NAT II Biological Science Chemistry

Sr	Questions	Answers Choice
1	Which of the following fluorides does not exist?	A. NF₅ B. PF₅ C. AsF₅ D. SbF₅
2	Saturated solution of NaCl on heating becomes	A. Super saturated B. Unsaturated C. Remains saturated D. None
3	Calcium cyanamide on treatment with steam under pressure gives $NH_3$and	A. Calcium carbonate B. Calcium hydroxide C. Calcium oxide D. Calcium bicarbonate
4	Causticisation process is used for the preparation of	A. Caustic soda B. Caustic potash C. Baryata solution D. Slaked lime
5	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
6	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 K2Cr₂O₇ and H₂SO₄
7	A clathrate may be defined as a	A. Cage compound B. Liquid crystal C. Mixture D. Solid solution
8	The symbol of the element whose atoms have the outer most electronic configuration $2s^2sp^3$is	A. N B. Li C. P D. Na
9	The disaccharide present in milk is	A. Sucrose B. Maltose C. Lactose D. Cellobiose
10	Which inorganic precipitate acts as semipermeabale membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
11	If one litre of air is passed repeatedly over heated copper and magnesium till no further reduction in volume takes place, the volume finally obtained would be approximately	A. 800mL B. 200mL C. 10mL D. Zero
12	The dimension of rate constant of second order reaction involves	A. Neither time nor concentration B. Only time C. Time and concentration D. Time and square of concentration
13	Vitamin A is present in	A. Liver B. Milk C. Green vegetables D. All
14	Oleum is	A. Castor oil B. Oil of vitriol C. Fuming of H₂SO₄ D. None of them
		A. Al

15	Which metal is protected by a layer of its own oxide?	B. Ag C. Au D. Fe
16	Addition of iron fillings to $CuSO_4$solution caused precipitation of Cu owing to the	A. Reduction of Cu²⁺ B. Oxidation of Cu²⁺ C. Reduction of Fe D. Reduction of Fe³⁺
17	Fertililzer are made by	A. Nature only B. Artificial methods only C. Both artificial and natural methods D. None of the above
18	The essential component of organic compound is	A. O B. C C. P D. N
19	A cell constant is generally found by measuring the conductivity of aqueous solution of	A. BaCl₂ B. KCl C. NaCl D. MgCl₂
20	The ratio of the ionization energy of H and $Be^{3+}$is	A. 1 : 1 B. 1 : 3 C. 1 : 9 D. 1 : 16
21	Which one of the following compounds does not exist?	A. NCl₅ B. AsF₅ C. SbCl₅ D. PF₅
22	Red lead is	A. PbO B. Pb₃O₄ C. PbO₂ D. Pb₄O₃
23	Which of the following substances is used as an antiknock compound?	A. Tetraethyl lead B. Lead tetrachloride C. Lead acetate D. Ethyl acetate
24	According to MO theory, the species O^+_2	A. Bond order of 2.5 B. Three unpaired electrons C. Diamagnetic character D. Stability lower then O₂
25	In Friedal-Craft's alkylation besides $AlCl_3$the other reactants are	A. C6H6 + NH3 B. C6H6 + CH4 C. C6H6 + CH3Cl D. C6H6 + CH3COCl
26	SO_2 and NO_2produce pollution by increasing	A. Alkalinity B. Acidity C. Neutrality D. Buffer action
27	The density of nitrogen gas prepared from air is slightly greater than that of nitrogen prepare by a chemical reaction form a compound of nitrogen due to the presence of the following in aerial nitrogen.	A. Argon B. CO₂ C. Some nitrogen molecules analogous to O2 D. Greater amount of nitrogen molecules derived from N¹⁵isotope.
28	On heating acetaldehyde with ammonical silver nitrate solution, we get	A. CH₃OH B. Silver acetate C. HCHO D. Silver mirror
29	Reaction of acids with alcohols is also known as	A. Esterification B. Saponification C. Alkalization D. None
30	Which of the following with aqueous KOH will give acetaldehyde?	A. 1, 2-Dichloroethane B. 1, 1-Dichloroethane C. Chloroacetic acid D. Ethyl chloride
31	Dilute hydrochloric acid solution cannot be concentrated by boiling beyond	A. 11% B. 33% C. 44% D. 22%
32	Which of the following reaction is used for detecting presence of carbonyl group?	A. Reaction with hydroxylamine B. Reaction with hydrazine C. Reaction with phenyl hydrazine D. All

