NAT I Medical Chemistry

Sr	Questions	Answers Choice
1	The percentage of oxygen in NaOH is	A. 40 B. 60 C. 8 D. 10
2	What quantity of limestone ($CaCO_3$) on heating will give 56 kg of CaO?	A. 1000 kg B. 56 kg C. 44 kg D. 100kg
3	Which of the following has least mass?	A. 2 gram atom of nitrogen B. 3 x 10²³ atoms of C C. 1 mole of S D. 7.0 g of Ag.
4	1 mole of CH_4 contains	A. 6.02 x 10²³ atoms of H B. 4 g-atom of hydrogen C. 1.81 x 1023 molecules of CH₄ D. 3.0 g of carbon
5	How many moles of Helium gas occupy 22.4 L at 0^oC at 1 atm.Pressure?	A. 0.11 B. 0.90 C. 1.0 D. 1.11
6	The number of atoms contained in 11.2 L of SO_2 at S.T.P are	A. 3/2 x 6.02 x 10²³ B. 2 x 6.02 x 10²³ C. 6.02 x 10²³ D. 4 x 6.02 x 10²³
7	The number of oxygen atoms in 4.4 g of CO_2 is approximately	A. 1.2 x 10²³ B. 6 x 10²² C. 6 x 10²³ D. 12 x 10²³
8	The total number of protons in 10 g of calcium carbonate is ($N_o = 6.023 \times 10^{23}$)	A. 1.5057 x 10²⁴ B. 2.0478 x 10²⁴ C. 3.0115 x 10²⁴ D. 4.0956 x 10²⁴
9	2 g oxygen contains number of atoms equal to that in	A. 0.5 g of hydrogen B. 4 g of sulphur C. 7 g of nitrogen D. 2.3 g of sodium
10	If N_A is Avogadro's number then number of valence electrons in 4.2 g of nitride ions N^{3-} is	A. 2.4 N_A B. 4.2 N_A C. 1.6 N_A D. 3.2 N_A
11	Which of the following is directly related to Qualitative analysis?	A. Identification B. Separation C. Measurement D. Calculation
12	Which of the following process is used to separate insoluble particles from liquids?	A. Separation B. Filtration C. Crystallization D. Condensation
13	The pore size of the filter paper depends upon	A. Nature of the medium B. Temperature of the medium C. Size of the particles

		D. Mass of the particles
14	During the folding of filter paper the apex form angle of about	A. 80^o B. 60^o C. 180^o D. 90^o
15	By using the fluted filter paper rate of filtration is	A. Increased B. Decreased C. Filtration is constant D. Having no effect
16	Gooch crucible is used for the filtration of precipitates having	A. High solubility B. High concentration C. High ignition temperature D. Low temperature
17	Gooch crucible used to filter the solution of	A. H₂SO₄ B. HCl C. KMnO₄ D. Both B & C
18	Which one is the property of an ideal solvent	A. Should be expensive B. It should react chemically with the solute C. Impurities should crystallize along with the solute D. Should be safe to use
19	Which one is not usually used for the crystallization	A. Acetone B. Acetic acid C. Sulphuric acid D. Chloroform
20	If the solvent is inflammable for heating purpose we use	A. Ice bath B. Water bath C. Wire gauze D. Thermostat
21	Which of the following statement is correct if the intermolecular forces in liquids A, B and C are in the order A < B < C?	A. B evaporates more readily than A B. B evaporates less readily than C C. A and B evaporates at the same rate D. A evaporates more readily than C
22	The kinetic theory of gases predicts that total kinetic energy of a gaseous assembly depends on	A. Pressure of the gas B. Temperature of the gas C. Volume of the gas D. Pressure temperature and volume of the gas
23	The relative rates of diffusion of a gas (Mol, wt. - 98) as compared to hydrogen will be	A. 1/7 B. 1/5 C. 1/4 D. 1
24	The relative rate of diffusion of a gas (molecular wright - 128) as compared to oxygen is	A. 2 times B. 1/4 C. 1/8 D. 1/2
25	One mole of a gas refers to	A. The number of molecules in one litre of gas B. The number of molecules in one gram of gas C. The number of molecules contained in 12 grams of ¹²C isotope D. The number of molecules in 22.4 liters of a gas at S.T.P.
26	The number of atoms in 0.0004 g of magnesium is close to	A. 24 B. 2 x 10²⁰ C. 10²⁰ D. 6.02 x 10²³
27	The weight of 11.2 liters of CO_2 at S.T.P. would be	A. 88 g B. 44 g C. 32 g D. 22 g
28	Wt. of 112 ml of oxygen at NTP on liquefaction would be	A. 0.32 g B. 0.64 g C. 0.16 g D. 0.96 g
29	The vapour density of a gas is 11.2 The volume occupied by 11.2 g of this gas at N.T.P is	A. 22.4 liters B. 11.2 liters C. 1 liter D. 2.24 liters
30	The total pressure exerted by a number of non reacting gases is equal to the sum of partial pressure of the gases under the same conditions is known as	A. Boyle's law B. Charle's law C. Avogadro's law D. Dalton's law

