

## MDCAT Chemistry Chapter 14 Chemistry of Hydrocarbons Online Test

Sr	Questions	Answers Choice
1	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
2	Elimination unimolecular reactions involve	A. Second order kinetics B. First order kinetics C. Third order kinetics D. Zero order kinetics
3	Among the following, which one is nucleophile	A. H <sup>+</sup> B. Ca <sup>2+</sup> C. OH <sup>-</sup> D. Na <sup>+</sup>
4	Out of monochloro, monobromo and moniodo derivatives of ethane, the most reactive compound towards nucleophilic substitution will be	A. C <sub>2</sub> H <sub>5</sub> Br B. C <sub>2</sub> H <sub>5</sub> Cl C. C <sub>2</sub> H <sub>5</sub> I D. All are equally reactive
5	Which is a good nucleophile as well as a good leaving group?	A. F <sup>-</sup> B. Cl <sup>-</sup> C. Br <sup>-</sup> D. I <sup>-</sup>
6	Which of the following alkyl halides undergoes SN <sub>1</sub> reaction fastest	A. Methyl chloride B. Isobutyl chloride C. Ethyl chloride D. Tertiary butyl chloride
7	In elimination reaction i.e., in the formation of alkene, the reactivity of alkyl halide is in the order:	A. Cl > Br > I B. I > Br > Cl C. Br > Cl > I D. I > Cl > Br
8	The average bond energy of C-Br is	A. 228 kJmol <sup>-1</sup> B. 250 kJmol <sup>-1</sup> C. 200 kJmol <sup>-1</sup> D. 290 kJmol <sup>-1</sup>
9	When purely alcoholic solution of sodium/potassium hydroxide and halogenoalkanes are reacted an alkene is formed, what is the mechanism of reaction?	A. Elimination B. Debromination C. Dehydration D. Reduction
10	The reagent for alkaline hydrolysis of ethyl bromide to form ethyl alcohol is	A. water at room T B. Alcoholic KOH+heat C. Ethanol + heat D. dil. NaOH+ heat
11	Correct statement about Nucleophilic substitution bimolecular is	A. Transition state is formed B. Inversion take place C. It is two step reaction D. Both a & c
12	To prepare ethane by Wurtz synthesis the suitable alkyl halide is	A. Ethyl iodide B. any alkyl iodide C. Ethyl chloride D. Methyl bromide
13	Which isomer of C <sub>4</sub> H <sub>9</sub> Br will produce 2-methyl propane-2-ol on treatment with aqueous KOH	A. n-butyl bromide B. Sec-butyl bromide C. Isobutyl halide D. Tertiary butyl chloride
14	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
15	The reaction C <sub>2</sub> H <sub>5</sub> Cl + aqueous KOH → C <sub>2</sub> H <sub>5</sub> OH + KCl is	A. Electrophilic addition B. Nucleophilic addition C. Electrophilic substitution D. Nucleophilic substitution

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	In nucleophilic substitution bimolecular reaction the order of reaction with respect to substrate	A. 2 order B. 3 order C. 1st order D. Zero order
18	In beta elimination reaction	A. carbon number changes B. unsaturated compound is formed C. hybridization of C remains same D. pi bonds are decreased
19	Which one among the following is not a good leaving group	A. HSO <sub>4</sub> <sup>-</sup> B. Cl <sup>-</sup> C. OH <sup>-</sup> D. Br <sup>-</sup>
20	A mixture of 1-chloropropane and 2-chloropropane when treated with alcoholic KOH, gives	A. Prop-2-ene B. Isopropylene C. Propene D. A mixture of prop-1-ene