		D. All
33	What quantity of limestone ($CaCO_3$) on heating will give 56 kg of CaO?	A. 1000 kg B. 56 kg C. 44 kg D. 100 kg
34	The rotation of two carbon atoms joined by double bond would happened only if	A. P_ibond is broken B. Sigma bond is broken C. Both bonds are broken D. None of above
35	DDT is formed from	A. Benzene and Chlorobenzene B. Chloral and Chlorobenzene C. Chloral and benzene D. Chlorobenzene and chlorine
36	Bragg's law is given by equation	A. nλ= 2θsinθ B. nλ= 2 d sinθ C. 2 nλ= d sinθ D. nλ= 1/2 d sinθ
37	Detergents are	A. Synthetic products B. Natural products C. Both A and B D. None of the above
38	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
39	In public urinals, we observe some nascent smell. This smell is due to	A. Hydrolysis of urea of urine by urease of atmosphere into NH₃and CO₂ B. Formation of sulphonic acid by urea of urine C. Reaction of CO₂of atmosphere with urea mononitrate in urine D. Hydregen present in air reacts with nitrogen forming NH₃
40	Ethyl alcohol is industrially prepare from ethylene by	A. Permanganate oxidation B. Catalytic reduction C. Absorbing in H₂SO₄followed by hydrolysis D. Fermentation
41	The order of reactivity of halogens in aliphatic substitution reactions is	A. Br2 > C12 > F2 B. Cl2 > Br2 > F2 C. Cl2 C12 > Br2 D. F2 > Br2 > C12
42	The pore size of filter paper depends upon	A. Nature of the medium B. Temperature of the medium C. Size of particles D. Mass of the particles
43	Which of the following value of ΔHf represent that 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
44	Ascorbic acid is chemical name of	A. Vitamin D B. Vitamin A C. Vitamin C D. Vitamin B2

		D. Vitamin B6
45	Gooch Crucible used to filter the solution of	A. H₂SO₄ B. HCl C. KMnO₄ D. Both B & C
46	Ozane is not	A. An allotrope B. A powerful oxidizing agent C. Paramegnetic D. a bent molecule
47	Which of the following method is most appropriate for the manufacture of methane?	A. By reduction of CH2SL2 B. Wurtz reaction C. Liquification of natural gas D. None of these
48	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
49	Which of the following mineral does not contain Al?	A. Cryolite B. Mica C. Feldspar D. Fluorspar
50	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 litres B. 11.2 litres C. 1 litre D. 2.24 litres
51	Bleaching action of bleaching powder is due to the liberation of	A. O₂ B. OCl⁻ C. Cl₂ D. Cl⁻
52	Dehydration of glycerol give	A. Propane B. Propene C. Acrolein D. Benzene
53	Bell metal is an alloy of	A. Cu, Zn and Sn B. Cu, Zn and Ni C. Cu and Zn D. Cu and Sn
54	If the solvent is inflammable for heating purpose we use	A. Ice bath B. Water bath C. Wire gauze D. Thermostat
55	Water (H_2O) 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. Sulphure has high electronegativity than oxygen D. Water molecules associate through hydrogen
56	Octane number is zero for	A. n-Heptane B. Isooctane C. n-Hexane D. Isoheptane
57	Enzymes are	A. Proteins B. Minerals C. Oils D. Fatty acids
58	Sea weeds are important source of	A. Iron B. Chlorine C. Iodine D. Bromine
59	Heating a mixture of sodium benzoate and soda lime gives	A. Methane B. Benzene C. Sodium benzoate D. Calcium benzoate
60	At room temperature formaldehyde is	A. Gas B. Liquid C. Solid D. None of the above
61	The percentage of nitrogen in urea is	A. 46 B. 60 C. 70 D. 80
		A. Mojarity B. Molality

62	The molal elevation constant is the ratio of the elevation in boiling point to	C. Mole fraction of solute D. Mole fraction of solvent
63	Helium-oxygen mixture is used by deep sea divers in preference to nitrogen-oxygen mixture because	A. Helium is much less soluble in blood than nitrogen B. Helium is much less soluble in blood than helium C. Under the sea nitrogen and oxygen react to give poisonous nitric oxide D. Nitrogen is highly soluble in water.
64	Which is the most volatile compound?	A. HI B. HCl C. HBr D. HF
65	Toluene can be oxidized to benzoic acid by	A. KMnO₄(alk) B. K₂Cr₂O₇ (acidic) C. Both D. None
66	The total number of protons in 10 g of calcium carbonate is (N_0= 6.023 x 10^{23})	A. 1.5057 x 10²⁴ B. 2.0478 x 10²⁴ C. 3.0115 x 10²⁴ D. 4.0956 x 10²⁴
67	In which molecule carbon atom is sp^2hybridized	A. CH₄ B. C2H₄ C. C₂H₂ D. None of the above
68	The weight of 11.2 litres of CO_2at S.T.P. would be	A. 88 g B. 44 g C. 32 g D. 22 g
69	Pollutant of automobile exhausts that affects nervous system/produces mental diseases is	A. Mercury B. Lead C. Nitrogen oxide D. Sulphur oxide
70	Number of elements present in the fifth period of periodic table is	A. 8 B. 10 C. 18 D. 32
71	In cold countries ethylene glycol is added to water in radiators of cars during winter. It results in	A. Lowering in b.pt. B. Reducing viscity C. Reducing specific heat D. Lowering in freezing pt.
72	Which of the following has greatest tendency to lose electron?	A. F B. Fr C. S D. Be
73	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
74	Which of the following pairs are chemically dissimilar?	A. Na and K B. Ba and Sr C. Zr and Hf D. Ca and Zn
75	The pure crystalline substance on being heated gradually first forms turbid liquid at constant temperature and still at higher temperature turbidity completely disapp-ears. The behaviour is a characteristic of substance forming	A. Allotropic crystal B. Liquid crystals C. Isomeric crystals D. Isomorphous crystals
76	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
77	The bond angle H-O-H in ice is closest to	A. 120° . 28' B. 60° C. 90°