		D. Dalton's law
31	Which of the following is an example of body centred cube?	A. Magnesium B. Zinc C. Copper D. Sodium
32	Ionic solids with defects contain	A. Equal number of cation and anion vacancies B. Interstitial anions and anion vacancies C. Cation vacancies only D. Cation vacancies and interstitial cations
33	Crystal can be classified in to basic crystal habits	A. 7 B. 4 C. 14 D. 3
34	In crystal structure of sodium chloride the arrangement of Cl^- ions is	A. Fee B. Both fee and bcc C. Bee D. None of these
35	Bragg's law is given by equation	A. n λ = 2 θ sin θ B. n λ = 2 d sin θ C. 2nλ = d sin θ D. nλ = 1/2 d sin θ
36	In a crystal a ≠ b ≠ c, a = γ = 90° and β ≠ 90°, it is	A. Monoclinic B. Rhombic C. Trigonal D. Tetragonal
37	How many kinds of space lattices are possible in a crystal?	A. 23 B. 7 C. 230 D. 14
38	Potassium crystallizes with a	A. Orthogonal lattice B. Cubic lattice C. Triclinic D. Ortho rhombic lattice
39	The ratio of close packed atoms to tetrahedral holes in cubic close packing is	A. 1 : 1 B. 1 : 2 C. 1 : 3 D. 2 : 1
40	With increasing principle quantum number the energy difference between adjacent energy levels in H atom	A. Decreases B. Increases C. Remains constant D. Decreases for low value of Z and increases for higher value of Z.
41	The credit of discovering neutron goes to	A. Rutherford B. Langmuir C. Chadwick D. Austen
42	The mass of the neutron is of the order of	A. 10⁻²³ kg B. 10⁻²⁴ kg C. 10⁻²⁶ kg D. 10⁻²⁷ kg
43	The ratio of the ionization energy of H and Be^{3+} is	A. 1 : 1 B. 1 : 3 C. 1 : 9 D. 1 : 16
44	The maximum number of electrons in a subshell for which / = 3 is	A. 14 B. 10 C. 8 D. 4
45	The number of electrons in the M shell of the element with number 24 is	A. 24 B. 12 C. 13 D. 8
46	The symbol of the element whose atoms have the outer most electronic	A. N B. Li

46	configuration $2s^2\ 2p^3$ is	C. P D. Na
47	When electrons revolve is stationary orbits	A. There is no change in energy level B. They vecome stationary C. They are gaining kinetic energy D. There is increase in energy
48	Which quantum number is sufficient to describe the electron is hydrogen atom?	A. / B. n C. m D. s
49	The valence orbital configuration of an element with atomic number 23 is	A. 3d⁵ B. 3d ³, 4s ² C. 3d ³,4s ¹,4p ¹ D. 3d ²,4s ²,4p ¹
50	Water (H2O) is liquid while hydrogen sulphide (H_2S) is a gas because	A. Water has higher molecular weight B. Hydrogen sulphide is a weak acid C. Sulphur has high electronegativity than oxygen D. Water molecules associate through hydrogen bonding.
51	Hydrogen chloride molecule contains	A. Covalent bond B. Double bond C. Co-ordinate bond D. Electrovalent bond
52	Among the alkaline earth metals the element forming predominantly covalent compounds is	A. Be B. Mg C. Sr D. Calcium
53	Covalent compounds are soluble in	A. Polar solvents B. Non-polar solvents C. Concentrated acids D. All solvents
54	Which of the following geometry is associated with the compound in which the central atom assumes sp^3 d hybridization?	A. Planar B. Pyramidal C. Angular D. Trigonal bipyramidal
55	The carbon atoms in calcium carbide are held by	A. Ionic bonds B. 2 sigma bonds C. 2 covalent one co-ordinate bond D. 2 π and one σ bond
56	The bond angle H - O - H in ice is closest to	A. 120° , 28° B. 60° C. 90° D. 109°
57	According to MO Theory the species O^+_2 possesses	A. Bond order of 2.5 B. Three unpaired electrons C. Diamagnetic character D. Stability lower then O₂
58	Inter molecular forces in solid hydrogen are	A. Covalent forces B. Van der Waal forces or London dispersion force C. Hydrogen bonds D. All of these

