PRAYAS BATCH

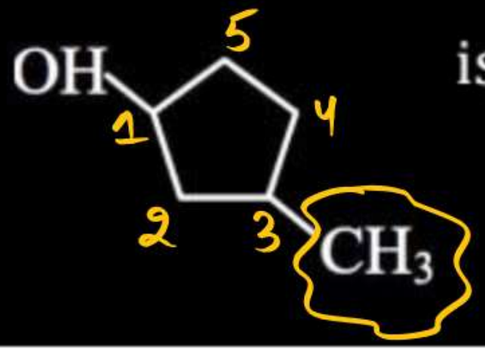
JMPS-01

By Pankaj Sir

Today's GOAL

JMPS - 01

IUPAC +ISOMERISM+GOC +HYDROCARBONS

Q. Correct IUPAC name of 

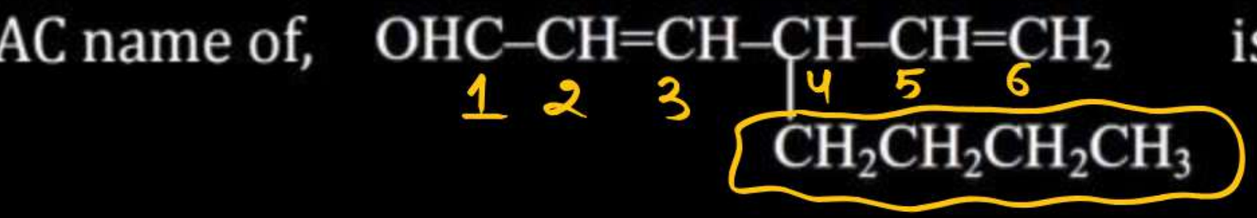
is

a. 3-Methylcyclopentanol

b. 4-Methylcyclopentanol

c. 1-Hydroxy-3-Methylcyclopentanol

d. None

Q. IUPAC name of, 

is :

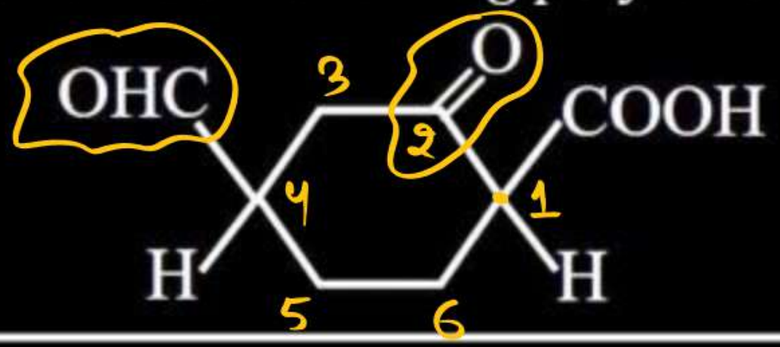
a. 4-butyl-2,5-hexadien-1-al

b. 5 -vinyloct-3-en-1-al

c. 5 -vinyloct-5-en-8-al

d. 3 -butyl-1,4-hexadien-6-al

Q. The IUPAC name of following polyfunctional compound is -



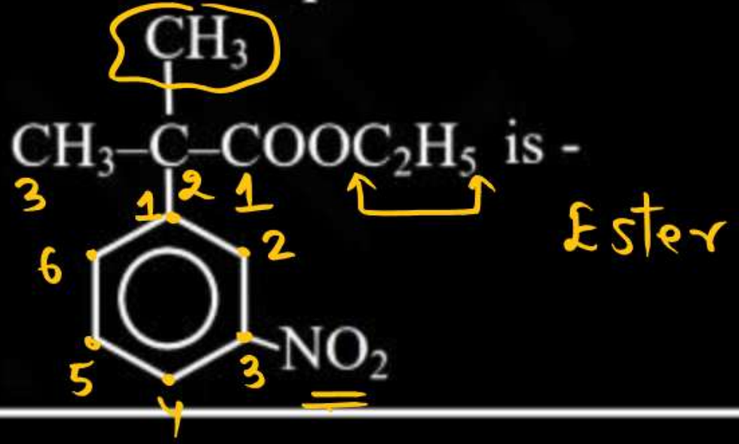
a. 2, 4-dioxo cyclohexanoic acid

b. 2, 4-dioxo cyclohexanoic acid

c. 4-formyl-2-oxocyclohexane-1 carboxylic acid

d. 2, 4-dioxo cyclohexane-1-carboxylic acid

Q. IUPAC name of the compound

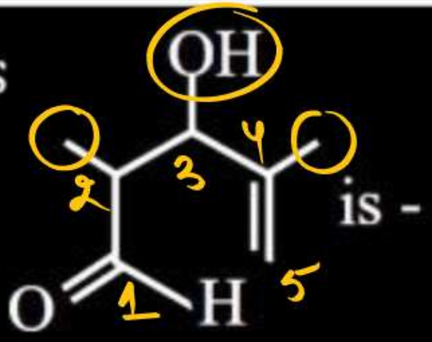


a. Ethyl-2-methyl-2-(m-nitro) phenyl propanoate

b. Ethyl-2-methyl-2-(o-nitro) phenyl propanoate

c. Ethyl-2-methyl-2-(3-nitro phenyl) propanoate

d. Ethyl-2-methyl-2-(3-nitro) phenyl propanoic acid

Q. The IUPAC name of is  is -

a. 2-formyl-3-hydroxy-4-methylenepentane

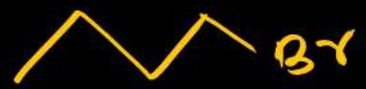
b. 4-formyl-2-methyl-1-penten-3-ol

c. 3-hydroxy-2-methyl-4-methylenepentanal

d. 3 -hydroxy-2, 4-dimethyl-4-pentenal

Q. Which of the following compounds is optically active ?

a. 1-Bromobutane



b. 2-Bromobutane

c. 1-Bromo-2-methylpropane

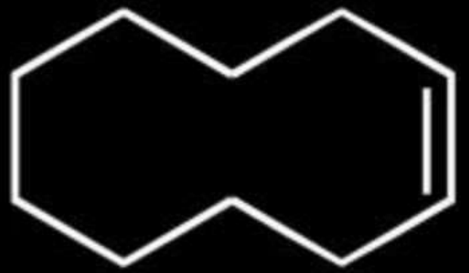
d. 2-Bromo-2-methylpropane

Q. Geometrical isomerism is possible in :

a. 

b. 

c. 

d. 

