Q1 2021 (31 Aug Shift 1)

Given below are two statements : one is labelled as $Assertion$ $(\mathbf{A})$ and the other is labelled as $Reason$ $(\mathbf{R})$.

$Assertion$ $(\mathbf{A})$: Treatment of bromine water with propene yields $1-$bromopropan$-2-$ol.

$Reason$ $(\mathbf{R})$: Attack of water on bromonium ion follows Markovnikov rule and results in $1-$bromopropan $-2-$ol.

In the light of the above statements, choose the *most appropriate* answer from the options given below :

(1) Both $(\mathbf{A})$ and $(\mathbf{R})$ are true but $(\mathbf{R})$ is NOT the correct explanation of $(\mathbf{A})$.

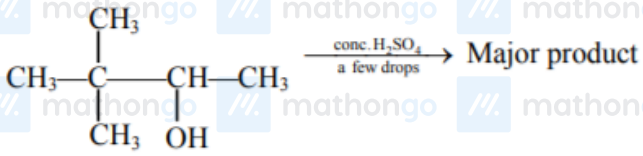
(2) $(\mathbf{A})$ is false but $(\mathbf{R})$ is true.

(3) Both $(\mathbf{A})$ and $(\mathbf{R})$ are true and $(\mathbf{R})$ is the correct explanation of $(\mathbf{A})$

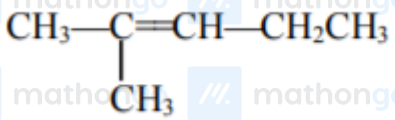
(4) $(\mathbf{A})$ is true but $(\mathbf{R})$ is false.

Q2 2021 (31 Aug Shift 1)

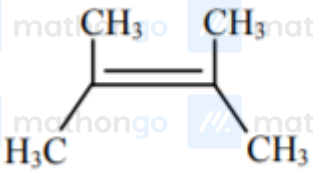
The major product formed in the following reaction is :



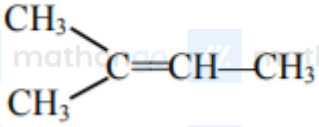
(1)

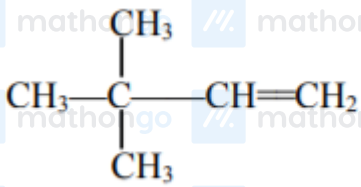


(2)



(3)

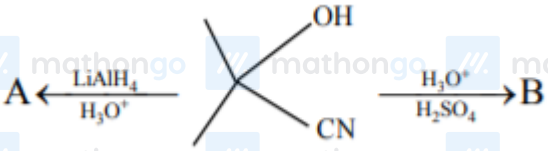


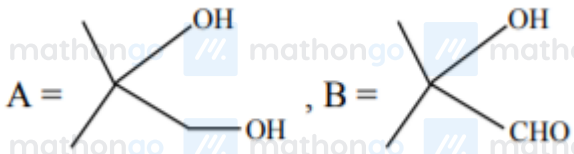


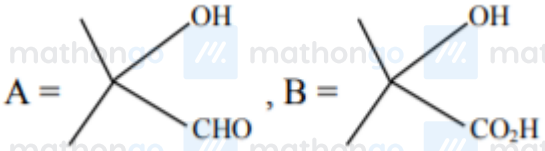
(4)

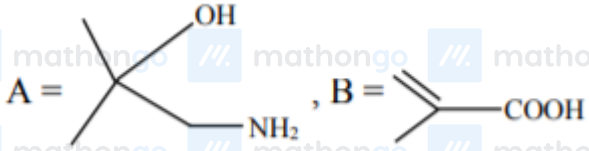
Q3 2021 (31 Aug Shift 1)

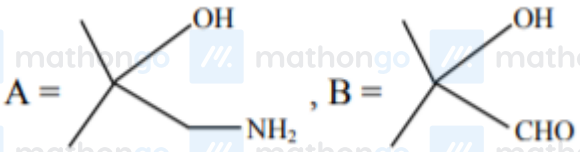
The major products A and B in the following set of reactions are :



(1) 

