ECAT Chemistry Chapter 23 Aldehydes and Ketones Online Test

Sr	Questions	Answers Choice
1	Acetone is oxidized with	A. Tollen's reagent B. Fehling solution C. Acidic dichromate solution D. Benedicts solution
2	Formula of acetone is:	A. HCHO B. CH₃CHO C. CH₃OCH₃ D. CH₃OC₂H₅
3	Aledehydes ketones can be prepared form alcohols by their:	A. Reduction B. Oxidation C. Decomposition D. Synthesis
4	Condensation of aldeydes withα-hydrogen gives:	A. Acetal B. Ketal C. Aldol D. Cannizzaro product
5	Which of the following compounds will not give iodoform test on treatment with I_2/ NaOH?	A. Acetaldehyde B. Acetone C. Butane D. 3-pentanone
6	Which is mild oxidizing agent ?	A. Tollen's reagent B. KMnO₄ / H₂SO₄ C. K₂Cr₂O₇ / H₂SO₄ D. HNO₃
7	The color of ppts formed by Fehling's test is	A. Brick red B. Red C. Yellow D. Orange
8	Acetal is produced by reacting alcohol in the presence of dry HCl with	A. Acetaldehyde B. Ketone C. Ether D. Carboxylic acid
9	Common names of aldehydes are given by corresponding:	A. Ketone B. Alcohol C. Carboxylic acid D. ester
10	Which of the following in incorrect?	A. FeICl₃is used in the detection of phenols B. Fehling solution is used in the detection of glucose C. Tollen's reagent is used in detection of unsaturation D. NaHSO₃is used in the detection of carbonyl compounds
11	Reaction of Grignard's reagent eith aldehyds other formaldehyde gives: Reaction of Grignard's reagent with formaldehyde gives:	A. Pri-alcohol B. Sec-alcohol C. Ter-alcohol D. Carboxylic
12	An organic compound 'A' has the molecular formula C_3H_6O, it undergoes iodoform test. When saturated with HCl it gives 'B' of molecular formula $C_9H_{14}O$. A and B, respectively are	A. Propanal and mesitylene B. Propanone and mesityl oxide C. Propanone and 2, 6-dimethyl-2,5-heptadien-4-one D. Propanone and mesitylene oxide
13	Ethanal may be converted into a three-carbon acid in a two-step process. Which compound is the intermediate	A. CH₃CO₂H B. CH₃CN C. CH₃CH₂CN D. CH₃CH(OH)CN
14	In carboxyl group the bond between C and oxygen is:	A. Sigma bond B. Single bond C. Double Bond D. Triple bond
15	Which of the following is hypnotic?	A. Acetaldehyde B. Metaldehyde C. Paraldehyde

		D. None
16	At room temperature formaldehyde is	A. Gas B. Liquid C. Solid D. None of the above
17	On adding sodium nitroprusside ketones give	A. Red B. Wine red C. White D. Orange
18	The carbon of a carbonyl group is:	A. sp hybridized B. sp²hybridized C. sp³Hybidized D. None of these
19	Carboxyl compounds have functional group:	A. R-C-X B. R-CH=O C. RCOR D. All
20	What is formed when propanone is refluxed with an anhydrous solution of $NaBH_4$	A. Propanal B. Propan-1-ol C. Propan-2-ol D. Propane
21	In Tolten's best, the end product is _____ formed	A. White ppts B. Red ppts C. Yellow ppts D. Silver mirror
22	When vapours of isopropyl alcohol are passed over heated copper, the major product obtained is	A. Propane B. Propylene C. Acetaldehyde D. Acetone
23	Which of the following will have the highest boiling point	A. Methanol B. Ethanol C. Propanal D. 2-hexanone
24	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. NaBH₄ C. NaOH_(aq) D. 2,4-dinitrophenylhydrazine reagent
25	Which one of the following is a product of the reaction between $C_6H_5CH_2OH$ and CH_3COCl	A. C₆H₅OCOCH₃ B. C₆H₅CH₂Cl C. C₆H₅CH₂OCOCH₃ D. C₆H₅CH₂COCl
