



Haloalkanes and Haloarenes

Q.No.1: The major organic compound formed by the reaction of 1, 1, 1 – trichloroethane with silver powder is

- A. 2 – Butyne
- B. 2 – Butene
- C. Acetylene
- D. Ethene

Q.No.2:

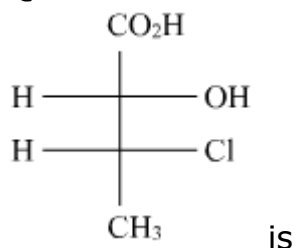
2-Chloro-2-methylpentane on reaction with sodium methoxide in methanol yields:

- (a) $\text{CH}_3\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)_2\text{OCH}_3$ (b) $\text{CH}_3\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)\text{CH}_2$
(c) $\text{CH}_3\text{CH}_2\text{CHC}(\text{CH}_3)_2$

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- A. (a) and (c)
- B. (c) only
- C. (a) and (b)
- D. All of these

Q.No.3: The absolute configuration of



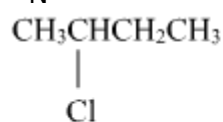
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- A. (2S, 3R)
- B. (2S, 3S)
- C. (2R, 3R)
- D. (2R, 3S)

Q.No.4: The reaction of propene with HOCl ($\text{Cl}_2 + \text{H}_2\text{O}$) proceeds through the intermediate: **JEE 2016**

- A. $\text{CH}_3 - \text{CH}^+ - \text{CH}_2 - \text{Cl}$
- B. $\text{CH}_3 - \text{CH}(\text{OH}) - \text{CH}_2^+$
- C. $\text{CH}_3 - \text{CHCl} - \text{CH}_2^+$
- D. $\text{CH}_3 - \text{CH}^+ - \text{CH}_2 - \text{OH}$

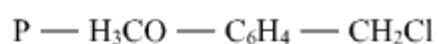
Q.No.5: The increasing order of the reactivity of the following halides for the $\text{S}_{\text{N}}1$ reaction is :



(I)



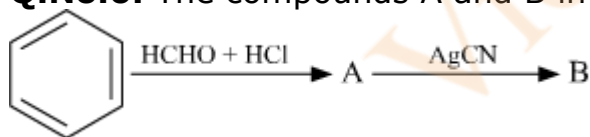
(II)



(III)

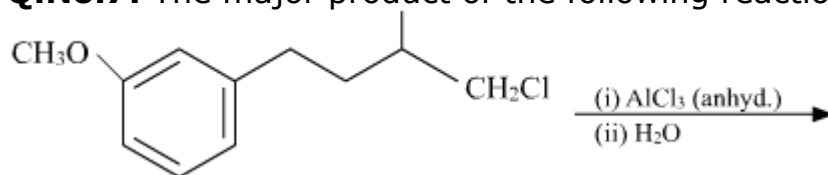
- A. (II) < (I) < (III)
- B. (I) < (III) < (II)
- C. (II) < (III) < (I)
- D. (III) < (II) < (I)

Q.No.6: The compounds A and B in the following reaction are, respectively:



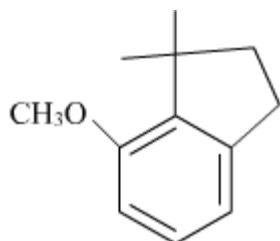
- A. A = Benzyl alcohol, B = Benzyl cyanide
- B. A = Benzyl chloride, B = Benzyl cyanide
- C. A = Benzyl alcohol, B = Benzyl isocyanide
- D. A = Benzyl chloride, B = Benzyl isocyanide

Q.No.7: The major product of the following reaction is:

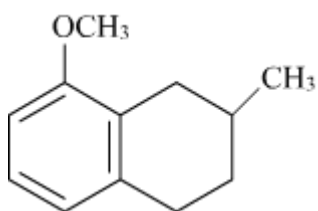


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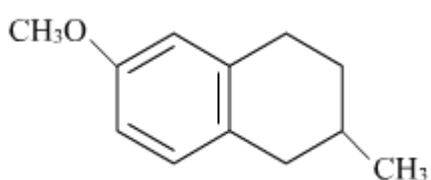
A.



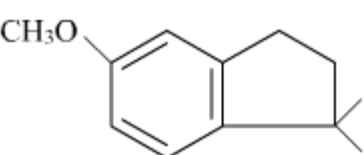
B.



C.

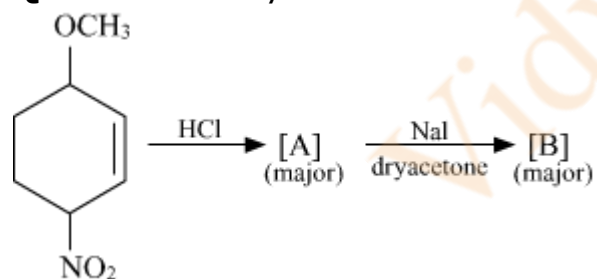


D.

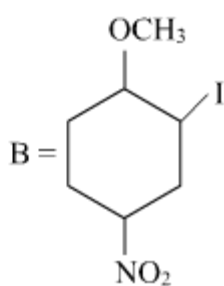
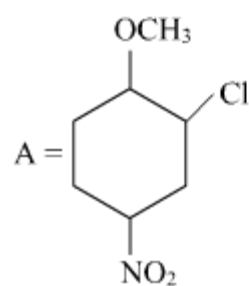


Q.No.8: Identify A and B in the chemical reaction.

