

## MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which of the following compound is least reactive	A. $\text{HCHO}$ B. $\text{CH}_3\text{CHO}$ C. $\text{CH}_3\text{COCH}_3$ D. $\text{C}_6\text{H}_5\text{CHO}$
2	Which of the following test is not given by aldehyde	A. 2, 4 DNP test B. $\text{NaHSO}_3$ test C. Tollen's test D. Sodium nitroprusside test
3	The red brown ppt. of Fehling solution and benedict solution tests are of	A. Ag B. $\text{Cu}_2\text{O}$ C. CuO D. AgBr
4	which of the following is not a symmetrical ketone	A. 4-heptanone B. Butanone C. Propanone D. 3-pentanone
5	Reactivity of carbonyl compounds is due to	A. Electrophilic carbon B. Less steric hindrance C. Unsaturation of C D. Polarity of bond
6	$\text{C}=\text{O}$ and $\text{C}=\text{C}$ bonds are differentiated by	A. Hybridization of C-atom B. Bond angles C. Ammonical $\text{AgNO}_3$ D. $\text{HNO}_3$
7	Formalin is used as:	A. Fungicide B. Germicide C. Sterilizing of surgical instruments D. All three
8	Which one of the followings is resistant to oxidation under normal conditions	A. Methyl alcohol B. Acetaldehyde C. Ethyl alcohol D. Acetone
9	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
10	Acetaldehyde cyanohydrin upon hydrolysis produces	A. Tartaric acid B. Malonic acid C. Formic acid D. Lactic acid
11	Formalin contains-----% alcohol.	A. 37 B. 80 C. 8 D. 52
12	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
13	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
		A. NaOH - - -

14	Which will not react with phenol	B. Br <sub>2</sub> C. KMnO <sub>4</sub> /OH <sup>-</sup> D. Na
15	Alcohol is less acidic than phenol due to	A. higher K <sub>a</sub> value B. Instability of alkoxide ion C. stability of carbocation D. Stability of phenol
16	Formation of Picric acid from phenol needs heating, one possible reason for it is	A. acidity of phenol B. e <sup>-</sup> donating nature of -OH C. acidity of picric acid D. e <sup>-</sup> with drawing effect of -NO <sub>2</sub>
17	An electron withdrawing group attached to ortho-position in phenol	A. makes it basic B. Stabilises the phenoxide ion C. decreases its basicity D. allows it to precipitate in aqueous solution
18	What is true about an alcohol and phenol	A. Both are more acidic than water B. Both react with NaOH C. Both produce CO <sub>2</sub> with Na <sub>2</sub> CO <sub>3</sub> D. Both, produce H <sub>2</sub> with Na
19	Which reagent does not liberate water on reaction with alcohol	A. NH <sub>3</sub> B. K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> /H <sub>2</sub> SO <sub>4</sub> C. HCl D. PCl <sub>5</sub>
20	The compound that reacts the slowest in Lucas test	A. 1-Pentanol B. sec-butyl alcohol C. 3-Pentanol D. tert-butyl alcohol
21	Esterification of CH <sub>3</sub> COOH is reaction	A. Acid base B. Electrophilic C. Redox D. Nucleophilic
22	The alcohol that does not form carbonyl compound on oxidation	A. Ethanol B. iso-butyl alcohol C. tert-butyl alcohol D. neopentyl alcohol
23	Tertiary alcohols have alpha hydrogens	A. 1 B. Zero C. 2 D. 3
24	1, 3, 5-Pentanetriol has secondary carbon	A. 3 B. 1 C. 2 D. Zero
25	CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH ----- A ----- B Here B is	A. Propyne B. Propanal C. Propene D. Propane
26	The synthesis of ethene from ethyl alcohol is a reaction	A. Dehydration B. Polymerization C. Addition D. Substitution
27	The number of resonating structures of phenoxide ion are	A. 3 B. 5 C. 6 D. 4
28	The strongest conjugate base is	A. OH <sup>-</sup> B. CH <sub>3</sub> O <sup>-</sup> C. C <sub>6</sub> H <sub>5</sub> O <sup>-</sup> D. CH <sub>3</sub> COO <sup>-</sup>
29	One of the following can produce greater number of moles of ethyl chloride on reacting with excess of ethanol	A. PCl <sub>5</sub> B. PCl <sub>3</sub> C. HCl/ZnCl <sub>2</sub> D. SOCl <sub>2</sub>
30	During esterification, the alcohol molecule acts as:	A. Oxidizing agent B. Electrophile C. Reducing agent D. Nucleophile
31	The acidity of phenol is due to its	A. Nature of Benzene B. Double bond in benzene ring C. Nature of phenoxide ion D. Hydroxyl group

