

ECAT Chemistry Online Test

| 0 | Over-time- | Annual Obside |
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| Sr | Questions | Answers Choice |
| 1 | Compound X has molecular formula C ₁₀ H ₁₄ O and is unreactive towards mild oxidising agents. What is the structure of the compound formed by dehydration of X | |
| 2 | In its reaction with Na, 1 mol of X gives 1 mol of $H_{2(g)}$. What is X | A. CH ₃ CH ₂ CH ₂ CH ₂ OH B. (CH ₃) ₃ COH C. CH ₃ CH ₂ CH ₂ H D. CH ₃ CH(OH)CO ₂ H |
| 3 | Question Image | A. 1-bromobutane B. 2-bromobutane C. 1-bromo-2-methyl propane D. 2-bromo-2-methyl propane |
| 4 | An organic compound will decolorise dill acidified (aq) KMnO4on warming, but will not decolorise bromine water. What is the compound | A. KMnO ₄ B. Ethanol C. Ethane D. CH ₃ CH ₂ Cl |
| 5 | Which structure shows a tertiary alcohol | A. CH ₃ CH ₂ OH B. (CH ₃) ₂ CHOH C. (CH ₃) ₃ COH D. CH ₂ OH |
| 6 | How many secondary alcoholic groups are present in the structure of glucose OHC CHOH CHOHCH OH CHOH CH ₂ OH | A. 1 B. 2 C. 3 D. 4 |
| 7 | What will react differently with the two isomeric pentols, (CH ₃) ₃ CCH ₂ OH and (CH ₃) ₂ CH CH ₂ CH ₂ OH | A. Acidified (aq) KMnO ₄ B. Concentrated H ₂ SO ₄ C. PCI D. Sodium |
| 8 | Which alcohol gives only one oxidation product when wormed with dil acidified $\mbox{K}_2\mbox{Cr}_2\mbox{O}_7$ | A. Butan-1-ol B. Butan-2-ol C. 2-methyl propan-1-ol D. 2-methyl propan-2-ol |
| 9 | How many alcohol (including both structural isomers and stereoisomers) can have the molecular formula C ₄ H ₁₀ O | A. 3 B. 4 C. 5 D. 6 |
| 10 | Question Image | A. NH ₃ HCI B. KCN in C ₂ H ₅ OH NaOH C. KCN in C ₂ H ₅ OH HCI D. HCN NaOH |
| 11 | Question Image | A. Electrophilic substitution B. Free radical reduction C. Isomerisation D. Nucleophilic substitution |
| 12 | Which reaction is example of nucleophilic substitution | |
| 13 | What is the total number of different chloroethanes, formula $C_2H_{6-n}Cl_n$, where n can be any integer from 1 to 4 | A. 4 B. 6 C. 7 D. 8 |
| 14 | Question Image | A. Condensation B. Electrophilic substitution C. Free radical substitution D. Nucleophilic substitution |
| 15 | Each of the following compounds is effective as a refrigerant. The release of which one of these causes the greatest depletion of the ozone layer | A. CCl ₂ F ₂ B. CH ₃ OCH ₃ C. CH ₃ CHF ₂ D. CH ₃ CH ₂ CH ₃ CH ₄ |
| | CFCs undergo homolytic fission by uv light in the | A. CHE CI C FCI |

| 16 | stratosphere which radical could result from this irradiations of CHCICF ₂ Cl. | B. CH CI CF ₂ CI C. CHF CF ₂ CI D. C FCI CF ₂ CI |
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| 17 | What is the total number of different chloroethanes of formula C ₂ H _{6-n} Cl _n possible (n may be 1 to 6) | A. 6 B. 8 C. 9 D. 10 |
| 18 | Question Image | A. Electrophilic addition B. Electrophilic substitution C. Free radical substitution D. Nuclophilic addition |
| 19 | Which one of the following is not a nucleophile | A. H ₂ 0 B. H ₂ \$ C. BF ₃ D. NH ₃ |
| 20 | Alkyl halides ae considered to be very reactive compounds towards nucleophiles because | A. They have an electrophilic carbon B. They have an electrophilic carbon and a good leaving group C. They have an electrophilic carbon and a bad leaving group D. They have a nucleophilic carbon and a good leaving group |
| 21 | When CO ₂ is made to react with ethyl magnesium iodide, followed by acid hydrolysis, the product formed is | A. Propane B. Propanoic acid C. Propanal D. Propanol |
| 22 | Grignard's reagent is | A. Alkyl halide B. Magnesium halide C. Alkyl magnesium halide D. Ethereal solution of an alkyl halide |
| 23 | When formaldehyde is added to Grignard reagent we get | A. Aldehyde B. Acetone C. Primary alcohol D. Secondary alcohol |
| 24 | The compounds or species in search of electrons are called | A. Elctrophiles B. Nucleophile C. Nitrities D. Bases |
| 25 | Thre rate of S _N 2 reaction depends upon the | A. Concentration of alkyl halides B. Concentration of nucleophile C. Concentration of alkyl halides and nucleophile D. None of the above |
| 26 | When alkyl halide is heated with aqueous solution of ammonia at 100°C the major product is | A. Primary amine B. Secondary amine C. Tertiary amine D. Mixture of amines and salt |
| 27 | Which of the following alkyl halides is used as a mathylating agent | A. CH ₂ H ₅ I B. CH ₃ I C. C ₂ H ₅ Pr D. C ₂ H ₅ CI |
| 28 | During nitration of benzene, the active nitrating agent is | A. NO3 B. NO2+ C. NO2- D. HNO3 |
| 29 | Amongst the following the compound that can be most readily sulphonated is | A. Toluene B. Benzene C. Nitrobenzene D. Chlorobenzene |
| 30 | Benzene does not undergo | A. Substitution reaction B. Addition reaction C. Oxidation reaction |