

MDCAT Chemistry Chapter 16 Alcohols and Phenols Online Test

Sr	Questions	Answers Choice
1	When 2-bromobutane reacts with alcoholic KOH, the reaction is called	A. Chlorination B. Halogenation C. Dehydrohalogenation D. Hydrogenation
2	Which of the following alkyl halides undergoes SN1 reaction fastest	A. Methyl chloride B. Isobutyl chloride C. Ethyl chloride D. Tertiary butyl chloride
3	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
4	In elimination reaction i.e., in the formation of alkene, the reactivity of alkyl halide is in the order:	A. $\text{Cl} > \text{Br} > \text{I}$ B. $\text{I} > \text{Br} > \text{Cl}$ C. $\text{Br} > \text{Cl} > \text{I}$ D. $\text{I} > \text{Cl} > \text{Br}$
5	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
6	Among the following, which one is nucleophile	A. H^+ B. Ca^{2+} C. OH^- D. Na^+
7	Which is an intermediate in S _N 1	A. Ethoxide ion B. Alkene C. Alkyl halide D. Carbocation
8	Which one of the following is NOT a nucleophile	A. NH_2^+ B. BF_3 C. H_2O D. CH_3^-
9	The order of reactivity of alkyl halides towards nucleophile is	A. $\text{RI} > \text{RBr} > \text{RF} > \text{RCl}$ B. $\text{RF} > \text{RCl} > \text{RBr} > \text{RI}$ C. $\text{RI} > \text{RBr} > \text{RCl} > \text{RE}$ D. $\text{RF} > \text{RBr} > \text{RCl} > \text{RI}$
10	The alkaline hydrolysis of bromoethane shown below gives alcohol as the product: $\text{H}_3\text{C}-\text{CH}_2-\text{Br} \longrightarrow \text{H}_3\text{C}-\text{CH}_2-\text{OH}$ The reagent and the condition used in this reaction may be:	A. H_2O at room temperature B. KOH in alcohol C. Ethanol, heat D. Dilute NaOH(aq) warm
11	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
12	Correct order for the reactivity of alkyl halide in S _N 2 reactions	A. $\text{R-I} > \text{R-F} > \text{R-Cl}$ B. $\text{R-F} > \text{R-Cl} > \text{R-I}$ C. $\text{R-I} > \text{R-Cl} > \text{R-F}$ D. $\text{R-Cl} > \text{R-I} > \text{R-F}$
13	Correct statement about Nucleophilic substitution bimolecular is	A. Transition state is formed B. Inversion takes place C. It is two step reaction D. Both a & c
14	The reaction $\text{C}_2\text{H}_5\text{Cl} + \text{aqueous KOH} \longrightarrow \text{C}_2\text{H}_5\text{OH} + \text{KCl}$ is	A. Electrophilic addition B. Nucleophilic addition C. Electrophilic substitution D. Nucleophilic substitution
15	An alkyl halide reacts with NH_3 to give	A. Amide B. Cyanide C. Amine D. Aniline

16	Out of monochloro, monobromo and moniodo derivatives of ethane, the most reactive compound towards nucleophilic substitution will be	A. C_2H_5Br B. C_2H_5Cl C. C_2H_5I D. All are equally reactive
17	Elimination unimolecular reactions involve	A. Second order kinetics B. First order kinetics C. Third order kinetics D. Zero order kinetics
18	Which of the following is primary alkyl halide	A. Isopropyl halide B. Sec-butyl halide C. Tert-butyl halide D. Neo-pentyl halide
19	Which isomer of C_4H_9Br will produce 2-methyl propan-2-ol on treatment with aqueous KOH	A. n-butyl bromide B. Sec-butyl bromide C. Isobutyl bromide D. Tertiary butyl chloride
20	Which one of the following is not associated with S_N2 mechanism	A. 100 % inversion of configuration B. Tertiary alkyl halides C. 2nd order kinetics D. Change of hybridization from sp^3 to sp^2 in transition state