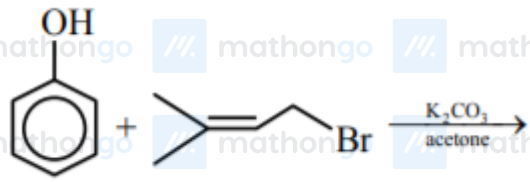
(2) 

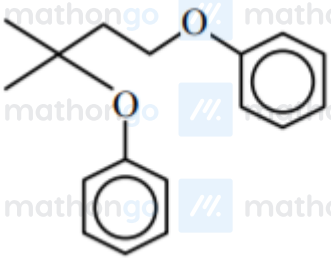
(3) 

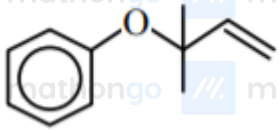
(4) 

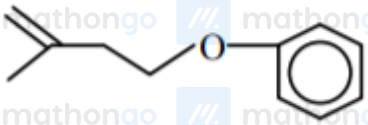
Q4 2021 (27 Aug Shift 2)

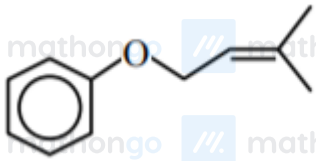
The major product of the following reaction, if it occurs by S_N2 mechanism is :



(1) 

(2) 

(3) 

(4) 

Q5 2021 (27 Aug Shift 2)

Given below are two statements :

Statement I : Ethyl pent-4-yn-oate on reaction with CH_3MgBr gives a 3°-alcohol.

Statement II : In this reaction one mole of ethyl pent-4-yn-oate utilizes two moles of CH_3MgBr.

In the light of the above statements, choose the *most appropriate* answer from the options given below :

(1) Both *Statement* I and *Statement* II are false.

(2) *Statement* I is false but *Statement* II is true.

(3) *Statement* I is true but *Statement* II is false.

(4) Both *Statement* I and *Statement* II are true.

Q6 2021 (27 Aug Shift 1)

Given below are two statements : one is labelled as

Assertion (A) and the other is labelled as *Reason* (R).

Assertion (A): Synthesis of ethyl phenyl ether may be achieved by Williamson synthesis.

Reason (R): Reaction of bromobenzene with sodium ethoxide yields ethyl phenyl ether.

In the light of the above statements, choose the most appropriate answer from the options given below:

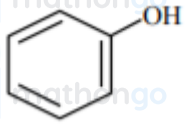
(1) Both (**A**) and (**R**) are correct and (**R**) is the correct explanation of (**A**)
(2) (**A**) is correct but (**R**) is not correct

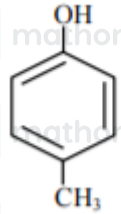
(3) (**A**) is not correct but (**R**) is correct

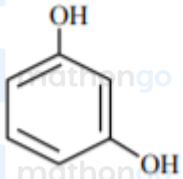
(4) Both (**A**) and (**R**) are correct but (**R**) is NOT the correct explanation of (**A**)

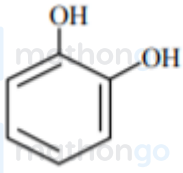
Q7 2021 (26 Aug Shift 2)

Which one of the following phenols does not give colour when condensed with phthalic anhydride in presence of conc. H_2SO_4 ?

(1) 

(2) 

(3) 

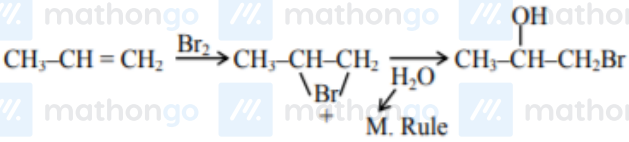
(4) 

Answer Key

Q1 (3) **Q2** (2) **Q3** (3) **Q4** (4)

Q5 (3) **Q6** (2) **Q7** (2)

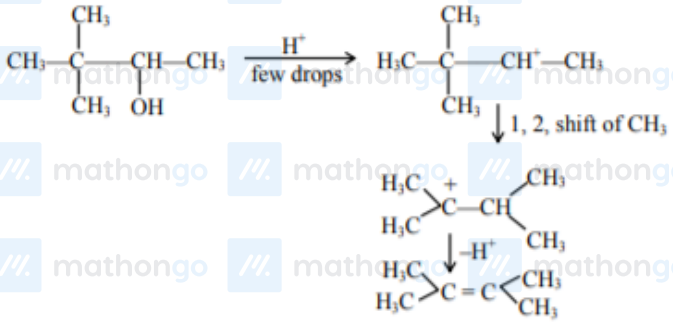
Q1 (3)