		D. 109°
78	Which of the following species participate in sulphonation of benzene ring?	A. H₂SO₄ B. HSO⁻₃ C. SO₃ D. SO⁻₂
79	Calcium acetate when dry distilled gives	A. Formaldehyde B. Acetaldehyde C. Acetone D. Acetic anhydride
80	The wire in the flash bulbs is made up of	A. Mg B. Ba C. Cu D. Ag
81	1 mole of CH_4contains	A. 6.02 x 10²³atoms of H B. 4 g-atom of hydrogen C. 1.81 x 10²³molecules of CH₄ D. 3.0 g of carbon
82	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
83	Chile salt petre is	A. NaNO₃ B. Na₂SO4 C. KNO₃ D. Na₂S₂O₃
84	$\Delta H_{neutralisation}$*is always*	A. positive B. Negative C. Zero D. Positive or negative
85	Which of the following is directly related to Qualitative analysis?	A. Identification B. Separation C. Measurement D. Calculation
86	The structure of XeF6	A. Distorted octahedral B. Pyramidal C. Tetrahedral D. None of the above
87	A current of 9.65 ampere flowing ofr 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
88	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
89	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
90	Each of following is true of white and red phosphours except that they	A. Are both soluble in CS₂ B. Can be oxidized by heating in air C. Consist of the same kind of atoms D. Can be converted into one another
91	The halide which is not hydrolysed is	A. SiCl₄ B. SiF₄ C. CCl₄ D. PbCl₄
92	Which of the substances Na, Hg, S, Pt and graphite 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
93	Which one is not a pollutant normally?	A. Hydrocarbons B. Carbon dioxide C. Carbon monoxide D. Sulphur dioxide
		A. Na₂CO₃ B. Pb₃O₄

94	The chemical composition of white lead is	B. Pb₃O₄ C. Pb(OH)₂.2PbCO₃ D. PbO
95	Tollen's reagent is	A. Ammonical cuprous chloride B. Ammonical cuprous oxide C. Ammonical silver bromide D. Ammonical silver nitrate
96	The valence orbital configuration of an element with atomic number 23 is	A. 3d⁵ B. 3d³, 4s² C. 3d³, 4s¹, 4p¹ D. 3d², 4s², 4p¹
97	Which of the following is a colligative property?	A. Melting point B. Osmotic pressure C. Freezing point D. Sublimation temperature
98	Sulphonation of benzoic acid produces mainly	A. o-Sulphobenzoic acid B. m-Sulphobenzoic acid C. p-Sulphobenzoic acid D. o- and p-Sulphobenzoic acid
99	The digestion of fats in the intestines is aided by	A. Diffusion B. Protection C. Peptization D. Emulsification
100	The number of unpaired electrons in the p-subshell of oxygen atom	A. 1 B. 2 C. 3 D. 4
101	During the folding of filter paper the apex form angle of about	A. 80° B. 60° C. 180° D. 90°
102	Sulphure dioxide affects	A. Cell wall B. Plasmodesmata C. All membrane systems D. Nucleus
103	Rusting of iron is catalysed by	A. Fe B. O₂ C. Zn D. H⁺
104	An electrolyte	A. Forms complex ions in solution B. Gives ions only when electricity is passed C. Possesses ions even in solid state D. Gives ions only when dissolved in water
105	Inert pair effect plays an important role in case of	A. F B. Al C. Si D. Tl
106	The carbon atoms in calcium carbide are held by	A. Ionic bonds B. Sigma bonds C. 2 covalent, one co-ordinate bond D. 2π and oneσ bond
107	Which of the following has least mass?	A. 2 gram atom of nitrogen B. 3 x 10²³atoms of C C. 1 mole of S D. 7.0 g of Ag.
108	Which of the following belongs to the halogen family?	A. Francium B. Polonium C. Radium D. Astatine
109	Aryl halides are less reactive towards nucleophilic substitution reactions as compared to alkyl halides due to	A. The formation of less stable carbonium ion B. Resonance stabilization C. Larger carbon -halogen bond D. The inductive effect
		A. Fcc B. Both Fcc and bcc

