

MDCAT Chemistry Chapter 13 Fundamental principles of organic chemistry Online Test

Sr	Questions	Answers Choice
1	Which one of the following is a powerful electrophile used to attack on the electrons of benzene ring?	A. FeCl ₂ B. Cl ⁺ C. FeCl ₄ D. Cl ₂
2	The heat of hydrogenation of most of the alkene is about	A. 120 kJ/mol B. 100 kJ/mol C. 140 kJ/mol D. 105 kJ/mol
3	Dehydrohalogenation of alkyl halides happens in the presence of	A. Pd B. Ni C. Zn D. KOH/alcohol
4	Baeyer's reagent is mixture of	A. HCl & ZnCl B. Aqueous bromine C. Alkaline KMnO ₄ D. Mix of Br ₂ & KMnO ₄
5	The compound used to distinguish the ethyne and ethene is	A. Alkaline KMnO ₄ B. Ammonical AgNO ₃ C. Bromine water D. Tollen's Reagent
6	Ethylene polymerizes at 100 atm pressure and 400 °C to give	A. Polybenzene B. Polypropylene C. Polyalcohol D. Polyethylene
7	During the nitration of benzene the nitrating agent is	A. NO ₃ B. NO ₂ ⁺ C. NO ₂ ⁻ D. HNO ₃
8	C-H bond length in the benzene is	A. 0.99 Å B. 1.09 Å C. 1.12 Å D. 1.34 Å
9	The pi-electrons in the styrene are	A. 13 B. 10 C. 8 D. 6
10	Naphthalene has two fused aromatic ring of carbon atom the molecular formula	A. C ₁₀ H ₈ B. C ₁₀ H ₁₄ C. C ₁₀ H ₁₀ D. C ₁₂ H ₁₂
11	Which of the following compound reacts slower than benzene in the electrophilic substitution.	A. Phenol B. Nitrobenzene C. Toluene D. Aniline
12	Among the following the polycyclic aromatic compound is	A. Styrene B. Naphthalene C. Toluene D. Acetophenone
13	Benzene has pi electron	A. 2 B. 4 C. 6 D. 8
14	Benzene in the presence of AlCl ₃ produces acetophenone when reacts with	A. Acetyl chloride B. Ethyl benzene C. Acetic acid D. Ethanoic acid
15	The substitution of a'-H' by '-NO ₂ ' group in benzene is called	A. Nitration B. Sulphonation C. Ammonolysis D. Reduction of benzene

16	Addition of unsymmetrical reagent to an unsymmetrical alkene is governed by	A. Cannizzaro's Reaction B. Aldol Condensation C. Kirchhoff Rule D. Markownikov's Rule
17	Which of the following is electrophile for alkylation?	A. NO ₂ B. SO ₃ C. R ⁺ D. Both a & b
18	Ethene is produced from ethyl chloride by reacting with alcoholic KOH. The process is called	A. Hydrogenation B. Dehydrogenation C. Dehydrohalogenation D. Oxidation
19	2-Propenol, on rearrangement, yields	A. Propanal B. Propanone C. 2-propano D. Both A and B
20	When 1-butene reacts with bromine, the product formed will be	A. 1, 3-dihydroxy butane B. But-1, 2-diol C. 1, 3-dihydroxy butan-diol D. 1,2-dibromo butane
21	Which of the following tests helps to distinguish between alkyne and alkene?	A. Lucas test B. Tollen's reagent test C. Baeyer's test D. Fehling's solution test
22	Benzene cannot undergo the ----- directly	A. Substitution reaction B. Addition reaction C. Oxidation reaction D. Elimination reaction
23	Aniline is the derivative of the benzene containing the	A. Hydroxyl group B. Amino group C. Amido group D. Imido group
24	Which of the following is not an electrophilic substitutional reaction of benzene?	A. Free radical chlorination of benzene B. Friedel Craft alkylation C. Sulphonation D. Nitration
25	Substituted phenyl group are called	A. Arene groups B. Alkyl groups C. Aryl groups D. Acyl groups
26	The angle between the unhybridized 2p _z orbital and the three sp ² hybrid orbitals in ethene is	A. 180° B. 120° C. 90° D. 60°
27	2,5-dimethyl-1-hexene has	A. Two sp ² hybridized carbons B. Six sp ² hybrid carbons C. Two double bonds D. Four pi electrons
28	Acetylide can give back ethyne upon treatment with	A. water B. strong base C. dil. Acid D. weak base
29	The reaction that generates an ionic bond is	A. Halogenation of ethene B. polymerization of ethene C. Hydrogenation of ethyne D. Reaction of ethyne with sodamide
30	The addition of HCl to ethene gives?	A. Chloroethane B. 1,2-dichloroethane C. 1.1-dichloroethane D. 2-chloroethane
31	A compound that has a nucleophilic carbon?	A. C ₂ H ₂ B. C ₂ H ₄ C. C ₃ H ₈ D. C ₆ H ₆
32	The origin of acidic nature of alkyne is?	A. small size of C B. Small size of H C. polarity of triple bond D. sp hybridization
33	-----	A. Hexachloroethane B. Dichloroethane

33	Ethane when completely halogenated in excess of chlorine can form	D. 1,1,1,2,2,2-hexachloroethane C. Pentachloroethane D. 1,1,1,2,2-terachloroethane
34	Glyoxal molecule has?	A. two carbonyl groups B. One aldehydic and one carbonyl group C. Two aldehydic groups D. Two carboxyl group
35	Active sulphonating agent during sulphonation of benzene is	A. SO ₂ B. SO ₃ C. SO ₃ H D. SO ₃ ⁺
36	Ethene can give all of the following reactions except	A. Addition B. Free radical substitution C. Hydrohalogenation D. Hydration
37	Benzene reacts with Ethyl chloride in presence of AlCl ₃ to give	A. Benzalchloride B. Benzyl chloride C. Ethyl benzene D. Benzotrichloride
38	Which group activates the benzene ring	A. -COOH B. -COR C. -CHO D. -OH
39	The reaction of alkyl halide in the presence of alcoholic KOH is	A. Substitution B. Addition C. Acid-base D. Elimination
40	Tertiary alcohols are the easiest to dehydrate because	A. They form stable carbocation B. They have less hydrogen C. They have bigger size D. They are polar
41	Ethyl and methyl groups are equidistant in a chain, the preference is given to?	A. Ethyl B. methyl C. both ethyl and methyl D. methyl mostly
42	Hydration of ethene is an example of	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution