MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Relationship between volume of a gas and prevailing conditions of temperature and pressure are called	A. Gas laws B. Equilibrium laws C. Rate laws D. None of these
2	Liquids are less common than solids and gases because	A. They exist in narrow range of temperature and pressure B. They have definite volume C. Liquid molecules can slide past each other D. Molecules contain three type of motion
3	The value of van der Waal s constant a for gases CO_2, N_2, and SO_2, are 3.59 ,1.39, 1.36, and 6.17 atm dm^6 mol^{-2} respectively the gas which can be most easily liquefied is	A. CO₂ B. O₂ C. N₂ D. SO₂
4	Under which conditions real gases deviate from ideal behaviour	A. Low temperature and low pressure B. Low temperature and high pressure C. High temperature and high pressure D. High temperature and low pressure
5	Compressibility factor for an ideal gas is	A. 1.5 B. 1.0 C. 2.0 D. 0.5
6	Which of the following gases shows more ideal behaviour at 0^oC	A. H₂ B. CH₄ C. He D. NH₃
7	Which of the following formula is correct for density of any gas	A. d = RT/PM B. d = PM/RT C. d = MT/PR D. d = RM/PT
8	The rate of diffusion of hydrogen gas is three times than that of an unknown gas at same temperature and pressure than the molar mass of unknown gas is	A. 32 B. 18 C. 16 D. 27
9	The highest temperature at which gas can be liquefied and above which liquefaction is impossible is called	A. Boiling temperature B. Upper consulate temperature C. Transition temperature D. Critical temperature
10	Temperature at which molecular motion ceases is called	A. Absolute zero B. Absolute temperature C. Critical temperature D. Difficult to predict
11	General gas equation is combination of	A. Boyle s law B. Avogadro s law C. Charles s law D. All of these
12	Pressure of $1Nm^{-2}$ is equal to	A. One bar B. 1 psi C. One pascal D. One atmosphere
13	In intense electrical field and at a very high temperature matter generally exist in	A. Solid state B. Plasma state C. Liquid state D. Gaseous state
14	Which of the following is exact relationship between °F and C°	A. °F= 5/9[°C-32] B. °C = 5/9 [°F]+32 C. °F = 9/5°C+32 D. All
15	A real gas obeying van der Waals equation will resemble ideal gas if	A. Both a and b are large B. a is large and b is small C. Both a and b are small

		D. a is small and b is large
16	Graham s law refers to	A. Boiling point of gases B. Gas compression problems C. Gaseous diffusion D. Volume changes of gases due to change in temperature
17	Air contains 78% N_2, 21% O_2 and 1% other gases at sea level the partial pressure of O_2 is	A. 760 torr B. 159 torr C. 592 torr D. 7.6 torr
18	At higher temperature isotherm moves away from y-axis because of increase in	A. Pressure B. Number of moles C. Volume D. Mass
19	The sun is a ball of plasma heated by nuclear fusion is	A. 1.0 million km B. 2.0 million km C. 1.5 million km D. 2.5 million km
20	Which of the following is not the application of plasma	A. Fluorescent light bulb B. Removal of hazardous chemical C. Neon signs D. Corrosion effective
21	The unit of R depends on	A. Mole B. Pressure volume C. Temperature D. None of these
22	Plasma was introduced by	A. Crookes B. Soddy C. Faraday D. Van der Waal
23	Which of the following substance has maximum critical temperature	A. H₂O B. N₂ C. SO₂ D. Ne
24	Van der Waals equation explains the behaviour of	A. Real gases B. Mixture of gases C. Ideal gas D. Diatomic gases
25	Charles s law is only satisfied if temperature is taken on	A. Kelvin scale (b) B. Celsius scale (°C) C. Fahrenheit scale (°F) D. All of these
26	Equal masses of methane and oxygen are mixed in an empty container at 25°C The fraction of total pressure exerted by oxygen is	A. 1/3 B. 1/9 C. 8/9 D. 16/17
