

## MDCAT Chemistry Chapter 14 Chemistry of Hydrocarbons Online Test

Sr	Questions	Answers Choice
1	An alkyl halide reacts with $\text{NH}_3$ to give	A. Amide B. Cyanide C. Amine D. Aniline
2	Which is a good nucleophile as well as a good leaving group?	A. F- B. Cl- C. Br- D. I-
3	Alkyl halides are considered to be very reactive compounds towards nucleophiles, because	A. They have an electrophilic carbon and a bad leaving group B. They have an electrophilic carbon and a good leaving group C. They have an electrophilic carbon and a good leaving group D. They have a nucleophilic carbon and a good leaving group
4	Correct order for the reactivity of alkyl halide in $\text{S}_\text{N}2$ 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. $\text{R-Cl} > \text{R-I} > \text{R-F}$
5	Dehydrohalogenation of secondary butyl bromide will give	A. Propene B. 1-Butene C. Butene D. 2-Butene
6	Which of the following reactants will be required to form ethene from ethyl chloride	A. Alcoholic KOH B. Alkaline $\text{KMnO}_4$ C. Aqueous KOH D. Aqueous NaOH
7	Among the following, which one is nucleophile	A. $\text{H}^+$ B. $\text{Ca}^{2+}$ C. $\text{OH}^-$ D. $\text{Na}^+$
8	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
9	Which of the following reactions does not involve formation of carbocation?	A. $\text{S}_\text{N}1$ and $\text{E}1$ B. $\text{E}1$ and $\text{E}2$ C. $\text{S}_\text{N}1$ and $\text{S}_\text{N}2$ D. $\text{E}2$ and $\text{S}_\text{N}2$
10	Which one of the following is NOT a nucleophile	A. $\text{NH}_2^+$ B. $\text{BF}_3$ C. $\text{H}_2\text{O}$ D. $\text{CH}_3^-$
11	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
12	Elimination unimolecular reactions involve	A. Second order kinetics B. First order kinetics C. Third order kinetics D. Zero order kinetics
13	Which of the following is primary alkyl halide	A. Isopropyl halide B. Sec-butyl halide C. Tert-butyl halide D. Neo-pentyl halide
14	Which of the following alkyl halides undergoes $\text{S}_\text{N}1$ reaction fastest	A. Methyl chloride B. Isobutyl chloride C. Ethyl chloride D. Tertiary butyl chloride

15	Which of the following factors does not affect the SN1 rate is	<p>A. Nucleophilicity of the attacking nucleophile</p> <p>B. Stability of the carbonium ion</p> <p>C. Solvent system</p> <p>D. The nature of leaving group</p>
16	Which isomer of C <sub>4</sub> H <sub>9</sub> Br will produce 2-methyl propane-2-ol on treatment with aqueous KOH	<p>A. n-butyl bromide</p> <p>B. Sec-butyl bromide</p> <p>C. Isobutyl halide</p> <p>D. Tertiary butyl chloride</p>
17	The reagent for alkaline hydrolysis of ethyl bromide to form ethyl alcohol is	<p>A. water at room T</p> <p>B. Alcoholic KOH+heat</p> <p>C. Ethanol + heat</p> <p>D. dil. NaOH+ heat</p>
18	A mixture of 1-chloropropane and 2-chloro-propane when treated with alcoholic KOH, gives	<p>A. Prop-2-ene</p> <p>B. Isopropylene</p> <p>C. Propene</p> <p>D. A mixture of prop-1-ene</p>
19	In elimination reaction i.e, in the formation of alkene, the reactivity of alkyl halide is in the order:	<p>A. Cl&gt;Br&gt;I</p> <p>B. I&gt;Br&gt;Cl</p> <p>C. Br&gt;Cl&gt;I</p> <p>D. I&gt;Cl&gt; Br</p>
20	The average bond energy of C-Br is	<p>A. 228 kJmol<sup>-1</sup></p> <p>B. 250 kJmol<sup>-1</sup></p> <p>C. 200 kJmol<sup>-1</sup></p> <p>D. 290 kJmol<sup>-1</sup></p>