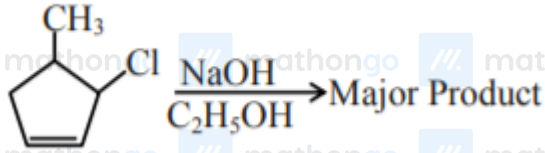
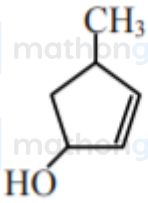
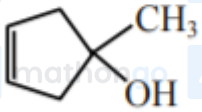
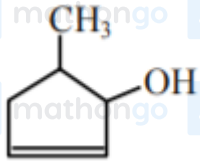
Q1 2021 (31 Aug Shift 2)

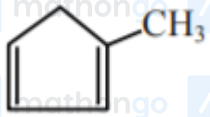
The major product of the following reaction is :



(1) 

(2) 

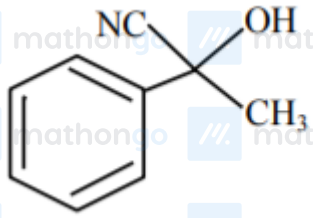
(3) 

(4) 

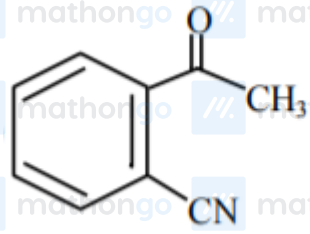
Q2 2021 (31 Aug Shift 1)

The structure of product C, formed by the following sequence of reactions is :

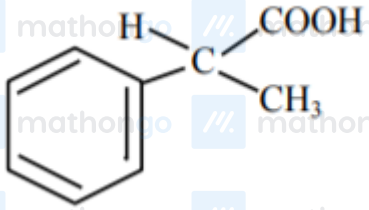
$$CH_3COOH + SOCl_2 \longrightarrow A \xrightarrow[AlC_3]{\text{Benzene}} B \xrightarrow{KCN} -OH \longrightarrow C$$

(1) 

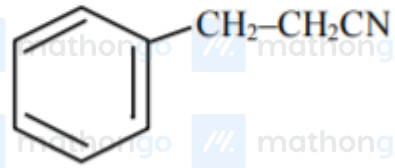
(2)



(3)



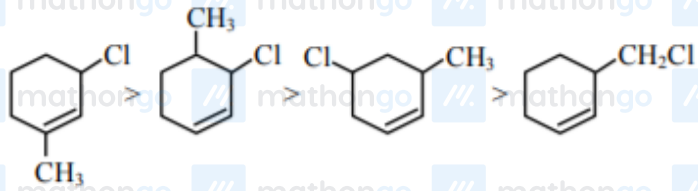
(4)



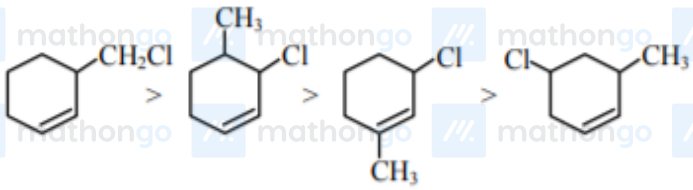
Q3 2021 (31 Aug Shift 1)

The correct order of reactivity of the given chlorides with acetate in acetic acid is :

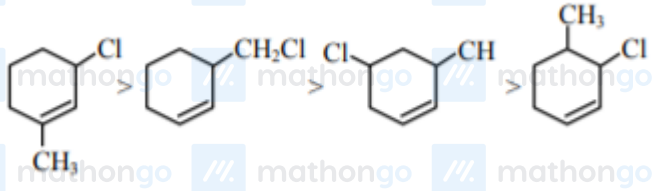
(1)

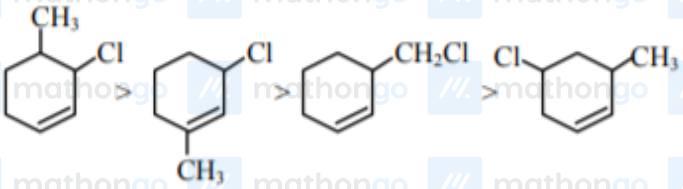


(2)



(3)

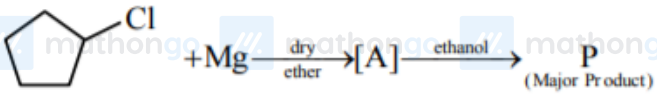




(4)

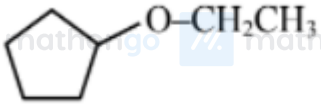
Q4 2021 (27 Aug Shift 1)

In the following sequence of reactions the P is :

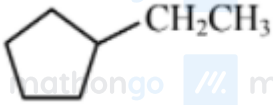


(1)

(2)



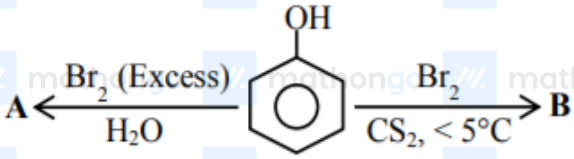
(3)