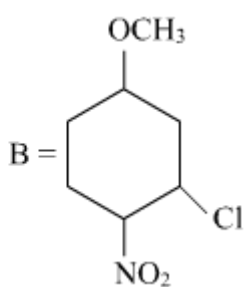
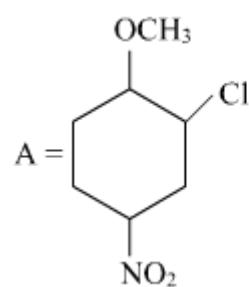
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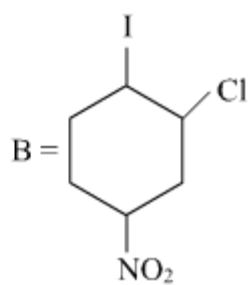
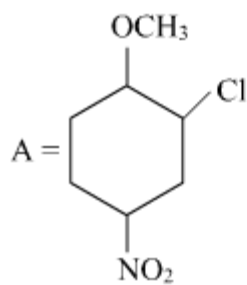
A.



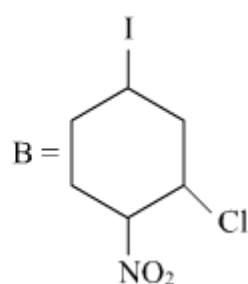
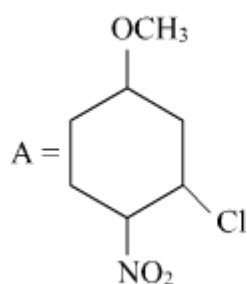
B.



C.

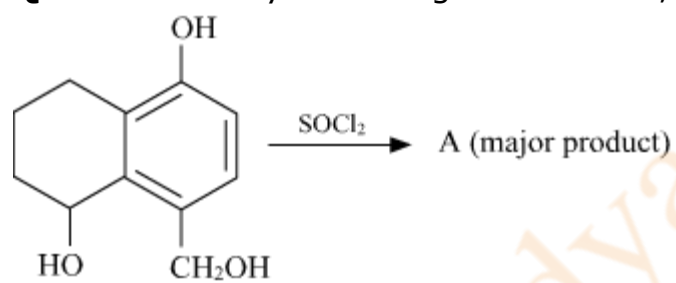


D.

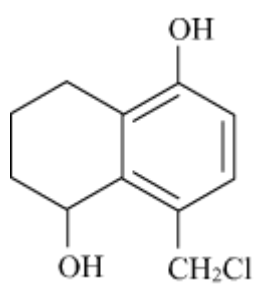


Q.No.9: Identify A in the given reaction,

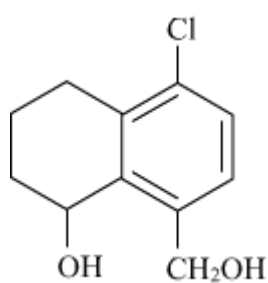
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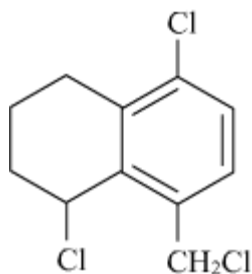
A.



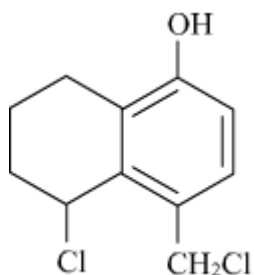
B.



C.



D.



Q.No.10: Match List-I with List-II

List-I	List-II
<p>a) $\text{C}_6\text{H}_5\text{N}_2^+\text{Cl}^- \xrightarrow{\text{Cu}_2\text{Cl}_2} \text{C}_6\text{H}_5\text{Cl} + \text{N}_2$</p>	(i) Wurtz reaction
<p>b) $\text{C}_6\text{H}_5\text{N}_2^+\text{Cl}^- \xrightarrow{\text{Cu/HCl}} \text{C}_6\text{H}_5\text{Cl} + \text{N}_2$</p>	(ii) Sandmeyer reaction
<p>c) $2 \text{CH}_3\text{CH}_2\text{Cl} + 2 \text{Na} \xrightarrow{\text{Ether}} \text{C}_2\text{H}_5 - \text{C}_2\text{H}_5 + 2 \text{NaCl}$</p>	(iii) Fittig reaction
<p>d) $2 \text{C}_6\text{H}_5\text{Cl} + 2 \text{Na} \xrightarrow{\text{Ether}} \text{C}_6\text{H}_5 - \text{C}_6\text{H}_5 + 2 \text{NaCl}$</p>	(iv) Gatterman reaction

Choose the correct answer from the options given below

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- A.** (a)-(iii); (b)-(iv); (c)-(i); (d)-(ii)
B. (a)-(ii); (b)-(iv); (c)-(i); (d)-(iii)
C. (a)-(iii); (b)-(i); (c)-(iv); (d)-(ii)
D. (a)-(ii); (b)-(i); (c)-(iv); (d)-(iii)