

MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Octyl acetate has the flavor of	A. Orange B. Pineapple C. Banana D. Apple
2	Methyl cyanide, on boiling with mineral acids yield	A. Acetic acid B. Formic acid C. Propanoic acid D. Butanoic acid
3	The formation of ester from acetic acid in presence of acid and ethanol is a	A. Nucleophilic substitution reaction B. Nucleophilic addition reaction C. Electrophilic substitution reaction D. Electrophilic addition reaction
4	Primary alcohols normally give us aldehyde when oxidized in the presence of acidified $\text{Na}_2\text{Cr}_2\text{O}_7$, what will be the product, when the secondary alcohols are oxidized in same condition?	A. Alkenes B. Alkyl halide C. Alkynes D. Ketones
5	An acid that exists as a cyclic dimer in benzene and shows a molar mass of 120g/mol is	A. CH_3COOH B. HCOOH C. Cl_2CHCOOH D. Cl_3CCOOH
6	Valeric acid is obtained from a herb valerian, its IUPAC name is	A. Propionic acid B. Pentanoic acid C. Butyric acid D. Caproic acid
7	The Complete oxidation of ethanol produces first Ethanal then	A. Ethanal B. Propanone C. Ethanoic acid D. Benzoic acid
8	Esters have fruity smell and are used as artificial flavours. Amyl acetate gives flavour of	A. Banana B. Jasmine C. Pineapple D. Orange
9	All are dicarboxylic acids except	A. Oxalic acid B. Malonic acid C. Picric acid D. Tartaric acid
10	In the presence of hot alkaline potassium permanganate solution 2-butene will give	A. Formic acid + acetic acid B. Two moles ethanoic acid C. Two moles of methanoic acid D. Ethylene glycol
11	One of the following compound reacts with its own oxidation product (an oxidation involves no loss of carbon) to give sweet odour liquid	A. Propanal B. Propanone C. 1-propanol D. Propanoic acid
12	Ethanoic acid reacts with all of these to produce water except	A. Ethanol B. Sodium C. Caustic soda D. Sodium hydrogen carbonate
13	The species that develops strongest hydrogen bonding with water	A. HCOOH B. $\text{CH}_3\text{CH}_2\text{COOH}$ C. CH_3COOH D. ClCH_2COOH
14	Which one of the following will react with both ethane and ethanoic acid at room temperature	A. CaCO_3 B. CuO C. Na-metal D. CH_3OH
15	Which of the following has the lowest solubility in water	A. HCOOH B. CH_3COOH C. $\text{CH}_3\text{-CH}_2\text{-COOH}$ D. $\text{C}_3\text{H}_7\text{-COOH}$

16	Slight oxidation of primary alcohol gives	A. Ketone B. Aldehyde C. -Organic acid D. An ester
17	Reaction of acetic acid with LiAlH_4 gives	A. Ethanol B. Ethanal C. Ethane D. Ethyl acetate
18	A compound X has all of the properties below. It is a liquid at 25°C it mixes completely with water it reacts with aqueous sodium hydroxide, What could X be?	A. Ethanoic acid B. Ethene C. Ethanol D. Ethyl ethanoate
19	Oils and fats belong to the class of	A. Alcohols B. Hydrocarbons C. Acids D. Esters
20	Ethanoic acid reacts with PCl_5 , to give ethanoyl chloride. HCl and a third compound What is the third compound	A. H_3PO_3 , B. POCl_3 C. SO_2 D. COCl_2
21	Compound X & Y give effervesce with Na_2CO_3 , solution. X gives a white ppt with ammonical AgNO_3 while Y gives sweet smell compound on heating with alcohol X&Y are	A. Formic acid & acetic acid B. Acetone & formic acid C. Acetaldehyde & acetic acid D. Acetic acid & acetone
