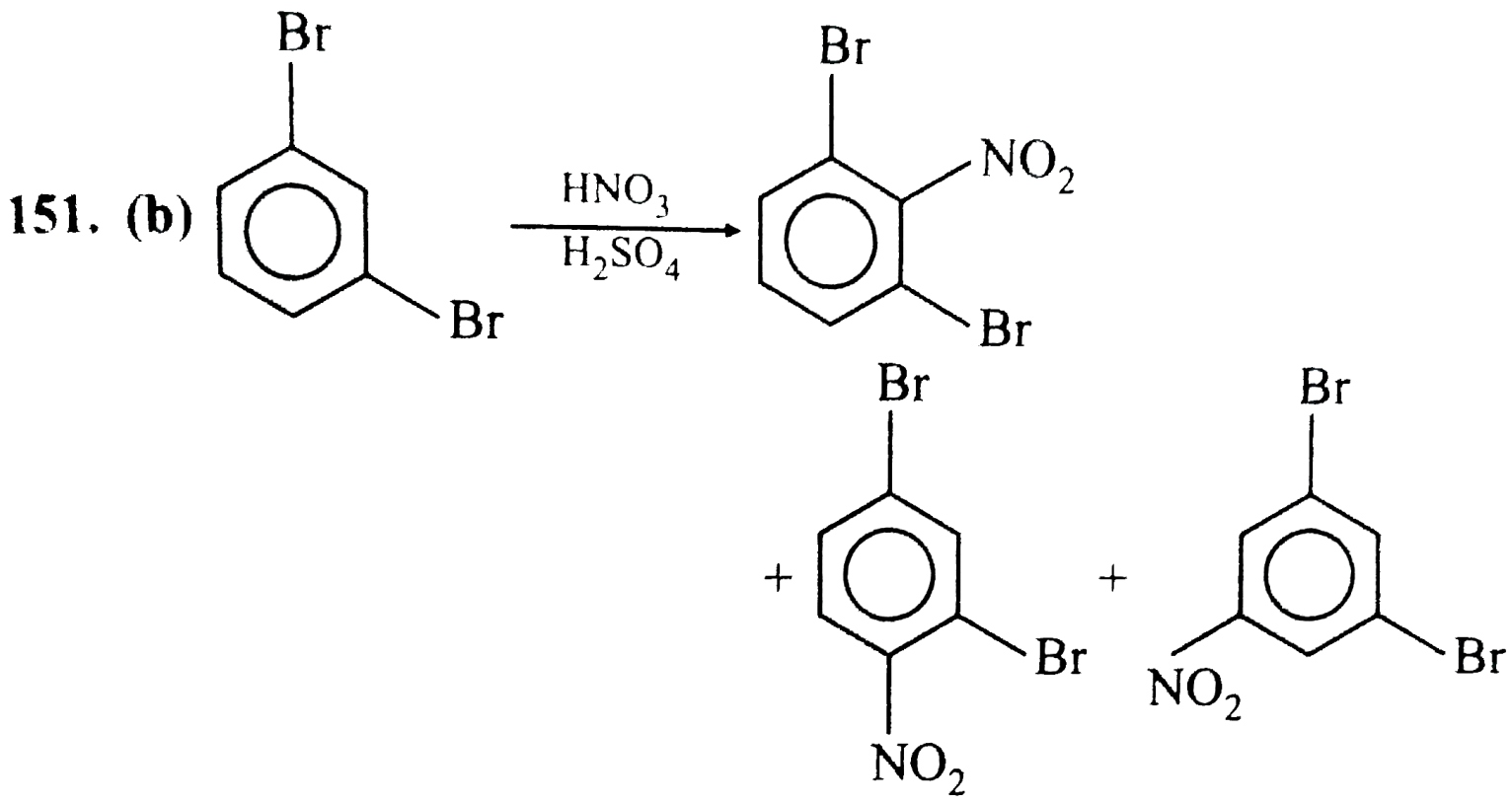
(C) p-dibromobenzene

(D) Both a and c

CORRECT ANSWER: B

SOLUTION:

151. (b)



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Q-26 - 12662162

Which of the following is `Wurtz-Fitting reaction?

(A)

$$C_6H_5I + 2Na + ICH_3 \rightarrow C_6H_5 - CH_3 + 2NaI$$

(B)

$$C_6H_5I + Cu + IC_6H_5 \rightarrow C_6H_5 - C_6H_5 + CuI_2$$

(C)

$$CH_3I + 2Na + ICH_3 \rightarrow CH_3 - CH_3 - CH_3 + 2NaI$$

(D) none of the above

CORRECT ANSWER: A

SOLUTION:

$$C_6H_5I + 2Na + ICH_3 \rightarrow C_6H_5 - CH_3$$

This reaction is a Wurtz -Fitting reaction .

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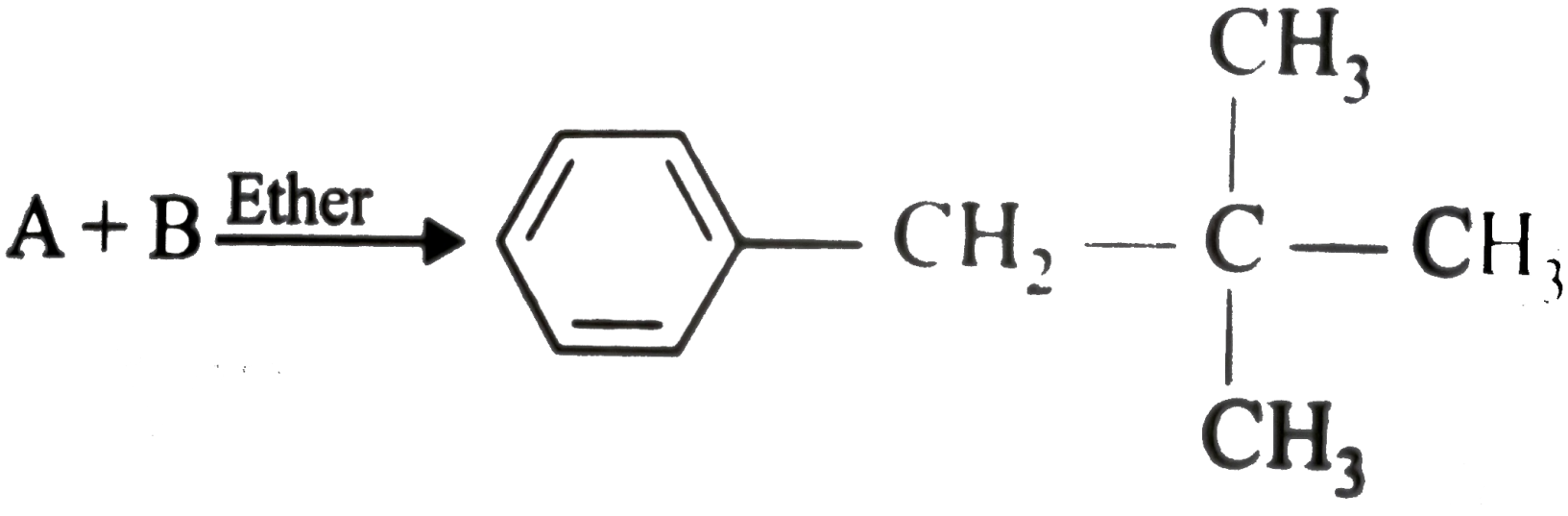
Q-27 - 12662163

The best yield of given product can be obtained by using which set of reactants A and B respectively



(A) `phLi+Neopentylchloride

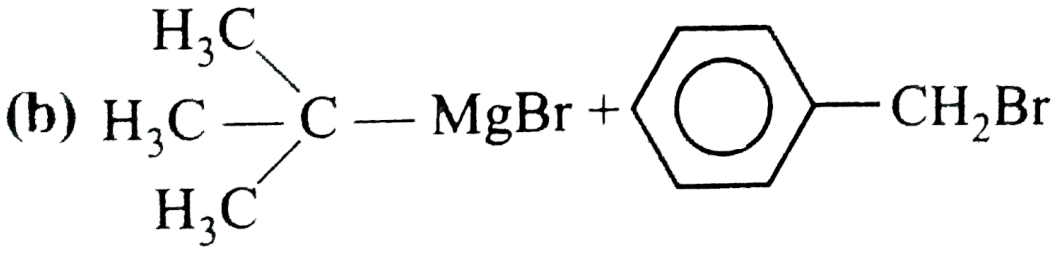
(B) t-Bu-MgBr+Benzylbromide

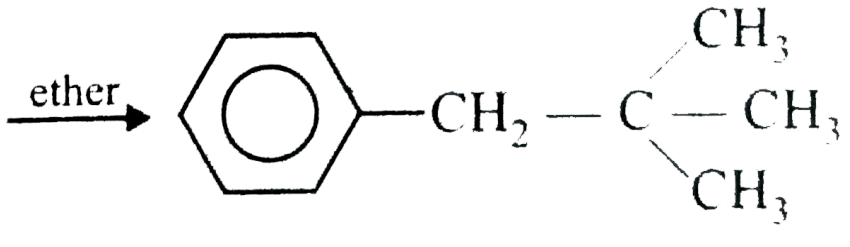
(C) PhMgBr+Neopenty bromide

(D) Benzylchloride+t-Butylchloride

CORRECT ANSWER: B

SOLUTION:





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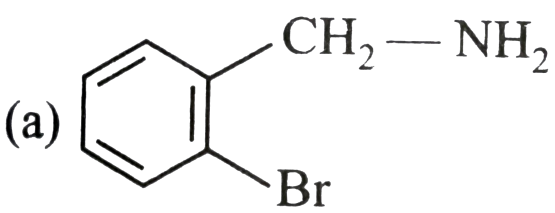
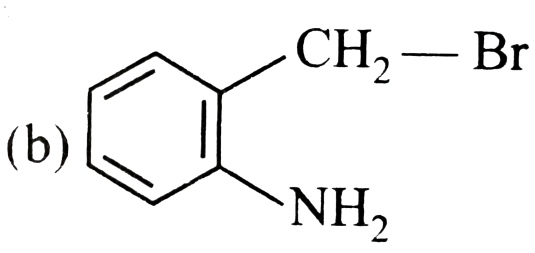
Q-28 - 12662164

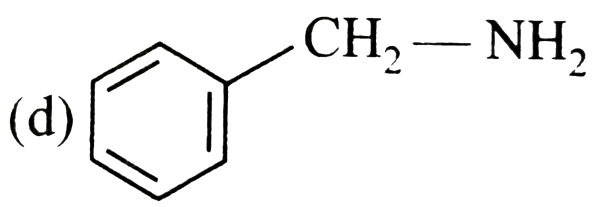
What is the major product obtained in the following

(A)



(B) 

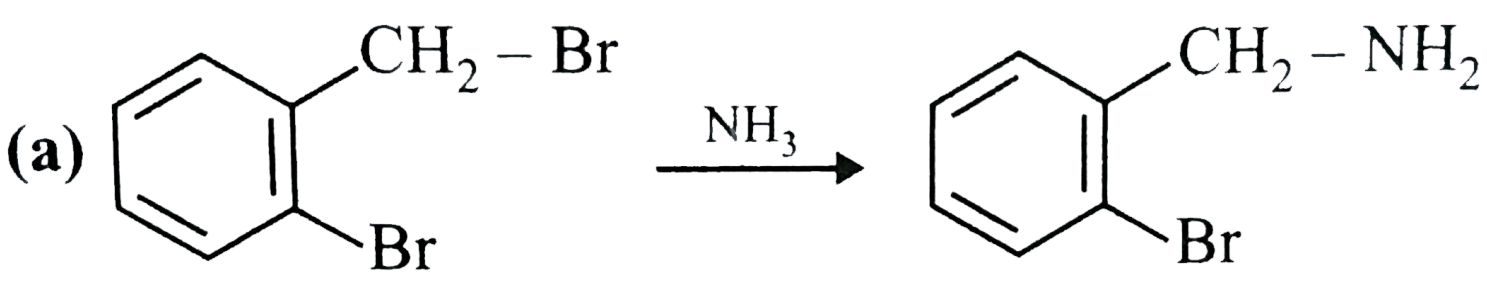
(C)

(D) 

CORRECT ANSWER: A

SOLUTION:

Beacause aromatic halides do not give S_N reaction in normal condition



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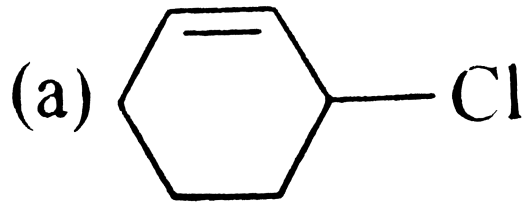
Q-29 - 12662168

Which will give white ppt.with $AgNO_3$?

(A) 

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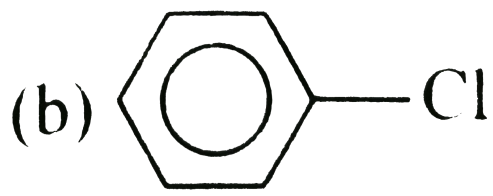
(B) 

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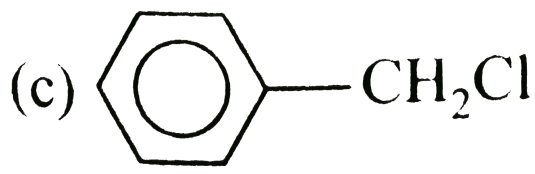
(C) 

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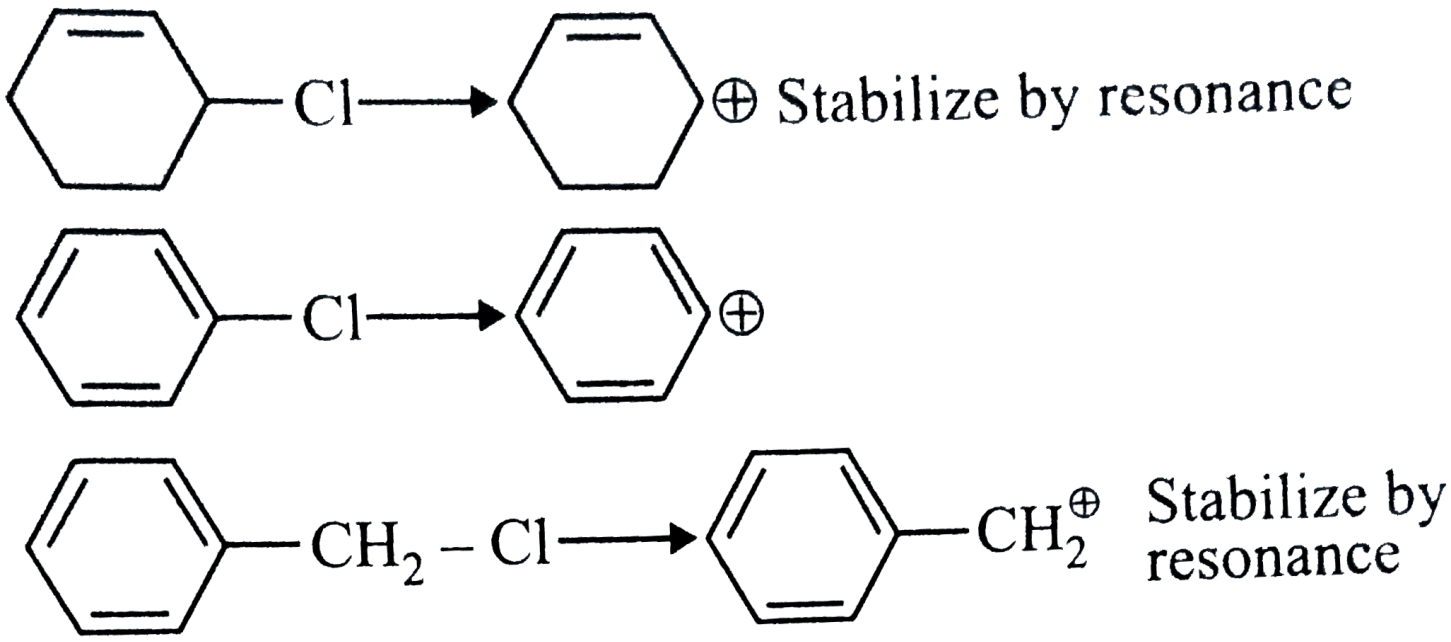
(D) Both (a) and (c)

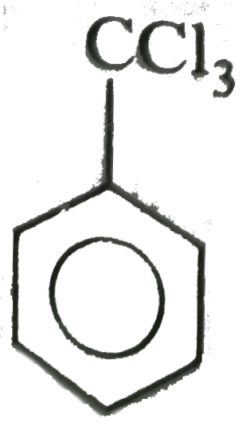
CORRECT ANSWER: D

SOLUTION:

Those organic halide give ppt with $AgNO_3$ when forms stable carbocation

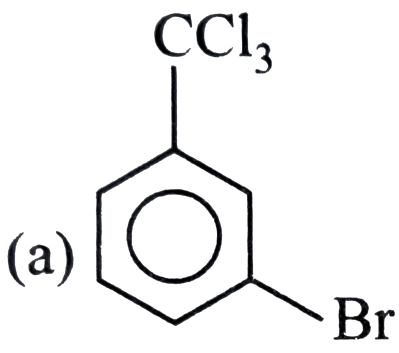


Q-30 - 12662171

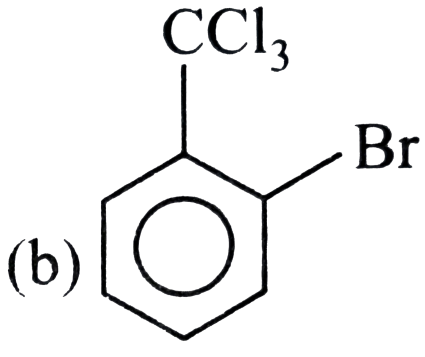


1 eqv. of Br_2/Fe → *A*. Compounds *A* is

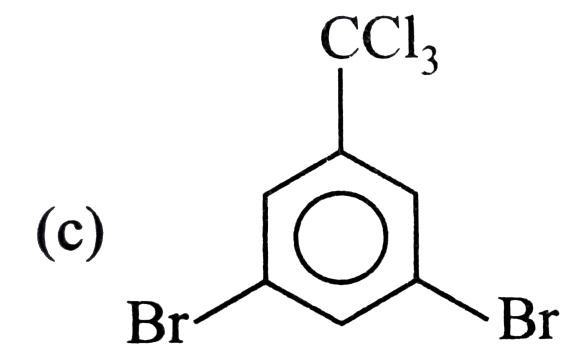
(A)



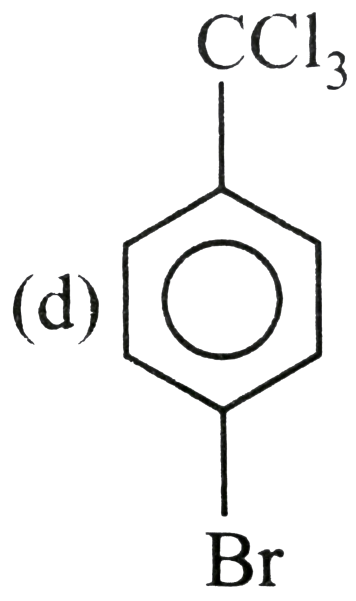
(B)



(C)



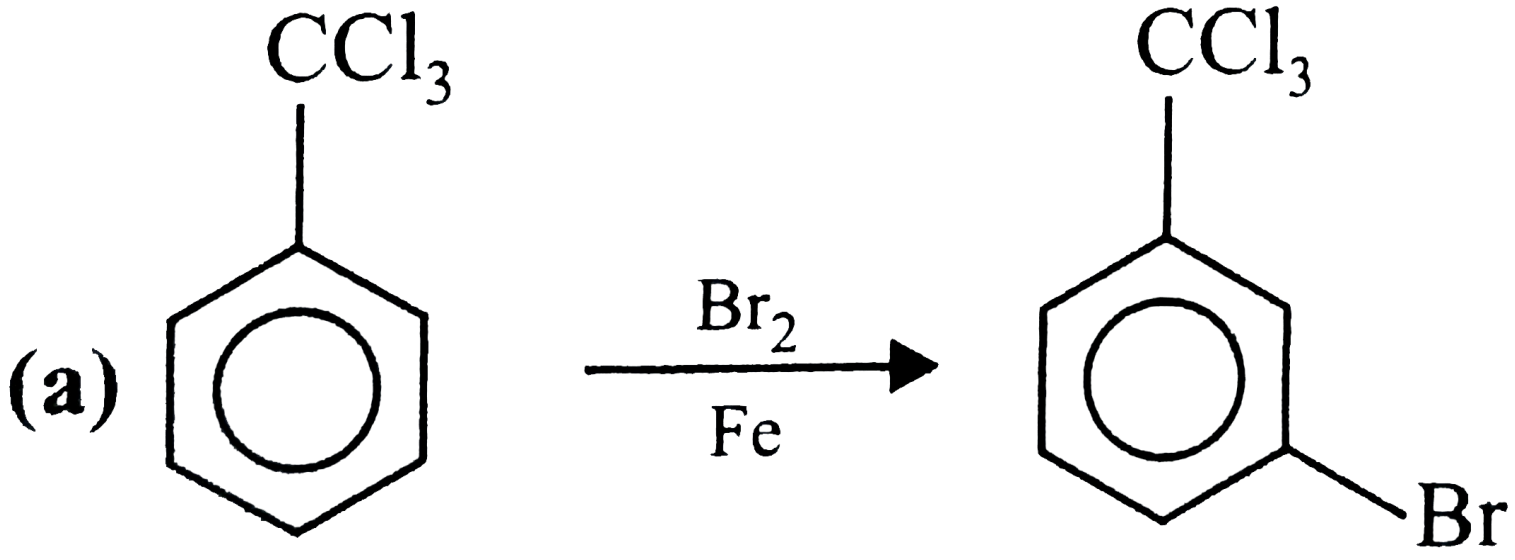
(D)



CORRECT ANSWER: A

SOLUTION:

As -CCI_3 is a m-directing group



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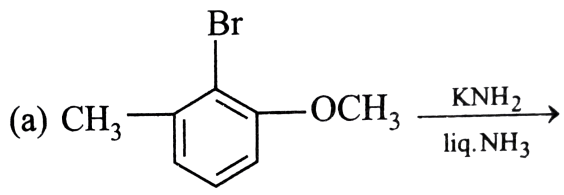
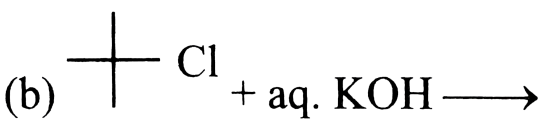
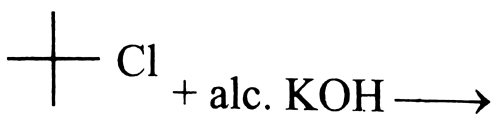
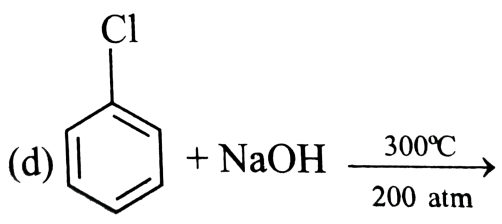
Q-31 - 12662179

Which of the following reaction does not take place ?