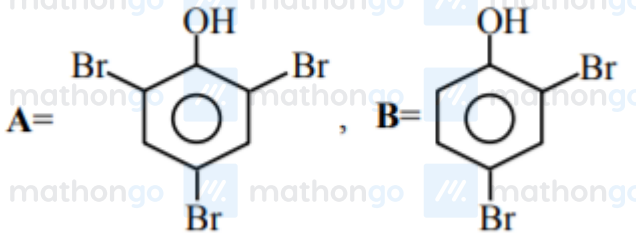


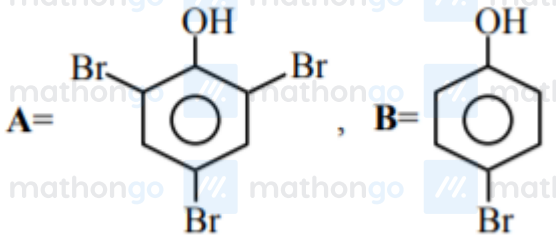
(4)

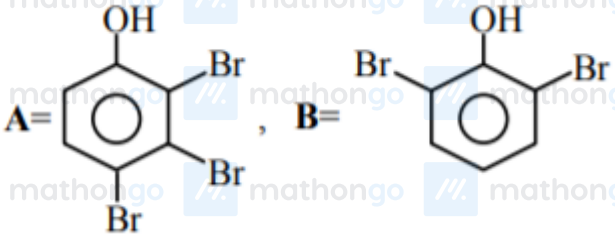
Q5 2021 (26 Aug Shift 1)

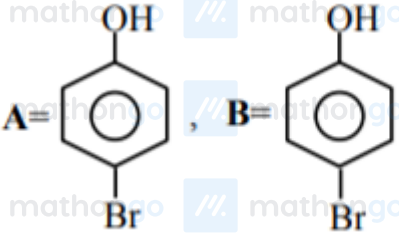
The correct options for the products **A** and **B** of the following reactions are :



(1) 
A=
OH
Br
Br
Br
,
B=
OH
Br
Br

(2) 
A=
OH
Br
Br
Br
,
B=
OH
Br

(3) 
A=
OH
Br
Br
Br
,
B=
OH
Br
Br

(4) 
A=
OH
Br
,
B=
OH
Br

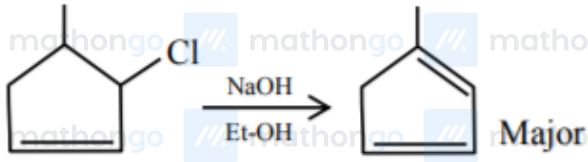
Answer Key

Q1 (3) **Q2** (1) **Q3** (1) **Q4** (1)

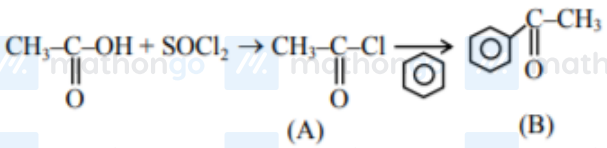
Q5 (2)

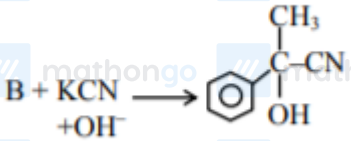
Q1 (3)

$NaOH + EtOH$ is known as alcoholic NaOH, so it give E^2 reaction with given alkyl halide.



Q2 (1)

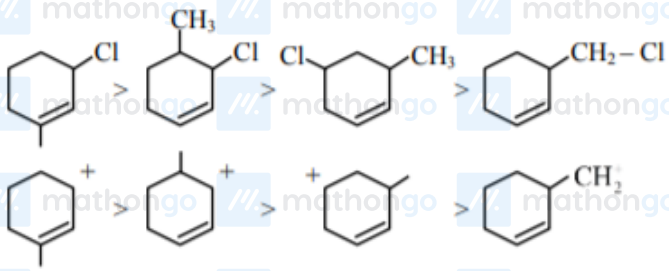




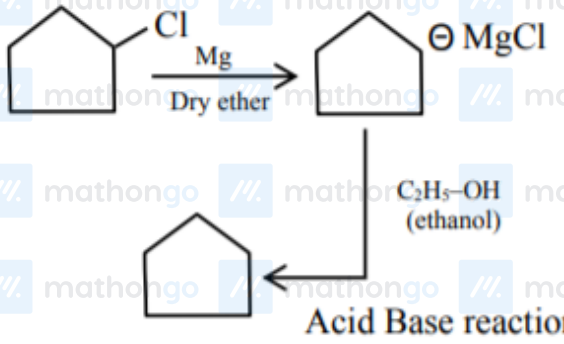
Q3 (1)

As it is example of SN^1.

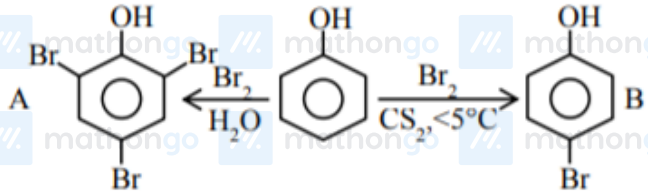
so carbocation stability ↑, reaction rate ↑



Q4 (1)


Cl
Mg
Dry ether
⊖ MgCl
C₂H₅–OH
(ethanol)
Acid Base reaction

Q5 (2)


OH
Br
Br
A
Br₂
H₂O
OH
Br₂
CS₂,<5°C
OH
B
Br