

MDCAT Chemistry Chapter 14 Chemistry of Hydrocarbons Online Test

Sr	Questions	Answers Choice
1	Out of monochloro, monobromo and moniodo derivatives of ethane, the most reactive compound towards nucleophilic substitution will be	A. C ₂ H ₅ Br B. C ₂ H ₅ Cl C. C ₂ H ₅ I D. All are equally reactive
2	Which one of the following is NOT a nucleophile	A. NH ₂ ⁺ B. BF ₃ C. H ₂ O D. CH ₃ ⁻
3	In an elimination reaction a more substituted alkene is formed due to the stability associated with	A. Free radical B. transition state C. Activated complex D. Carbocation
4	The carbon atom of an alkyl group attached with halogen atom is called	A. Electrophile B. Free radical C. Nucleophile D. Nucleophilic centre
5	Which is an intermediate in S _N 1 reaction	A. Ethoxide ion B. Carbocation C. alkyl halide D. alkene
6	Which one among the following is not a good leaving group	A. HSO ₄ ⁻ B. Cl ⁻ C. OH ⁻ D. Br ⁻
7	Which of the following reactions does not involve formation of carbocation?	A. S _N 1 and E1 B. E1 and E2 C. S _N 1 and S _N 2 D. E2 and S _N 2
8	Which of the following decides the reactivity of alkyl halides?	A. C-C bond strength B. C-H bond strength C. C-X bond strength D. Electronegativity difference
9	S _N 2-reactions can be usually observed in	A. Primary alkyl halide B. secondary alkyl halide C. Tertiary alkyl halide D. Both A. and B
10	Dehydrohalogenation of secondary butyl bromide will give	A. Propene B. 1-Butene C. Butene D. 2-Butene
11	Correct order for the reactivity of alkyl halide in S _N reactions	A. R-I > R-F > R-Cl B. R-F > R-Cl > R-I C. R-I > R-Cl > R-F D. R-Cl > R-I > R-F
12	Which of the following is primary alkyl halide	A. Isopropyl halide B. Sec-butyl halide C. Tert-butyl halide D. Neo-pentyl halide
13	Which isomer of C ₄ H ₉ Br will produce 2-methyl propan-2-ol on treatment with aqueous KOH	A. n-butyl bromide B. Sec-butyl bromide C. Isobutyl halide D. Tertiary butyl chloride
14	In beta elimination reaction	A. carbon number changes B. unsaturated compound is formed C. hybridization of C remains same D. pi bonds are decreased
15	Reaction of ethyl bromide with ammonia	A. Completes in a single step B. Completes in two steps C. Continues till N is left with no lone pair D. Completes in one step

		pair D. is reversible
16	For which mechanisms, the first step involved is the same	A. E1 and E2 B. E2 and SN2 C. E2 and E1 D. E1 and SN1
17	Which pair gives same dehydrohalogenation product	A. 1-Chlorobutane, 2-Chlorobutane B. 1-Chloropropane, 2-Chloropropane C. 1-Bromopentane, 3-Bromopentane D. iso-butyl chloride, 2°-butyl chloride
18	The reaction $C_2H_5Cl + \text{aqueous KOH} \rightarrow C_2H_5OH + KCl$ is	A. Electrophilic addition B. Nucleophilic addition C. Electrophilic substitution D. Nucleophilic substitution
19	The species which are produced by heterolytic bond breaking and can act as electron pair donor	A. Free radicals B. Cations C. Nucleophiles D. electrophile
20	Chloroform ($CHCl_3$) is?	A. Primary alkyl halide B. Secondary alkyl halide C. Tertiary alkyl halide D. a liquid