(A) 

(B) 

(C) 

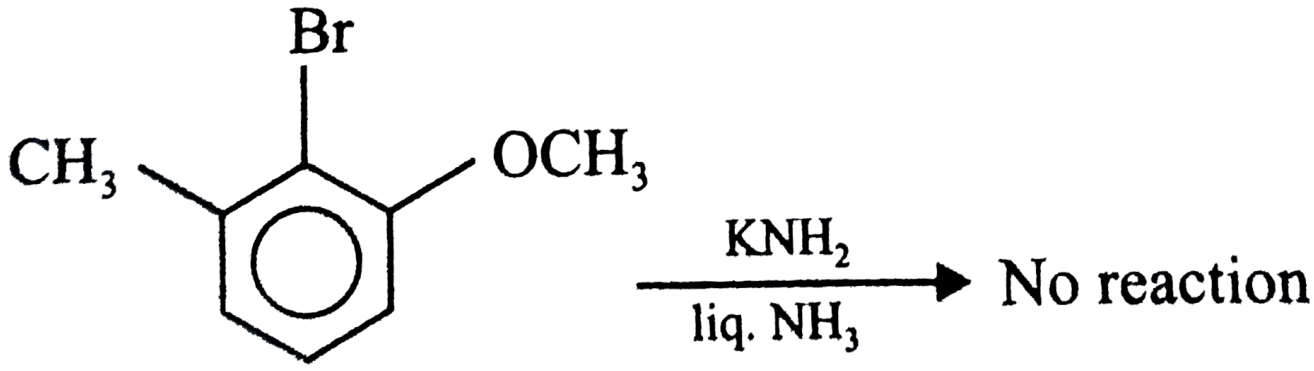
(D) 

CORRECT ANSWER: A

SOLUTION:

Ary halides having at least one hydrogen in ortho positio undergo nucleophilic substitution with a very strong base like KNH_2 in Liquid ammonia This reaction proceeds via benzyne (aryne) intermediate When aryhalides having no hydrogen ortho to the halogen do not react

under the same conditions



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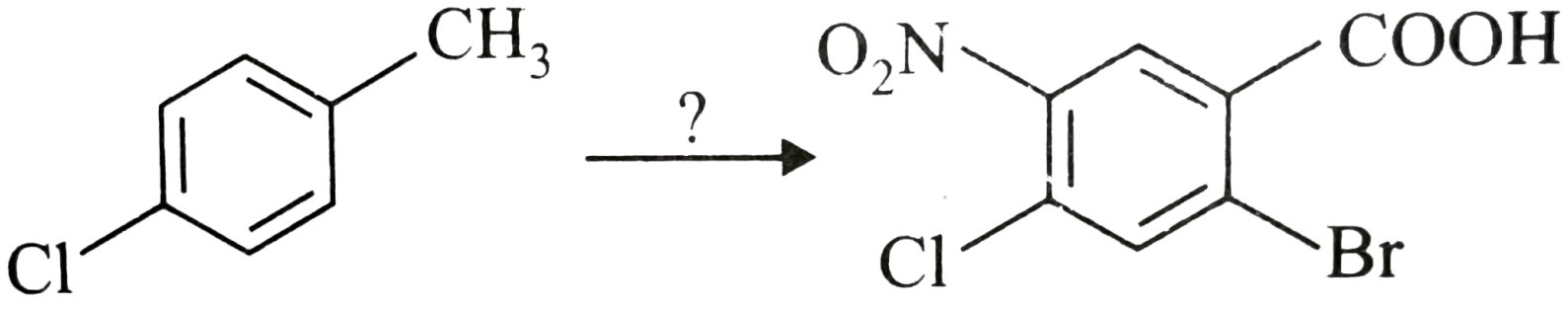
Q-32 - 12662180

Which of the following procedures would be best for achieving the following reaction



(A) I NBS in CCI_4 and heat, ii $NaNO_2$ iii $KMnO_4$ and heat

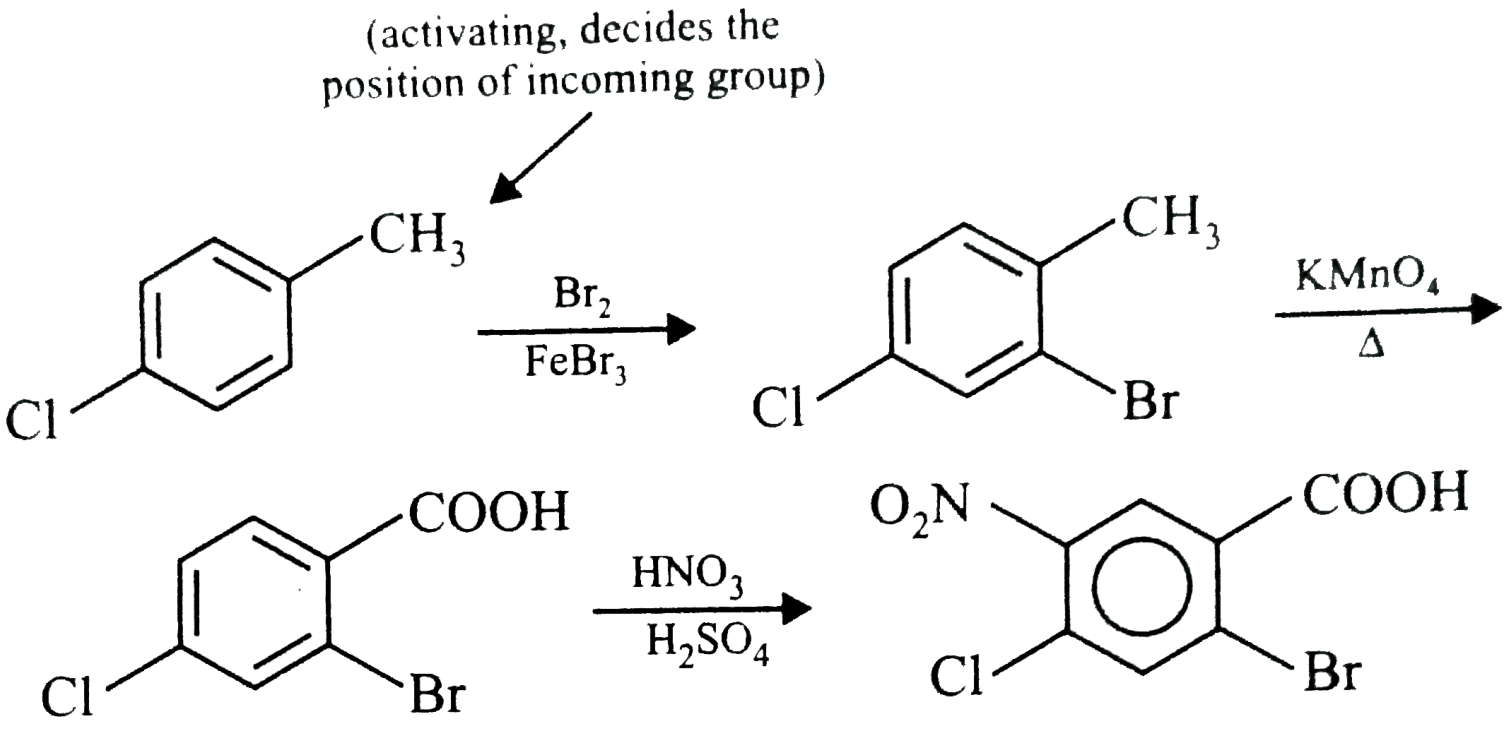
(B) $KMnO_4$ and heat ii $Br_2 + FeBr_3$ iii HNO_3 and H_2SO_4

(C) I NBS in CCI_4 and heat ii $KMnO_4$ and heat iii HNO_3 and H_2SO_4

(D) $Br_2 + FeBr_3(ii)$KMnO_(4) and $heat(iii)$ HNO_(3) and H_(2)SO_(4)` .

CORRECT ANSWER: D

SOLUTION:



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Q-33 - 12662217

2-chlorobutane obtained by chlorination of butane will be .

(A) meso -form

(B) d-form

(C) recemic form

(D) l-form

CORRECT ANSWER: C

SOLUTION:

An optically inactive compound forming optically active compound during a reaction always gives racemic mixture .

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Q-34 - 12662228

In the following sequence of reaction

$$CH_3 - Br \xrightarrow{KCN} A \xrightarrow{H_3O+} B \xrightarrow[Ether]{LiAIH_4} C$$

the end product is .

(A) acetaldehyde

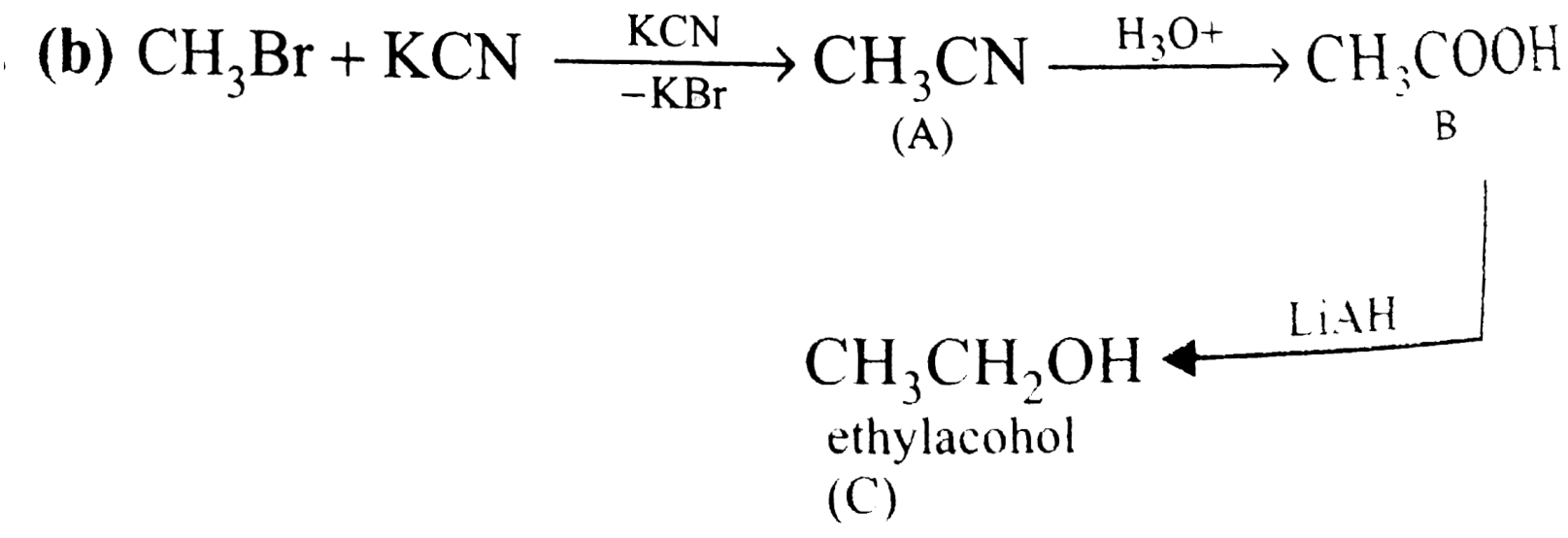
(B) ethylalcohol

(C) acetone

(D) methane

CORRECT ANSWER: B

SOLUTION:



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Q-35 - 12662232

In an SN_1 reation on chiral centers there is .