26	The addition of HCN to carbonyl compounds is an example of	A. Nucleopihlic substituion B. Electrophilic addition C. Nueleophilic addition D. Electrophilic substitution
27	Which of the following is halo form	A. CHBr₃ B. CHCl₃ C. CHI₃ D. All of these
28	Acetone reacts with HCN to form a cyanohydrin. It is an example of	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
29	Silver mirror test is applied for	A. Aldehydes B. Alcohols C. Acids D. Esters
30	Aldehydes are reduced to :	A. Pri-alcohol B. Sec-alcohol C. Ter-alcohol D. All of these
31	Ketones are prepared by the oxidation of	A. Primary alcohol B. Secondary alcohol C. Tertiary alcohol D. None of these
32	Aldehydes can be distinguished from ketones by using	A. Schiff's reagent B. Conc. H₂SO₄ C. Anhy. ZnCl₂ D. Resorcinol
		A. Fused alkali

33	Benzophenone can be converted into benzene using	B. Anhydrous AlCl₃ C. Sodium amalgam in water D. Acidfied dichromate
34	Distillation of calcium salts of acetic acid and formic acids gives acetaldehyde. What compound would be obtained if only calcium salt of acetic acid is distilled	A. Formaldehyde B. Butyraldehyde C. Propionaldehyde D. Acetone
35	The catalytic prmoter used for the industrial preparation of acetaldehyde is	A. PdCl₂ B. CuCl₂ C. Pd + CaCl₂ D. None of these
36	Acetaldehyde is used to make	A. Rubbber B. Antiseptics C. Phenolic resin D. All of these
37	Which reagent will distinguish a ketone from an aldehyde	A. Br₂ B. 2, 4-dinitrophenylhydrazine C. NaBH₄ D. Tollen's reagent
38	Reductive ozonolysis of benzene produces	A. Acetone B. Maleic anhydride C. Phthalic acid D. Glyoxal
39	Aldehydes which do not haveα-hydrogen undergo	A. Aldol combination B. Cannizzaro's reaction C. Substitution D. Elimination
40	Cannizzaro's reaction is type of reaction:	A. Self oxidation-reduction reaction B. Disproportion reaction C. Addition D. A and B
41	Question Image	
42	In aldol condensation reaction, a double bond is formed between _____ and _____ carbon atoms	A. αandβ B. αandα C. αand Y D. None of these
43	In 1903 Arthur Lapeworth 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	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
44	In which reaction, aromatic aldehyde is treated with acid anhydride in the presence of corresponding salt of the acid to give unsaturated aromatic acid?	A. Friedel-Crafts reaction B. Perkin's reaction C. Wurtz reaction D. None of these
45	Aldol condensation is actually	A. Electrophilic addition of carbonation B. Electrophilic addition of carbonium ion C. Nucleophilic addition of carbonation D. Nuclephilic addition of carbonium ion
46	For which one of the following pairs of compounds can the members be distinguished by means of Tollen's test	A. HCHO and CH₃CHO B. CH₃CHO and CH₃COCH C. CH₃COCH₃and C₆H₅COCH₃ D. CH₃COOH and CH₃COOCH₃
47	Dehydration of allcohol gives:	A. Alkane B. Alkene C. Aldehyde D. ketone
48	Iodoform test is given by:	A. Formaldehyde and Higher ketones B. Formaldehyde C. Acetaldehyde and methyl ketones D. Acetaldehyde
49	Which of the following reagent will react with both aldehyde	A. Grinard's reagent B. Tollen's reagent

49	and ketones?	C. Fehling's reagent D. Benedict's reagent
50	Ketons are prepared by the oxidation of	A. Primary alcohol B. Secondary alcohol C. Tertiary alcohol D. None of these