Q.  and  are

cis

Trans

a. Identical

b. Diasteromers

c. Conformers

d. Homologs

Q. The most stable conformation of cyclohexane is :

a. Boat

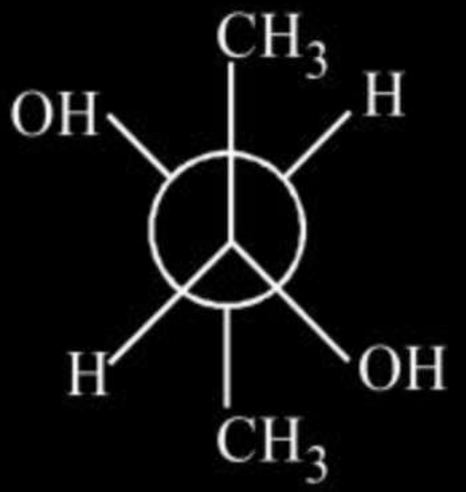
b. Half–chair

c. Chair

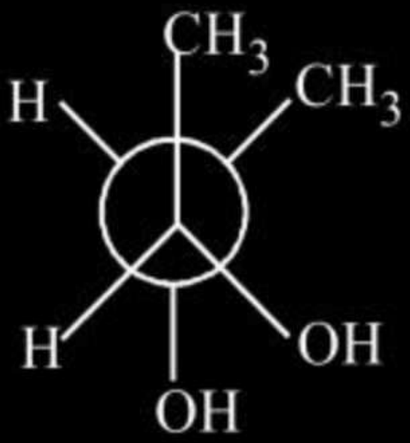
d. Twist–boat

Q. Which one of the following is the most stable conformer?

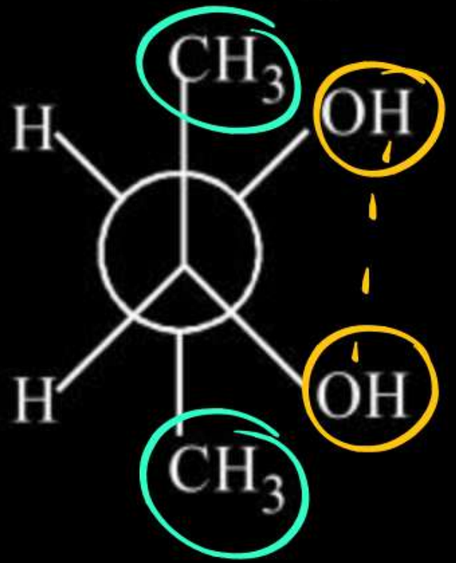
a.



b.

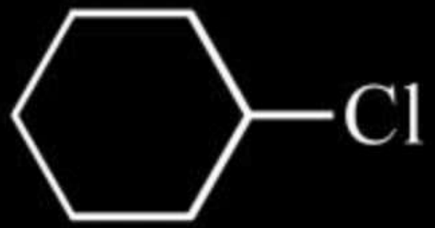


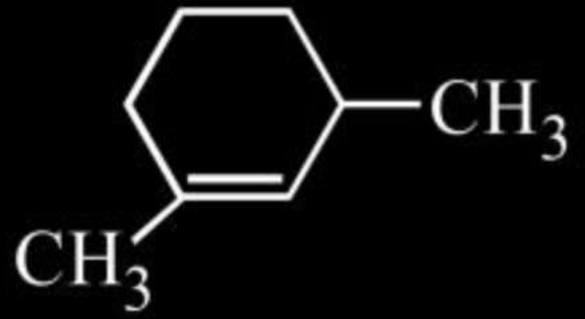
c.

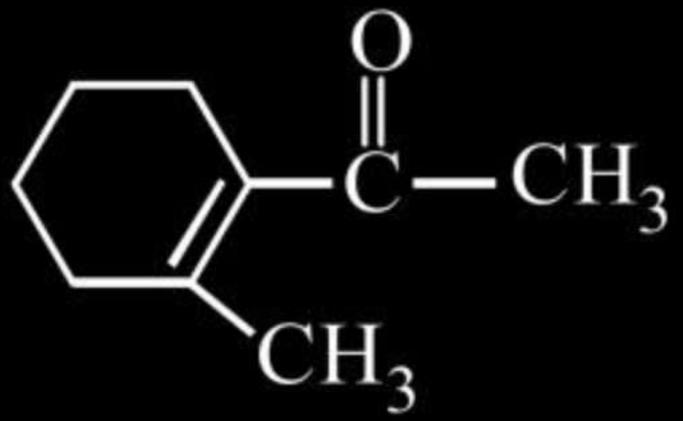


d. NOT

Q. In which of the following molecules all the effects namely inductive, mesomeric and hyperconjugation operate?

a. 

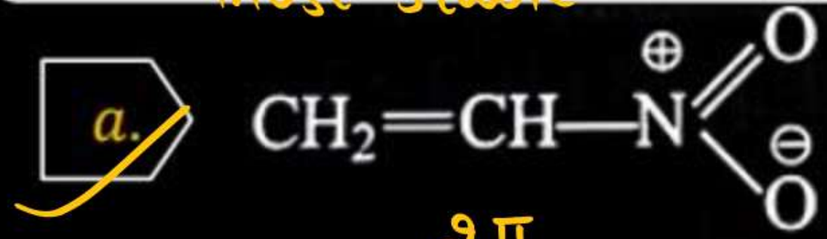
b. 

c. 

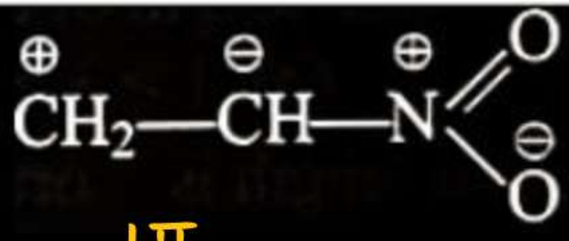
d. 

Q. Most contributing structure in nitroethene is:

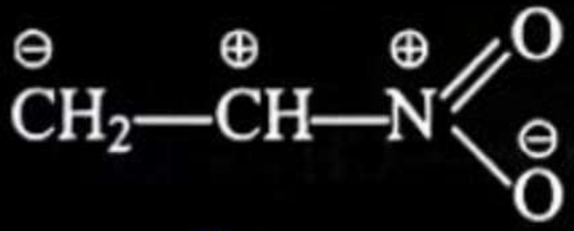
Most stable

a. 

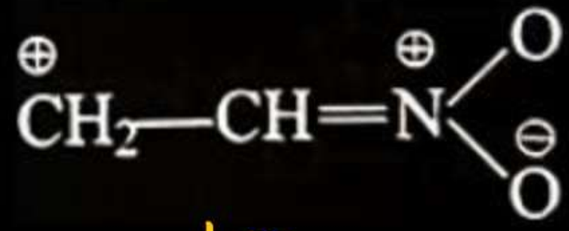
2 π

b. 