(A) $100\ \%$ retention

(B) $100\ \%$ inversion

(C) $100\ \%$ recemization

(D) inversion more than retention leading to partial racemization .

CORRECT ANSWER: D

SOLUTION:

SN_1 reations gives racemic mixture with slight predominance of that isomer which corresponds to inversion because SN_1 also depens upon the degree of shielding of the front side of the reacting carbon .

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Q-36 - 12662234

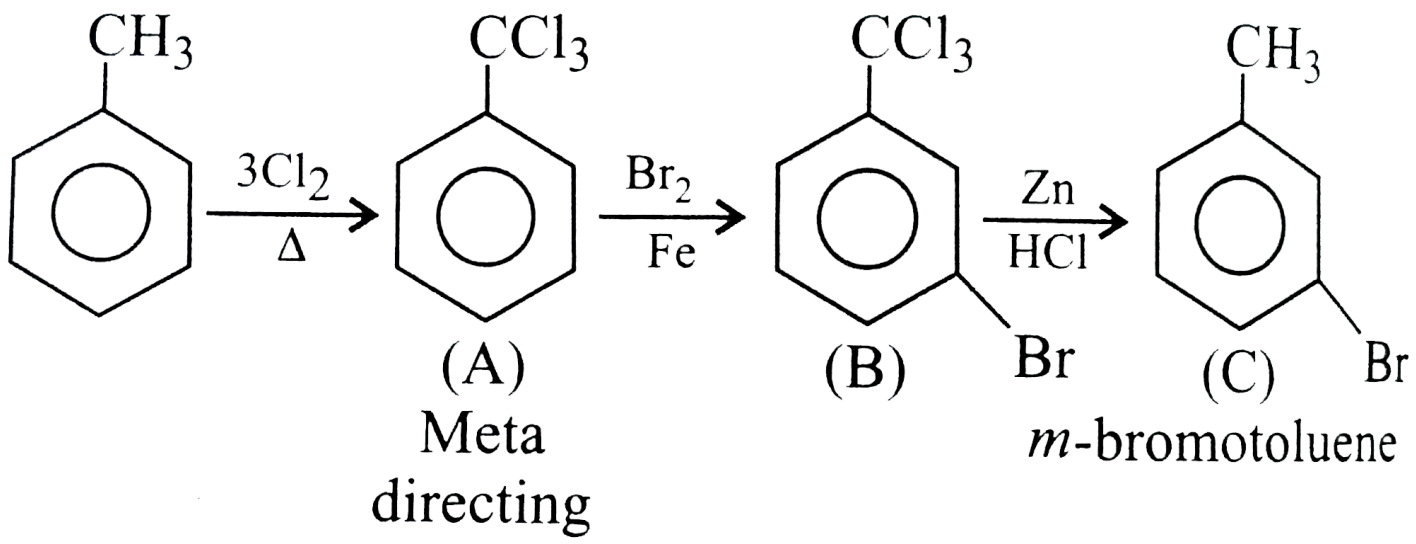
The compound C_7H_8 undergoes the following reactions

$$C_7H_8 \xrightarrow{3CI_2\,/\,\Delta} A \xrightarrow{Br_2\,/\,Fe} B \xrightarrow{Zn\,/\,HCI}$$

The product 'C' is .

CORRECT ANSWER: A

SOLUTION:



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Q-37 - 12662249

$C_6H_6CI_6$ on treatment with alcoholic KOH yields .

(A) C_6H_6

(B) $C_6H_3CI_3$

(C) $(C_6H_6)OH$

(D) $C_6H_6CI_4$

CORRECT ANSWER: B

SOLUTION:

$$C_6H_6CI_6 + 3KOH \rightarrow C_6H_3Ci_3CI_3 + 3KCI + 3H_2O$$

Thus benzene hexahalides decompose when heated with alc KOH and yield trichloro benzene .

Q-38 - 12662259

Which of the following reactions will yield $2, 2 -$ dibromopropane ?

(A)

$HC = CH + 2HBr \rightarrow$

(B)

$CH_3 - C = CH + 2HBr \rightarrow$

(C)

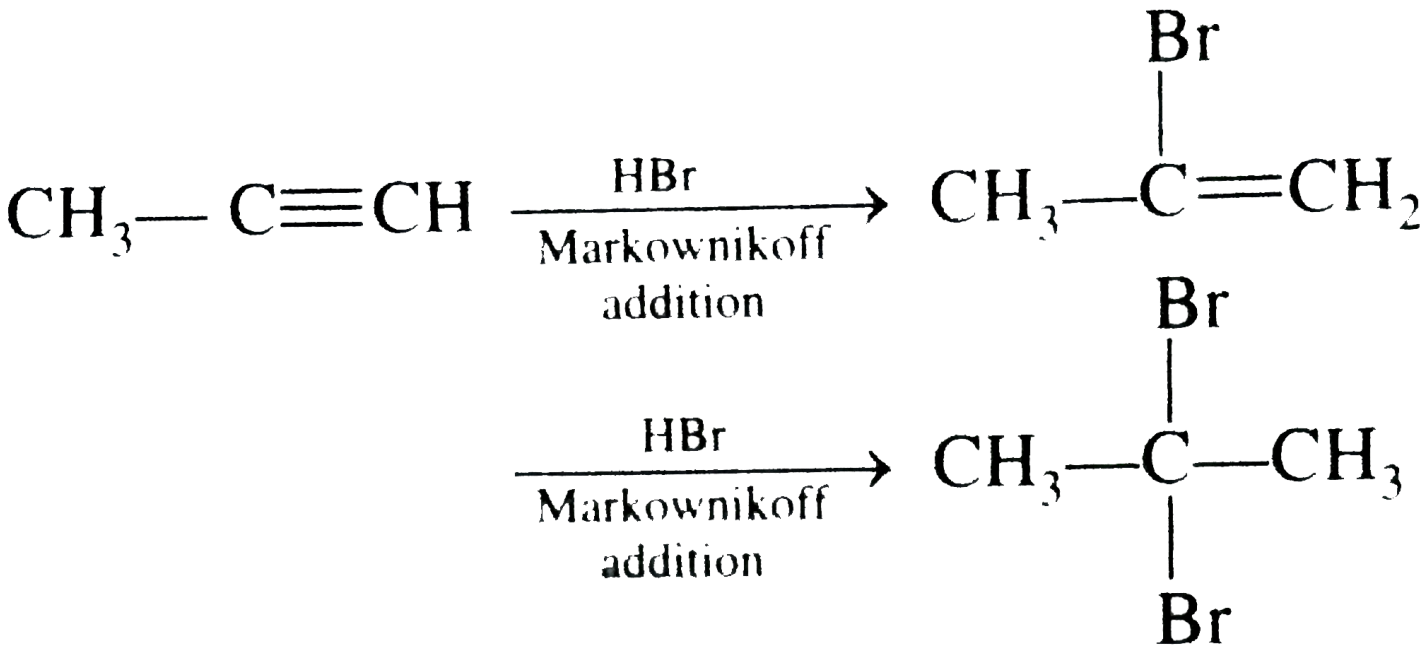
$CH_3 - CH = CH_2 + HBr \rightarrow$

(D)

$CH_3 - CH = CH - BrHBr \rightarrow$

CORRECT ANSWER: B

SOLUTION:



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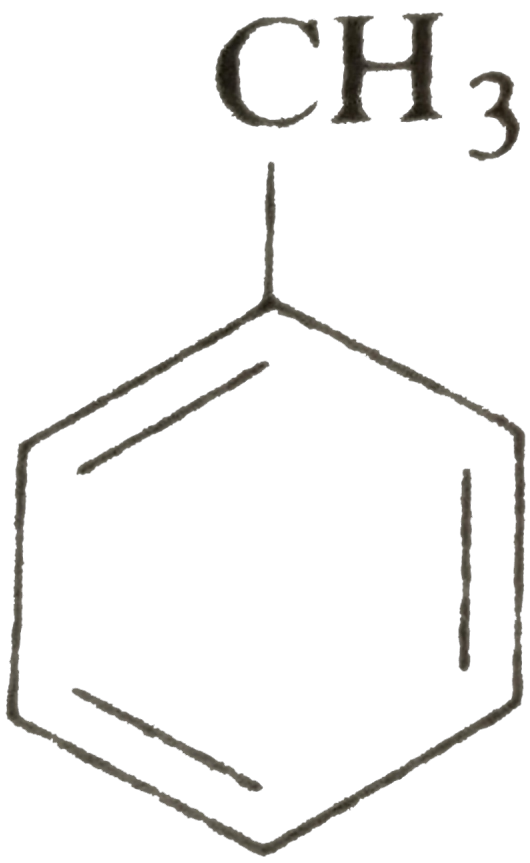
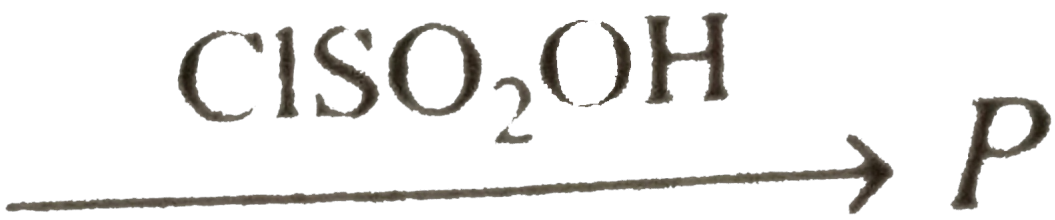
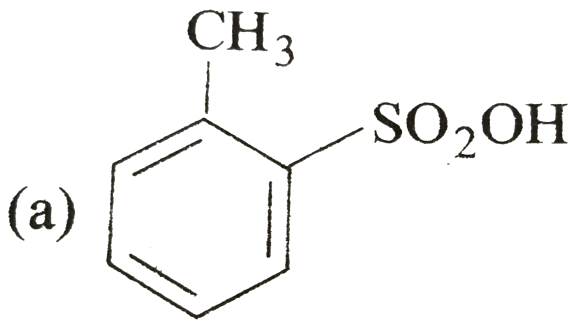
Q-39 - 20000583



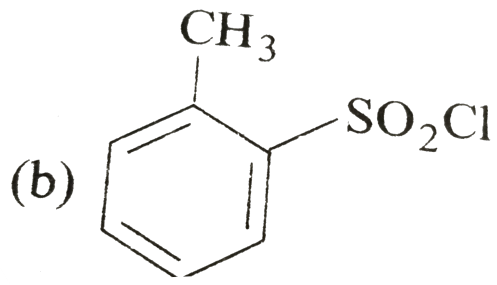


(Major product)