110	In crystal structure of sodium chloride, the arrangement of Cl^-ions is	B. Both Fcc and bcc C. Bcc D. None of these
111	Dolomite has the composition	A. KCL.MgCL₂.6H₂O B. Na₃AlF₆ C. CaCO₃.MgCO₃ D. CaCL₂.MgCl_{2. }6H₂O
112	The last orbit of argon would have electrons	A. 8 B. 18 C. 2 D. 6
113	White P when boiled with strong solution of caustic soda produces	A. Phosphine B. Posh acid C. Phosphorous acid D. None
114	What happens when $CCl_4$is treated with $AgNO_3$solution?	A. NO₂will be evolved B. A white ppt. of AgCl will form C. CCl₄will dissolve in AgNO₃solution D. Nothing will happen
115	The rate of a reaction that does not involves gases, does not depend upon	A. Pressure B. Temperature C. Concentration D. Catalyst
116	Sodium metal cannot be stored under	A. Benzene B. Kerosene oil C. Alcohol D. Toluene
117	Reaction of ethylamine with chloroform in alcoholic KOH produces	A. CH₃OH B. CH₃NC C. C₂H₅NC D. C₂H₅CN
118	The maximum number of electrons in a subshell for which$l = 3$ *is*	A. 14 B. 10 C. 8 D. 4
119	Galena is an ore of	A. Gallium B. Lead C. Tin D. Germanium
120	Phosphide ion has the electronic structure similar to that of	A. Nitride ion B. Fluoride ion C. Sodium ion D. Chloride ion
121	Which of the following as a molecular diseaes?	A. Allergy B. Cancer C. German measles D. Sickle cell anemia
122	Which species represents the electrpohile in aromatic nitrotaion?	A. NO⁻₂ B. NO⁺₂ C. NO2 D. NO⁻₃
123	Acetic anhydride is obtained from acetyl chloride by the reaction of	A. P₂O₅ B. H₂SO₄ C. CH₃COONa D. CH₃COCH₃
124	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
125	Calcium acetate when dry distilled	A. Formaldehyde B. Acetaldehyde C. Acetone D. Acetic anhydride
126	The number of electrons in the M shell of the element with atomic number 24 is	A. 24 B. 12 C. 13 D. 8
127	Given below are some statements concerning formic acid, which of them is true?	A. It is a weaker acid than acetic B. it is a reducing agent C. When its calcium salt is heated, it forms a

		ketone D. It is an oxidizing agent
128	Which of the following has no tin in its composition?	A. Solder B. Bronze C. Brass D. Tin stone
129	A certain current 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 sulphate solution?	A. 12.7 gm B. 15.9 gm C. 31.8 gm D. 63.5 gm
130	The credit of discovering neutron goes to	A. Rutherford B. Langmuir C. Chadwick D. Austen
131	Covalent compounds are soluble in	A. Polar solvents B. Non-polar solvents C. Concentrated acids D. All solvents
132	When sulphur is boiled with Na_2SO_3solution, the compound formed is	A. sodium sulphides B. Sodiums sulphates C. Sodium persulphate D. Sodium thiosulphate
133	The spectrum of helium is expected to be similar to that of	A. H B. Li⁺ C. Na D. He⁺
134	White lead is	A. Basic lead acetate B. Acidic lead carbonate C. Basic lead carbonate D. Basic lead hydroxide
135	Which of the following metal exhibits more than one oxidation?	A. Na B. Mg C. Fe D. Al
136	Which one is not usually used for the crystallization?	A. Acetone B. Acetic acid C. Sulphuric acid D. Chloroform
137	Among the alkaline earth metals the element forming predominantly covalent compounds is	A. Be B. Mg C. Sr D. Calcium
138	Phenol is heated with $CCl_4$and alkaline KOH when salicylic acid is produced. The reaction is known as	A. Frledel-Craft reaction B. Riemer-Tiemann's reaction C. Rosenmund's reaction D. Sommelet reaction
139	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
140	The reagent which forms crystalline osazone derivation when treated with glucose is	A. Fehling solution B. Phenyl hydrazine C. Benedict solution D. Hydroxyl amine
141	Fluorine does not show positive oxidation states due to the absence of	A. d-orbitals B. s-orbitals C. p-orbitals D. None
142	Which of the following alkali metal hydroxides is the strongest base?	A. LiOH B. NaOH C. KOH D. CsOH
143	How many moles of Helium gas occupy 22.4 L at 0°C at a atm. Pressure?	A. 0.11 B. 0.90 C. 1.0 D. 1.11
144	Acetylene gives	A. White ppt. with ammonical AgNO₃and red ppt. with ammonical Cu(NO₃)₂ B. White ppt. with ammonical AgNo<sub>3 and red ppt. with