59	Evaporation of water is	A. An exothermic change B. An endothermic change C. A process where no heat changes occur D. A process accompanied by chemical
60	Which of the following units represents largest amount of energy?	A. Calorie B. Joule C. Erg D. Electron vol.
61	An endothermic reaction is one in which	A. Heat is converted into electricity B. Heat is obsorbed C. Heat is evolved D. Heat is converted into mechanical work
62	An exothermic reaction is one in which the reacting substances	A. Have more energy than the products B. Have less energy than the products C. Have the same energy as the products D. Are at a higher temperature than the products
63	Hess's law deals with	A. Changes in heat or reaction B. Rate of reaction C. Equilibrium constant D. Influence of pressure on volume of a gas
64	The heats evolved in combustion of rhombic and monoclinic sulphur are - 70960 and -71030 cal mol^{-1} respectively what will be heat of conversion of rhombic sulphur ti monoclinic?	A. 70960 calories B. 71030 calories C. -70 calories D. +70 calories
65	$\Delta H_{Neutralisation}$ is always	A. Positive B. Negative C. Zero D. Positive or negative
66	All the naturally occurring processes proceed spontaneously in a direction which lead to	A. Decrease of entropy B. Increase of enthalpy C. Increase of free energy D. Decrease of free energy
67	Which of the following value of ΔHf° represent that the product is least stable?	A. -94.0 kcal mol⁻¹ B. -231.6 kcal mol ⁻¹ C. +21.4 kcal mol ⁻¹ D. +64.8 kcal mol ⁻¹
68	In the equilibrium $N_2 + 3H_2 - 2NH_3 + 22$ kcal the formation of ammonia is favoured by	A. Increasing the pressure B. Increasing the temperature C. Decreasing the pressure D. Adding ammonia
69	The effect of increasing the pressure on the following equilibrium 2A + 3B | | 3A + 2B is	A. Forward reaction is favoured B. Backward reaction is favoured C. No effect D. None of the above
70	At 500 K the equilibrium constant for reaction cis-$C_2H_2Cl_2$ trans-$C_2H_2Cl_2$ is 0.6. At the same temperature the equilibrium constant for the reaction trans-$C_2H_2Cl_2$ cis-$C_2H_2Cl_2$ will be	A. 0.60 B. 1.67 C. 0.66 D. 2.6
71	In a reversible chemical reaction having two reactants in equilibrium if the concentration of the reactants are doubled then the equilibrium constant will	A. Also be doubled B. Be halved C. Becomes one fourth D. Remains the same
72	Which of the following will not change the concentration of ammonia in the equilibrium $N_2(g) + 3H_2(g)$ $2NH_3(g)$: ΔH = -kj	A. Increase of pressure B. Increase of temperature C. Decrease of volume D. Addition of catalyst
73	The equilibrium constant in a reversible chemical reaction at a given temperature	A. Depends on the initial concentration of the reactants B. Depends on the concentration of one of the products at equilibrium C. Does not depend on the initial concentrations of recatants D. Is not characteristic of the reaction
		A. Complete conversion of A to B has taken place B. Conversion of A to B is only 50% complete

74	A chemical reaction A B is said to be in equilibrium when	C. Only 10% conversion of A to B has taken place D. The rate of transformation of A to B is just equal to rate of transformation of B to A in the system
75	For the reaction 2A(g) + B(g) 3C(g) + D(g) two moles each of A and B were taken into a flask The following must always be true when the system attained equilibrium	A. [A] = [B] B. [A] < [B] C. [B] = [C] D. [A] > [B]
76	When pressure is applied to the equilibrium system Ice Water Which of the following phenomenon will happen?	A. More ice will be formed B. Water will evaporate C. More water will be formed D. Equilibrium will not be formed
77	The freezing point of 1 molal NaCl solution assuming NaCl to be 100% dissociated in water in	A. -1.86°C B. -3.72°C C. +1.86°C D. +3.72°C
78	In cold countries ethylene glycol is added to water in radiators of cars during winter It result in	A. Lowering in b.pt. B. Reducing viscosity C. Reducing specific heat D. Lowering in freezing pt.
79	Which of the following is a colligative property?	A. Melting point B. Osmotic pressure C. Freezing point D. Sublimation temperature
80	The osmotic pressure of solution increases if	A. Temperature is decreased B. Solution constant is increased C. Number of solute molecules are increased D. Volume is increased
81	Saturated solution of NaCl on heating becomes	A. Super saturated B. Unsaturated C. Remains saturated D. None
82	The movement of solvent molecules through a semipermeable membrane is called	A. Electrolysis B. Electrophoresis C. Osmosis D. Cataphoresis
83	Which inorganic precipitate acts as semipermeable membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
84	The molal elevation constant is the ratio of the elevation in boiling point to	A. Molarity B. Molality C. Mole fraction of solute D. Mole fraction of solvent
85	Which is not a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
86	Which of the substances Na, Hg, S Pt and graphic can be used as electrodes in electrolytic cells having aqueous solution?	A. Na,Pt and graphite B. Na and Hg C. Pt and graphite only D. Na and S only
87	When quantity of electricity passed is one faraday then the mass deposited at the electrode is equal to	A. One gm. atomic weight B. One gm. Equivalent weight C. Electrochemical equivalent D. None of the above
88	If a salt bridge is removed between the two half cells the voltage	A. Drops to zero B. Does not change C. Increases gradually D. Increases rapidly
89	The reference calomel electrode is made from which of the following?	A. ZnCl₂ B. CuSO₄ C. Hg₂Cl₂ D. HgCl₂
90	When electricity is passed through molten Al_2O_3 + Na_3AlF_6 and 13.5 gms Al are deposited,the number of faraday must be	A. 0.5 B. 1.0 C. 1.5 D. 2.0
91	An electrolyte	A. Forms complex ions in solution B. Gives ions only when electricity is passed