27	The process of effusion is best understood by law	A. Grahams B. Boyle s C. Charles s D. Avogadro s
28	In a closed vessel a gas is heated from 300 K to 600K The kinetic energy becomes remains	A. Double B. Same C. Half D. Four times
29	Which of the following gas cannot be liquefied by Linde s method	A. H₂O vapours B. N₂ C. H₂ D. CO₂
30	Sudden expansion of gas molecule cause cooling because	A. Expansion release some amount of energy B. During expansion new force of attraction are developed and energy is released C. During expansion force of attraction between closest molecules break and energy is used D. Kinetic energy of gas molecules increases
31	A line parallel to x-axis is obtained when graph is drawn between	A. Volume on abscissa & pressure on ordinate B. Volume on abscissa & PV on ordinate at all conditions C. Pressure on abscissa & PV on ordinate at constant temperature D. None of these
32	Units of van der Waals constant a is	A. atm dm⁶/mol² & Nm⁴/mol² B. atm dm⁴/mol² & Nm⁴/mol² C. atm dm⁴/mol² &

		Nm⁶/mol² D. None of these
33	The deviation of a gas from ideal behaviour is maximum at	A. -10°C and 5.0 atm B. 100°C and 2.0 atm C. -10°C and 2.0 atm D. 0°C and 2.0 atm
34	Observed pressure of gas on the walls of container is less than actual pressure due to	A. Hephazard motion B. Inter molecular attractive forces C. Elastic collision D. Repulsive forces
35	Which of the following gas will have lowest rate of diffusion	A. CH₄ B. N₂ C. NH₃ D. CO₂
36	Pressure remain constant at which temperature the volume of gas becomes twice of what it is at 0°C	A. 546 °C B. 546K C. 200°C D. 273K
37	Critical temperature for a gas depends upon	A. Shape of molecule B. Size of molecules C. Inter molecular forces D. All of these
38	The density of a gas is 1.964 g dm-^{3} at 273K and 76 cm Hg The gas is	A. CH₄ B. CO₂ C. C₂H₄ D. Xe
39	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
40	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.
41	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
42	The relative rate 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
43	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.
44	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
45	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
46	Wt. of 112 ml of oxygen at NTP on liquifaction would be	A. 0.32 g B. 0.64 g C. 0.16 g D. 0.96 g
47	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
48	According to kinetic theory of gases there are	A. Intermolecular attractions B. Molecules which have considerable volume C. No intermolecular forces of attraction D. The velocity of molecules decreases for each collision.
49	In the equation PV = nRT which one cannot be numerically equal to R	A. 8.31 x 10⁷ erg⁷ K⁻¹ mol⁻¹ B. 8.31 x 10⁷ dynes Cm K⁻¹ mol⁻¹ C. 8.31 JK⁻¹ mol⁻¹ D. 8.31 L atm K⁻¹ mol⁻¹

50	There is more deviation in the behaviour of a gas from the ideal gas equation PV = nRT	A. At high temperature and low pressure B. At low temperature and high pressure C. At high temperature and high pressure D. At low temperature and low pressure
51	A real gas most closely approaches the behaviour of an ideal gas at	A. 15 atm. and 200 K B. 1 atm. and 273 K C. 0.5 atm.and 500 K D. 15 tm, and 500 K
52	The correct value of the gas constant R is close to	A. 0.082 litre-atm K⁻¹ mol⁻¹ B. 0.082 litre-atm⁻¹ K mol C. 0.082 litre-atm K D. 0.082 litre-atm⁻¹ K mol⁻¹
53	An ideal gas cannot be liquefied because	A. Its critical temperature is always above 0°C B. Its molecules are relatively small in size C. It solidifies before becoming a liquid D. Forces operative between its molecules are negligible.
