

ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which acid is used in the manufacture of synthetic fibre	A. Formic acid B. Phthalic acid C. Carbonic acid D. Acetic acid
2	Carboxylic acids generally exists in cyclic	A. Monomers B. Dimers C. Trimers D. Tetramer
3	When a carboxylic acid reacts with a metal _____ gas is evolved	A. H_2 B. CO_2 C. Cl_2 D. None of these
4	Question Image	A. Acidic amino acid B. Basic amino acid C. Neutral amino acid D. None of these
5	Essential amino acids are those amino acids which	A. Body can not synthesize B. Body can synthesize C. α -amino acids D. β -amino acids
6	Question Image	A. Proton donar B. Dehydrating agent C. Catalyst D. Electrophile
7	Easter are pleasant smelling compounds. Which ester posseses odour like pineapple	A. Amylacetate B. Amylbutyrate C. Ethylbutyrate D. Benzylacetate
8	Question Image	A. Alkyl B. Alkyl nitrile C. Cyanogens D. Amine
9	The acids obtained by the hydrolysis of fats and oils are called	A. Active compound B. Fatty acids C. Functional group D. None
10	Monocarboxylic acids exist as dimer because of	A. Dipole-dipole attraction B. Hydrogen bonding C. Van der Waals forces D. Conhesive forces
11	With the increase in carbon no. the solubility of carboxylic acids	A. Increases B. Decreases C. Remains same D. None of these
12	Carboxylic acid can generally be prepared by various methods. Which of the following methods is not suitable for making carboxylic acids	A. By the oxidation of primary alcohols B. By the hydrolysis of nitriles C. By the carbonation of Grignard, reagent D. By the hydrolysis of p-amines
13	The common name of propanoic acid is	A. Acetic acid B. Formic acid C. Propionic acid D. Butyric acid
14	A common industrial solvent is a mixture of propanone; CH_3COCH_3 , and pentyl ethanoate $CH_3CO_2(CH_2)_4CH_3$. Which reagent would have no effect on this solvent	A. $Na(s)$ B. $NaBH_4$ C. $NaOH(aq)$ D. 2,4-dinitrophenylhydrazine reagent

15	Which of these reactions is shown by butanone, $\text{CH}_3\text{COCH}_2\text{CH}_3$	<p>A. On warming with acidified potassium dichromate (IV) the solution turns green</p> <p>B. On heating with Fehling's reagent a red precipitate is formed</p> <p>C. With 2,4-dinitrophenylhydrazine reagent an orange precipitate is formed</p> <p>D. With hydrogen cyanide an aldehyde is formed</p>
16	Question Image	<p>A. With H^{+}/Ni $\text{CH}_3\text{CH}(\text{CH}_2)_2\text{CH}_2\text{OH}$</p> <p>B. With H^{+}/Ni $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_2)_2\text{CH}_2\text{OH}$</p> <p>C. With NaBH_4 $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_2)_2\text{CH}_2\text{OH}$</p> <p>D. With NaBH_4 $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_2)_2\text{CHO}$</p>
17	Question Image	<p>A. Q and R Q and R</p> <p>B. R only Q and R</p> <p>C. Q and R R only</p> <p>D. Q only R only</p>
18	Which compound would undergo nucleophilic addition	<p>A. Ethene, C_2H_4</p> <p>B. Bromoethane, $\text{C}_2\text{H}_5\text{Br}$</p> <p>C. Ethanal, CH_3CHO</p> <p>D. Ethane, C_2H_6</p>
19	Ethanal may be converted into a three-carbon acid in a two-step process. Which compound is the intermediate	<p>A. $\text{CH}_3\text{CO}_2\text{H}$</p> <p>B. CH_3CN</p> <p>C. $\text{CH}_3\text{CH}_2\text{CN}$</p> <p>D. $\text{CH}_3\text{CH}(\text{OH})\text{CN}$</p>
20	A compound R has all of the following properties. It is neutral; It gives an orange precipitate with 2,4-dinitrophenylhydrazine; it evolves hydrogen chloride when treated with PCl_5 in the cold What could R be	
21	Which compound on reaction with hydrogen cyanide produces a compound with a chiral centre	<p>A. CH_3CHO</p> <p>B. $\text{CH}_3\text{CH}_2\text{COCH}_2\text{CH}_3$</p> <p>C. $\text{CH}_3\text{CO}_2\text{CH}_3$</p> <p>D. HCHO</p>
22	Aldehydes and ketones are carbonyl compounds. Which of them react both with NaBH_4 and with Tollen's reagent	<p>A. Both aldehydes and ketones</p> <p>B. Aldehydes only</p> <p>C. Ketones only</p> <p>D. Neither aldehydes nor ketones</p>
23	Question Image	
24	Which alcohol may be oxidised to a product which react with 2,4-dinitrophenylhydrazine reagent but not with Fehling's reagent	<p>A. Butan-1-ol</p> <p>B. Butan-2-ol</p> <p>C. 2-methylpropan-1-ol</p> <p>D. 2-methylpropan-2-ol</p>
25	What is formed when propanone is refluxed with an anhydrous solution of NaBH_4	<p>A. Propanal</p> <p>B. Propan-1-ol</p> <p>C. Propan-2-ol</p> <p>D. Propane</p>
26	In 1903 Arthur Lapworth became the first chemist to investigate a reaction mechanism. The reaction he investigated was that of hydrogen cyanide with propanone. What do we now call the mechanism of this reaction	<p>A. Electrophilic addition</p> <p>B. Electrophilic substitution</p> <p>C. Nucleophilic addition</p> <p>D. Nucleophilic substitution</p>
27	Compounds X, Y and Z, all react with PCl_5 to release hydrogen chloride, but only one of them reacts with 2,4-dinitrophenylhydrazine reagent. Which one of the following combinations could be X, Y and Z	
28	Which reagent could be used to distinguish between $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CHO}$ and $\text{CH}_3\text{COCH}_2\text{CH}_2\text{OH}$	<p>A. Acidified potassium dichromate</p> <p>B. Dilute sulphuric acid</p> <p>C. 2,4-dinitrophenylhydrazine</p> <p>D. Fehling's reagent</p>
29	Question Image	<p>A. $\text{Br}_2(\text{aq})$</p> <p>B. 2, 4-dinitrophenylhydrazine</p> <p>C. NaBH_4</p> <p>D. Tollen's reagent</p>
30	Which isomer of $\text{C}_5\text{H}_{11}\text{OH}$ gives, on dehydration, the greatest number of different alkenes	