22	Which of the following is a strong acid	A. CH_3COOH B. $\text{C}_2\text{H}_5\text{OH}$ C. HCOOH D. Phenol
23	In the esterification, first attack is due to carbonyl carbon	A. Hydrogen ion B. Alcohols C. Water D. All
24	Which compound is not formed as a result of reaction between acetic acid & HI & red phosphorous	A. Ethanol B. Water C. Iodine D. Ethane
25	Which of the following acid is unsaturated carboxylic acid	A. Malonic acid B. Oxalic acid C. Succinic acid D. Maleic acid
26	Which of the following metal cannot evolve hydrogen from the acetic acid	A. Sodium B. Potassium C. Magnesium D. Copper
27	The derivatives that cannot be prepared directly from the acetic acid	A. Acetamide B. Acetic anhydride C. Ethyl acetate D. Ester
28	Ethyl butyrate has flavour like	A. Bananas B. Jasmine C. Pineapple D. Orange
29	Ester with raspberry flavor	A. Amyl acetate B. Isobutyl formate C. Amyl butyrate D. Octyl acetate
30	Acetic acid reacts with thionyl chloride to form acetyl chloride, which species acts as nucleophile in the reaction	A. SO_3 B. SO_2 C. Cl^- D. No nucleophile is formed
31	Carboxylic acids react with sodium carbonate, & gas evolved in this reaction	A. CO_2 B. H_2 C. CO D. Both a & b
32	An organic compound made from oxidation of ethanol is	A. Formic acid B. Acetic acid C. Malonic acid D. Citric acid
33	2-propanol on Oxidation gives	A. Aldehyde B. Carboxylic Acid C. Ketone

		<p>C. Ketone</p> <p>D. Alcohol</p>
34	An alcohol is converted to an aldehyde with same number of carbon atoms as that of alcohol in the presence of $K_2Cr_2O_7/H_2SO_4$ the alcohol is	<p>A. $CH_3C(CH_3)_2OH$</p> <p>B. $(CH_3)_3COH$</p> <p>C. $CH_3CH_2CH_2OH$</p> <p>D. $(CH_3)_2CHOH$</p>
35	The oxidation of 1 - propanol in the presence of H_2SO_4 , $+K_2Cr_2O_7$ produces final product	<p>A. Acetaldehyde</p> <p>B. Propanal</p> <p>C. Acetone</p> <p>D. Propanoic acid</p>
36	The conversion of tertiary alcohols into alkenes in the presence of $K_2Cr_2O_7 + H_2SO_4$ is	<p>A. Addition reaction</p> <p>B. C-H bond cleavage</p> <p>C. Elimination reaction</p> <p>D. Combustion reaction</p>
37	When wine is put in air, it becomes sour due to	<p>A. Oxidation of C_2H_5OH</p> <p>B. Formation of $C_2H_5NH_2$</p> <p>C. Reduction of C_2H_5OH</p> <p>D. Dissolution of CO_2</p>
38	Oxidation of secondary alcohol produces	<p>A. Aldehyde</p> <p>B. Ketone</p> <p>C. Alkyl halide</p> <p>D. Ester</p>
39	2-propanol on oxidation yield	<p>A. Propionaldehyde</p> <p>B. Propanone</p> <p>C. Propanal</p> <p>D. Butanal</p>
40	Identify the compound, which give iodoform test	<p>A. Methanol</p> <p>B. 3- Hexanol</p> <p>C. Methyl ketone</p> <p>D. Propionaldehyde</p>
41	To distinguish aldehyde from ketone which solution is used	<p>A. Alkaline solution</p> <p>B. Fehling's solution</p> <p>C. A solution containing $K_2Cr_2O_7$</p> <p>D. A solution containing acid only</p>
42	Which reagent is responsible for the conversion of ketone to secundar alcohol	<p>A. $NaAlH_4$</p> <p>B. $NaBH_4$</p> <p>C. Al</p> <p>D. Red P</p>