91	An electrolyte	C. Possesses ions even in solid state D. Gives ions only when dissolved in water
92	A cell constant is generally found by measuring the conductivity of aqueous solution of	A. BaCl₂ B. KCl C. NaCl D. MgCl₂
93	A solution of sodium sulphate was electrolysed using some inert electrodes.The products at the electrodes are	A. O₂, H₂ B. O₂, Na C. O₂, SO₂ D. O₂, S₂O²-₈
94	A current of 9.65 ampere flowing for 10 minutes deposits 3.0 g of the metal which is monovalent the atomic mass of the metal is	A. 10 B. 50 C. 30 D. 96.5
95	A certain liberate 0.5 g of hydrogen in 2 h. How many grams of copper can be liberated by the same current flowing for the same time in a copper sulphare solution?	A. 12.7 gm B. 15.9 gm C. 31.8 gm D. 63.5 gm
96	The rate of reaction between A and B increases by a factor of 100 when the concentration with respect to A is increased 10 folds the order of reaction w.r.t A is	A. 10 B. 1 C. 4 D. 2
97	When $KClO_3$ is heated it decomposes into KCl and O_2 if some MnO_2 is added the reaction goes much faster because	A. MnO₂ decomposes to give O₂ B. MnO₂ provides heat by reacting C. Better contact is provided by MnO₂ D. MnO₂ acts as a catalyst
98	The unit of rate constant for a zero order reaction is	A. Liter sec⁻¹ B. Liter mol⁻¹sec⁻¹ C. Mol liter⁻¹sec⁻¹ D. Mol sec⁻¹
99	The rate of a reaction can be increased in general by all the factors except by	A. Using a catalyst B. Increasing temperature C. Increasing the activation energy D. Increasing the conc. of reactants
100	For most of the chemical reaction the rate of reaction	A. Increases as the reaction proceeds B. Decreases as the reaction proceeds C. May increases or decreases during the reaction D. Remains constant as the reaction
101	The rate of a reaction that does not involve gases does not depend upon	A. Pressure B. Temperature C. Concentration D. Catalyst
102	The rate at which a substance reacts depends on its	A. Atomic weight B. Equivalent weight C. Molecular weight D. Active mass
103	The dimension of rate constant of a second order reaction involves	A. Neither time nor concentration B. Only time C. Time and concentration D. Time and square of concentration
104	A zero order reaction is one whose rate is independent of	A. Temperature of the reaction B. The concentration of the reactants C. The concentration of the products

		D. The material of the vessel in which the reaction is carried out
105	Which of the following statement regarding catalyst is not true?	A. A catalyst remains unchanged in composition and quantity at the end of the reaction B. A catalyst can initiate a reaction C. A catalyst dose not alter the equilibrium in a reversible reaction D. Catalysts are sometimes very specific in respect of reaction
106	Which of the following represents elements in order of increasing atomic size?	A. I,Br,Cl B. Na,Mg,C C. C,N,O D. Li,Na,K
107	Which of the following statements is most appropriate about effective nuclear charge? It depends upon	A. The shielding constant B. The atomic number C. The charge on the nucleus D. Both the nuclear charge and the shielding constant
108	Number of elements presents in the fifth period of periodic table is	A. 8 B. 10 C. 18 D. 32
109	Which has largest first ionization energy?	A. Li B. Na C. K D. Rb
110	Variable valency is generally exhibited by	A. Normal elements B. Transition elements C. Metallic elements D. None of these
111	Which of the following pairs are chemically dissimilar?	A. Na and K B. Ba and Sr C. Zr and Hf D. Ca and Zn
112	The alkali metal which is liquid at 15°C is	A. K B. Cs C. Na D. None
113	Which of the following elements is most electronegative?	A. Oxygen B. Chlorine C. Nitrogen D. Fluorine
114	Which of the following has greatest tendency to lose electron?	A. F B. Fr C. S D. Be
115	Which of the following does not reflect the periodicity of elements?	A. Bonding behaviour B. Electronegativity C. Ionisation potential D. Neutron/proton ratio.
116	Potassium is kept in	A. Water B. Ammonia C. alcohol D. Kerosene E.
117	Leblanc process is employed in the manufacture of	A. Baking soda B. Washing soda C. Potash D. Plaster of paris
118	Which of the following imparts violet colouration to the non-luiminous flame of Bunsen burner?	A. NaCl B. BaCl₂ C. CaCl₂ D. KCl
119	Causticisation process is used for the preparation of	A. Caustic soda B. Caustic potash C. Baryata solution D. Slaked lime
120	Chile salt petre is	A. NaNO₃ B. Na₂SO₄ C. KNO₃ D. Na₂S₂O₃

