MDCAT Chemistry Chapter 16 Alcohols and Phenols Online Test

Sr	Questions	Answers Choice
1	The carbon atom of an alkyl group attached with halogen atom is called	A. Electrophile B. Free redical C. Nucleophile D. Nucleophilic centre
2	The average bond energy of C-Br is	A. 228 kJmol-1 B. 250 kJmol-1 C. 200 kJmol-1 D. 290 kJmol-1
3	For which mechanisms, the first step involved is the same	A. E1 and E2 B. E2 and SN2 C. E2 and E1 D. E1 and SN1
4	The rate of E1 reaction depends upon	A. The concentration of substrate B. The concentration of substrate as well as nucleophile C. The concentration Nucleophilic D. Nature of Catalyst
5	Alkyl halides are considered to be very reactive compounds towards nucleophiles, because	A. The have an electrophilic carbon B. They have an electrophilic carbon and a bad leaving group C. They have an electrophilic carbon and a good laving group D. They have a nucleophilic carbon and a good leaving group
6	SN2-reactions can be usually observed in	A. Primary alkylı halide B. secondary alkyl halide C. Tertiary alkyl halide D. Both A. and B
7	The Sl mechanism for the hydrolysis of an alkyl halide to an alcohol involves the formation of	A. Carbocation B. Carbanion C. Pentavalent carbon in the transition state D. Free radical
8	An amine is produced in the following reaction C2H5I+2NH3-------C2H5NH2 +NH4I. What is mechanism?	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
9	Which is a good nucleophile as well as a good leaving group?	A. F- B. Cl- C. Br- D. I-
10	Chloroform (CHCl3) is?	A. Primary alkyl halide B. Secondary alkyl halide C. Tertiary alkyl halide D. a liquid
11	Which of the following decides the reactivity of alkyl halides?	A. C-C bond strength B. C-H bond strength C. C-X bond strength D. Electronegativity difference
12	In the transition state of S2 mechanism reaction with alkyl halides, which of the following orbital hybridization is involved	A. sp^3 B. sp C. sp^2 D. dsp^3
13	Which of the following factors does not affect the SN1 rate is	A. Nucleophilicity of the attacking nucleophile B. Stability of the carbonium ion C. Solvent system D. The nature of leaving group
14	Which one of the following is not associated with SN2 mechanism	A. 100 % inversion of configuration B. Tertiar alkyl halides C. 2nd order kinetics

		D. Change of hy bridization from sp^3 to sp^2 in transition state
15	Which isomer of C4H9Br will produce 2-methyl propane-2-ol on treatment with aqueous KOH	A. n-butyl bromide B. Sec-butyl bromide C. Isobutyl halide D. Tertiary butyl chloride
16	Which of the following is primary alkyl halide	A. Isopropyl halide B. Sec-butyl halide C. Tert-buryi halide D. Neo-pentyl halide
17	Elimination unimolecular reactions involve	A. Second order kinetics B. First order kinetics C. Third order kinetics D. Zero order kinetics
18	Out of monochloro, monobromo and mongiodo derivatives of ethane, the mos reactive compound towards nucleophilic substitution will be	A. C2H5Br B. C2H5Cl C. C2H5I D. All are equally reactive
19	An alkyl halide reacts with NH3 to give	A. Amide B. Cyanide C. Amine D. Aniline
20	The reaction C2H5Cl + aqueous KOH---------C2H5OH+ KCl is	A. Electrophilic addition B. Nucleophilic addition C. Electrophilic substitution D. Nucleophilic substitution
21	Correct statement about Nucleophilic substitution bimolecular is	A. Transition state is formed B. Inversion take place C. It is two step reacticn D. Both a &c
22	Correct order for the reactivity ofalkyl halide in S, reactions	A. R-I>R-F>R-Cl B. R-F>R-Cl>R-I C. R-I>R-Cl>R-F D. R-Cl>R-I>R-F
23	When purely alcoholic solution of sodium/potassiumhydroxide and halogenoalkanes are reacted an alkene is formed, what is the mechanism of reaction?	A. Elimination B. Debromination C. Dehydration D. Reduction