		ammonical</sub>Cu₂Cl₂ C. White ppt. with both D. Red ppt. with both
145	Alum is not used	A. As a mordant in dyeing B. As an insecticide C. In purification of water D. In tanning of leather
146	Which for the following has greatest reducing power?	A. HI B. HBr C. HCl D. HI
147	The principal constituent of pyrex glass	A. Zn B. B C. Pb D. Cl
148	Inter molecular forces in solid hydrogen are	A. Covalent forces B. Van der Waal forces or London dispersion forces C. Hydrogen bonds D. All of these.
149	Leblanc process is employed in the manufacture of	A. Baking soda B. Washing soda C. Potash D. Plaster of paris
150	Ethyl chloride on treatment with aqueous alkali gives	A. Ethane B. Ethene C. Ethanal D. Ethanol
151	Carbon atom holding halogen in aryl halides is	A. sp²-hybridesed B. sp³-hybridesed C. sp-hybridesed D. sp³d-hybridesed
152	Which of the following nitrogen fertilizer contain more nitrogen	A. NaNO₃ B. KNO₃ C. NH₄NO₃ D. Urea
153	The acid used in lead storage cells is	A. Phosphoric acid B. Nitric acid C. Sulphuric acid D. Hydrochloric acid
154	Variable valency is generally exhibited by	A. Normal elements B. Transition elements C. Metallic elements D. None of these.
155	Ethanol containing some methanol is called	A. Absolute spirit B. Rectified spirit C. Power alcohol D. Methylated spirit
156	How many kinds of space lattices are possible in a crystal?	A. 23 B. 7 C. 230 D. 14
157	Which one is primary alcohol?	A. Buten-2-ol B. Propan-2-ol C. Butaon-1-ol D. 2, 3-Dimethylhexane-4-ol
158	The number of atoms contained in 11.2 L of SO_2at 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
159	Acid rains are produced by	A. Excess NO₂ and SO₂from burning fossil fuels B. Excess production of NH₃ by industry and coal gas C. Excess release of carbon monoxide by incomplete combustion D. Excess formation of CO₂ by combustion and animal respiration
160	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

161	The rate of reaction between A and B increases by a factor of 100, and 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
162	Vital force theory was rejected by	A. Berzelius B. Kolbe C. Wholer D. Lavoiser
163	Which of the following is different from the other three oxides?	A. MgO B. SnO C. ZnO D. Cr₂O₃
164	Potassium is kept in	A. Water B. Ammonia C. Alcohol D. Kerosene.
165	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.
166	Heating a micture of sodium benzoate and soda lime gives	A. Benzene B. Methane C. Sodium benzoate D. Calcium benzoate
167	Natural fertilizer 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
168	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
169	Bromine is obtained on a commercial scale from	A. Caliche B. Carnallite C. Common satl D. Cryolite
170	2 g of 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
171	The formula to calcium cyanamide is	A. Ca(CN)₂ B. CaC_{2N} C. CaNCN D. CaCHNH₂
172	1-Chloropropane has two isomers. It is an example of	A. Chain isomerism B. Position isomerism C. Function group isomerism D. Meramerism
173	In which of the following elements +1 oxidation state is more stable than +3	A. B B. Al C. ga D. Ti
174	By using the fluted filter paper rate of filtration is	A. Increased B. Decreased C. Filtration is constant D. Having no effect
175	Setting of cement is an	A. Exothermic reaction B. Endothermic reaction C. Neither exothermic nor endothermic D. None
176	Which of the following reagent cannot be used for preparing alkyl chloride from alcohol?	A. HCl + anhyd. ZnCl₂ B. NaCl C. PCl₅ D. SOCl₂
177	The unit 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