1 π

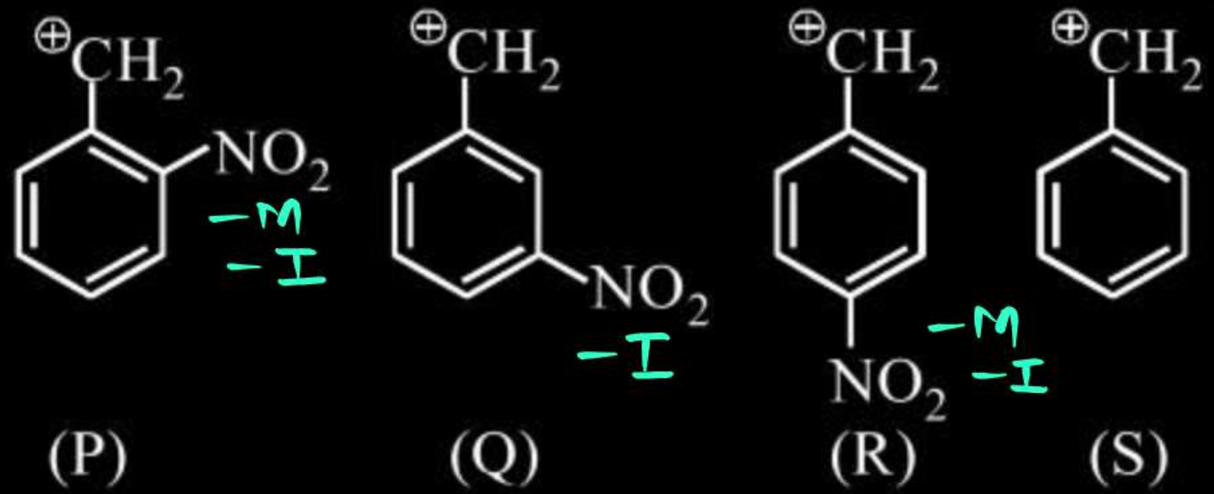
c. 

1 π

d. 

1 π

Q .Compare Stability



(P) (Q) (R) (S)

a. Q > R > P > S

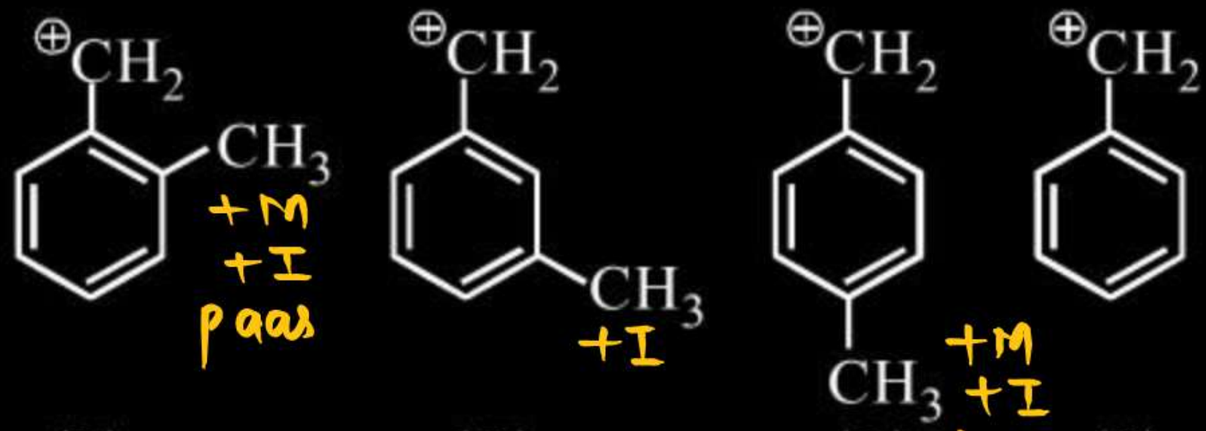
b. S > R > P > Q

c. S > Q > R > P

d. R > P > Q > S

S > Q > R > P

Q .Compare Stability



(P) (Q) (R) door (S)

a. P > Q > R > S

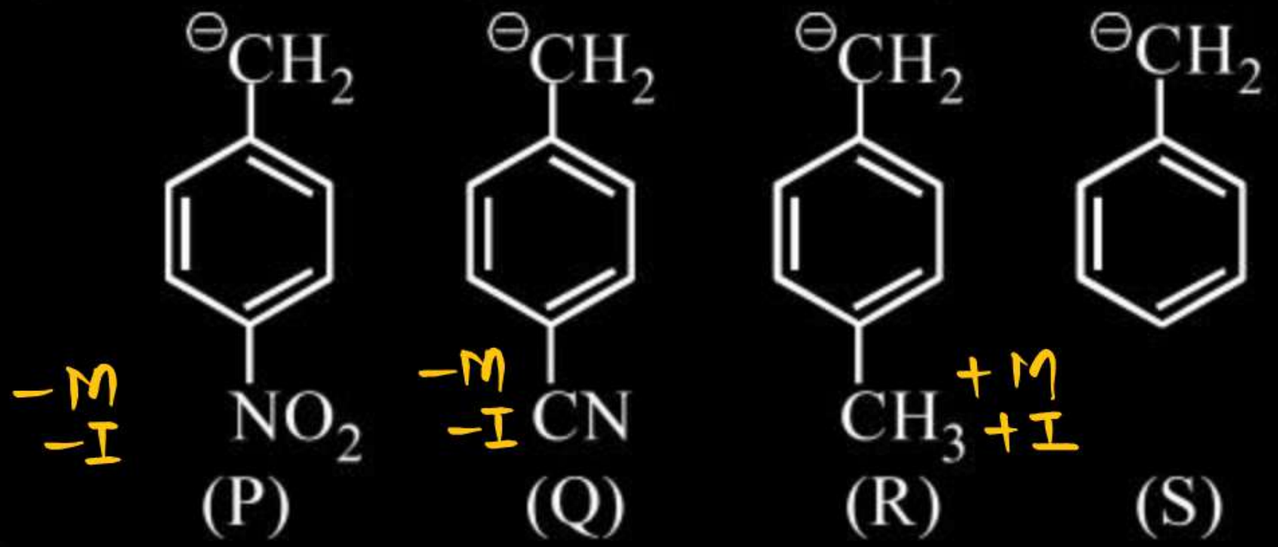
b. P > S > Q > R

c. P > R > Q > S

d. S > R > Q > P

P > R > Q > S

Q. The decreasing order of stability of following anions is



$P > Q \quad S > R$

a. $S > R > Q > P$

b. $P > Q > R > S$

c. $Q > P > R > S$

d. $P > Q > S > R$

Q . Which of the following acids has lowest value of dissociation constant?