24	The alkaline hydrolysis of bromoethane shown below gives alcohol as the product: H3C-CH2-Br-------H3C-CH2-OH The reagent and the condition used in this reaction may be:	A. H20 at room temperature B. KOH in alcohol C. Ethanol. heat D. Dilute NaOH(aq) warm
25	The order of reactivitv of alksl halides towards nucleophile is	A. RI>RBr RF>RCI B. RF>RCl>RBr>RI C. RI>RBr> RCl>RE D. RF>RBr>RCl>RI
26	Which one of the following is NOT a nucleophile	A. NH2+ B. BF3 C. H2O D. CH3-
27	Which is an intermediate in Svl	A. Ethoxide ion B. Alkene C. Alkyl halide D. Carbocation
28	Among the following, which one is nucleophile	A. H+ B. Ca2+ C. OH- D. Na+
29	The species which are produced by heterolytic bond breaking and can act as electron pair donor	A. Free radicals B. Cations C. Nucleophiles D. electrophile
30	In elimination reaction i.e, in the formation of alkene, the reactivity of alkyl halide is in the order:	A. Cl>Br>I B. I>Br>Cl C. Br>Cl>I D. I>Cl> Br
31	A mixture of 1-chloropropane and 2-chloro-propane when treated with alcoholic KOH, gives	A. Prop-2-ene B. Isopropy lene C. Propene D. A mixture of prop-l-ene
		A. Methyl chloride

32	Which of the following alkyl halides undergoes SN1 reaction fastest	A. Methyl chloride B. Isobutyl chlorido C. Ethy l chloride D. Tertiary butyl chloride
33	When 2-bromobutane reacts with alcoholic KOH, the reaction is called	A. Chlorination B. Halogenation C. Dehydrohalogenation D. Hydrogenation
34	Which compound is obtained hy the elimination reaction on bromoethane?	A. Butene B. Ethene C. Propene D. Propane
35	In nucleophilie substitution bimolecular reaction the order of reaction with respect to substrate	A. 2 order B. 3 order C. 1st order D. Zero order
36	Which one among the following is not a good leaving group	A. HSO4- B. Cl- C. OH- D. Br-
37	Which of the following reactants will be required to form ethene from ethyl chloride	A. _{Alcoholic KOH} B. Alkaline KMnO4 C. Aqucous KOH D. Aqucous NaOH
38	Dehydrohalogenation of secondary butyl bromide will give	A. Propene B. 1-Butene C. Butene D. 2-Butene
39	In an elimination reaction a more substituted alkene is formed due to the stability associated with	A. Free radical B. transition state C. Activated complex D. Carbocation
40	Which pair gives same dehydrohalogenation product	A. l-Chlorobutane, 2-Chlorobutane B. l-Chloropropane, 2-Chloropropane C. l-Bromopentane. 3-Bromopentane D. iso-butvl chloride. 2°- butyl chloride
41	The reagent for alkaline hydrolysis of ethyl bromide to form ethyl alcohol is	A. water at room T B. Alcoholic KOH+heat C. Ethanol + heat D. dil. NaOH+ heat
42	Which is an intermediate in SN1 reaction	A. Ethoxide ion B. Carbocation C. alkyl halide D. alkene
43	In beta elimination reaction	A. carbon number changes B. unsaturated compound is formed C. hybridization. ofC remains same D. pi bonds are decreased
44	Reaction of ethyl bromide with ammonia	A. Completes in a single step B. Completes in two steps C. Continues till N is left with no lone pair D. is reversible
45	To prepare ethane by Wurtz synthesis the suitable alkyl halide is	A. Ethyl iodide B. any alkyl iodide C. Ethyl chloride D. Methyl bromide
46	Which of the following reactions does not involve formation of carbocation?	A. SN1 and E1 B. El and E2 C. SN1 and SN2 D. E2 and SN2
47	Which of the following undergoes easy dehydration?	A. 3-Methylbutan-2-ol B. Ethanol C. 2.Methylpropan-2-ol D. Methanol
48	2,4,6-Trinitrophenol is commonly called as	A. Phthalic acid B. Tartaric acid C. Malonic acid D. Picric acid
		A. Ketones

49	Tertiary aleohols producewith acidified KMno,	B. Aldehydes C. Malonic acid D. Alkene
50	Ethyl alcohol reacts with PCL and produces:	A. Haloalkane B. Alkyl halide & H3PO3, C. Alkyl halide & POCl3 D. Alkyl halides &H3PO4.