121	Sodium metal cannot be stored under	A. Benzene B. Kerosene oil C. Alcohol D. Toluene
122	Among alkali metal salts,the lithium salts are the poorest conductors of electricity in aqueous solution because of	A. Easy diffusion of Li⁺ ions B. Lower ability of Li⁺ ions to polarize water molecules C. Lowest charge to radius ratio D. Higher degree of hydration of Li⁺ ions.
123	The formula of nitre is	A. KNO₃ B. NaNO₃ C. NaCl D. Na₂CO₃
124	Which of the following alkali metal hydroxides is the strongest base?	A. LiOH B. NaOH C. KOH D. CaOH
125	Which of the following compounds has the lowest anion to cation size ratio?	A. LiF B. NaF C. CsI D. CsF
126	Setting of cement is an	A. Exothermic reaction B. Endothermic reaction C. Neither exothermic nor endothermic D. None
127	Setting of plaster of paris involves	A. Oxidation with atmospheric oxygen B. Combination with atmosphere CO₂ C. Dehydration D. Hydration to yield another hydrate.
128	The formula of calcium cyanamide is	A. Ca(CN)₂ B. CaC₂N C. CaNCN D. CaCHNH₂
129	Calcium cyanamide on treatment with steam under pressure gives NH_3 and	A. Calcium carbonate B. Calcium hydroxide C. Calcium oxide D. Calcium bicarbonate
130	Magnesium keeps on burning in	A. N₂ B. CO₂ C. N₂O D. N₂ as well as CO₂
131	Portland cement is manufactured by using	A. Limestone,clay and sand B. Limestone,gypsum and sand C. Limestone,gypsum and alumina D. Limestone,clay and gypsum
132	The wire in the flash bulbs is made up of	A. Mg B. Ba C. Cu D. Ag
133	Bleaching action of bleaching powder is due to the liberation of	A. O₂ B. OCl⁻ C. Cl₂ D. Cl⁻
134	Which of the following is different from the other three oxides?	A. MgO B. SnO C. ZnO D. Cr₂O₃
135	Which one of the following has the lowest boiling point?	A. B B. Al C. Ga D. Ti

136	Which of the following mineral does not contain Al?	A. Cryolite B. Mica C. Feldspar D. Fluorspar
137	Which is the most amphoteric?	A. Na₂O B. MgO C. Al₂O₃ D. CaO
138	Which metal is protected by a layer of its own oxide?	A. Al B. Ag C. Au D. Fe
139	Inert pair effect plays an important role in case of	A. F B. Al C. Si D. Tl
140	In which of the following elements +1 oxidation state is more stable than +3	A. B B. Al C. Ga D. Ti
141	Which is true for an element R present in group 13 of the periodic table?	A. It is a gas at room temperature B. It has oxidation state of +4 C. It forms R₂O₃ D. It forms RX₂
142	Alum is not used	A. As a mordant in dyeing B. As an insecticide C. In purification of water D. In tanning of leather
143	Al is more reactive than Fe but Al is less easily corroded than Fe Because	A. It is a noble metal B. Oxygen forms a protective reaction easily with water C. Iron undergoes reaction easily with water D. Fe form mono and divalent ions.
144	The substance used as a smoke screen in warfare is	A. SiCl₄ B. PH₃ C. PCl₅ D. Acetylene
145	Galena is an ore of	A. Gallium B. Lead C. Tin D. Germanium
146	The halide which is not hydrolysed is	A. SiCl₄ B. SiF₄ C. CCl₄ D. PbCl₄
147	The principle constituent of pyrex glass is	A. Zn B. B C. Pb D. Cl
148	Red lead is	A. PbO B. Pb₃O₄ C. PbO₂ D. Pb₄O₃
149	Which one of the following elements occurs free in nature?	A. N B. P C. As D. Sb
150	Phosphide ion has the electronic structure similar to that of	A. Nitride ion B. Fluoride ion C. Sodium ion D. Chloride ion