$K_a \downarrow$, A.S $\downarrow$

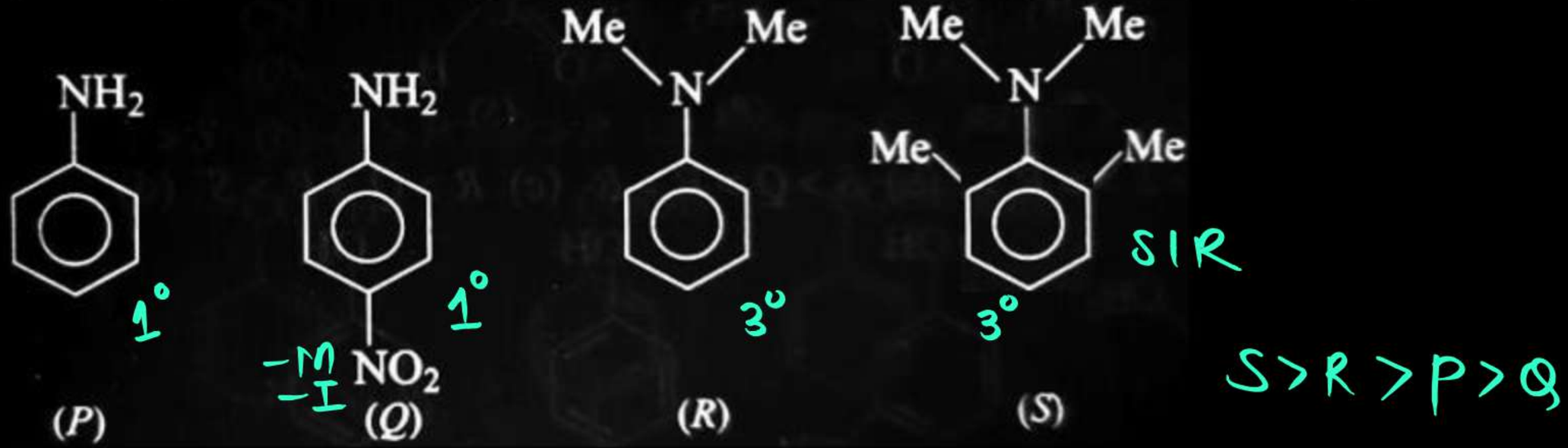
a. $CH_3 - \underset{\underset{F}{|}}{CH} - COOH$

b. $\underset{\underset{F}{|}}{CH_2} - CH_2 - COOH$

c. $\underset{\underset{Br}{|}}{CH_2} - CH_2 - COOH$

d. $CH_3 - \underset{\underset{Br}{|}}{CH} - COOH$

Q. Arrange the following compounds in order of basicity?



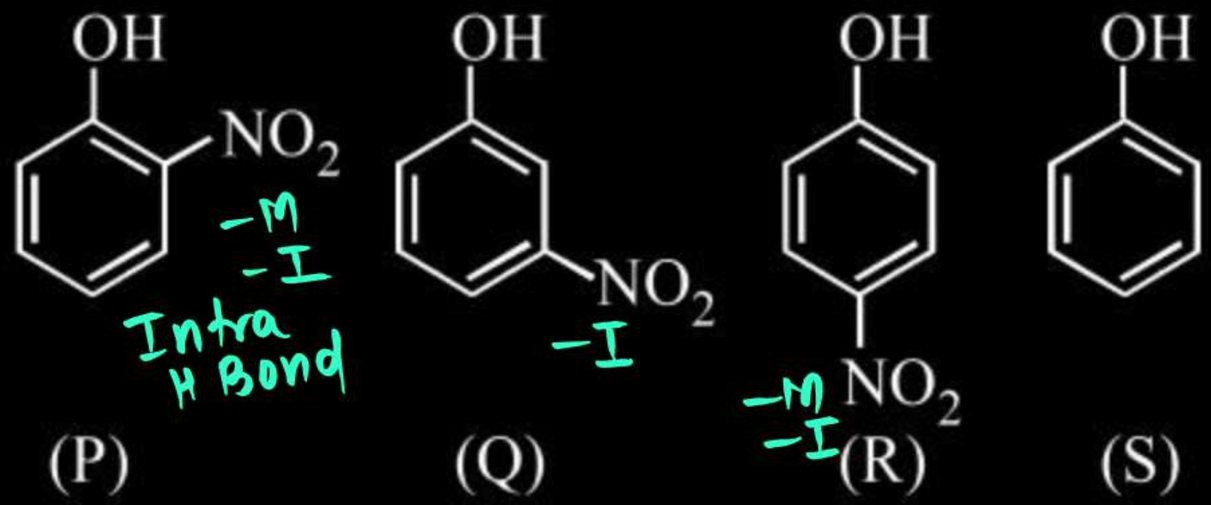
a. S > R > Q > P

b. S > R > P > Q

c. P > Q > R > S

d. R > Q > P > S

Q .Compare Acidic Strength ?



a. R > P > Q > S

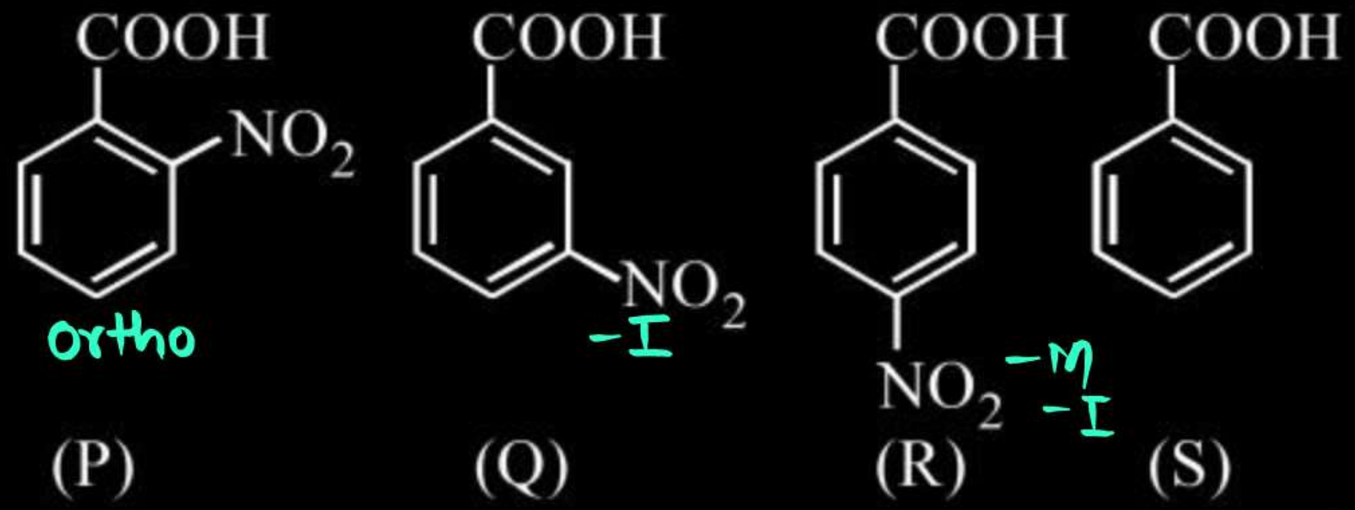
b. P > R > Q > S

c. R > Q > P > S

d. S > Q > P > R

Q .Compare Acidic Strength ?

P > R > Q > S



(P) (Q) (R) (S)

a. P > Q > R > S

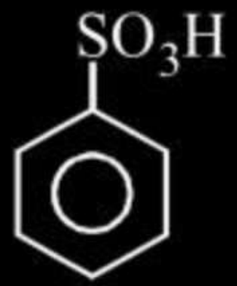
b. P > R > Q > S

c. R > P > Q > S

d. S > R > Q > P

Q. Among the following compounds which is strongest acid ?

a. 

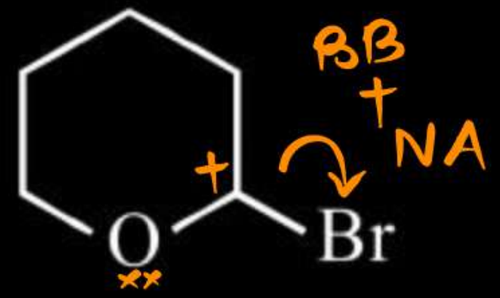
b. 

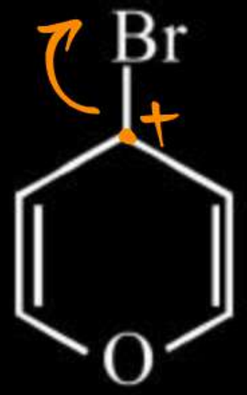
c. 

d. 

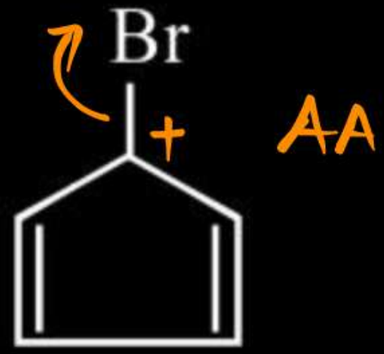
B > A > C > D

Q. Among the following which is most reactive toward $AgNO_3$?

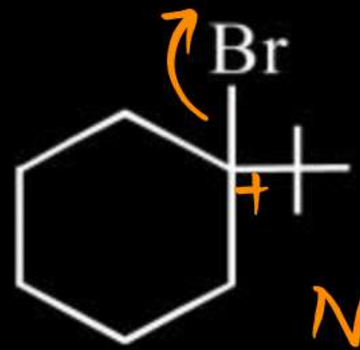
a. 

b. 

BB + ArO

c. 

AA

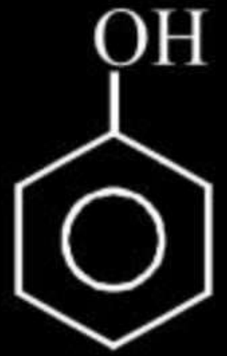
d. 

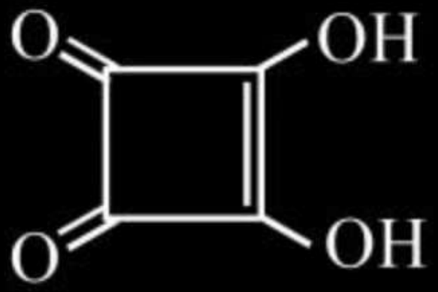
NA

B > A > D > C

Q. Which of the following compound will not liberate CO_2 on reaction with $NaHCO_3$?

a. 

b. 

c. 

d. 

Acid (H^+) + $Na^+HCO_3^-$
SA
↓
H_2CO_3
WA

Q. A hydrocarbon X adds on one mole of hydrogen to gives another hydrocarbon and also decolourises bromine water. X reacts with $KMnO_4$ in presence of acid to give two moles of the same carboxylic acid. The structure of X is :

Symmetrical alkene

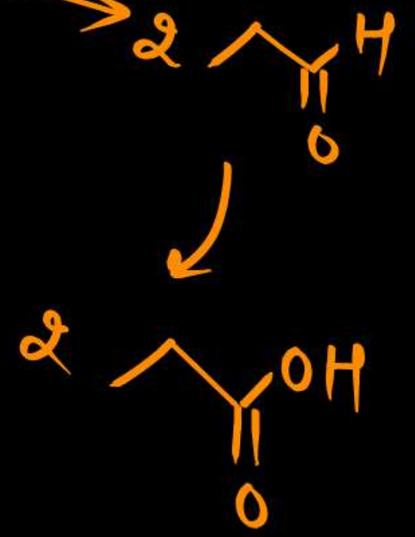
Same as oxidative ozono.

a. $CH_3CH = CH\ \ CH_2CH_3$

b. $CH_3CH_2\overset{O}{C}H = \overset{O}{C}HCH_2CH_3$

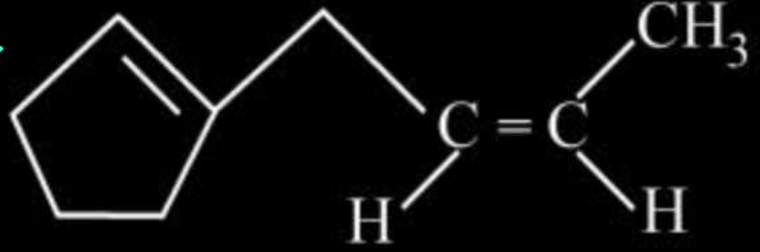
c. $CH_3CH_2CH_2 - CH = CHCH_3$

d. $CH_2 = CH - CH_2CH_2CH_3$



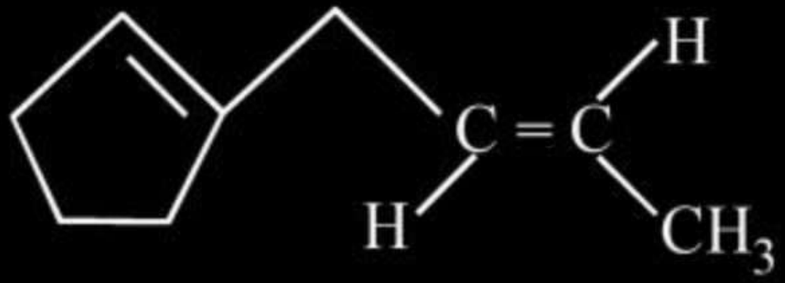
$C \equiv C - CH_3 \xrightarrow[\Delta]{^{1}H_2,\ Pd-BaSO_4}$ Major product:

a.



b.

c.

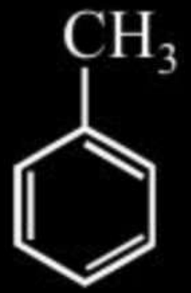


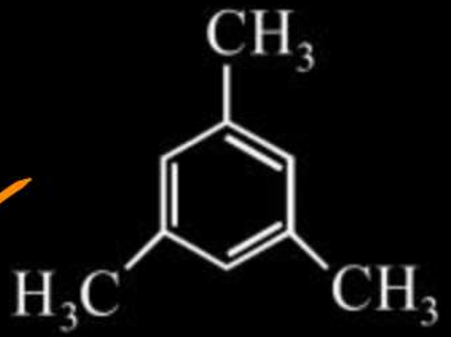
d. None of these

Q. $3CH_3 - C \equiv CH \xrightarrow[\text{Fe tube}]{\text{Red hot}}$

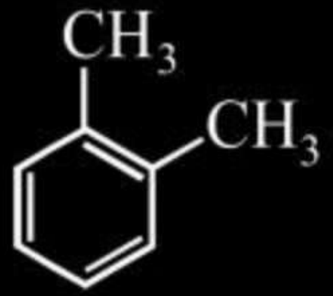
cyclic coupling

a. 

b. 

c. 