51	A compound z' decolorizes bromine water and produces white ppt. The compound 'z'is	A. Alkane B. Alcohol C. Phenol D. Benzene
52	Which alcohol is most reactive towards sodium metal?	A. Ter Butyl alcohol B. n-Propyl alcolol C. Isopropyl alcohol D. Have same reactivity
53	Which is most acidic?	A. H2O B. C2H5OH C. C4H9OH D. CH3-CH2-CH2OH
54	Alcohols of low molecular weight are:	A. Soluble in water B. Insoluble in water C. Soluble in water on heating D. Insoluble in all solvents
55	Which of the following is more reactive where 0-H bonds break	A. P°alcohol B. T° alcohol C. S°alcohol D. Cannot be predicated
56	Ethanol reacts with sodium metal to liberate	A. CO2 gas B. CO gas C. H2 gas D. Steam
57	The starting substance for the preparation of iodoform is any of the following, except	A. CH3CH(OH)CH3 B. CH3CH2OH C. HCH2OH D. CH3COCH3
58	Which of the following alcohols is least reactive with respect to 0-H bond	A. CH3OH B. CH-CH2-OH C. (CH3)2-CH-OH D. (CH3)3OH
59	Which of the substance is not going to react the sodium metal:	A. Acetic acid B. Methanol C. Di methyl ether D. Ethanol
60	Phenol can be diatingushed from ethyl alcohol by all of the following reagents except	A. Iodoforrn test B. Na C. Br2 /H2O D. NaOH
61	Phenol is colourless, crystalline and solid	A. Hygroscopie B. Deliquescent C. Moistening D. Odourless
62	Phenol is completely soluble in water above	A. 25°C B. 62.3ºC C. 68.5°C D. 66.50°c
63	Which of the following alcohol is more soluble in H2O	A. Propanol B. Butanol C. Pentanol D. Hexanol
64	Temperature required for the dehydration of ethanol into ethene in the presence of HaSOu is	A. 130°C B. 170°C C. 175°C D. 180°C
65	Which one of the following is more acidic	A. Phenol B. Carboxylic acid C. Alcohols D. Amines
66	Which of the following is soluble in water?	A. CH3OH B. CCL4 C. CHCl3 D. CS2

67	In ethyl alcohol, the bond that undergoes heterolytic cleavage most readily is	A. C-C B. C-O C. C-H D. O-H
68	Relative acidic strength of alcohol, phenol, water and carboxylie acid is	A. Carboxylic acid > Alcohol > Phenol > Water B. Carboxylic acid > Phenol > Water> Alcohol C. Water > Alcohol> Phenol > Carboxylic acid D. Phenol > Carboxylic acid > Alcohol> Water
69	The dehydration of ethyl alcohol with concentrated H2SO4 at 140°C gives	A. Ethene B. Alcohol C. Diethyl ether D. Carboxylic acid
70	Primary, secondary aad tertiary alcohols can be identified and distinguished by	A. Lucas test B. lodoform test C. Baeyer's test D. Silver mirror test
71	Which one of the following alcohol is indicated by formation of yellow crystals in lodoform tesr?	A. Methanol B. Ethanol C. Butanol D. Propanol
72	Which one of the following groups is indicated when HCl is formed by reaction of ethanol with phosphorous pentachloride?	A. Amino group B. Halide group C. Hydroxyl group D. Hydride group
73	Which one of the following is an appropriate indication of positive iodoform test?	A. Formation of H2O B. Brick red precipitate C. Release of H2 gas D. Yellow precipitate
74	Reaction of alcohol with hydrogen chloride, in the presence of Zinc chloride yields	A. Ketone B. Carboxylic C. Alkyl halide D. Ester
75	The acidity of phenol is due to its	A. Nature of Benzene B. Double bond in benzene ring C. Natute of phenoxide ion D. Hydroxyl group
76	During esterifcation, the alcobol molecule acts as:	A. Oxidizing agent B. Electrophile C. Reducing agent D. Nucleophile
77	One of the following can produce greater number of moles of ethyl chloride on reacting with escess of ethanol	A. PCl5 B. PCl3 C. HCl/ZnCl2 D. SOCl2
78	The strongest conjugate base is	A. OH- B. CH3O- C. C6H5O- D. CH3COO-
79	The number of resonating structures of phenoxide ion are	A. 3 B. 5 C. 6 D. 4
80	The synthesis of ethene from ethyl alcohol is a reaction	A. Dehydration B. Polymerization C. Addition D. Substitution
81	CH3CH2CH2OH--------A---------B Here B is	A. Propyne B. Propanal C. Propene D. Propane
82	1, 3, 5-Pentanetriol has secondary carbon	A. 3 B. 1 C. 2 D. Zero
83	Tertiary alcohols have alpha bydrogens	A. 1 B. Zero C. 2 D. 3

84	The alcohol that does not form curbonyl compound on oxidation	A. Ethanol B. iso-butyl alcohol C. ter-butyl alcohol D. neo pentyl alcohol
85	Esterification of CH3COOH isreaction	A. Acid base B. Electrophilic C. Redox D. Nucleophilic
86	The compound that reacts the slowest in Lucas test	A. 1-Pentanol B. sec-butyl alcohol C. 3-Pentanol D. ter- butyl alcoho
87	Which reactant does hnof liberate water on reaction with alcohol	A. NH3 B. K2Cr2O7/15H2O C. HCl D. PCl3
88	What is true about an alcohol and phenol	A. Both are more acidic than water B. Both react with NaOH C. Both produce CO2 with Na2CO3 D. Both, produce H2 with Na
89	An electron with drawing group attached to e-position in phenol	A. makes it basic B. Stabilises the phenoxide ion C. decreases its basicity D. allows it to precipitate in aqueous solution
90	Formation of Picric acid from phenol needs heating, one possible reason for it is	A. acidity of phenol B. e- donating nature of-OH C. acidity of picric acid D. e- with drawing effect of- NO2
91	Alcohol is less acidie than phenol due to	A. higher ka value B. Instability of alkoxide ion C. stability of carbocation D. Stability of phenol
92	Which will not react with phenol	A. NaOH B. Br2 C. KMn04/OH- D. Na
93	What forces operate between ethyl group of ethyl alcohol and oxygen of water	A. H-bonding B. attractive forces C. repulsive forces D. dipole forces
94	Which of the following will undergo nucleophilic addition reaction more easily?	A. Aldehyde B. Alkene C. Aldehyde and ketone equally D. Neither aldehyde nor alkenes
95	Formalin contains-------% alcohol.	A. 37 B. 80 C. 8 D. 52
96	Acetaldehyde cyanohydrin upon hydrolysis prodnces	A. Tartaric acid B. Malonic acid C. Formic acid D. Lactic acid
97	Acetone reacts with HCN to form a cyanohydrin. It is an example of	A. Nucleophilic addition B. Electrophilic substitution C. Electrophilic addition D. Nucleophilic substitution
98	Which one of the followings is resistant to oxidation under normal conditions	A. Methyl alcohol B. Acetaldehyde C. Ethyl alcohol D. Acetone
99	Formalin is used as:	A. Fungicide B. Germicide C. Sterilizing of surgical instruments D. All three
100	C=O and C=C bonds are differentiated by	A. Hybridization of C-atom B. Bond angles C. Ammonical AgNO3 D. <span style="font-size:11.0pt;line-height:115%; font-family:"Calibri","sans-serif";mso-fareast-font-

	C-C and C-C bonds are differentiated by	family:SimSun;mso-bidi-font-family:"Times New Roman";mso-ansi-language:EN-US;mso-fareast-language:ZH-CN; mso-bidi-language:AR-SA">Conc. HNO3
101	Reactivity of carbonyl compounds is due to	A. Electrophilic carbon B. Less stearic hindrance C. Unsaturation of Co D. Polarity of bond
102	which of the following is not a symmetrical ketone	A. 4-heptanone B. Butanone C. Propanone D. 3-pentanone
103	The red brown ppt. of Fehling solution and benedict solution tests are of	A. Ag B. Cu2O C. CuO D. AgBr
104	Which of the following test is not given by aldehvde	A. 2. 4 DNPH test B. NaHSO3 test C. Tollen's test D. Sodium nitroprusside test
105	Which of the following compound is least reactive	A. HCHO B. CH3CHO C. CH3COCH3 D. C6H5CHO
106	Which of the following does not give yellow precipitate with I2+ NaOH	A. Acetone B. Benzaldehyde C. Acetildehyde D. Acetophenone
107	Which of the follwing dnes not give brick red precispitate wits Fehling's solution	A. Acetaldehyde B. Formalin C. prorionaldehyde D. Acetone