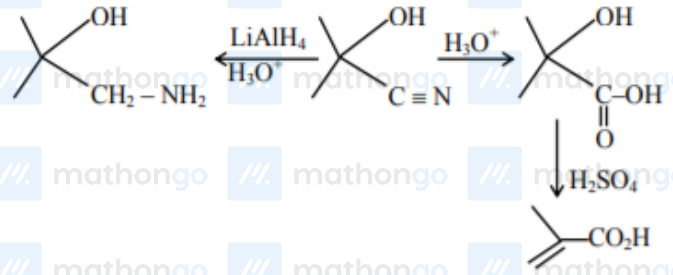
Its IUPAC name 1-bromopropan-2-ol

A and R are true and (R) is the correct explanation of (A) .

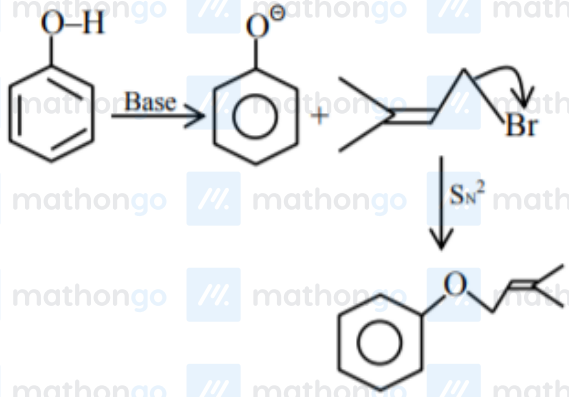
Q2 (2)



Q3 (3)



Q4 (4)

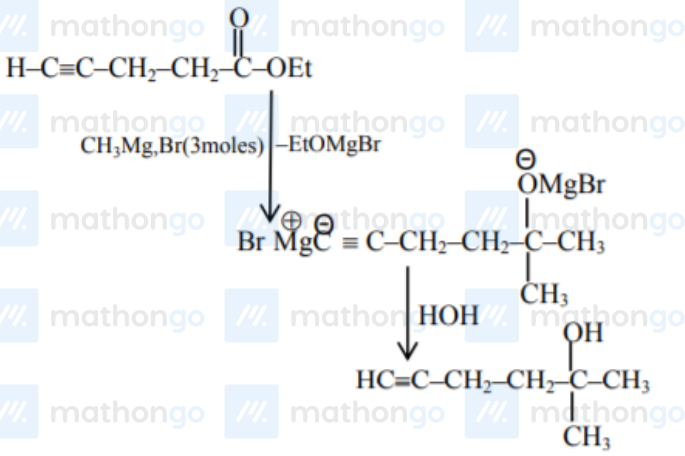


Q5 (3)

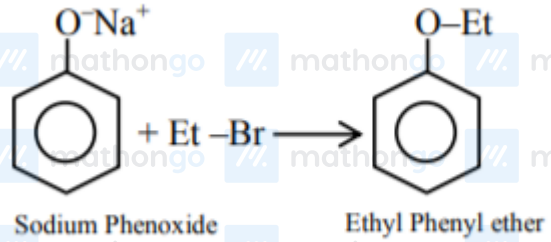
Statement 1 is true

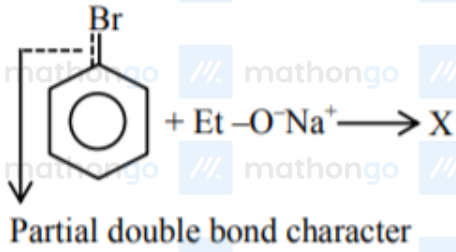
But it consume 3 moles of G R

So statement 2 is false.



Q6 (2)





Q7 (2)

Only p-methyl, phenol does not give any colour with phthalic anhydroxide with cons. H_2SO_4.