Mesitylene

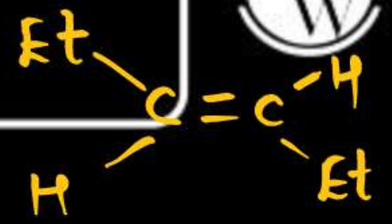
d. 

Q. $CH_3CH_2C \equiv CH \xrightarrow[\text{Base}]{NaNH_2/NH_3(l)} CH_3CH_2Br \xrightarrow[\text{Birch}]{LiNH_3(l)}$

Acid

$CH_3-CH_2-C\equiv C^-Na^+$

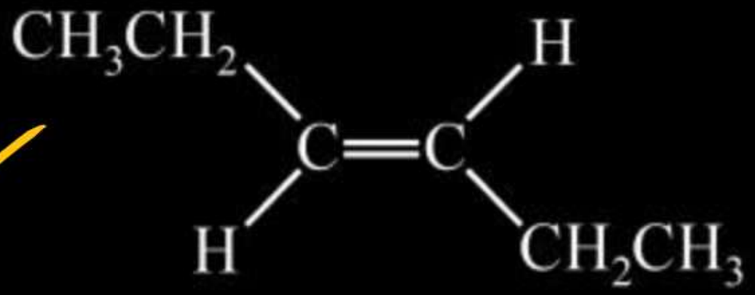
$CH_3-CH_2-C\equiv C-CH_2-CH_3$



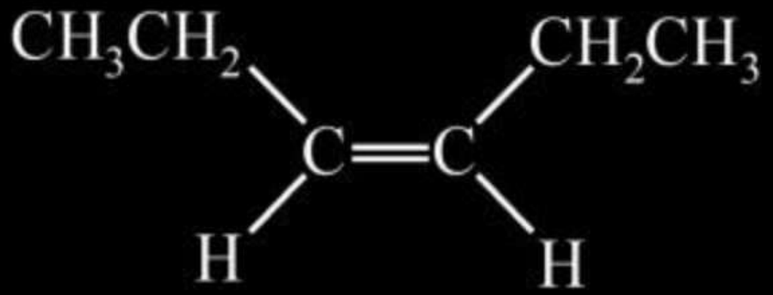
a. $CH_3CH_2CH = CH - CH_3$

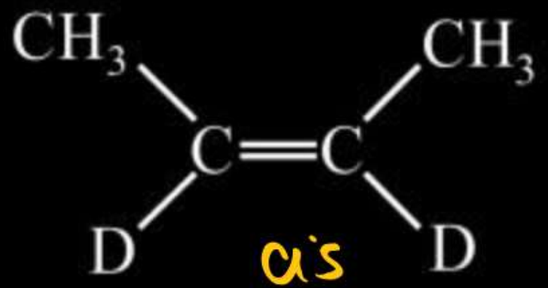
b. $CH_3CH_2CH = CH_2$

c.

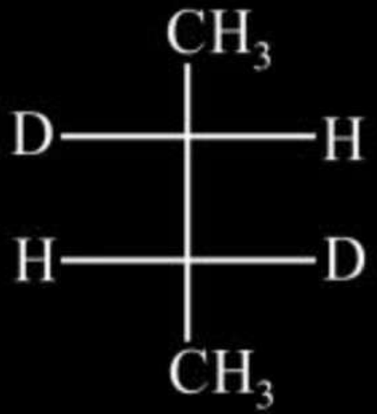


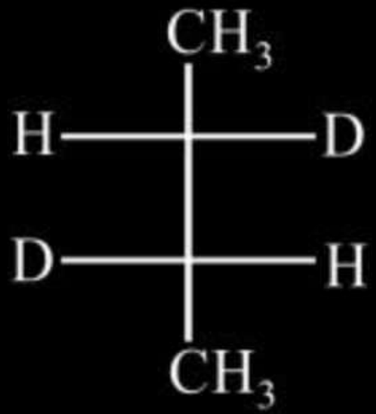
d.

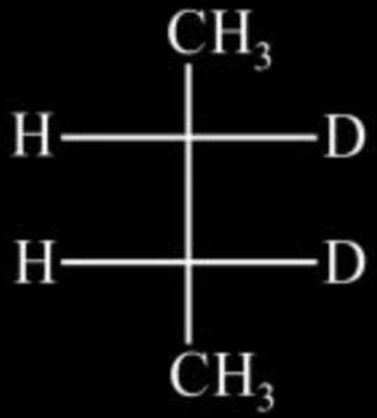


Q. 

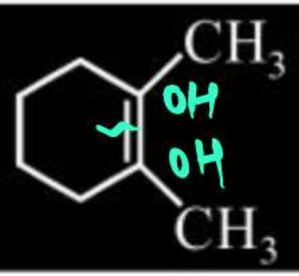
$\xrightarrow[\text{syn}]{H_2, Ni}$ Product : Erythro

a. 

b. 

c. 

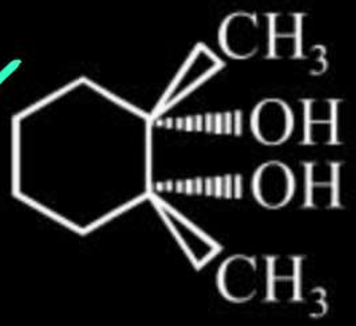
d. All of these

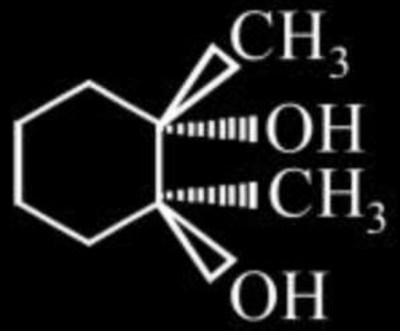
Q. 

