

## Chapter

## 01

## Halogen Derivatives



## Practice Section-01



- Q.1** What is the class of the substitution product of  $\text{LiAlH}_4$  and an alkyl halide reaction?  
(1) Haloalkane (2) Alkyl nitrite (3) Nitroalkane (4) Hydrocarbon
- Q.2** Which of the following statements about  $\text{S}_\text{N}2$  mechanisms is incorrect?  
(1) The transition state is stable  
(2) The complete mechanism takes place in a single step  
(3) The rate of the reaction depends on the concentration of both reactants  
(4) There is an inversion of configuration
- Q.3** A mono haloarene is an example of \_\_\_\_\_  
(1) aliphatic halogen compound (2) side-chain substituted aryl halide  
(3) alkyl halide (4) aromatic halogen compound
- Q.4** What is 3-Bromopropene's common name?  
(1) Allyl bromide (2) Vinyl bromide  
(3) Tert-Butyl bromide (4) Propylidene bromide
- Q.5** Which of the following is the right name for the compound  $\text{H}_3\text{C}-\text{CHCl}_2$ ?  
(1) 1,2-Dichloroethane (2) Ethylene dichloride  
(3) Ethylidene chloride (4) Vic-dichloride
- Q.6** What is the catalyst in the chloroalkane reaction of a primary alcohol with  $\text{HCl}$ ?  
(1) red phosphorous (2) concentrated  $\text{H}_2\text{SO}_4$   
(3) anhydrous  $\text{ZnCl}_2$  (4) pyridine
- Q.7** When ethanol combines with  $\text{PCl}_5$ , it produces three products: chloroethane, hydrochloric acid, and \_\_\_\_\_. What is the third item on the list?  
(1) Phosphorus acid (2) Phosphoryl chloride  
(3) Phosphorus trichloride (4) Phosphoric acid
- Q.8** Which of the following substances has the highest melting point?  
(1) Chloromethane (2) Tetrachloromethane  
(3) Trichloromethane (4) Dichloromethane



## Practice Section-02



- Q.1** Which of the following compounds has the highest boiling point?  
 (1)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{Cl}$  (2)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{Cl}$   
 (3)  $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{Cl}$  (4)  $(\text{CH}_3)_3\text{CCl}$
- Q.2** The pesticide DDT slowly changes to  
 (1)  $\text{CCl}_3\text{-CHO}$  and chlorobenzene (2) p, p'-Dichlorodiphenylethen  
 (3) p, p'-Dichlorodiphenyldichloroethane (4) p, p'-Dichlorodiphenyldichloroethene
- Q.3** Rectified spirit is a mixture of  
 (1) 95% ethyl alcohol + 5% water (2) 94% ethyl alcohol + 4.53 water  
 (3) 94.4% ethyl alcohol + 5.43% water (4) 95.87% ethyl alcohol + 4.13% water
- Q.4** The solution of a chemical compound reacts with  $\text{AgNO}_3$  solution to form a white precipitate of Y which dissolves in  $\text{NH}_4\text{OH}$  to give a complex Z. When Z is treated with dilute  $\text{HNO}_3$ , Y reappears. The chemical compound X can be  
 (1)  $\text{NaCl}$  (2)  $\text{CH}_3\text{Cl}$  (3)  $\text{NaBr}$  (4)  $\text{NaI}$
- Q.5** Gem-dibromide is  
 (1)  $\text{CH}_3\text{CH}(\text{Br})\text{CH}_2(\text{Br})$  (2)  $\text{CH}_3\text{CBr}_2\text{CH}_3$  (3)  $\text{CH}_2(\text{Br})\text{CH}_2\text{CH}_2$  (4)  $\text{CH}_2\text{BrCH}_2\text{Br}$
- Q.6** How many structural isomers are possible for a compound with molecular formula  $\text{C}_3\text{H}_7\text{Cl}$ ?  
 (1) 2 (2) 5 (3) 7 (4) 9
- Q.7** The compound which contains all the four  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$  and  $4^\circ$  carbon atoms is  
 (1) 2, 3-dimethyl pentane (2) 3-chloro-2, 3-dimethylpentane  
 (3) 2, 3, 4-trimethylpentane (4) 3, 3-dimethylpentane
- Q.8** IUPAC name of  $(\text{CH}_3)_3\text{CCl}$   
 (1) 3-Chlorobutane (2) 2-Chloro-2-methylpropane  
 (3) t-butyl chloride (4) n-butyl chloride



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# ANSWER KEY

## PRACTICE SECTION-01

Que.	1	2	3	4	5	6	7	8	
Ans:	4	1	4	1	3	3	2	2	

## PRACTICE SECTION-02

Que.	1	2	3	4	5	6	7	8	
Ans:	2	4	4	1	2	1	2	2	

## TOPIC WISE QUESTIONS

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	1	1	4	2	4	4	1	3	3	3	4	3	4	2	1
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	4	3	1	3	1	1	2	4	1	2	4	2	3	1	3
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	1	1	1	2	2	3	1	2	1	3	2	3	1	2	2,3,4
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	1	1	3	4	3	4	1	2	2	3	3	2	4	2	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	4	2	3	1	2	2	3	2	1	4	1	3	1	2	3
Que.	76	77	78	79	80	81	82	83	84	85	86	87			
Ans.	2	1	3	2	3	3	1	3	1	3	1	4			

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