Q1 - 24 January - Shift 1

Assertion A : Hydrolysis of an alkyl chloride is a slow reaction but in the presence of NaI, the rate of the hydrolysis increases.

Reason R : I^- is a good nucleophile as well as a good leaving group.

In the light of the above statements, choose the **correct** answer from the options given below.

(1) A is false but R is true

(2) A is true but R is false

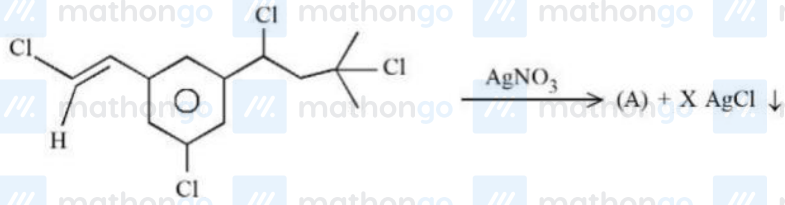
(3) Both A and R are true and R is the correct explanation of A

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

Space for your notes:

Q2 - 24 January - Shift 1

Number of moles of AgCl formed in the following reaction is _____.



Space for your notes:

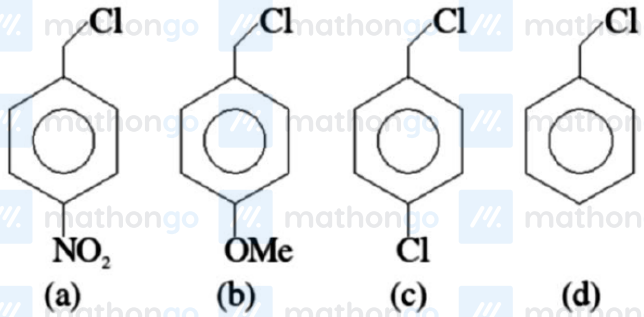
Q3 - 24 January - Shift 2

Maximum number of isomeric monochloro derivatives which can be obtained from 2,2,5,5-tetramethylhexane by chlorination is _____

Space for your notes:

Q4 - 30 January - Shift 2

Decreasing order towards S_N1 reaction for the following compounds is:



(a) (b) (c) (d)

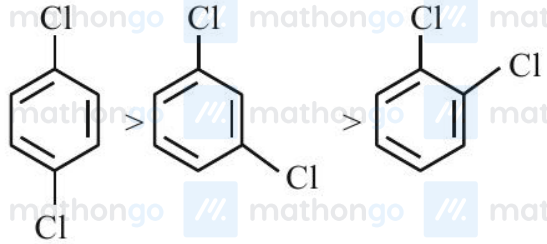
(1) a > c > d > b (2) a > b > c > d

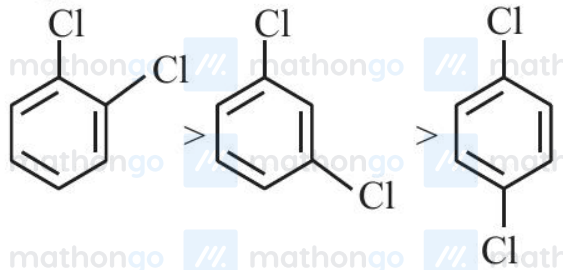
(3) b > d > c > a (4) d > b > c > a

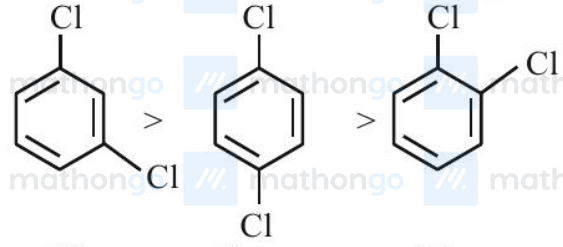
Space for your notes:

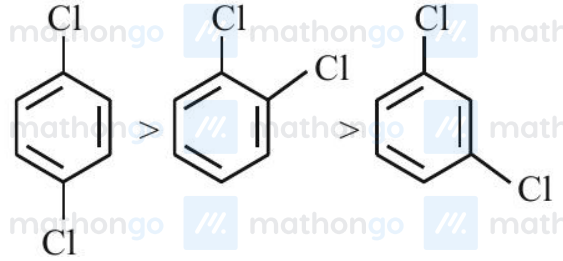
Q5 - 31 January - Shift 1

The correct order of melting point of dichlorobenzenes is

(1) 

(2) 

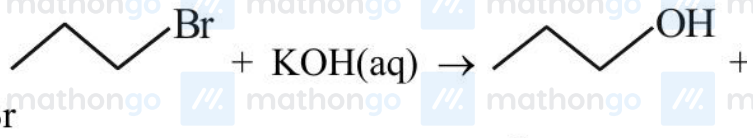
(3) 

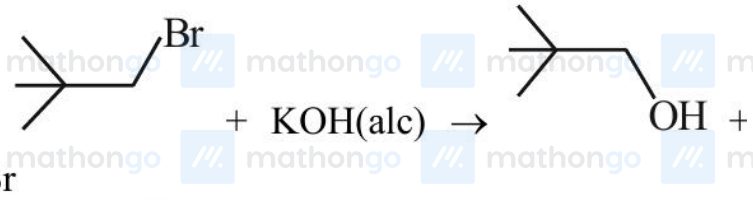
(4) 