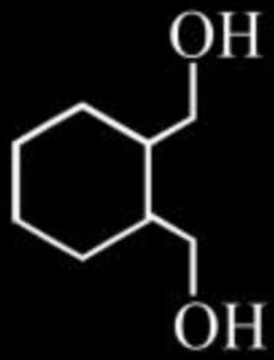
$\xrightarrow[NaHSO_4]{OsO_4}$

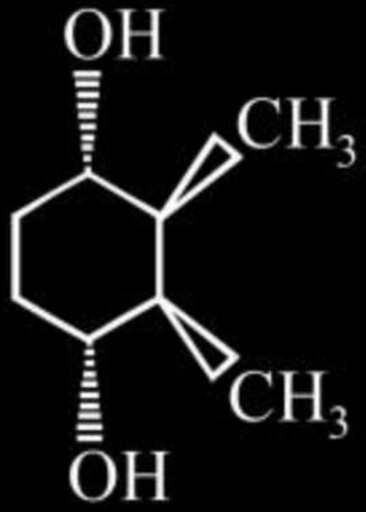
Alternate reagent of Baeyer's Reagent

Syn Addition

a. 

b. 

c. 

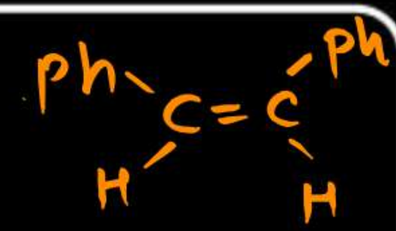
d. 

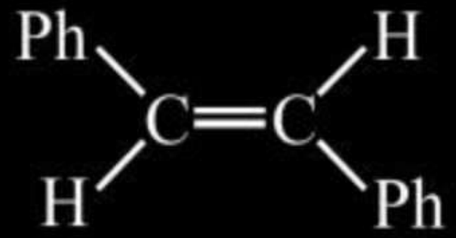
Q. $Ph - CH = CH - Ph \xrightarrow[CCl_4]{Cl_2} X \xrightarrow{2NaNH_2} Y \xrightarrow{H_2,\ Pd-CaCO_3} Z$

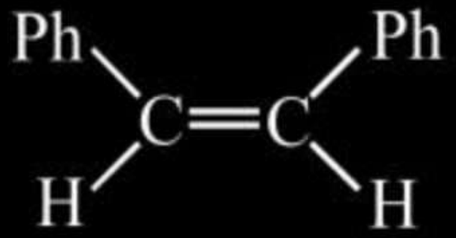
Ph–C≡C–Ph

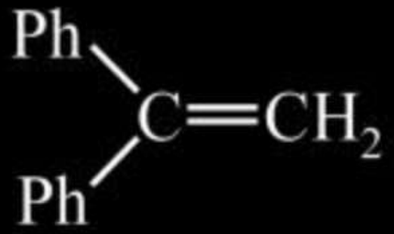
Ph–CH(Cl)–CH(Cl)–Ph

Identify product (Z) of the reaction.



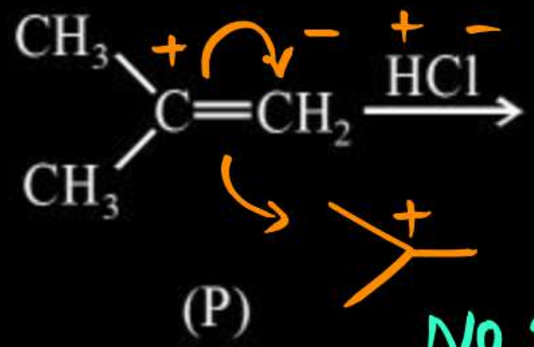
a. 

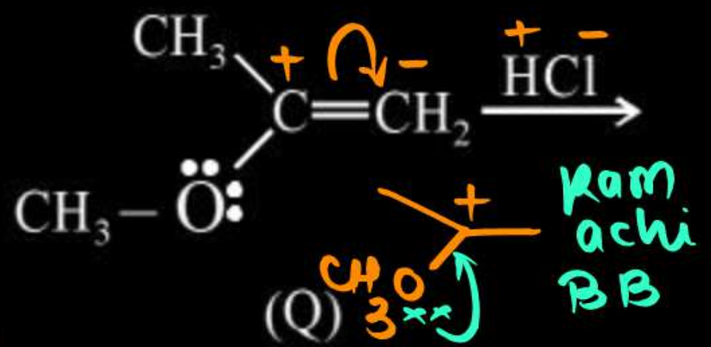
b. 

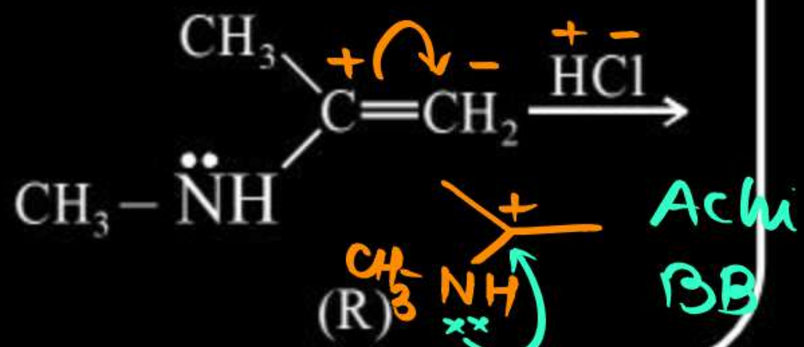
c. 

d. $Ph - C \equiv C - Ph$

Q. Arrange the following reactions in decreasing order of electrophilic addition reaction :







R > Q > P

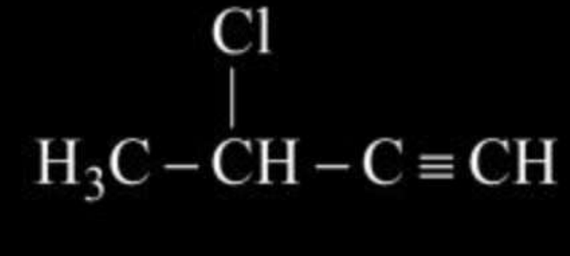
a. P > Q > R

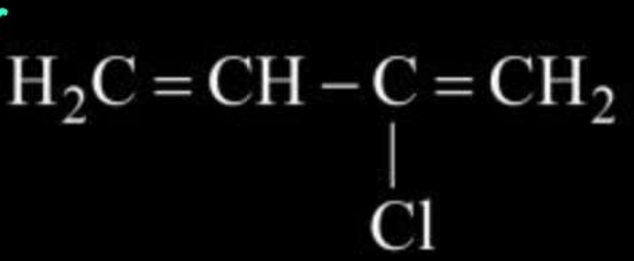
b. Q > R > P

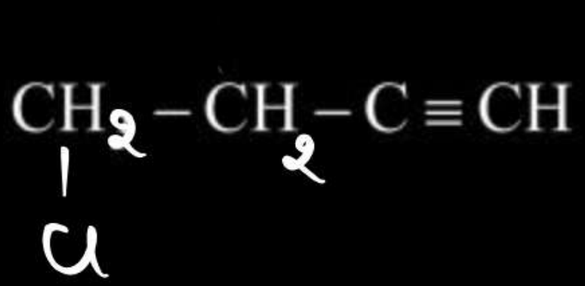
c. R > Q > P

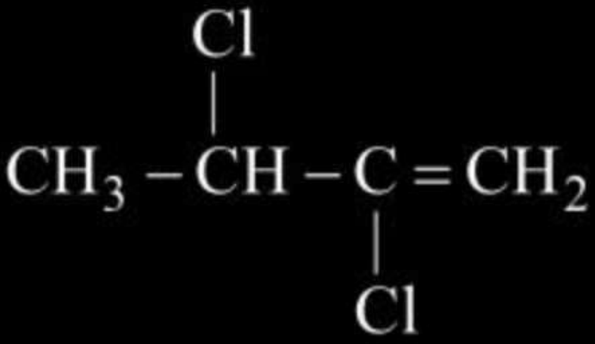
d. P = Q = R

Q. $H_2C = CH - C \equiv CH + HCl \longrightarrow X$; 'X' is:

a. 

b. 

c. 

d. 