151	$BiCl_3$ on hydrolysis forms a white precipitate of	A. Bismuthio is acid B. Bismuth oxychloride C. Bismuth pentachloride D. Bismuth hydroxide
152	Which one of the following compounds does not exist?	A. NCl₅ B. AsF₅ C. SbCl₅ D. PF₅
153	Which of the following fluorides does not exist?	A. NF₅ B. PF₅ C. AsF₅ D. SbF₅
154	Which of the following is acidic?	A. SO₃ B. N₂O C. BeO D. HgO
155	Ozone is not	A. An allotrope B. A powerful oxidizing agent C. Paramagnetic D. A bent molecule
156	The number of unpaired electrons in the P-subshell of oxygen atom	A. 1 B. 2 C. 3 D. 4
157	Oleum is	A. Castor oil B. Oil of vitriol C. Fuming of H₂SO₄ D. None of them
158	When sulphur is boiled with Na_2SO_3 solution the compound formed is	A. Sodium sulphides B. Sodium sulphates C. Sodium persulphate D. Sodium thiosulphate
159	Sea weeds are important source of	A. Iron B. Chlorine C. Iodine D. Bromine
160	Which is the most volatile compound?	A. HI B. HCl C. HBr D. HF
161	Which of the following halogens does not forms its oxyacids?	A. Fluorine B. Chlorine C. Bromine D. Iodine
162	Mark the smallest atom	A. F B. Cl C. Br D. I
163	Dilute hydrochloric acid solution cannot be concentrated by boiling beyond	A. 11% B. 33% C. 44% D. 22%
164	Bromine is obtained on a commercial scale from	A. Caliche B. Carnallite C. Common satl D. Cryolite
165	Which one of the halogen acid is a liquid?	A. HF B. HCl C. HBr D. HI
166	Fluorine does not show positive oxidation states due to the absence of	A. d-orbitals B. s-orbitals C. p-orbitals D. None
		A. Francium

167	Which of the following belongs to the halogen family?	B. Polonium C. Radium D. Astatine
168	Which of the following has greatest reducing power?	A. HI B. Hbr C. HCl D. HI
169	The last orbit of argon would have electrons	A. 8 B. 18 C. 2 D. 6
170	The spectrum of helium is expected to be similar to that of	A. H B. Li⁺ C. Na D. He⁺
171	Which of the following fluorides of xenon in impossible?	A. XeF₂ B. XeF₃ C. XeF₄ D. XeF₆
172	A clathrate may be defined as a	A. Cage compound B. Liquid crystal C. Mixture D. Solid solution
173	The following has zero valency	A. Na B. Be C. Al D. Kr
174	The structure of XeF_6	A. Distorted octahedral B. Pyramidal C. Tetrahedral D. None of the above
175	Bell metal is an alloy of	A. Cu,Zn,and Sn B. Cu,Zn and Ni C. Cu and Zn D. Cu and Sn
176	Addition of iron filling to $CuSO_4$ solution caused precipitation of Cu awing to the	A. Reduction of Cu²⁺ B. Oxidation of Cu²⁺ C. Reduction of Fe D. Reduction of Fe³⁺
177	Which of the following transition metal ions will have definite value of magnetic moment?	A. Sc³⁺ B. Ti³⁺ C. Cu⁺ D. Zn²⁺
178	Which of the following metal exhibits more than one oxidation?	A. Na B. Mg C. Fe D. Al
179	The equilibrium $Cr_2O^{2-}_7$ $2CrO^2_4$ is shifted to right in	A. An acidic medium B. A basic medium C. A neutral medium D. It does not exist
180	Which has the largest radius?	A. CO³⁺ B. Mn³⁺ C. Fe³⁺ D. Cr³⁺
181	Rusting of iron is catalysed by	A. Fe B. O₂ C. Zn D. H⁺
182	In the manufacture of iron from haematite,limestone is added to act as.	A. Flux B. A reducing C. Slag D. An oxidizing agent.
		A. Oxidizing behaviour B. <span style="font-size:

183	Sodium thiosulfate is used in photography because of its	14.44444465637207px;">Reducing behaviour C. Complexing behaviour D. Photochemical behaviour
184	In which molecule carbon atom is sp^2 hybridized	A. CH₄ B. C₂H₄ C. C₂H₂ D. None of the above
185	1-Chloropropane has two isomers It is an example of	A. Chain isomerism B. Position isomerism C. Functional group isomerism D. Metamerism
186	Hybridization explain the------- of orbitals	A. Type of Bonding B. Shapes C. Shape and Type of bonding D. None of above
187	Which of the following has linear shape?	A. SP B. SP² C. SP³ D. None of the above
188	The rotation of two carbon atoms joined by double bond would happened only if	A. Pi bond is broken B. Sigma bond is broken C. Both bonds are broken D. None of above
189	Vital force theory was rejected by	A. Berzelius B. Kolbe C. Wholer D. Lavoiser
190	Wholer prepared ures from	A. Ammonia B. NH₄CNO C. NH₃ D. uric acid
191	The essential component of organic compound is	A. O B. C C. P D. N
192	The order of reactivity of halogens in aliphatic substitution reactions is	A. Br2 > Cl2 > F2 B. Cl2 > Br2 > F2 C. Cl2 Cl2 > Br2 D. F2 > Br2 > Cl2
193	Which of the following substances is used as an antiknock compound?	A. Tetraethyl lead B. Lead tetrachloride C. Lead acetate D. Ethyl acetate
194	The IUPAC name of the compound having the formula (CH3) 3 C - CH = CH2 is	A. 1, 1 -Dimethyl-3-butene B. 1,1,1-Trimethyl-3-propene C. 3,3,-Dimethyl-1-butene D. 3,3,3-Trimethyl-1-propene
195	Octane number is zero for	A. n-Heptane B. Isooctane C. n-Hexane D. Isoheptane
196	For preparing an alkane, a concentrated aqueous solution of sodium or potassium salt of saturated carboxylic acid is subjected to	A. Hydrolysis B. Oxidation C. Hydrogenation D. Electrolysus
197	In Friedal-Craft's alkylation besides AlCl3 the other reactants are	A. C6H6 + NH3 B. C6H6 + CH4 C. C6H6 + CH3Cl D. C6H6 + CH3COCl
198	The addition of HBr is easiest with	A. CH2 = CHCl B. ClCH = CHCl C. CH3 - CH = CH2 D. (CH3)2 C =