178	Phosphorus pentoxide finds use as	A. An oxidizing agent B. A reducing agent C. a bleaching agent D. A dehydration agent.
179	Which of the following cannot be produced by acidic dehydration of alcohols?	A. Ethers B. Aldehyde C. Alkyl Hydrogen sulphate D. Alkene
180	A solution of sodium sulphate was electrolysed using some inert electrodes. The products at the electrodes are	A. O_{2,}H₂ B. O_{2,}Na C. O_{2,}SO₂ D. O_{2,}S_{2O}²⁻₈
181	Which of the following process is used to separate insoluble particles from liquids?	A. Seperation B. Filtration C. Crystallization D. Condensation
182	Minamata disease is due to pollution of	A. Organic waste B. Oil spill in water C. Industrial waste containing mercury into fishing water D. Arsenic into the atmosphere
183	The following has zero valency	A. Na B. Be C. Al D. Kr
184	Which of the following units represents largest amount of energy?	A. Calorie B. Joule C. Erg D. Electron vol.
185	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
186	Gooch crucible is used for the filtration of precipitates having	A. High Solubility B. High concentration C. High ignition temperature D. Low Temperature
187	Which of the following imparts violet colouration to non-luiminous flame of Bunsen burner?	A. NaCl₂ B. BaCl₂ C. CaCl₂ D. KCl
188	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 reaction.
189	The kinetic theory of gases predicts that total kinetic energy of a gaseous assemble 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.
190	Which one of the following has the lowest boiling point?	A. B B. Al C. Ga D. Ti
191	In a crystal a≠b≠c, a =γ= 90° andβ≠90°. It is	A. Monoclinic B. Rhombic C. Trigonal D. Tetragonal
192	An endothermic 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.
193	The isomers due to the unequal distribution of carbon atoms on either side of the functional group belonging to the same homologous series are called	A. Functional isomers B. Position isomers C. Chain isomers D. Metamers
194	The formula of nitre is	A. KNO₃ B. NANO₂ C. NaCl D. Na₂CO₃

195	Which of the following has linear shape?	A. SP B. SP² C. SP³ D. None of the above
196	In the manufacture of iron from haematite, limestone is added to act as.	A. Flux B. A reducing agent C. Slag D. An oxidizing agent
197	Benezene is obtained by fractional distillation of	A. Heavy oil B. Anthracene oil C. Middle oil D. Light oil
198	Bond angle is minimum for	A. H₂O B. H₂S C. H₂Se D. H₂Te
199	For most of the chemical reactions the rate of reaction	A. Increase as the reaction proceeds B. Decrease as the reaction proceeds C. May increase or decrease during the reaction D. Remains constant as the reaction proceeds
200	The movement of solvent molecules through a semipermeable membrane is called	A. Electrolysis B. Electrophoresis C. Osmosis D. Cataphoresis
201	Maximum number of active hydrogens	A. Acetic acid B. Glycerol C. Methane D. Methanol
202	The most reactive compound for electrophilic nitration will be	A. Benzyl chloride B. Benzoic acid C. Nitrobenzene D. Chlorobenzene
203	Aluminothermy used for on the spot welding of large iron structure is based upon the fact that	A. As compared to iron, aluminium has greater affinity for oxygen B. As compared to aluminium, iron has greater affinity for oxygen C. Refraction between aluminium and oxygen is endothermic D. Reaction between iron and oxygen is endothermic.
204	Which is not a a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
205	Which of the following is monoatomic?	A. Oxygen B. Neon C. Fluorine D. Nitrogen.
206	If a salt bridge is removed electrode is made from which of the following?	A. ZnCl₂ B. CuSO₄ C. Hg₂Cl₂ D. HgCl₂
207	$BiCl_3$on hydrolysis forms a white precipitate of	A. Bismuthio acid B. Bismuth oxychloride C. Bismuth pentachloride D. Bismuth hydroxide.
208	Mild oxidation of glycerol with $H_2O_2/FeSO_4$ gives	A. Glyceraldehyde B. Dihydroxy acetone C. Glycerose D. None
209	Octane number can be changed by	A. Isomerisation B. alkylation C. Cyclisation D. All of these
210	One mole of 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 litres of a gas at S.T.P.
211	Magnesium keeps on burning in	A. N₂ B. CO₂ C. N₂O D. N₂ as well as CO₂