54	If rate of diffusion of A is 5 times that of B,what will be the density ratio of A and B?	A. 1/25 B. 1/5 C. 25 D. 5
55	The density of methane at 2.0 atmosphere pressure at 27°C is	A. 0.13 gL⁻¹ B. 0.26 gL⁻¹ C. 1.30 gL⁻¹ D. 26.0 gL⁻¹
56	The number of moles of H2 in 0.224 L of hydrogen gas at STP (273 K, 1 atm) assuming ideal gas behaviour is	A. 1 B. 0.1 C. 0.01 D. 0.001
57	The temperature of the gas is raised from 27°C to 927°C the root mean square velocity is	A. √927/27 times the earlier value B. Same as before C. Halved D. Doubled
58	Which of the following statements is false?	A. Avogadro number = 6.02 x 10²¹ B. The relationship between average velocity (v) and root mean square velocity (u) is v = 0.9213 u C. The mean kinetic energy of an ideal gas is independent of the pressure of the gas D. The root mean square velocity of the gas can be calculated by the formula (3RT/M)^{1/2}
59	An ideal gas obeying kinetic gas equation can be liquefied if	A. Its temperature is more than critical temperature B. Its pressure is more than critical pressure C. Its pressure is more than critical pressure but temperature is less than critical temperature D. It cannot be liquefied at any value of P and T
60	The densities of two gases are in the ratio of 1 : 16.The ration of their rates of diffusion is	A. 16 : 1 B. 4 : 1 C. 1 : 4 D. 1 : 16
61	The average kinetic energy of an ideal gas per molecule is SI units at 25°C will be	A. 6.17 x 10⁻²¹ KJ B. 6.17 x 10⁻²¹ J C. 6.17 x 10⁻²⁰ J D. 7.16 x 10⁻²⁰ J
62	The compressibility factor of an ideal gas is	A. 0 B. 1 C. 2 D. 4
63	If the volume of 2 moles of an ideal gas at 540 K is 44.8 litre then its pressure will be	A. 1 atmosphere B. 2 atmosphere C. 3 atmosphere D. 4 atmosphere
64	The volume of 2.8 g of carbon monoxide at 27°C and 0.821 atm pressure is (R = 0.0821 lit.atm.Mol^{-1} K^{-1})	A. 30 L B. 3 L C. 0.3 L D. 1.5 L
65	Two moles of an ideal gas at 1 atm are compressed to 2 atm at 273 K.The enthalpy change for the process is	A. 2 litre atm B. 1 litre atm C. Zero D. 3 litre atm
66	At STP,a container has 1 mole of Ar,2 moles of CO_2,3 moles of O_2 and 4 moles of N_2.Without changing the total pressure if one mole of O_2 is removed,the partial	A. Is changed by about 26% B. Is halved C. Is unchanged

	pressure of O_2	D. Change by 33%
67	The relationship which describes the variation of vapour pressure with temperature is called	A. Hess's law B. Arrhenius equation C. Kirchhoff's law D. Clausius-Clapeyron equation
68	The temperature below which a gas does not exist is called its	A. Inversion temperature B. Critical temperature C. Neutral temperature D. Curie point
69	For an ideal gas,number of moles per litre in terms of its pressure P,gas constant R and temperature T is	A. PT/R B. PRT C. P/RT D. RT/P
70	Equal volumes of gases at the same temperature and pressure contain equal number of particles.This statement is direct consequence of	A. Perfect gas law B. Partial law of volumes C. Charle's law D. Ideal gas equation
71	Air at sea level is dense.This is a practical application of	A. Boyle's law B. Charle's law C. Avogadro's law D. Dalton's law
72	If the four tubes of a car are filled to the same pressure with N_2, O_2, H_2 and helium separately,then which one will be filled first.	A. N₂ B. O₂ C. H₂ D. He
73	When the temperature is raised, the viscosity of the liquid decreases.This is because of	A. Decreased volume of the solution B. Increase in temperature increases the average kinetic energy of molecules which overcome the attractive force between them C. Decreased covalent and hydrogen bond forces D. Increased attraction between the moelcules
74	What is distilled first?	A. Liquid CO₂ B. Liquid N₂ C. Liquid O₂ D. Liquid H₂
75	According to the kinetic theory of gases,in an ideal gas,between two successive collisions a gas molecule travels	A. Ina circular path B. In a wavy path C. In a straight line path D. With an accelerated velocity
76	Kinetic energy of one mole of an ideal gas at 300 K in kJ is	A. 34.8 B. 3.48 C. 3.74 D. 348
77	Absolute temperature is the temperature at which	A. All molecular motion ceases B. volume becomes zero C. Mass becomes zero D. None of these
78	Which of the following statement is not true?	A. The pressure of a gas is due to collision of the gas molecules with the walls of the container. B. The molecular velocity of any gas is proportional to the square root of the absolute temperature. C. The rate of diffusion of a gas is directly proportional to the density of the gas at constant pressure. D. Kinetic energy of an ideal gas is directly proportional to the absolute temperature.