51	Wacker method involves the conversion of alkene using $PdCl_2$into corresponding	A. Alcohol B. Ketone C. Aldehyde D. Ether
52	On heating acetaldehyde with ammonical silver nitrate solution, we get	A. CH₃OH B. Silver acetate C. HCHO D. Silver mirror
53	Reaction of Grignard's reagent with formaldehyde gives:	A. pri-alcohol B. sec-alcohol C. ter-alcohol D. carboxylic
54	Which reagent could be used to distinguish between $CH_3CH(OH)CH_2CHO$ and $CH_3COCH_2CH_2OH$	A. Acidified potassium dichromate B. Dilute sulphuric acid C. 2,4-dinitrophenylydrazine D. Fehling's reagent
55	C_2H_5CHO and $(CH_3)_2CO$ can be distunguished by testing with	A. Phenyl hydrazine B. Hydroxylamine C. Fehling solution D. Sodium bisulphate
56	Which alcohol may be oxidised to a product which react with 2,4-dinitorphenylhydrazine reagent but not with Fehling's reagent	A. Butan-1-ol B. Butan-2-ol C. 2-methylpropan-1-ol D. 2-methylpropan-2-ol
57	Wolf-kishner reduction is used for the reduction of	A. Nitro compounds B. Carboxylic acids C. Carbonyl compounds D. Olefins
58	The color of ppts formed by Benedirct's test is	A. Brick red B. Wine red C. Yellow D. Orange
59	Which reaction yields Bakelite?	A. Urea with HCHO B. Tetramethyl glycol with Hezamethylene diisocyanate C. Phenol and HCHO D. Ethylene glycol and Dimethylterephthalate
60	Question Image	A. With H₂/Ni CH₃(CH₂)₅CH₂OH B. With H₂/Ni CH₃(CH₂)₅CH₃ C. With NaBH₄ CH₃(CH₂)₅CH₂OH D. With NaBH₄ CH₃(CH₂)₅CHO
61	During the mechanism of aldol condensation a/an _____ is formed	A. Oxide B. Alkali C. Alkoxide ion D. None of these
62	The IUPAC name fo $CH_3COCH(CH_3)_2$is	A. 4-Methylisopropyl ketone B. 3-Methyl-2 butanone C. Isopropylmethyl ketone D. 2 - Methyl- 2 butanone
63	Propyne on hydrolysis in presence of $H_2SO_4$and $HgSO_4$gives	A. Acetaldehyde B. Acetone C. Formaldehyde D. None
64	Question Image	A. 2-chlorobutanal B. alfa-chlorobutanal C. 2-chlorobutyraldehyde D. alfa- chlorobutyraldehyde
65	Ketones are reduced to	A. Primary alcohol B. Secondary alcohol C. Tertiary alcohol D. All of these
		A. Brick red

66	The colour of ppts formed by Fehling's test is	B. Red C. Yellow D. Orange
67	In formadaldehyde and KOH are heated then we get	A. Acetylene B. Methane C. Methyl alcohol D. Ethyl formate
68	Reduction of aldehydes with HI and P gives	A. Primary alcohols B. Secondary alcohols C. Alkanes D. Tertiary alcohols
69	Question Image	A. Treatment with HCN followed by acid hydrolysis B. Oxidation of acetaldehyde followed by basic hydrolysis C. Treatment with HCN followed by reduction D. Treatment with HCN followed by oxidation
70	Which of the following is a method of converting a unsaturated ketone into unsaturated hydrocarbon?	A. Aldol condensation B. Reimer Tiemann reaction C. Cannizaaor's reaction D. Wolf-kishner reduction
71	Aldehydes are produce in atmosphere by	A. Oxidation of secondary alcohols B. Reduction of alkenes C. Reaction of oxygen atoms with hydrocarbons D. Reaction of oxygen atoms with ozone
72	Which of the following does not react with phenyl hydrazine?	A. Ethanol B. Ethanal C. Acetone D. Acetophenone
73	Which of the following gives iodoform on heating with a solution of I_2containing Na_2CO_3?	A. Ethyl alcohol B. Acetone C. Ethyl alcohol as well as acetone D. Methyl alcohol
74	Aldelydes are the oxidation product of	A. P-alcohols B. s-alcohols C. ter-alcohols D. carboxylic acids