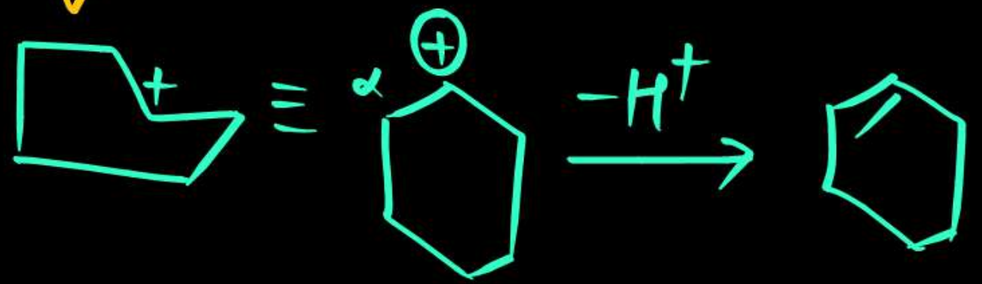
Q.  $\xrightarrow[\Delta]{\text{Conc. } H_3PO_4}$ Major product :

a. 

b. 

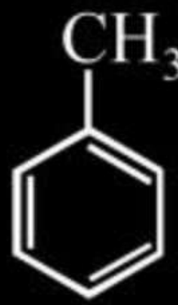
c. 

d. 



Q.  $\xrightarrow[600°C]{Cr_2O_3 - Al_2O_3}$ Major product :

Aromatization

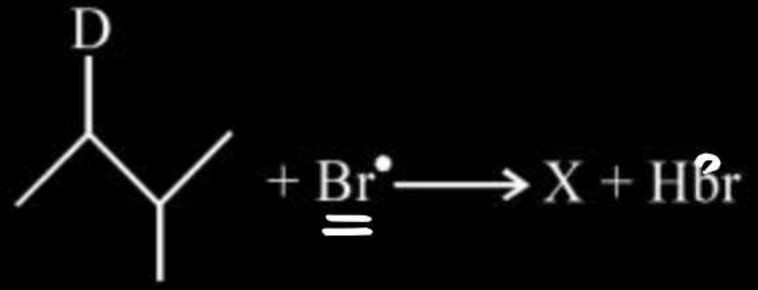
a. 

b. 

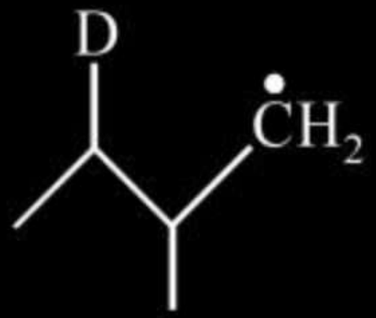
c. 

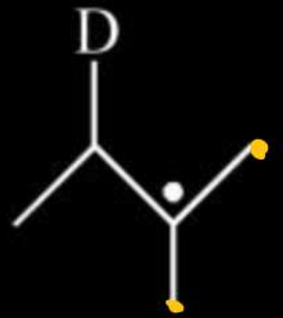
d. 

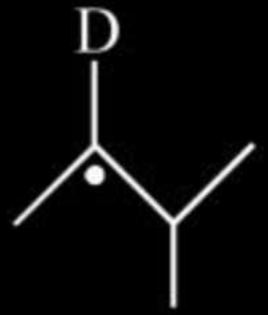
Q. Consider the following reaction :

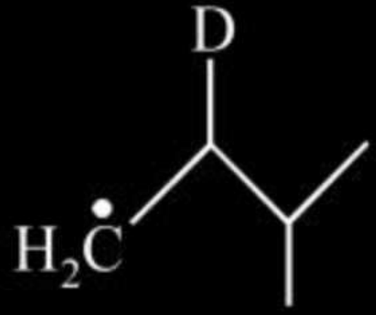


Identify structure of (X) among following :

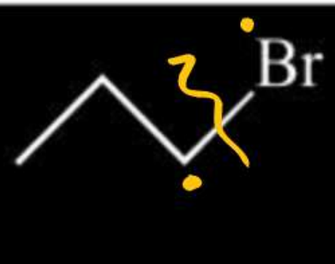
a. 

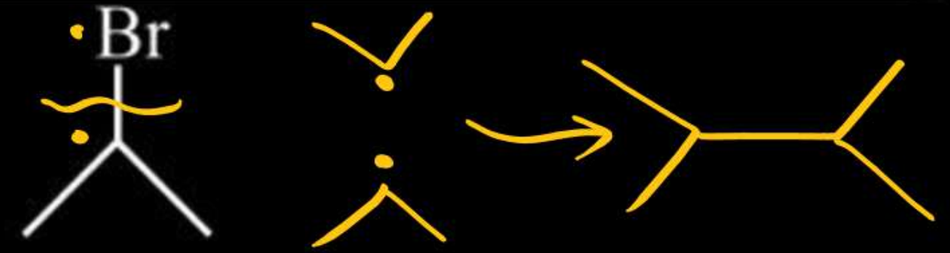
b. 

c. 

d. 

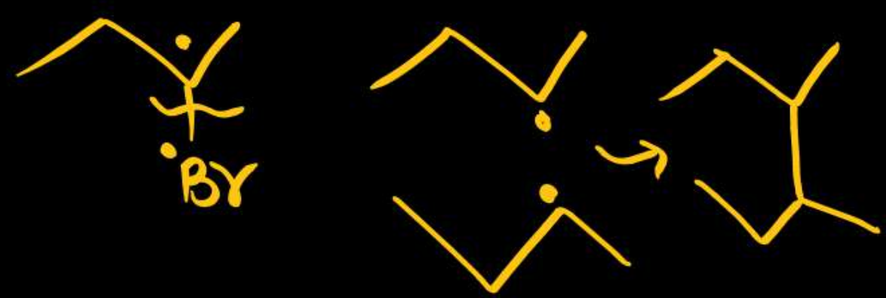
Q. Which of the following alkyl bromides may be used for the synthesis of 2, 3-dimethyl butane by Wurtz reaction?

a. 

b. 

c. Isobutyl bromide

d. s-butyl bromide



Thankyou!!