(A) 

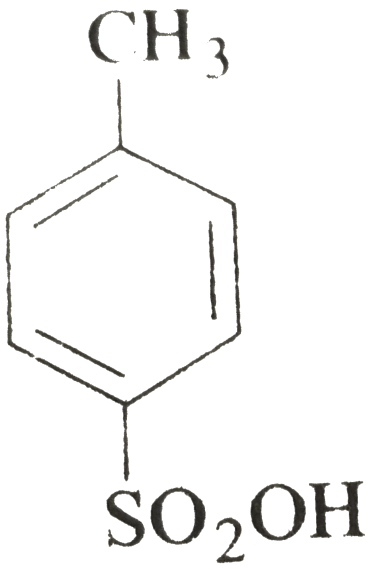
(B)

(b)



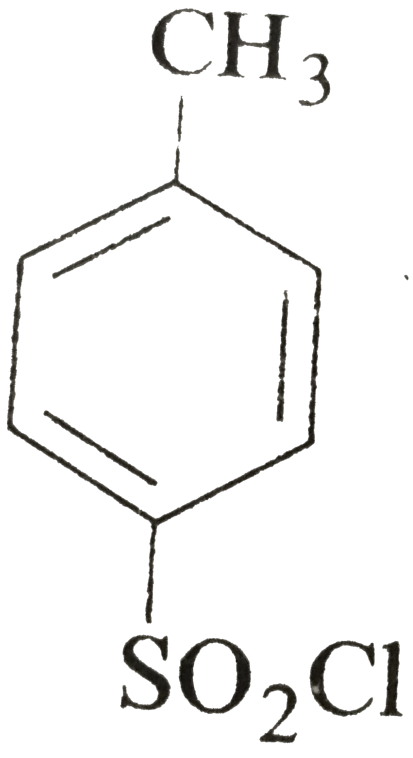
(C)

(c)



(D)

(d)



CORRECT ANSWER: C

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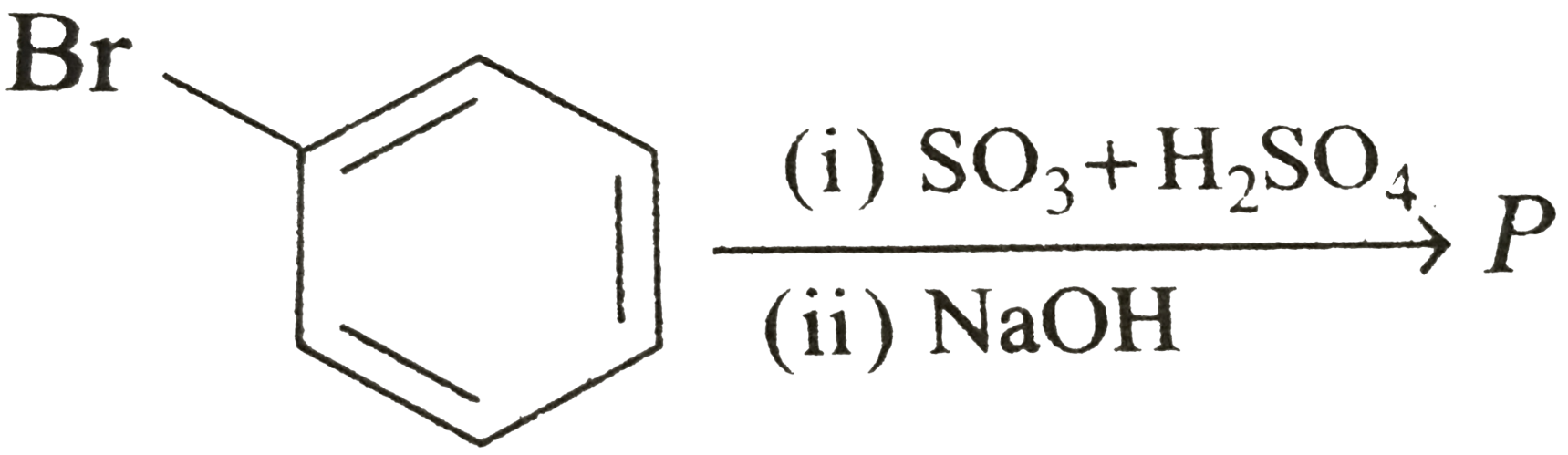
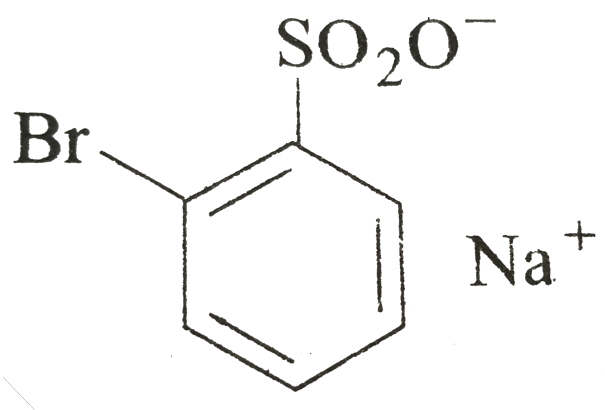
Q-40 - 20000585

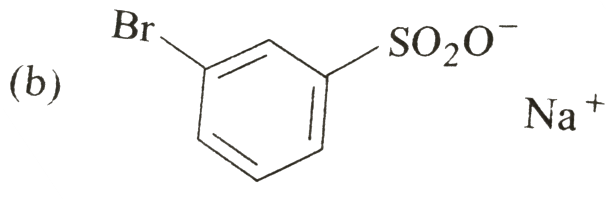


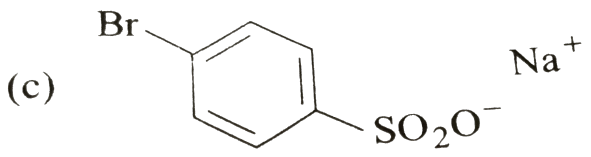
underset("

(ii) NaOH")overset((i) SO_(3)+ H_(2)SO_(4))toP(68 % yeild) : P

`i s:

(A) 

(B) 

(C) 

(D) none the these

CORRECT ANSWER: C

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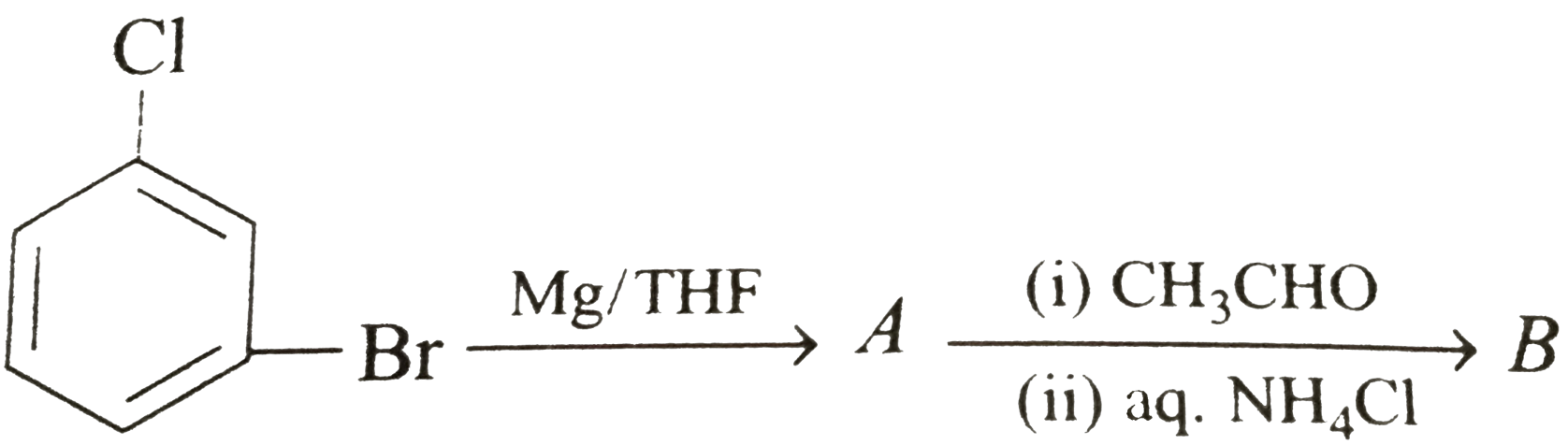
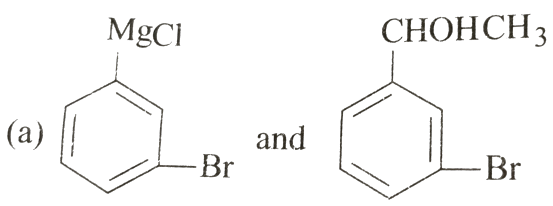
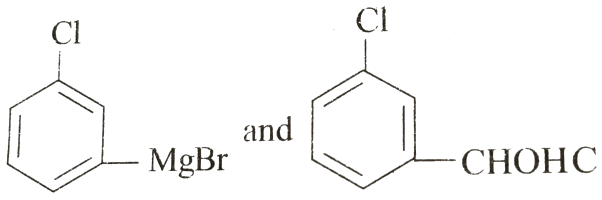
Q-41 - 20000591

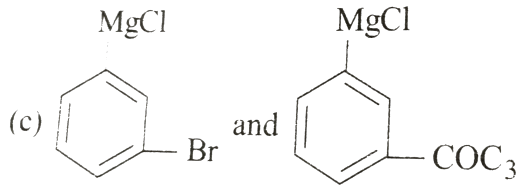
What are A and B in the following reaction ?



overset(Mg//THF)toA underset((ii) aq.NH_(4)Cl)overset((i) CH_(3)CHO)toB`

(A) 

(B) 

(C) 

(D) none the these

CORRECT ANSWER: B

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Q-42 - 20000592

When phenol reacts with bromine in CS_2 at a low temperature, the product is :

(A) m-bromophenol

(B) p-bromophenol

(C) o- and p- bromophenol

(D) 2,4,6- tribromophenol

CORRECT ANSWER: C

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Q-43 - 20000606

In chlorobenzen, the - Cl group :

(A) activates the benzene ring more, via resonamce effects than deactivaitng it via inductive effect

(B) deactivates the benzene ring more ,via inductive effect than activating it via resonamce effects

(C) activates the benzene ring via resonance effects and deactives it via inductive effects. Both these effects are evenly matched.