75	A food chemist wants to create the odour of pineapples for a product. An ester with this odour has the formula $C_3H_7COOC_2H_5$.Which pair of reagents would produce this ester	A. C₂H₅Cl and C₃H₇COOH B. C₂H₅OH and C₃H₇CONH₂ C. C₂H₅OH and C₃H₇COOH D. C₃H₇OH and C₂H₅COCl
76	Chromyl chloride and toluene react to produce	A. p-chlorotoluene B. Benzaldehyde C. Benzyl chloride D. Bezoic acid
77	Which of the following compounds will react with reagent ?	A. CH₃ CO H B. CH₃ CO CH₃ C. CH_{3 COOH} D. CH₃CO CH₂CH₃
78	Cyanohydrin of which of the following forms lactic acid	A. HCHO B. CH₃COCH₃ C. CH₃CHO D. CH₃CH₂CH₂CHO
79	Which of the following alcohols cannot be produced by treatment of aldehydes or ketones with $NaBH_4$or $LiAlH_4$?	A. 1-propanol B. 2-propanol C. 2-Methyl-2-propanol D. Ethanol
80	Which isomer of $C_5H_{11}OH$ gives, one dehydration, the greastest number of different alkenes	
81	Reduction with aluminium isopropoxide in excess of Isopropyl alcohol is called Meerwein Ponndroff-Verley reduction (MPV). What will be the final product when cyclohex-2-enone is selectively reduces in MPV reaction?	A. Cyclohexanol B. Cyclohex-2-enol C. Cyclohexanone D. Benzene
82	Which of the following compounds will react with Tollen's reagent	
83	Which compound would undergo nucleophilic addition	A. Ethene, C₂H₄ B. Bromoethane, C₂H₅Br C. Ethanal, CH₃CHO D. Ethane, C₂H₆

84	Compounds X, Y and Z, all react with $PCl_5$to release hydrogen chloride, but only one of them reacts eith 2,4-dinitrophenylhydrazine reagent. Which one of the following combinations could be X, Y and Z	
85	Formalin is:	A. 10% solution of formaldehyde in water B. 20% solution of formaldehyde in water C. 40% solution of formaldehyde in water D. 60% solution of formaldehyde in water
86	Chromic acid used to oxidize	A. Aldehyde B. Ketone C. Both a and b D. None of these
87	Which one of the following statement is wrong regarding differences between aldehydes and ketones	A. Aldehydes undergo reduction to form primary alcohols while ketones undergo reduction to form secondary alcohols B. Aldehydes undergo oxidation to form acids having less number of carbon atoms while ketones undergo oxidation to form acids having same number of carbon atoms C. Aldehydes give positive silver mirror test while ketones give negative - mirror test D. Aldehydes can undergo polymerization while ketones cannot undergo polymerizarion
88	Ketones are prepared by the oxidation of:	A. Primary alcohol B. Secondary alcohol C. Tertiary alcohol D. None of these
89	Cannizzzaro's reaction is not given by:	A. Formaldehyde B. Acetaldehyde C. Benzaldehyde D. Trimethyl
90	Hydroxyl amine is a derivative of::	A. Alcohol B. Aldehyde C. Ammonia D. Ketone
91	Clemensen's reduction of ketones is carried out in	A. H₂with Pd catalyst B. Glycol with KOH C. LiAlH₄in water D. Zn-Hg with conc. HCl
92	From which of the following tertiary butyl alcohol is obtained by the action of methyl magnesium iodide?	A. HCHO B. CH₃CHO C. CH₃COCH₃ D. CO₂
93	Which of the following does not turn Schiff's reagent to pink?	A. Formaldehyde B. Bezaldehyde C. Aceton D. Methyl chloride
94	Aldehydes and ketones are carbonyl compounds. Which of them react both with $NaBH_4$and with Tollen's reagent	A. Both aldehydes and ketones B. Aldehydes only C. Ketones only D. Neither aldehydes nor ketones