79	The kinetic energy of 4 moles of nitrogen gas at 127°C is? cals.(R = 2 cal mol^{-1} K^{-1})	A. 4400 B. 3200 C. 4800 D. 1524
80	The rate of diffusion of a gas is proportional to	A. P /√d B. √p/d C. P/d D. √ P/d
81	Molar volume of CO_2 is maximum at	A. NTP B. 0°C and 2.0 atm C. 127°C and 1 atm D. 273°C and 2.0 atm
82	In van der Waal's equation of state of the gas law,the constant 'b' is measure of	A. Intermolecular repulsions B. Intermolecular collisions per unit volume C. Volume occupied by the molecules D. Intermolecular attraction
		A. 100 cc of CO₂ at STP

83	Which of the following contains maximum of number of molecules?	B. 150 cc of N₂at STP C. 50 cc of SO₂ at STP D. 200 cc of NH₃ at STP
84	To which of the following mixtures Dalton's law of partial pressures is not applicable?	A. CO and CO₂ B. CO₂ and N₂ C. CH₄ and C₂H₆ D. HCl and NH₃
85	Hydrogen diffuses six times faster than gas A.The molar mass gas of gas A is	A. 72 B. 6 C. 24 D. 36
86	The ratio of most probable velocity to that of average velocity is	A. π/2 B. 2/π C. √π/2
87	What is the pressure of 2 mole of NH_3 at 27°C when its volume is 5 lit.in Van der Waals equation?(a = 0,17,b = 0.03711)	A. 10.33 atm B. 9.333 atm C. 9.74 atm D. 9.2 atm
88	4.4 g of CO_2 contains how many litres of CO_2 at STP?	A. 2.4 litre B. 2.24 litre C. 44 litre D. 22.4 litre
89	Triple point of water is	A. 273 K B. 373 K C. 203 K D. 193 K
90	The factor responsible for lower mercury level in a capillary tube is	A. High density B. Surface tension C. Liquid state D. Metallic Colour
91	The pure crystalline substance on being heated gradually first forms a 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
92	Which of the following is an example of body centred cube?	A. Magnesium B. Zinc C. Copper D. Sodium
93	Ionic solids with defects,contain	A. Equal number of cation and anion vacancies B. Interstitial anions and anion vacanies C. Cation vacancies only D. Cation vacancies and interstitial cations
94	Crystal can be classified in to .....basic crystal habits	A. 7 B. 4 C. 14 D. 3
95	In crystal structure of sodium chloride,the arrangement of Cl^- ions is	A. Fcc B. Both fcc and bcc C. Bcc D. None of these
96	Bragg's law is given by equation	A. n λ = 2 θ sin θ B. nλ = 2 d sin θ C. 2nλ = d sin θ D. n λ= 1/2 d sin θ
97	In a crystal a ≠ b ≠ c,a = y 90° and β ≠ 90° it is	A. Monoclinic B. Rhombic C. Trigonal D. Tetragonal
98	How many kinds of space lattices are possible in a crystal?	A. 23 B. 7 C. 230 D. 14
99	Potassium crystallizes with a	A. Orthogonal lattice B. Cubic lattice C. Triclinic D. Ortho rhombic lattice
100	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

101	The number of NaCl molecules in unit cell of its crystal is	A. 2 B. 4 C. 6 D. 8
102	How many Cl^- ions are there around Na+ ion in NaCl crystal?	A. 3 B. 4 C. 6 D. 8
103	The existence of a substance in more than one solid modification is known as	A. Isomorphism B. Polymorphism C. Amorphism D. None of these
104	Which of the following does not represent a type of crystal system	A. Triclinic B. Monoclinic C. Rhombohedral D. Isotropical
105	The total number of lattice arrangements in different crystal system is	A. 7.0 B. 3.0 C. 8.0 D. 14
106	London dispersion forces are also called	A. Ion-dipole forces B. Dipole-induced dipole forces C. Dipole-dipole forces D. Instantaneous dipole induced dipole forces
107	Van der Waal's forces exist in	A. Polar compounds B. Non-polar C. Covalent D. All types of atoms and molecules
108	The strength of dipole-dipole forces depends upon	A. Electro negativity difference B. Distance between atoms C. Electropositivity difference D. Both A & B
109	Evaporation causes	A. High temperature B. High pressure C. Cooling D. Vapour
110	Stronger the intermolecular forces	A. Lower the Vapour pressure B. Greater the Vapour pressure C. May be smaller or greater D. None
111	The amount of heat absorbed when one mole of a liquid is changed into vapours at its boiling point is called	A. Heat of sublimation B. Heat of vaporization C. Heat of fusion D. Enthalpy change
112	Which of the following metal oxides is antiferromanetic in nature?	A. MnO₂ B. TiO₂ C. NO₂ D. CrO₂
113	A semiconductor of Ge can be made p-type by adding	A. Trivalent impurity B. Tetravalent C. Pentavalent impurity D. Divalent impurity