(D) it is a et deactivating group with director characterisstic

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CORRECT ANSWER: B

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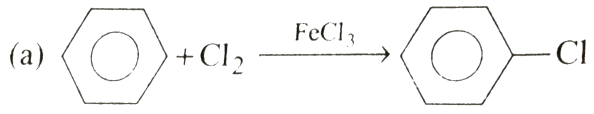
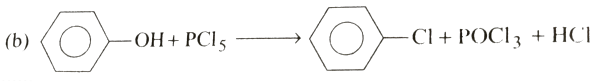
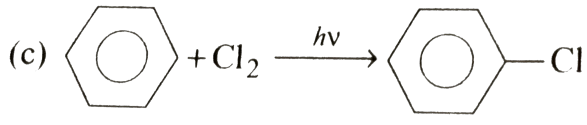
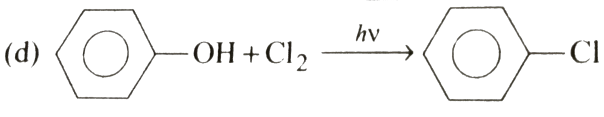
Q-44 - 20000610

The best method for the perparation of chlorobenzene is :

(A) 

(B) 

(C) 

(D) 

CORRECT ANSWER: A

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Q-45 - 19382216

$$RMgX \xrightarrow[NH_4Cl]{(i)\,CH_3CN} (A) \xrightarrow[NH_4Cl]{RMgX} (B), (B)$$

will be :

(A) $1^\circ ROH$

(B) $2^\circ ROH$

(C) $3^{\circ} ROH$

(D) Alkene

CORRECT ANSWER: C

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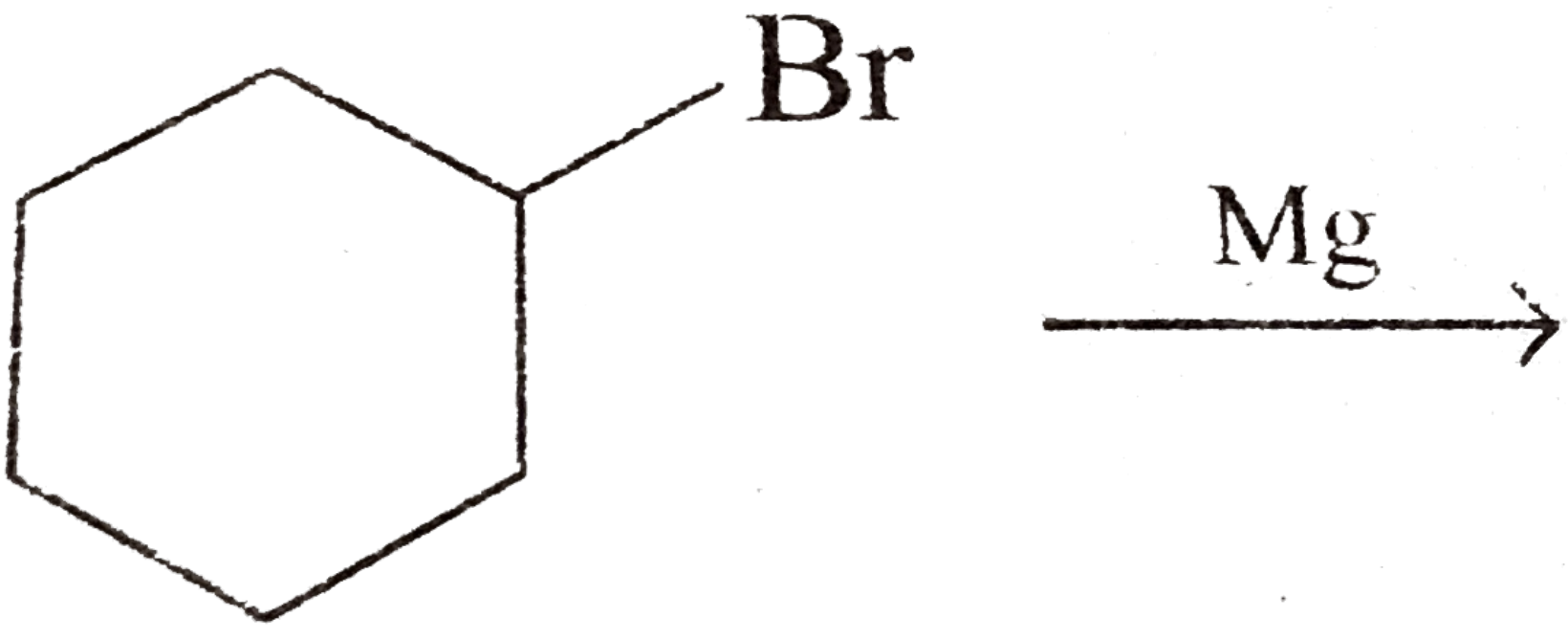
Q-46 - 19382218



$\xrightarrow{Mg} (A) \xrightarrow[(ii)\, H^{+} / H_2O]{(i)\, {}^{14}CO_2} (B)$

$\xrightarrow{NaHCO_3} (C)$

gas, product C is :

(A) CO

(B) $.^{14}CO_2$

(C) CO_2

(D) A mixture $.^{14}CO_2$ and CO_2

CORRECT ANSWER: C

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Q-47 - 19382205

The order of reactivity of alkyl halide in the reaction

$R - X + Mg \rightarrow RMgX$ is :

(A) $RI > RBr > RCl$

(B) $RCI > RBr > RI$

(C) $RBr > RCl > RI$

(D) $RBr > RI > RCI$

CORRECT ANSWER: A

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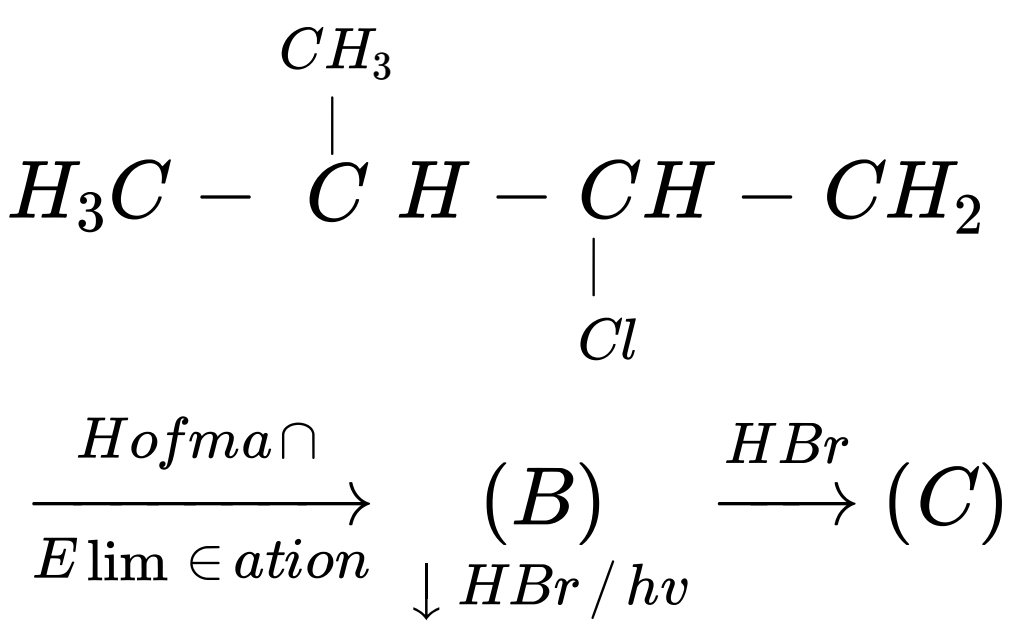
Q-48 - 19382204



Correct order of rate of S_N^2) for A, C and D will be :

(A) $A > C > D$

(B) $C > D > A$

(C) $A > D > C$

(D) $C > A > D$

CORRECT ANSWER: D

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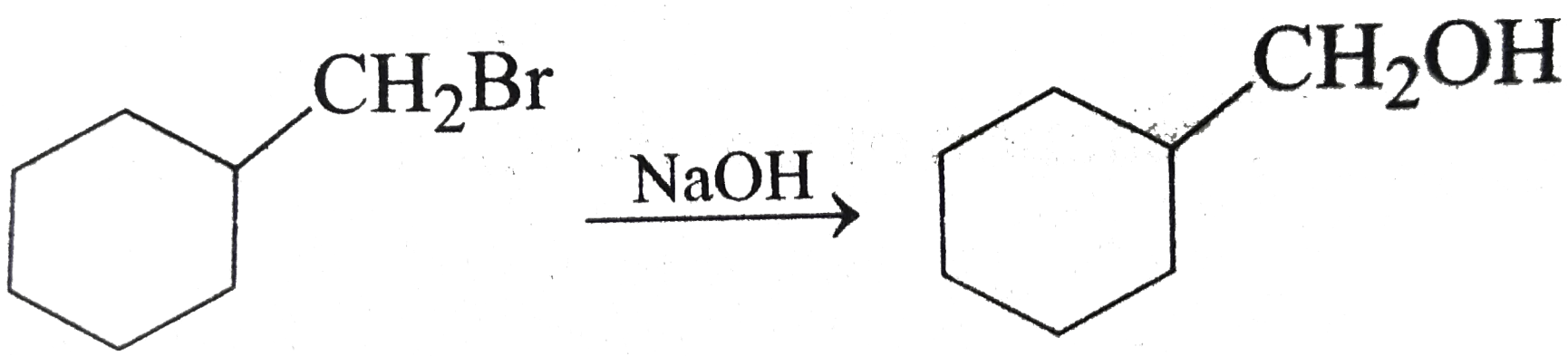
Q-49 - 19382201

Suggest the suitable solvent for the reaction given below.



(A) H_2O

(B) C_2H_5OH

(C) $HCONMe_2$

(D) C_6H_6

CORRECT ANSWER: C

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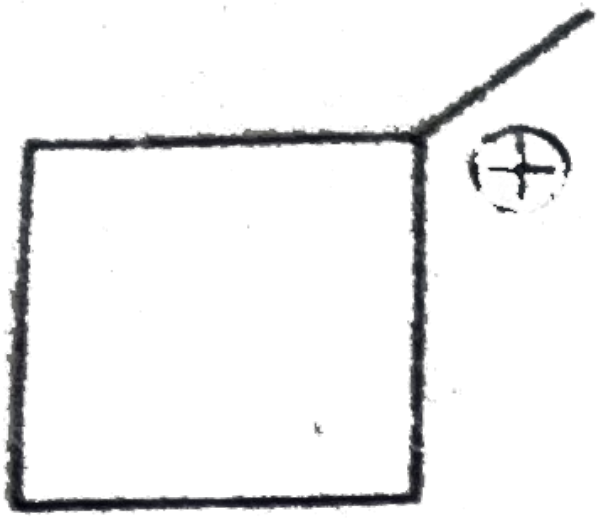
Q-50 - 19382199

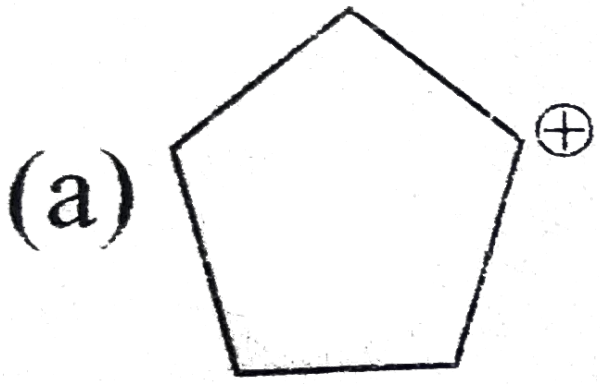


rearranges to

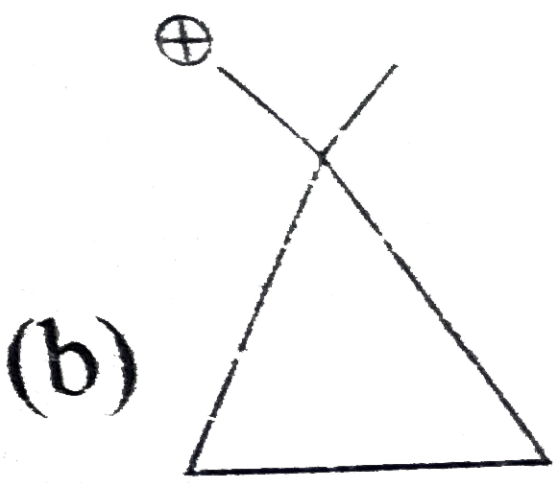
rearranges to

:

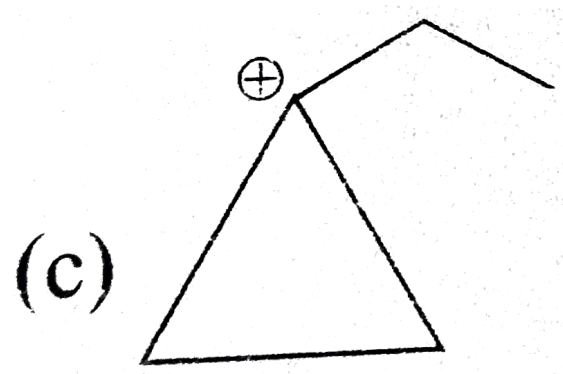
(A)



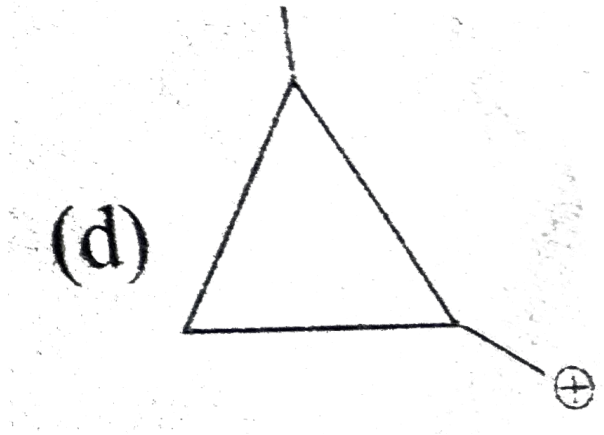
(B)



(C)



(D)



CORRECT ANSWER: D

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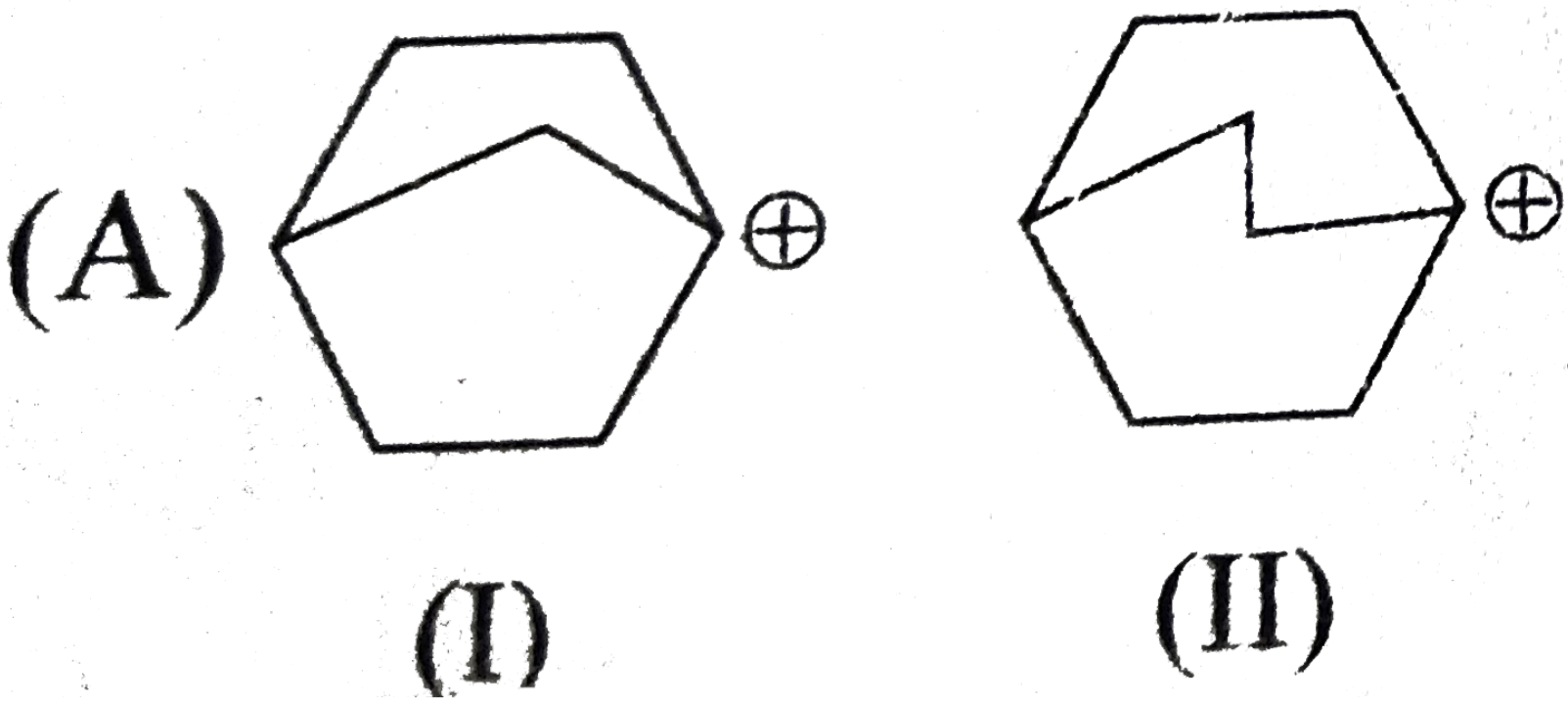
Q-51 - 19382198

Which of the following two carbocation is more stable ?



(A) A-II, B-II

(B) A-I, B-I

(C) A-I, B-II

(D) A-II, B-I

CORRECT ANSWER: A

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Q-52 - 19382221

Find the product of the following reaction

$CH_3CH_2MgBr + HgCl_2$

$\rightarrow (X) : (X)$

will be :

(A) $(CH_3CH_2)_2Hg$

(B) CH_3CH_3

(C) CH_3CH_2Cl

(D) CH_3CH_2HgCl

CORRECT ANSWER: A

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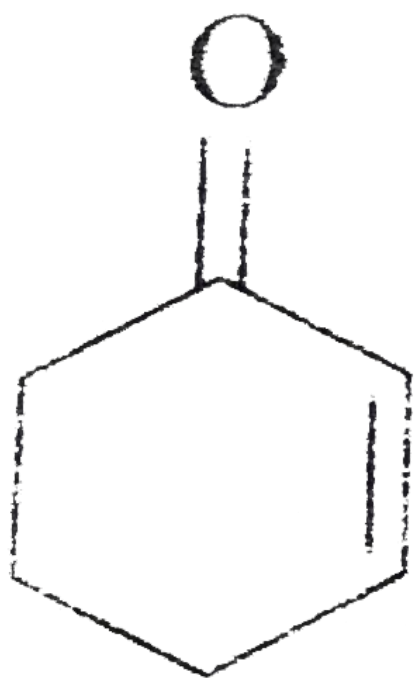
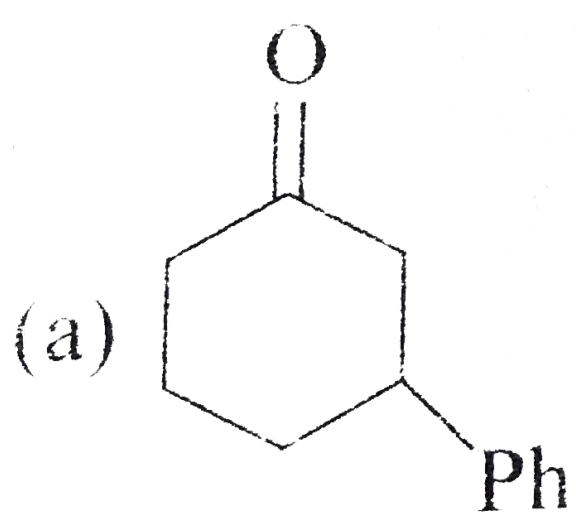
Q-53 - 19382222

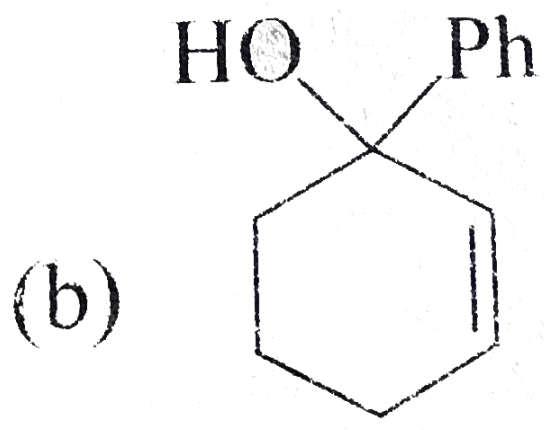


$$\xrightarrow[H_3O^{\oplus}]{PhMgBr} \text{Product}$$

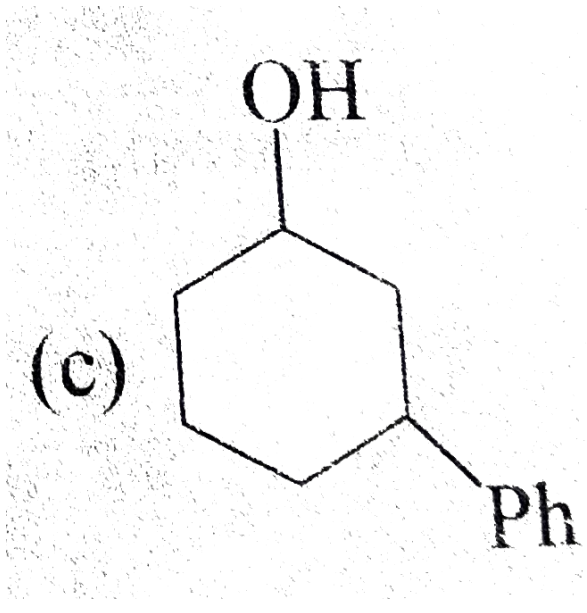
(A)

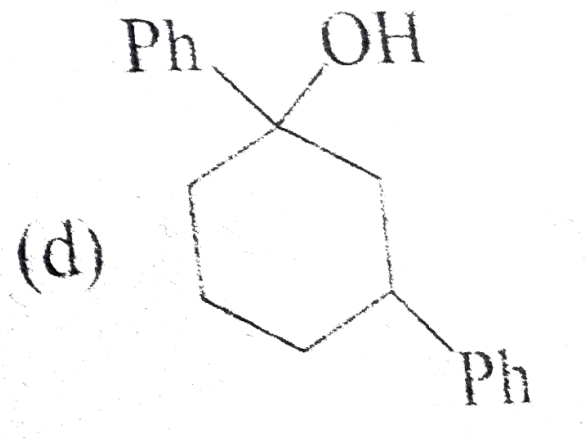


(B)



(C)



(D) 

CORRECT ANSWER: A

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Q-54 - 20000669

Which one of the following aromatic compojunds fails to undergo Friedel - crafts reactions ?

