

## MDCAT Chemistry Chapter 13 Fundamental principles of organic chemistry Online Test

| Sr | Questions   | Answers Choice   |
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| 1  | Hydration of ethene is an example of  | A. Electrophilic addition<br>B. Electrophilic substitution<br>C. Nucleophilic addition<br>D. Nucleophilic substitution                       |
| 2  | Ethyl and methyl groups are equidistant in a chain, the preference is given to? | A. Ethyl<br>B. methyl<br>C. both ethyl and methyl<br>D. methyl mostly  |
| 3  | Tertiary alcohols are the easiest to dehydrate because                          | A. They form stable carbocation<br>B. They have less hydrogen<br>C. They have bigger size<br>D. They are polar                               |
| 4  | The reaction of alkyl halide in the presence of alcoholic KOH is                | A. Substitution<br>B. Addition<br>C. Acid-base<br>D. Elimination   |
| 5  | Which group activates the benzene ring  | A. -COOH<br>B. -COR<br>C. -CHO<br>D. -OH   |
| 6  | Benzene reacts with Ethyl chloride in presence of AlCl <sub>3</sub> to give     | A. Benzalchloride<br>B. Benzyl chloride<br>C. Ethyl benzene<br>D. Benzotrichloride   |
| 7  | Ethene can give all of the following reactions except                           | A. Addition<br>B. Free radical substitution<br>C. Hydrohalogenation<br>D. Hydration  |
| 8  | Active sulphonating agent during sulphonation of benzene is                     | A. SO <sub>2</sub><br>B. SO <sub>3</sub><br>C. SO <sub>3</sub> H<br>D. SO <sub>3</sub> <sup>+</sup>  |
| 9  | Glyoxal molecule has?   | A. two carbonyl groups<br>B. One aldehydic and one carbonyl group<br>C. Two aldehydic groups<br>D. Two carboxyl group                        |
| 10 | Ethane when completely halogenated in excess of chlorine can form               | A. Hexachloroethane<br>B. Dichloroethane<br>C. Pentachloroethane<br>D. 1,1,2,2-tetrachloroethane   |
| 11 | The origin of acidic nature of alkyne is?                                       | A. small size of C<br>B. Small size of H<br>C. polarity of triple bond<br>D. sp hybridization  |
| 12 | A compound that has a nucleophilic carbon?                                      | A. C <sub>2</sub> H <sub>2</sub><br>B. C <sub>2</sub> H <sub>4</sub><br>C. C <sub>3</sub> H <sub>8</sub><br>D. C <sub>6</sub> H <sub>6</sub> |
| 13 | The addition of HCl to ethene gives?  | A. Chloroethane<br>B. 1,2-dichloroethane<br>C. 1,1-dichloroethane<br>D. 2-chloroethane   |
| 14 | The reaction that generates an ionic bond is                                    | A. Halogenation of ethene<br>B. polymerization of ethene<br>C. Hydrogenation of ethyne<br>D. Reaction of ethyne with sodamide                |
| 15 | Acetylide can give back ethyne upon treatment with                              | A. water<br>B. strong base<br>C. dil. Acid<br>D. ...   |

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|    |   | D. weak base  |
| 16 | 2,5-dimethyl-1-hexene has   | A. Two sp <sup>2</sup> hybridized carbons<br>B. Six sp <sup>2</sup> hybrid carbons<br>C. Two double bonds<br>D. Four pi electrons |
| 17 | The angle between the unhybridized 2p <sub>z</sub> orbital and the three sp <sup>2</sup> hybrid orbitals in ethene is | A. 180°<br>B. 120°<br>C. 90°<br>D. 60°  |
| 18 | Substituted phenyl group are called   | A. Arene groups<br>B. Alkyl groups<br>C. Aryl groups<br>D. Acyl groups  |
| 19 | Which of the following is not an electrophilic substitutional reaction of benzene?                                    | A. Free radical chlorination of benzene<br>B. Friedel Craft alkylation<br>C. Sulphonation<br>D. Nitration                         |
| 20 | Aniline is the derivative of the benzene containing the   | A. Hydroxyl group<br>B. Amino group<br>C. Amido group<br>D. Imido group   |