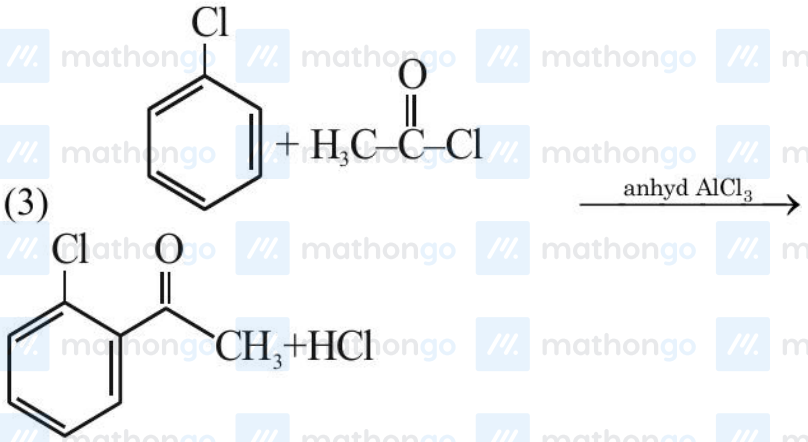
Space for your notes:

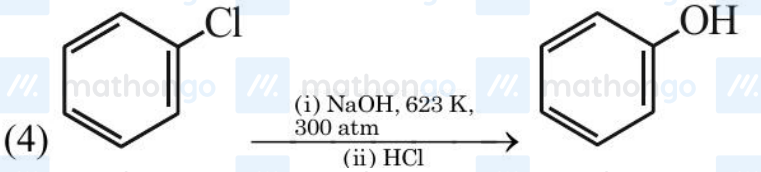
Q6 - 01 February - Shift 1

Identify the incorrect option from the following:

(1) 

(2) 

(3) 

(4) 

Space for your notes:

Answer Key

(As per Official NTA Key released on 2 Feb)

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

Q5 (4) **Q6** (2)

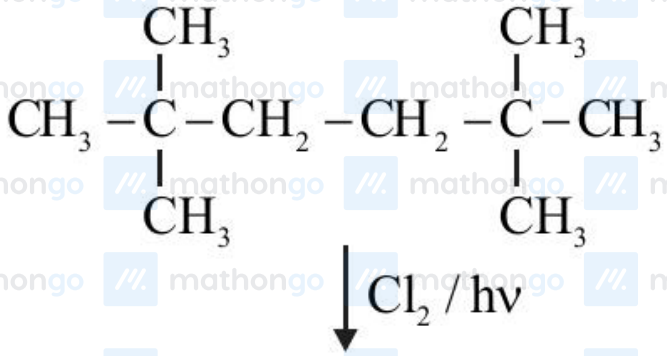
Q1 (3)

The rate of hydrolysis of alkyl chloride improves because of better Nucleophilicity of I^-.

Q2 (2)

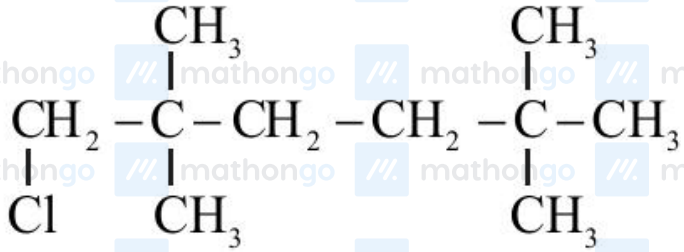
Benzylic and tertiary carbocations are stable

Q3 (3)

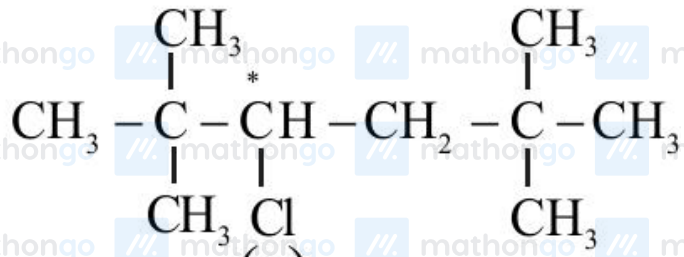


$\xrightarrow{Cl_2/h\nu}$

(1)



(2)

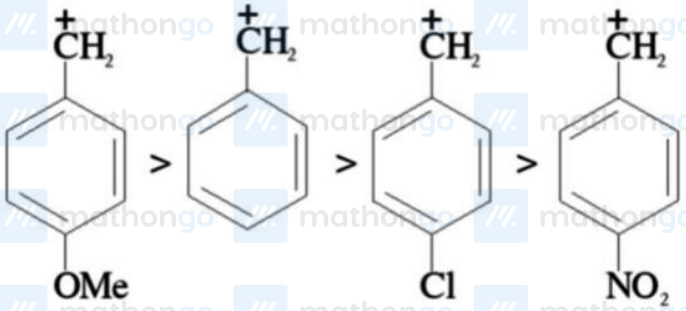


$(\pm)$

Total numbers of isomer = 03

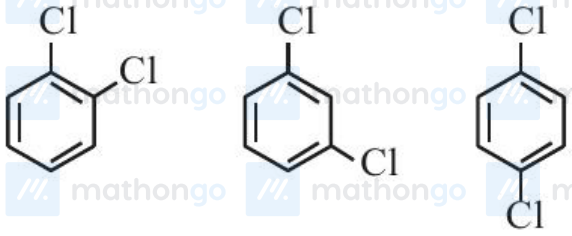
Q4 (3)

The rate of S_N1 reaction depends upon stability of carbocation which follows the order

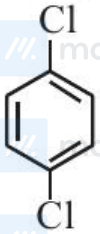


$\therefore$ Reactivity order

Q5 (4)

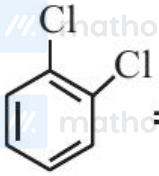


b.p / K	453	446	448
m.p / K	256	249	323



$\Rightarrow$ More Symmetrical & better Crystal fitting

M.P a Packing efficiency



$\Rightarrow \mu_{max}$

Q6 (2)

In alcoholic KOH, elimination reaction takes place