(A) $C_5H_5 - CH_3$

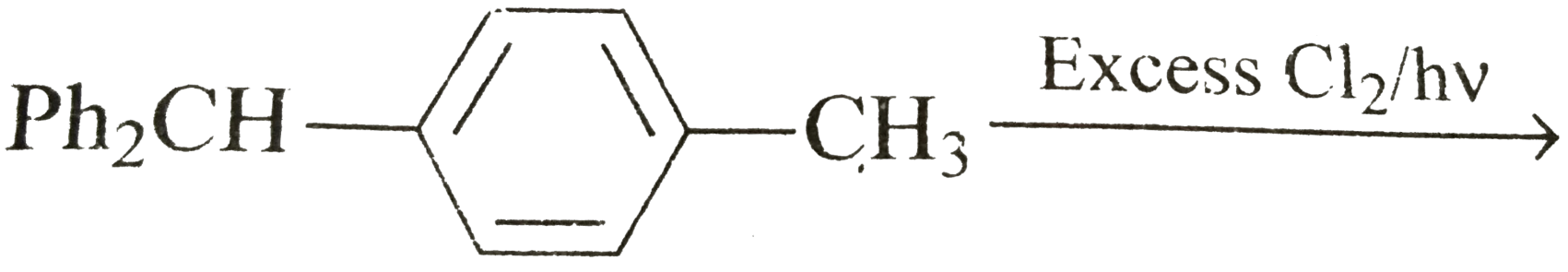
(B) C_6D_6

(C) $C_6H_5 - NO_2$

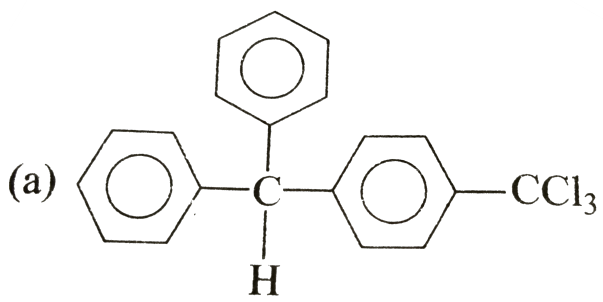
(D) C_6H_5Cl

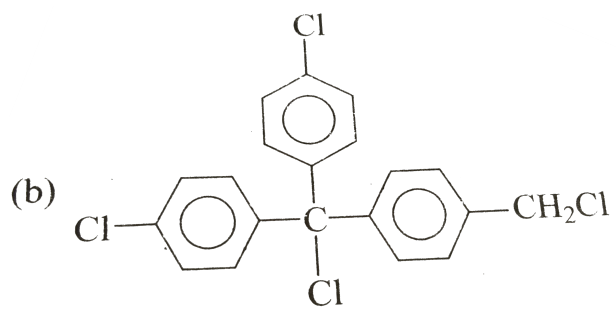
CORRECT ANSWER: C

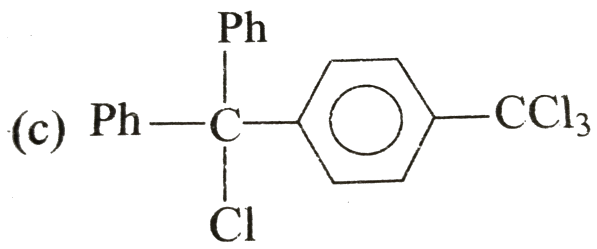
Q-55 - 20000674



gives :

(A) 

(B) 

(C) 

(D) None of t\

CORRECT ANSWER: C

Q-56 - 20000689

When of the following compounds react slower than benzene in electrophilic bromination ?

(A) $C_6H_5CH_3$

(B) C_6H_5OH

(C) $C_6H_5NO_2$

(D) $C_6H_5NH_2$

CORRECT ANSWER: C

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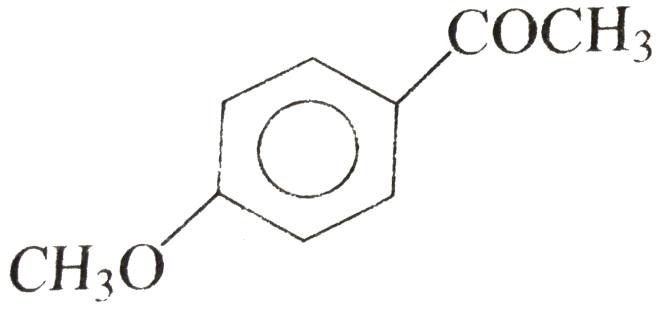
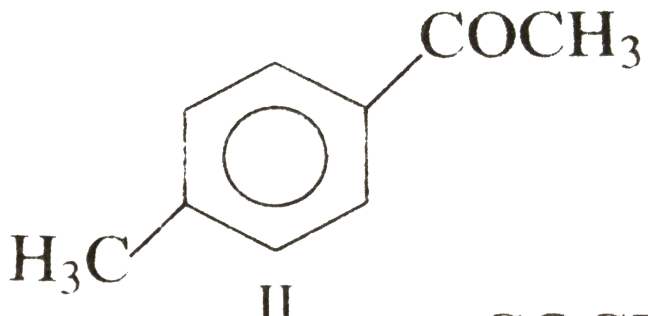
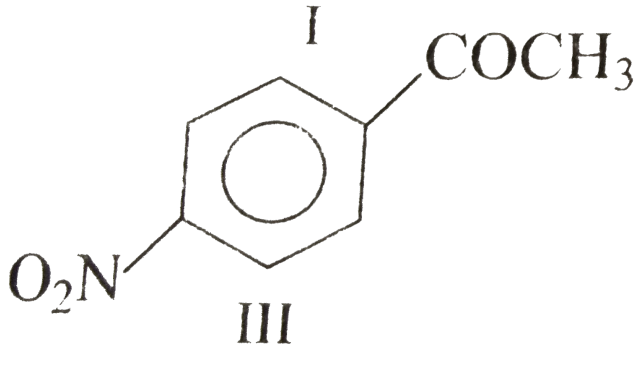
Q-57 - 20000722



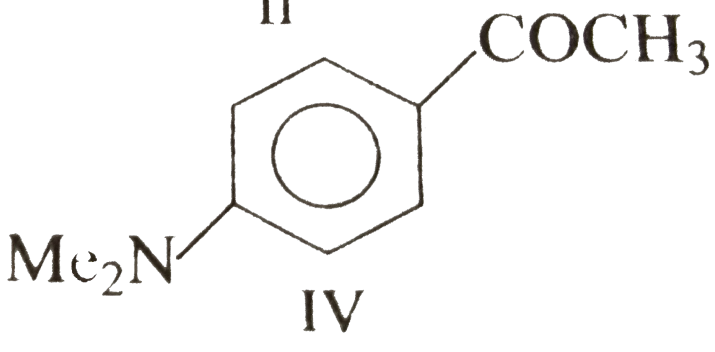
I



II



III



IV

Freidel -Crafts acylation reaction can be used to obtained the compounds :

(A) II, III and IV

(B) I,II and IV

(C) I and II

(D) II and III

CORRECT ANSWER: B

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Q-58 - 20000754

Nitrating agent for aromatic compound may be :

(A) N_2O_5

(B) $C_2H_5ONO_2$

(C) $NO_2CF_3SO_3$

(D) All of these

CORRECT ANSWER: D

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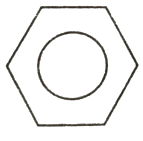
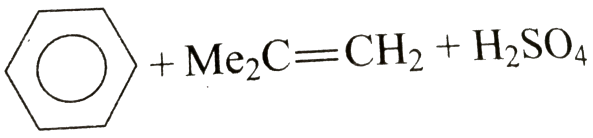
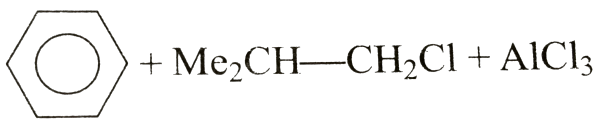
Q-59 - 20000761

In which of the following reaction tertiary butyl benzene is formed ?

(A) (a)  + $Me_3C—OH + BF_3$

(B)  $+ Me_2C{=}CH_2 + H_2SO_4$

(C)  $+ Me_2CH{-}CH_2Cl + AlCl_3$

(D) All of these

CORRECT ANSWER: B

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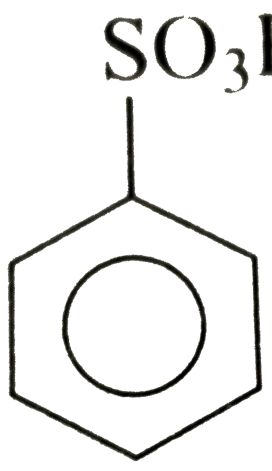
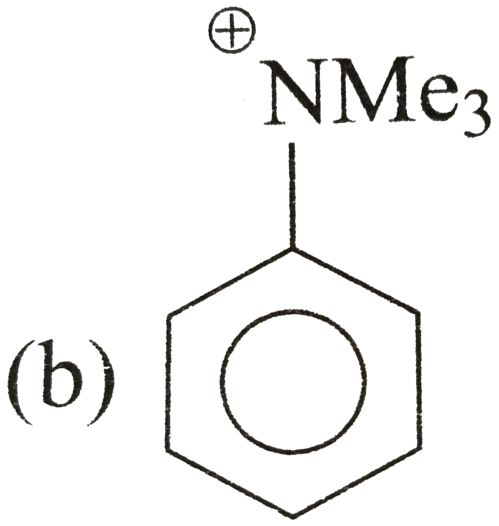
Q-60 - 20000766

Which of the following underges suluphonation fast ?

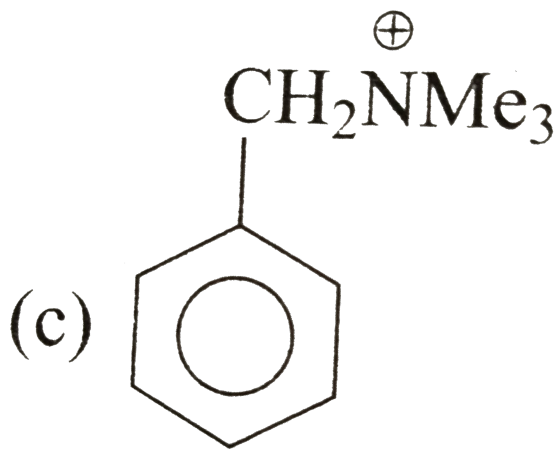
(a) 

(A)

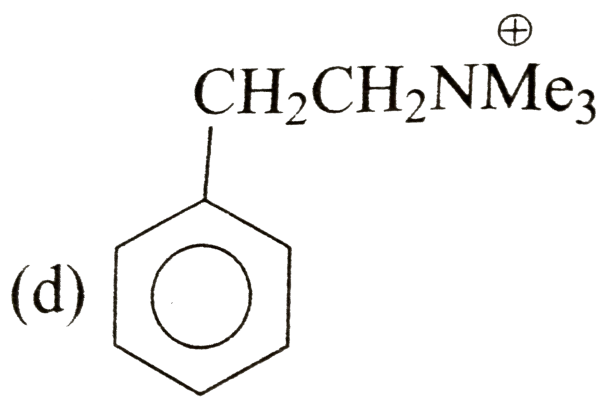
(B)



(C)



(D)



CORRECT ANSWER: D