114	Which of the following are more temperature senesitive	A. Liquid crystals B. Solid crystals C. Ionic stals D. None of above
115	The highest temperature in which a substance can exist as a liquid is called its	A. Absolute temperature B. Critical temperature C. Maximum temperature D. Body temperature
116	Correct order of intermolecular forces	A. Gas < liquid < solid B. Liquid < gas < solid C. Gas < liquid < solid D. Gas = liquid = solid
117	At equilibrium rate of evaporation and rate of condensation	A. Become very high B. Become very low C. Become equal D. Can never be equal
118	Water may boil at 170C when external pressure is	A. 760 torr B. 170 torr C. 2115 torr

		D. 700 torr
119	In which of the following processes the liquids are made to boil at low temperature	A. Vacuum distillation B. Destructive distillation C. Distillation D. Vacuum destructive distillation
120	Crystal lattice with alternate +ve and -ve ions has radius ratio of 0.524.Its coordination number is	A. 4 B. 3 C. 6 D. 12
121	Which of the following has isomorphous structure	A. NaF B. S C. Sn D. N
122	Super conductors are derived from compounds of	A. P-block elements B. Lanthanides C. Actinides D. Transition elements
123	The major binding force of diamond,silicon and quartz is	A. Electostatic force B. Electical attraction C. Ceobalent bond force D. Non convalent bond force
124	Among solids,the highet melting point is exhibited by	A. Covalent solids B. Ionic solids C. Pseudo solids D. Molecular solids
125	Glass is a	A. Micro-crystalline solid B. Super-cooled liquid C. Gel D. Polymeric mixture
126	Which of the following statements about amorphous solids is incorrect?	A. They melt over a range of temperature B. They are anisotropic C. There is no orderly arrangement of particles D. They are rigid and icompressible
127	If the distance between Na^+ and Cl^- ions in sodium chloride crystal is X pm,the length of the edge of the unit cell is	A. 4X om B. X/4 pm C. X/2 pm D. 2X pm
128	Coordination number of Zn and ZnS (Zinc blends) is	A. 4 B. 6 C. 2 D. None of these
129	The surface formed by the breakage of a crystal is called _____ plane	A. Crystal B. Unit C. Cleavage D. None
130	In a cubic lattice a unit cell is shard equally by how many unit cells?	A. 4 B. 2 C. 6 D. 8
131	The material possessing superconducting properties is	A. Yb Ba₂ Cu₂ O₈ B. Hg Be₂ Ca₂ Cu₂ O₈ C. Y Ba₂ Cu₃ O₇ D. Y B₂ Cu₃ O₇
132	In Case of elements the polymorphism is called	A. Isotopic form B. Allotropy C. Isomorphism D. Crystalline forms
133	Which is trigonal crystal	A. CaSO₄. 2H²O B. MgSO₄ C. NaNO₃ D. All
134	Which forms metallic crystals	A. Cu B. NaCl C. SO₂ D. NH₄Cl
135	Pressure remaining constant at which temperature the volume of a gas will become twince of what it is at $0\circ C$.	A. 546◦C B. 200◦C C. 546<font color="#000000" face="Lucida Sans Unicode, Lucida Grande,

		sans-serif" size="4">K D. 273K
136	Areal gas obeying Van der Waal's equation will resemble ideal gas ilf the:	A. both a and b are large B. both a and b are small C. a is small and b is large D. a is large and b is small
137	Which of the following element will have strongest van der Waal force of attraction between its molecules?	A. nitrogen B. hydrogen C. oxygen D. chlorine
138	According to Boyle's law at constant temperature, the product of pressure and volume of a given mass of gas is:	A. a constant B. fraction C. whole number D. a multiple
139	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will:	A. reduced to 1/4 B. be double C. increases four times D. remains unchanged
140	Image a man is sitting in a room. The room is closed from all sides, no entry no exit of any gas. If the room expands suddenly then:	A. he will be frightened B. he will feel cool C. his blood pressure will decrease D. he will feel warmth
141	Which if the following will have the same number of molecules at S.T.P?	A. 280cm³ of CO₂ and 280cm³ of N₂O B. 11.2dm³ of O₂and 32g of O₂ C. 44g of CO₂and 11.2dm³ of CO D. 28g of N₂and 5.6dm³ of oxygen
142	The number of molecules in one dm^3 of water is close to:	A. 6.02/22.4 x10²³ B. 12.04/22.4 x10²³ C. 18/22.4x 10²³ D. 55.6x6.02x10²³
143	The minimum temperature recorded by Kelvin scale is:	A. 273K B. 373K C. Absolute scale is unable D. 0K to record this temperature