43	.Both aldehydes and ketones are planar to the neighborhoods of carbonyl (C=O) group. Which one of the following bonds is distorted towards the oxygen atoms?	<p>A. pi-bond of C and O</p> <p>B. Sigma bond of C and O</p> <p>C. Sigma bond of C and H</p> <p>D. Sigma bond of C and C</p>
44	A student mixed ethyl alcohol with small amount of sodium dichromate and added it to the hot solution of dilute sulphuric acid. A vigorous reaction took place. He distilled the product formed immediately. What was the product?	<p>A. Aceton3</p> <p>B. Dimethyi ether</p> <p>C. Acetic acid</p> <p>D. Acetaldehyde</p>
45	Consider the following reaction $R-CHO + 2Ag(NH_3)_2OH + R-COONH_4 + 2Ag + 2NH_3 + H_2O$ This reaction represents	<p>A. Fehling test</p> <p>B. Ninhydrin test</p> <p>C. Benedict test</p> <p>D. Tollen's test</p>
46	Acetaldchdyde and ketone form addition product with	<p>A. Phenyl hydrazine</p> <p>B. Hydroxylamine</p> <p>C. Hydrazine</p> <p>D. hydrogen cyanide</p>
47	In aldehydes and ketones carbon of carbonyl group is;	<p>A. sp^3 hybridized</p> <p>B. sp^2 hybridized</p> <p>C. sp hybridized</p> <p>D. un hybridized</p>
48	When calcium formate and calcium acetate are dry heated they form	<p>A. $HCOOH$</p> <p>B. C_2H_5OH</p> <p>C. CH_3CHO</p> <p>D. $HCHO$</p>
49	Which of the following gives positive haloform test and positive Fehling solution	<p>A. Acetone</p> <p>B. Echanol</p> <p>C. Acetaldehyde</p> <p>D. Formaldehyde</p>
50	The reagent used to distinguish between ethanol and propanal is	<p>A. $I_2/NaOH$</p> <p>B. Benedict's reagent</p> <p>C. $LiAlH_4$</p> <p>D. sodium nitroprusside</p>

51	The addition compound obtained by reacting acetaldehyde and HCN, when hydrolyzed gives	A. Ethyl alcohol B. Methyl cyanide C. 2-Hydroxy propanoic acid D. Ethyl cyanide
52	The reaction of formaldehyde with HCN is	A. Nucleophilic substitution B. Electrophilic substitution C. Nucleophilic addition D. Free radical addition
53	Propanone does not undergo	A. Oxime formation B. Reduction of Fehling solution C. Hydrazone formation with hydrazine D. Reaction with HCN
54	Which of the following reagents react in same manner with HCHO, CH ₃ CHO and CH ₃ COCH ₃	A. HCN B. Cu ₂ (OH) ₂ / NaOH C. Ammonical AgNO ₃ D. Cu(OH) ₂ only
55	Which of the following alcohol cannot be produced by treatment of aldehydes or ketones with NaBH ₄	A. 1-propanol B. 2-Methyl-2-propanol C. 2-propanol D. Ethanol
56	Which of the following ketone will not give iodoform test	A. Methyl isopropyl ketone B. Dimethyl ketone C. Ethyl isopropyl ketone D. 2-hexanone
57	In which of the following types of reactions are the carbonyl compounds and alkene are similar in behaviour	A. Nucleophilic addition B. Electrophilic addition C. Nucleophilic substitution D. Catalytic hydrogenation
58	Which of the following gives silver mirror with ammonia and AgNO ₃	A. Benzyl alcohol B. Benzene C. Benzoic acid D. Benzaldehyde
59	Which of the following does not give brick red precipitate with Fehling's solution	A. Acetaldehyde B. Formalin C. propanaldehyde D. Acetone
60	Which of the following does not give yellow precipitate with I ₂ + NaOH	A. Acetone B. Benzaldehyde C. Acetaldehyde D. Acetophenone