		C. Hydroxyl group
32	Reaction of alcohol with hydrogen chloride, in the presence of Zinc chloride yields	A. Ketone B. Carboxylic C. Alkyl halide D. Ester
33	Which one of the following is an appropriate indication of positive iodoform test?	A. Formation of H <sub>2</sub> O B. Brick red precipitate C. Release of H <sub>2</sub> gas D. Yellow precipitate
34	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
35	Which one of the following alcohol is indicated by formation of yellow crystals in Iodoform test?	A. Methanol B. Ethanol C. Butanol D. Propanol
36	Primary, secondary and tertiary alcohols can be identified and distinguished by	A. Lucas test B. Iodoform test C. Baeyer's test D. Silver mirror test
37	The dehydration of ethyl alcohol with concentrated H <sub>2</sub> SO <sub>4</sub> at 140°C gives	A. Ethene B. Alcohol C. Diethyl ether D. Carboxylic acid
38	Relative acidic strength of alcohol, phenol, water and carboxylic 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
39	In ethyl alcohol, the bond that undergoes heterolytic cleavage most readily is	A. C-C B. C-O C. C-H D. O-H
40	Which of the following is soluble in water?	A. CH <sub>3</sub> OH B. CCl <sub>4</sub> C. CHCl <sub>3</sub> D. CS <sub>2</sub>
41	Which one of the following is more acidic	A. Phenol B. Carboxylic acid C. Alcohols D. Amines
42	Temperature required for the dehydration of ethanol into ethene in the presence of H <sub>2</sub> SO <sub>4</sub> is	A. 130°C B. 170°C C. 175°C D. 180°C
43	Which of the following alcohol is more soluble in H <sub>2</sub> O	A. Propanol B. Butanol C. Pentanol D. Hexanol
44	Phenol is completely soluble in water above	A. 25°C B. 62.3°C C. 68.5°C D. 66.50°C
45	Phenol is colourless, crystalline and solid	A. Hygroscopic B. Deliquescent C. Moistening D. Odourless
46	Phenol can be distinguished from ethyl alcohol by all of the following reagents except	A. Iodoform test B. Na C. Br <sub>2</sub> / H <sub>2</sub> O D. NaOH
47	Which of the substance is not going to react with sodium metal:	A. Acetic acid B. Methanol C. Dimethyl ether D. Ethanol
48	Which of the following alcohols is least reactive with respect to O-H bond	A. CH <sub>3</sub> OH B. CH <sub>3</sub> -CH <sub>2</sub> -OH C. (CH <sub>3</sub> ) <sub>2</sub> -CH-OH D. (CH <sub>3</sub> ) <sub>3</sub> COH

49	The starting substance for the preparation of iodoform is any of the following, except	A. $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$ B. $\text{CH}_3\text{CH}_2\text{OH}$ C. $\text{HCH}_2\text{OH}$ D. $\text{CH}_3\text{COCH}_3$
50	Ethanol reacts with sodium metal to liberate	A. $\text{CO}_2$ gas B. CO gas C. $\text{H}_2$ gas D. Steam
51	Which of the following is more reactive where O-H bonds break	A. $\text{P}^\circ$ alcohol B. $\text{T}^\circ$ alcohol C. $\text{S}^\circ$ alcohol D. Cannot be predicted
52	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
53	Which is most acidic?	A. $\text{H}_2\text{O}$ B. $\text{C}_2\text{H}_5\text{OH}$ C. $\text{C}_4\text{H}_9\text{OH}$ D. $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{OH}$
54	Which alcohol is most reactive towards sodium metal?	A. Ter Butyl alcohol B. n-Propyl alcohol C. Isopropyl alcohol D. Have same reactivity
55	A compound 'z' decolorizes bromine water and produces white ppt. The compound 'z' is	A. Alkane B. Alcohol C. Phenol D. Benzene
56	Ethyl alcohol reacts with PCL and produces:	A. Haloalkane B. Alkyl halide & $\text{H}_3\text{PO}_3$ , C. Alkyl halide & $\text{POCl}_3$ D. Alkyl halides & $\text{H}_3\text{PO}_4$ .
57	Tertiary alcohols produce with acidified $\text{KMnO}_4$ ,	A. Ketones B. Aldehydes C. Malonic acid D. Alkene
58	2,4,6-Trinitrophenol is commonly called as	A. Phthalic acid B. Tartaric acid C. Malonic acid D. Picric acid
59	Which of the following undergoes easy dehydration?	A. 3-Methylbutan-2-ol B. Ethanol C. 2-Methylpropan-2-ol D. Methanol
60	Which of the following reactions does not involve formation of carbocation?	A. $\text{SN}_1$ and $\text{E}_1$ B. $\text{E}_1$ and $\text{E}_2$ C. $\text{SN}_1$ and $\text{SN}_2$ D. $\text{E}_2$ and $\text{SN}_2$