95	Calcium acetate when dry distilled gives	A. Formaldehyde B. Acetaldehyde C. Acetone D. Acetic anhydride
96	A compound R has all of the following properties. It is neutral; It gives an orange precipitate with 2,4-dinitrophenythydrazine; it evolves hydrogen chloride when treated with PCl_5in the cold What could R be	
97	Give IUPAC name fo Acetone	A. Ethanal B. Propanone C. Butanone D. Propanal
98	Cannizzaro reaction is not given by	A. Trimethyl acetaldehyde B. Acetaldehyde C. Benzaldehyde D. Formaldehyde
99	Aldehydes are oxidizes are to give:	A. Primary alcohol B. Sec-alcohol C. Ter-alcohol D. Carboxylic acid
100	Which reaction is of condensation or addition elimination reaction?	A. Ketol B. Aldol C. Cannizzaro

		D. All of these
101	Which of the following compounds gives a ketone with Grignard's reagent?	A. Formaldehyde B. Ethanenitrile C. Ethyl alcohol D. Methyl iodide
102	An organic compound has the following properties ; It gives a positive tri-iodomethane test; it gives a yellow ppt, with 2, 4-DNP regent; it does not react with Tollen's reagent . Which compound would give these results	A. CH₃CHO B. CH₃CH₂OH C. CH₃CH₂COCH₃ D. CH₃CH₂CH₂CHO
103	Which one of the following reagents will distinguish between C_6H_5CHO and $C_6H_5COCH_3$	A. Aqueous bromine B. Phosphorus pentachloride C. 2, 4 DNPH D. Tollen's reagent
104	Which is used for the reduction of aldehydes and ketones	A. NaBH₄ B. Pt/Pd C. Ni D. All of these
105	Aniline reacts with which of these to form Schiff base?	A. Acetic acid B. Bezaldehyde C. Acetone D. NH₃
106	Which of the following organic compounds exhibits positive Fehling test as well as iodoform test?	A. Methanal B. Ethanol C. Propanone D. Ethanal
107	Formaldehyde is used to make	A. Plastics B. Medicine C. Antiseptic D. All of these
108	Acetone is prepared by	A. Oxidation of n-propyl alcohol B. Oxidation of acetaldehyde C. Pyrolysis of calcium acetate D. Pyrolysis of calcium acetate as well as acetic acid
109	Tollen's reagent is	A. Ammonical cuprous chloride B. Ammonical cuprous oxide C. Ammonical silver bromide D. Ammonical silver nitrate
110	Which of the following reactions is used for detecting presence of carbonyl group?	A. Reaction with hydroxylamine B. Reaction with hydrazine C. Reaction with phenyl hydrazine D. All
111	Which of the following react with NaOH to produce an acid and an alcohol?	A. NCHO B. CH₃COOH C. CH₃CH₂COOH D. C₆H₅COOH
112	Which of the following reagents is used to distinguish acetone and acetophenone	A. NaHSO₃ B. Grinard reagent C. Na₂SO₄ D. NH₄Cl
113	Formaline Contains _____% alcohol	A. 80 B. 37 C. 8 D. 52
114	Aldehyde and small methyl ketones form crystalline _____ ppts with saturated sodium bisulphate solution	A. White B. Red C. Yellow D. None of these
115	Aldehydes give reactions :	A. Oxidation and reduction B. Base-catalysed nucleophilic C. Acid catalysed nucleophilic D. All of these
116	A compound A has a molecular formula C_2Cl_3OH. It reduces Fehling solution and on oxidation produces a monocarboxylic acid B.A can also be obtained by the action of Cl_2on Ethanol. A is	A. Chloral hydrate B. CHCl₃ C. CH₃Cl D. Chloroacetic acid
117	Hydrogenation of bezoyl chloride in presence of Pd on $BaSO_4$gives	A. Benzyl alcohol B. Benzaldehyde C. Benzoic acid D. Phenol
		A. On warming with acidified potassium dichromative (IV) the solution