108	Which of the following gives silver mirror with ammonicaT AgNO3	A. Benzyl alcohol B. Benzene C. Benzoic acid D. Benzaldehyde
109	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 suhstitution D. Catalytic hydrogenation
110	Which of the following ketone will not give iodoform test	A. Methyl isopropyl ketone B. Dimethyl ketone C. Ethyl isopropyl ketone D. 2-hexanone
111	Which of the following alcohol cannot be produced by treatment of aldehydes or ketones with NaBH4	A. l-propanol B. 2-Methyl-2-propanol C. 2-propanol D. Ethanol
112	Which of the following reagents reaet in same manner with HCHO, CH3CHO andCH3COCH3	A. HCN B. Cu2(OH)2/ NaOH C. Ammonical AgNO3 D. Cu(OH)2 only
113	Propanone does not undergo	A. Oxime formation B. Reduction of Fehling solution C. Hydrazone formation with hydrazine D. Reaction with HCN
114	The reaction of formaldehyde with HCN is	A. Nucleophilic substitution B. Electrophilic substitution C. Nucleophilic addition D. Free radical addition
115	The addition compound obtained by reacting acetaldelyde and HCN, when lydrolyzed gives	A. Ethyl alcohol B. Methyl cyanide C. 2-Hydroxy propanoic acid D. Ethyl cyanide
116	The reagent used to distinguish between ethanol and propanal is	A. I2/ NaOH B. Benedict's reagent C. LiAlH D. sodium nitroprusside
		A. Acetone B. Ethanol

117	Which of the following gives positive haloform test and positive Fehling solution	D. Ethanol C. Acetaldehyde D. Formaldehyde
118	When calcium formate and calcium acetate are dry heated they form	A. HCOOH B. C2H5OH C. CH3CHO D. HCHO
119	In aldehydes and ketones carbon of carbonyl group is;	A. sp^3 hyhridized B. sp^2 hybridized C. sp hybridized D. un hybridized
120	Acetaldchyde and ketone form addition product with	A. Phenyl hydrazine B. Hydroxylamine C. Hydrazine D. hydrogen cyanide
121	Consider the following reaction R-CHO + 2Ag(NH3)2OH + R-COONH+ +2Ag+2NH3+H2OThis reaction represents	A. Fehling test B. Ninhydrin test C. Benedict lest D. Tollen's test
122	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?	A. Aceton3 B. Dimethyi ether C. Acetic acid D. Acetaldehyde
123	.Both aldehydes and ketones are planar to the neighborhoods of carbonyl (C-0) group. Which one of the following bonds is distorted towards the oxygen atoms?	A. pi-bond of C and O B. Sigma bond of C and O C. Sigma bond of C and H D. Sigma bond of C and C
124	Which reagent is responsible for the conversion of ketone to secondar alcohul	A. NaAlH B. NaBH4 C. Al D. Red P
125	To distinguish aldehyde from ketone which solution is used	A. Alkaline solution B. Fehling's solution C. A solution containing K2Cr2O7 D. A solution containing acid only
126	Identify the compound, which give iodoform test	A. Methanol B. 3- Hexanol C. Methyl ketone D. Propionaldehyde
127	2-propanol on oxidation yield	A. Propionaldehyde B. Propanone C. Propanal D. Butanal
128	Oxidation of secondary alcohol produces	A. Aldehyde B. Ketone C. Alkyl halide D. Ester
129	When wine is put in air, it becomes sour due to	A. Oxidation of C2H5OH B. Formation of C2H5NH2 C. Reduction of C2H5OH D. Dissolution of CO2
130	The conversion of tertiary alcohols into alkenes in the presence of K2Cr2O7 + H2SO4 is	A. Addition reaction B. C-H bond cleavage C. Elimination reaction D. Combustion reaction
131	The oxidation of 1 - propanol in the presence of H2SO4, +K2Cr207 produces final product	A. Acetaldehyde B. Propanal C. Acetone D. Propanoic acic
132	An alcohol is converted to an aldehyde with same number of carbon atoms as that of alcohol in the presence of K2Cr2O7/H2S04 the alcohol is	A. CH3C(CH3)2OH B. (CH3)3COH C. CH3CH2CH2OH D. (CH3)2CHOH
133	2-propanol on Oxidation gives	A. Aldehyde B. Carboxylic Acid C. Ketone D. Alcohol