		D. N₂as well as CO₂
212	The relative rates of diffusion of a gas (molecular weight = 128) as compared to oxygen is	A. 2 times B. 1/4 C. 1/8 D. 1/2
213	Which of the following geometry is associated with the compound in which the central atom assumes sp^3d hybridization?	A. Planar B. Pyramidal C. Angular D. Trigonal bipyramidal
214	Which of the following does not reflect the periodicity of elements?	A. Bonding begaviour B. Electronegativity C. Ionisation potential D. Neutron/proton ratio
215	Which of the following statements is correct with respect to the property of elements with increase in atomic number in the carbon family (group 14)?	A. Their metallic character decreases B. The stability of +2 oxidation state increases C. Their ionization energy increases D. Their atomic size decreases
216	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 halide.
217	Atmosphere of big/metropolitan cities is polluted most by	A. Automobile exhausts B. Pesticide residue C. Household waste D. Radio-active fall out
218	The percentage of oxygen in NaOH is	A. 40 B. 60 C. 8 D. 10
219	Which of the following is not present in RNA?	A. Uracil B. Thymine C. Ribose D. Phosphate
220	In N.W.F.P the phosphate fertilizers are produced at	A. D.I.Khan B. Haripur C. Nowshera D. Dargai
221	Which of the following fluorides of xenon is impossible?	A. XeF₂ B. XeF₃ C. XeF₄ D. XeF₆
222	Which of the following elements is most electronegative?	A. Oxygen B. Chlorine C. Nitrogen D. Fuorine
223	The main structure features of proteins is	A. An ester linkage B. An ether linkage C. The peptide linkage D. All
224	Which of the following is an example of body centred cube?	A. Magnesium B. Zinc C. Copper D. Sodium
225	Hypo is used to photography for	A. Developing picture B. Picture printed C. The colour of picture D. The fixation of picture
226	Which reaction sequence would be best to prepare 3-chloro-aniline from benzene?	A. Chlorination, nitration, reduction B. Nitration, Chlorination, reduction C. Nitration, reduction, chlorination D. Nitration, reduction, acylation, chorination, hydrolysis
227	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<span style="font-family: "Times New Roman"; font-size: 18px; color: rgb(34, 34, 34); background-color: rgb(255, 255,

		248);">°C D. +3.72°C
228	When $KClO_3$is heated, it decomposes into KCl and O_2. If some MnO2 is added, the reaction goes much faster because	A. MnO₂decomposes to give O₂ B. MnO₂provide heat by reacting C. Better contact is provided by MnO₂ D. MnO₂acts as a catalyst.
229	When excess of $SnCl_2$is added to a solution of $HgCl_2$, a white precipitate turning to grey is obtained. They grey colour is due to the formation of	A. Hg₂Cl₂ B. SnCl₄ C. Sn D. Hg
230	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
231	The addition of HBr is easiest with	A. CH2 = CHCl B. ClCH = CHCl C. CH3 - CH = CH2 D. (CH3)2 C = CH2
232	Which is the most amphoteric?	A. Na₂O B. MgO C. Al₂O₃ D. CaO
233	Which has largest first ionization energy?	A. Li B. Na C. K D. Rb
234	Which of the following compounds has the lowest anion to cation size ratio?	A. LiF B. NaF C. CsI D. CsF
235	Cyclone collector is used for minimizing	A. Radioactive pollution B. Air pollution C. Noise pollution D. Water pollution
236	Which quantum number is sufficient to describe the electron is hydrogen	A. ı B. n C. m D. s
237	The number of atoms in 0.004 g of magnesium is close to	A. 24 B. 2 x 10²⁰ C. 10²⁰ D. 6.02 x 10²³
238	The alkali metal which is liquid at 15°C is	A. K B. Cs C. Na D. None
239	Sodium thisoulphate is used in photography because of its	A. Oxidizing behaviour B. Reducing behaviour C. Complexing behaviour D. Photochemical behavior
240	Propyne on hydrolysis is presence of $H_2SO_4$and $HgSO_4$ gives	A. Acetaldehyde B. Acetone C. Formaldehyde D. None
241	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
242	The rate at which a substance reacts depends on its	A. Atomic weight B. Equivalent weight C. Molecular weight D. Active mass
243	Which of the following possesses the highest melting point?	A. Chlorobenzene B. o- Dichlorobenzene C. m-Dichlorobenzene

		D. p-Dichlorobenzene
244	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.
245	Potassium crystallizes with a	A. Orthogonal lattice B. Cubic lattice C. Triclinic D. Ortho rhombic lattice
246	Most common reactions of benzene and its derivatives are	A. Electrophilic addition reactions B. Electrophilic subsitution reactions C. Nucleoophilic addition reactions D. Nucleophilic substitution reactions
247	Chief air pollutant which is likely to deplete ozone layer	A. Suphure dioxide B. Carbon dioxide C. Carbon dioxide D. Nitrogen oxides and chloro flrorocarbons
248	Which one of the following elements occurs free in nature?	A. N B. P C. As D. Sb
249	Which of the following alcohols cannot be produced by treatment of aldehydes or ketones with $NaBh_4$or $LiAH_4$?	A. 1-Propanol B. 2-Propanol C. 2-Methyl2-Proponal D. Ethanol.
250	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
251	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. Electrolysis
252	What happens when isotonic solution of a (mol. wt. 342) and B (mol. wt 60) are put in to communication through semiperme-able membrane?	A. Transference of solvent from solution A to that of B take place B. Transference of solvent from solution B to that of A takes place C. No transference of solvent from solution A to that of B takes place D. Change in temperature of solutions takes place.
253	Iron, once dipped in concentrated H_2SO_4, does not displace copper from copper sulphates solution, because	A. It is less reactive than copper B. A layer of sulphates is deposited on it C. An inert layer of iron oxide is deposited on it. D. All valence electrons of iron are consumed.
254	Red P can be obtained from white P by	A. Heating it with a catalyst in an inert atmosphere B. Distilling it in an inert atmosphere C. Dissolving it in CS₂and crystallzing D. Melting it and pouring the liquid into water
255	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.
256	Which of the following is acidic?	A. SO₃ B. N₂O C. BeO D. HgO
257	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
258	The heat 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 to monoclinic?	A. 70960 calories B. 71030 calories C. -70 calories D. +70 calories
259	When electrons revolve in 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
260	Which of the following halogens does not form its oxyacids?	A. F B. Cl C. Br D. I