		14.44444465637207px;">(CH3)2 C = CH2
199	Which of the following method is most appropriate for the manufacture of methane?	A. By reduction of CH2CL2 B. Wurtz reaction C. Liquification of natural gas D. None of these
200	The reaction/method that does not give an alkane is	A. Catalytic hydrogenation of alkanes B. Wurtz reaction C. Hydrolysis of alkyl magnesium bromide D. Dehydrohalogenation of an alkyl halid.
201	Most common reactions of benzene and its derivatives are	A. Electrophilic addition reactions B. Electrophilic substitution reactions. C. Nucleophilic addition reactions D. Nucleophilic substitution reactions
202	Benzene + Ozone → Y. in this sequence Y is	A. Benzene monoozonide B. Benzene diozonide C. Benzene triozonide D. Succinic acid
203	Which species represents the electrophile in aromatic nitrotaion?	A. NO⁻₂ B. + NO₂ C. NO2 D. NO⁻₃
204	Benzene is obtained by fractional distillation of	A. Heavy oil B. Anthracene oil C. Middle oil D. Light oil
205	Heating a micture of sodium benzoate and soda lime gives	A. Benzene B. Methane C. Sodium benzoate D. Calcium benzoate
206	Which of the following species participate in sulphonation of benzene ring?	A. H₂SO₄ B. HSO⁻₃ C. SO₃ D. SO⁻₂
207	The treatment of benzene with isobutene in the presence of sulphuric acid give	A. Isobutyl benzene B. Tert-Butyl benzene C. n-Butyl benzene D. no reaction
208	Octane number can be changed by	A. Isomerisation B. Alkylation C. Cyclisation D. All of these
209	Which of the following reagent cannot be used for preparing alkyl chloride from alcohol?	A. HCl + anhyd. ZnCl₂ B. NaCl C. PCl₅ D. SOCl₂
210	Carbon atom holding halogen in aryl halides is	A. Sp²-hybridesed B. Sp³-hybridesed C. Sp-hybridesed D. Sp³d -hybridesed
211	Which of the following with aqueous KOH will give acetaldehyde?	A. 1,2-Dichloroethane B. 1, 1-Dichloroethane C. Chloroacetic acid D. Ethyl chloride
212	Ethyl chloride on treatment with aqueous alkali gives	A. Ethane B. Ethene C. Ethanal D. Ethanol
213	Reaction of ethylamine with chloroform in alcoholic KOH producers	A. CH₃OH B. CH₃NC C. C₂H₅NC D. C₂H₅CN
		A. Benzyl chloride

214	The most reactive compound for electrophilic nitration will be	A. Benzyl chloride B. Benzoic acid C. Nitrobenzene D. Chlorobenzene
215	For the carbylamine reaction we need hot alc.KOH and	A. Any amin and chloroform B. Chloroform and Ag powder C. A primary amine and chloroform D. A mono alkyl amine and trichlorom-ethane
216	Which one is primary alcohol?	A. Buten-2-ol B. Propan-2-ol C. Butane-1-ol D. 2,3-Dimethylhexane-4-ol
217	Which of the following cannot be produced by acidic dehydration of alcohols?	A. Ethers B. Aldehyde C. Alkyl Hydrogen sulphate D. Alkene
218	Dehydration of glycerol give	A. Propane B. Propene C. Acrolein D. Benzene
219	Maximum number of active hydrogens are present in	A. Acetic-acid B. Glycerol C. Methane D. Methanol
220	Salol is prepared from	A. Salicylic acid and phenol B. Salicylic acid and methyl alcohol C. Both D. None
221	Ethanol containing some methanol is called	A. Absolute spirit B. Rectified spriit C. Power alcohol D. Methylated spirit
222	Hydrolytic conversion of sucrose into glucose and fructose is known as	A. Induction B. Inversion C. Insertion D. Inhibition
223	Isopropyl alcohol on oxidation forms	A. Acetone B. Ether C. Ethylene D. Acetaldehyde
224	Calcium acetate when dry distilled gives	A. Formaldehyde B. Acetaldehyde C. Acetone D. Acetic anhydride
225	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
226	Tollen's reagent is	A. Ammonical cuprous chloride B. Ammonical cuprous oxide C. Ammonical silver bromide D. Ammonical silver nitrate
227	Propyne on hydrolysis in presence of H_2SO_4 and $HgSO_4$ gives	A. Acetaldehyde B. Actone C. Formaldehyde D. None
228	On heating acetaldehyde with ammonical silver nitrate solution we get	A. CH₃OH B. Silver acetate C. HCHO D. Silver mirror
229	Cannizzaro reaction is not given by	A. Trimethyl acetaldehyde B. Acetaldehyde C. Benzaldehyde D. Formaldehyde