		turns green B. On heating with Fehling's reagent a red precipitate is formed C. With 2,4-dinitrophenlhydrazine reagent an orange precipitate is formed D. With hydrogen cyanide an aldehyde is formed
118	Which of these reactions is shown by buranone, $CH_3COCH_2CH_3$	
119	Cannizzaro's reaction in not given by	A. Formaldehyde B. Acetaldehyde C. Benzaldyhyde D. Trimethylacetaldehyde
120	Question Image	A. Q and R Q and R B. R only Q and R C. Q and R R only D. Q only R only
121	Acetone reacts with HCN to form a cyanohydrin. It is an example of:	A. Nucleophilic substitution B. Nucleophilic addition C. Electrophilic addition D. Electrophilic substitution
122	The product of the reaction between propanone and HCN is hydrolysed under acidic conditions. What is the formula of the final product	A. CH₃CH(OH)COOH B. CH₃CH₂CH(OH)COOH C. (CH₃)₂C(OH)COOH D. CH₃CH₂CH₂COOH
123	The base used in Cannizzaro's reaction is	A. NaOH B. KOH C. CHI₃ D. All of these
124	A compound possessingα-hydrogen atom, in the presence of dilute alkali formsβ-hydroxy aldehyde. This product on heating with dilute acid forms an unsaturated crotonaldehyde. The compound is	A. CH₃CHO B. CH₃CH₂CHO C. CH₂= CH - CHO D. HC = C - CHO
125	Acetone reacts with HCN to form a cyanohydrin. It is an example of	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
126	Self condensation of acetaldehyde in the presence of dilute alkalies gives	A. An acetal B. An aldol C. Mesitylene D. Propionaldehyde
127	Aldehydes can be distinguished from ketones by	A. 2,4-DNPH test B. NaHSO₃test C. N₂H₄test D. Tollen's test
128	Which of the following will have the highest boiling point?	A. Methanal B. Ethanal C. Propanal D. 2-Hexanone
129	A nucleophilic reagent will readily Attack	A. Ethylene B. Ethanal C. Ethanol D. Ethylamine
130	Aldehydes is distinguished from ketones by using	A. Tollen's reagent B. Benedict reagent C. Fehling solution D. All of the above
131	Reaction of Grignard's reagent with ketones gives: Reaction of Grignard's reagent with formaldehyde gives:	A. Pri-alcohol B. Sec-Alcohol C. Ter-alcohol D. Carboxylic
132	Which of the following compounds does not react with $NaHSO_3$?	A. C₆H₅CHO B. Acetophenone C. Acetone D. Acetaldehyde
133	Question Image	A. Br_{2(aq)} B. 2, 4-dinitrophenylhydrazine C. NaBH D. Tollen's reagent
134	The carbon atom of a carbonyl group is	A. Sp hybridized B. Sp²hybridized C. Sp³hybridized D. None of these
135	Isopropyl alcohol on oxidation forms	A. Acetone B. Ether C. Ethylene

		D. Acetaldehyde
136	The homologous series of aldehydes and ketones have general formula:	A. C_nH_{2n}O B. C_nH_nO C. C_nH_{2n-1}O D. C_nH_nO_n
137	Formalin is an aqueous solution of	A. Furfural B. Fluorescein C. Formaldehyde D. Formic acid
138	Aromatic aldehydes undergo disproportionation in presence of sodium or potassium hydroxide to give corresponding alcohol and acid. The reaction is known as	A. Wurtz reaction B. Cannizzaro reaction C. Friedel Craft reaction D. Claisen reaction
139	Which is not true about acetophenone?	A. Reacts to form 2,4-dintrophenyl hydrazine B. Reacts with Tollen's reagent to form silver mirror C. Reacts with I₂/NaOH to form iodoform D. On oxidation with alkaline KMnO₄followed by hydrolysis gives benzoic acid
140	Which compound on reaction with hydrogen cyanide produces a compound with a chiral centre	A. Ch₃CHO B. CH₃CH₂COCH₂CH₃ C. CH₃CO₂CH₃ D. HCHO