144	How should the conditions be changed to prevent the volume of a given gas from expanding when its mass increased?	A. temperature and pressure both ara increased B. temperature and pressure both are lowered C. temperature is lowered and pressure is increased D. temperature is increased and pressure is descreased
145	choose the best example of diffusion of gases:	A. vapour condensing on moist surface B. spreading of small from a scent bottle C. hot air rising above a candle D. bubbling in soda bottle
146	The deviation of a gas from ideal behavior is maximum at:	A. -10◦C and 5.0 atm B. -10◦C and 2.0 atm C. 100◦C and 2.0 atm D. 0◦C and 2.0 atm
147	This is known fact that the molar volumes of different gases at S.T.P. are	A. much larger than the molar volumes of liquids and solids B. little bit less than the molar volumes of solids C. about the same as the molar volumes of liquids D. little bit greeter than the molar volumes of liquids
148	Equal masses of methane and oxygen are mixed in an empty container at 25◦C.	A. 1/3 B. 8/9 C. 1/9 D. 16/17
149	The molecules of air don't settle down. This is due to:	A. non-polar nature of gases B. different molar mass C. elastic collisions of gas molecules D. pressure of dust particles in air
150	Critical temperature of argon's gas is low. the reason is that	A. it contains four lone pairs B. it is mono atomic gas C. it has as smell signed D. its polarizability is low
151	choose the temperature among the following at which real gas obeys ideal gas laws when pressure range is appreciable:	A. critical temperature B. boyle's temperature C. inversion temperature D. transition temperature
152	A graph is plotted, P on x-axis and V on y-axis for a given mass at constant temperature, we shall get:	A. a curve with different peaks B. a curve called isotherm C. straight line parallel to x-axis D. a straight line

153	An instrument which is used to measure the pressure of a gas is called:	A. barometer B. photometer C. stalagmometer D. viscometer
154	The respiration process taking place in animals depends upon a difference in:	A. vapour pressure B. osmotic pressure C. partial pressure D. atmospheric pressure
155	The volume of a gas that is occupied by its one mole at S.T.P. is known as:	A. atomic volume B. molar volume C. normal volume D. total volume
156	Liquefaction of gas can only be carried out if the:	A. without caring for the value critical volume at critical stage B. the temperature is more than critical and pressure is 1000 atm C. the temperature is below the critical and pressure is very high D. temperature is above the critical temperature and pressure can have any value
157	Choose the correct equation among the following given by clauslus to understand to behaviour of molecules:	A. PV =nRT B. C_{r.m.s}= √3RT/M C. d = PM/RT D. PV = 1/3mnc⁻²
158	Which equation among the following is applicable to an ideal gas equation?	A. P = nRT B. P = MRT C. P = dPRT/M D. V = dRT/M
159	The beaker contains slurry of ice and water, the three thermometers Fahrenheit, Kelvin and centigrade placed init. the thermometers are represented as A, B and C respectively, On which thermometer the lowest reading will be?	A. B B. A C. C D. both A and B
160	As gases can adopt the shape of the container. Therefore gases have:	A. different shapes B. fixed shapes C. no fixed shapes D. definite shapes
161	Equal volume of all gases at same temperature and pressure contain number of molecules:	A. multiples B. equal C. different D. in fractions
162	A gas has non-ideal behaviour at:	A. high temperature and high pressure B. low temperature and low pressure C. high temperature and low pressure D. low temperature and low pressure
163	At constant temperature, volume of given mass of gas in inversely proportional to pressure on it. This statement is according to:	A. Hook's law B. Graham's law C. Bolye's law D. Charle's law
164	To measure the true pressure of a gas collected over water, the pressure due to water vapoure is:	A. added to the total pressure B. multiplied to the total pressure C. divided by the total pressure D. subtracted form the total pressure
165	A teacher told his student that air is a mixture. This is due to the reason that suddenly a student raised his hand and said:	A. it has different properties from its constituents B. oxygen can be removed from it C. it is colourless D. its composition is different at different altitudes.