230	At room temperature formaldehyde is	A. Gas B. Liquid C. Solid D. None of the above
231	Acetic anhydride is obtained form acetyl chloride by the reaction of	A. P₂O₅ B. H₂SO₄ C. CH₃COONa D. CH₃COCH₃
232	Reaction of acids with alcohols is also known as	A. Esterification B. Saponification C. Alkalization D. None
233	Toluene can be oxidized to benzonic acid by	A. KMnO4 (alk) B. K₂Cr₂O₇(acidic) C. Both D. None
234	Heating a mixture of sodium benzoate and soda lime gives	A. Methane B. Benzene C. Sodium benzene D. Calcium benzoate
235	Formic acid is obtained when	A. Calcium acetate is heated with conc.H₂SO₄ B. Calcium formate is heated with calcium acetate C. Glycerol is heated with oxalic acid D. Acetaldehyde is oxidized with K₂CrO₇and H₂SO₄
236	The digestion of fats in the intestines is aided by	A. Diffusion B. Protection C. Peptization D. Emulsification
237	Ascorbic acid is a chemical name of	A. Vitamin D B. Vitamin A C. Vitamin C D. Vitamin B₆
238	Which has maximum protein content?	A. Ground nut B. Cow milk C. Egg D. Wheat
239	Which of the following is a molecular disease?	A. Allergy B. Cancer C. German measles D. Sickle cell anemia
240	Vitamin A is present in	A. Liver B. Milk C. Green vegetables D. All
241	The main structure features of proteins is	A. An ester linkage B. An ether linkage C. The peptide linkage D. All
242	Which of the following is not present in RNA?	A. Uracil B. Thymine C. Ribose D. Phosphate
243	Enzymes are	A. Proteins B. Mineral C. Oils

		D. Fatty acids
244	The disaccharide present in milk is	A. Sucrose B. Maltose C. Lactose D. Cellobiose
245	Fertilizer are made by	A. Nature only B. Artificial methods only C. Both artificial and natural methods D. None of the above
246	The percentage of nitrogen in urea is	A. 46 B. 60 C. 70 D. 80
247	Ammonia gas used directly as a fertilizer is injected into the soil at a depth of about	A. Two inches B. Three inches C. Five inches D. Six inches
248	Natural fertilizer from plants and animals provide nitrogen	A. 1.5 kg B. 3.0 kg C. 4.5 kg D. 6 kg
249	Natural frertilizer provides phosphorus to plants in the form of P_2O_5	A. 1.2 kg B. 2.2 kg C. 3.2 kg D. 4 kg
250	Natural fertilizer provides potassium in the form of K_2O (potash)	A. 1.5 kg B. 3 kg C. 4.5 kg D. 6.5 kg
251	In N.W.F.P the phosphate fertilizer are produced at	A. D.I.Khan B. Haripur C. Nowshera D. Dargai
252	Detergents are	A. Synthetic products B. Natural products C. Both A and B D. None of the above
253	Atmosphere of big/metropolitan cities is polluted most by	A. Automobile exhausts B. Pesticide residue C. Household waste D. Radio-active fall out
254	Cheif air pollutant which is likely to deplete ozone layer	A. Sulphure dioxide B. Carbon dioxide C. Carbon dioxide D. Nitrogen oxides and chloro fluorocarbons
255	Which one is not a pollutant normally?	A. Hydrocarbons B. Carbon dioxide C. Carbon monoxide D. Sulphur dioxide
256	Cyclone collector is used for minimizing	A. Radioactive pollution B. Air pollution C. Noise pollution D. Water pollution
257	Sulphure dioxide affects	A. Cell wall B. Plasmodesmata C. All membrane systems D. Nucleus
258	Pollutant of automobile exhausts that affects nervous system/produces mental diseases is	A. Mercury B. Lead C. <span style="font-size:

		14.44444465637207px;">Nitrogen oxide D. <span style="font-size: 14.44444465637207px;">Sulphur oxide
259	SO_2 and NO_2 pollution by increasing	A. Alkalinity B. Acidity C. Neutrality D. Buffer action
260	Carbon monoxide is pollutant as it	A. Inactivates nerves B. Inhibits glycolysis C. Combines with oxygen D. Combines with hemoglobin