Lakshya NEET (2025)

Organic Chemistry

Haloalkanes and Haloarenes

DPP: 6

Q1 Tertiary alkyl halides are practically inert to substitution by S_N2 mechanism because of
(A) Steric hindrance
(B) Inductive effect
(C) Instability
(D) Insolubility

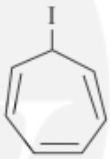
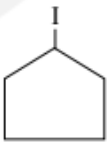
Q2 Which of the following is the correct order of decreasing S_N2 reactivity?
(A) $RCH_2X > R_3CX > R_2CHX$
(B) $RCH_2X > R_2CHX > R_3CX$
(C) $R_3CX > R_2CHX > RCH_2X$
(D) $R_2CHX > R_3CX > RCH_2X (X =$ halogen $)$

Q3 Intermediate in S_N2 reaction is
(A) Carbocation
(B) Carbanion
(C) Penta-valent C-atom
(D) None of these

Q4 Which of the following would favour S_N2 reaction?
(A) H_2O
(B) Ethanol
(C) THF
(D) Benzene

Q5 Rearrangement can occur in
(A) S_N1
(B) S_N2
(C) Both S_N1 & S_N2
(D) None of these

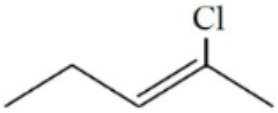
Q6 Which of the following conditions favour S_N2 mechanism?
(A) Strong nucleophile
(B) Weak conc. of nucleophile
(C) 3° alkyl halide
(D) Polar protic solvent

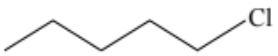
Q7 Which of the following is least reactive towards S_N1 ?
(A) 
(B) 
(C) 
(D) 

Q8 S_N1 reactivity of the following halides, will be in the order
(i) $(CH_3)_3CBr$
(ii) $(C_6H_5)_2CHBr$
(iii) $(C_6H_5)_2C(CH_3)Br$
(iv) $(CH_3)_2CHBr$
(A) iv > i > ii > iii

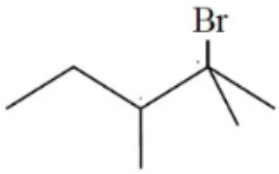
(B) ii > i > iii > iv
(C) i > iii > ii > iv
(D) iii > ii > i > iv

Q9 The compound which would undergo S_N2 reaction fastest is

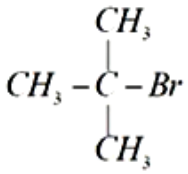
(A) 

(B) 

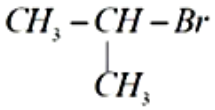
(C) 

(D) 

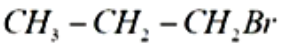
Q10 (a)



(b)



(c)



Reactivity toward S_N1
(A) a > b > c
(B) b > a > c
(C) b > c > a
(D) c > b > a

Q11 Assuming no other changes, what is the effect on rate of reaction if the concentrations of both alkyl halide and the nucleophile are doubled?

$$CH_3Br + HO^{\ominus} \longrightarrow CH_3OH + Br^{\ominus}$$

(A) no change
(B) doubles the rate
(C) triples the rate
(D) quadruples the rate

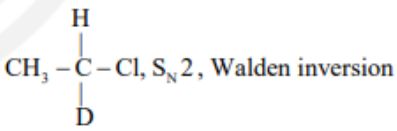
Q12 Assuming no other changes, what is the effect of doubling only the concentration of the alkyl halide in the following S_N1 reaction?

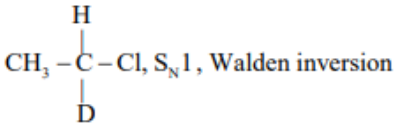
$$(CH_3)_3CBr + I^{\ominus} \longrightarrow (CH_3)_3CI + Br^{\ominus}$$

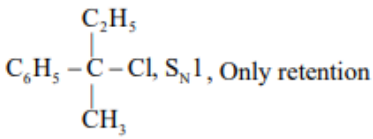
(A) no change
(B) doubles the rate
(C) triples the rate
(D) quadruples the rate

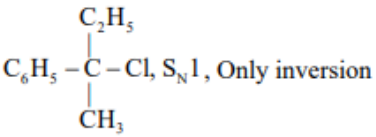
Q13 Which of the following alkyl halides gives the fastest S_N1 reaction?
(A) $CH_3\,CH_2\,CH_2\,Br$
(B) $CH_3\,CH(Br)\,CH_3$
(C) $CH_3\,CH(I)\,CH_3$
(D) $CH_3CH_2CH_2I$

Q14 Which of the following combinations is correctly matched?

(A) 

(B) 

(C) 

(D) 

Answer Key

Q1	(A)
Q2	(B)
Q3	(D)
Q4	(C)
Q5	(A)
Q6	(A)
Q7	(A)
Q8	(D)
Q9	(C)
Q10	(A)
Q11	(D)
Q12	(B)
Q13	(C)
Q14	(A)