261	Isopropyl alcohol on oxidation forms	A. Acetone B. Ether C. Ethylene D. Acetaldehyde
262	Which of the following oxides is peroxide?	A. Na₂O₂ B. MnO₂ C. BaO D. SO₂
263	Wt. of 112 ml of oxygen at NTP on liquification would be	A. 0.32 g B. 0.64 g C. 0.16 g D. 0.96 g
264	Outermost shells of two elements X and Y have two and six electrons respectively. If they combine, the expected formula of compound will be	A. XY B. X₂Y C. X₂Y₃ D. XY₂
265	Crystal can be classified in to ---------- basic crystal habits	A. 7 B. 3 C. 14 D. 3
266	Hybridization explain the ---------- of orbitals	A. Type of Bonding B. Shapes C. Shape and Type of bonding D. None of above
267	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
268	Which has maximum protein content?	A. Ground nut B. Cow milk C. Egg D. Wheat
269	The mass of the neutron is of the order of	A. 10⁻²³kg B. 10⁻²⁴kg C. 10⁻²⁶kg D. 10⁻²⁷kg
270	When electricity is passed through moten Al_2O_3+Na_3AlF_6 and 13.5 gms of Al are deposited, the number of faraday must be	A. 0.5 B. 1.0 C. 1.5 D. 2.0
271	Wholer prepared urea from	A. Ammonia B. NH₄CNO C. NH₃ D. Uric acid
272	The substance used as a smoke screen in warfare is	A. SiCl₄ B. PH₃ C. PCl₅ D. Acetylene
273	Carbon monoxide is pollutant as it	A. Inactivates nerves B. Inhibits glycolysis C. Combines with oxygen D. Combines with hemoglobin
274	Hydrolytic conversion of sucrose into glucose and fructose is known as	A. Induction B. Inversion C. Insertion D. Inhibition
275	Which of the following transition metal ions will have definite value of magnetic moment?	A. Sc³⁺ B. Ti³⁺ C. Cu⁺ D. Zn²⁺
276	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
277	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
278	Setting of Plaster of Paris involves	A. Oxidation with atmospheric B. Combination with atmospheric CO₂ C. Dehydration

		D. Hydration to yield another hydrate
279	Cannizzaro reaction is not given by	A. Trimethyl acetaldehyde B. Acetaldehyde C. Benzaldehyde D. Formaldehyde.
280	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
281	Which one of the halogen acid is a liquid?	A. HF B. HCl C. HBr D. HI
282	Which has largest radius?	A. CO³⁺ B. Mn³⁺ C. Fe³⁺ D. Cr³⁺
283	Which of these is the most widely used nitrogen fertilizer in Pakistan	A. Urea B. Ammonium nitrate C. Ammonium Sulphate D. Ammonium chloride
284	As a fixing agent in photography, sodium thisoulphate is used for	A. Dissolving out unreacted silver bromide B. Converting silver halides to metallic silver C. Reducing solubility of AgBr D. Preventing overdeveloping and fogging.
285	Hydrogen chloride molecule contains	A. Covalent bond B. Double bond C. Co-ordinate bond D. Electrovalent bond
286	When a carbon atom forms single bonds with other carbon atoms, these hybird orbitals overlap with the orbitals of hydrogen to form four bonds which are	A. Three sigma and one P_i B. Two sigma andtwo P_i C. One sigma and three P_i D. Sigma
287	With increasing principle quantum number, the energy difference between adjacent energy levels in H atom	A. Decreases B. Increases C. Remain constant D. Decreses for low value of Z and increases for higher value of Z.
288	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.
289	The IUPAC name of the compound having the formula $(CH_3)_3C - CH = CH_2$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
290	Salol is prepared from	A. Salicyclic acid and phenol B. Salicyclic acid and methyl alcohol. C. Both D. None