166	Gases deviate from ideal behaviour at high pressure.Which of the following is correct for non-ideality?	A. at high pressure the gas molecules move in one direction only B. at high pressure the collisions between the gas molecules are increased manifold C. a high pressure the volume of the gas become insignificant D. at high pressure, the intermolecular attraction becomes significant
167	By increasing temperature,the transition from a gas to an ionized gas gives free electrons called:	A. UV radiation B. gas phase C. plasma D. vapour density
168	Which one is not postulated in the kinetci molecular theory among the following?	A. molecules are in chaotic motion B. molecules of all the gases have same size and same mass C. the volume of the molecules is negligible D. all molecular collisions are elastic
169	If pressure is increased from a 2 atm to 4 atm on a gas then its volume will decrease from:	A. 3L to 1L B. 4L to 2L C. 6L to 4L D. 8L to 2L
		A. one bar

170	A pressure of $1Nm^{-2}$ is equal to:	B. one pascal C. stalagmometer D. one aomosphere
171	consider the physical properties of the gases. Which of the following statements about particles of gases is incorrect? The particles are:	A. causing pressure B. having wide spaces C. orderly arranged D. randomly moving
172	suppose that an ocean of mercury replaced all the air of the air of the earth . How deep would this ocean have to be to exert the same pressure as the air:	A. 77cm B. 76cm C. 79cm D. 78cm
173	The gases suddenly if these are allowed to expand:	A. react B. cool down C. heat up D. moved randomly
174	All the following statements are incorrect except:	A. all of the gases cannot be liquefied B. increase of pressure will not decrease the inter molecular distance in a gas C. gas molecules do not attract each other at very low temperature D. actual volume of a gas is not negligible at very pressure
175	Which thermometer will have its reading 273 degrees greater than that of thermometer C?	A. A B. B C. B has 273 degrees greater than A D. C has greater reading than all other thermometers
176	Matter having no definite shape and volume is called:	A. gas B. liquid C. solid D. plasma
177	Elastic collision involves:	A. gain of energy B. loss of energy C. no relationship between elastic D. no gain or loss of energy
178	The molar volume of CO_2 is maximum at:	A. S.T.P. (0[◦]C and 1 atm) B. 127[◦]C and 1 atm C. 0[◦]C and 2 atm D. 273[◦]C 2atm
179	Mathematically, Boyle's law is indicated as:	A. VT = K B. PT = K C. PV = K D. None of these
180	Choose the gas law which gives relationship between volume and pressure:	A. Bolye,s law B. Graham,s law C. Dalton,s law D. Charles,s law
181	Which is the incorrect value of gas constant R?	A. 2.987 cal k⁻¹ mol ⁻¹ B. 3.313 Nmk⁻¹ mol⁻¹ C. 62400dm³ atm k⁻¹ mol⁻¹ D. 1.10821atm dm3k⁻¹ mol⁻¹
182	According to kinetic molecular theory, kinetic energy of molecules increases when they are:	A. melted from solid to liquid state B. frozen into a solid C. condensed into liquid D. mixed with other molecular at low temperature
183	Which of the following least resembles an ideal gas?	A. ammonia B. helium C. hydrogen D. trichloromethane
184	Which is the following would have most like an ideal gas at room temperature?	A. carbon dioxide B. helium C. hydrogen D. nitrogen
185	The density of ice is $1.00gcm^{-3}$. What the volume of steam produced when 1.00-3 of ice is heated to $323^{\circ}C$ (596K) at a pressure of one atmosphere (101kPa)? [1 mol a gas occupies $24.0dm^3$ at $25a^{\circ}C$(295K)and one atmosphere.]	A. 0.267 dm³ B. 1.33 dm³ C. 2.67 dm³ D. 48.0 dm³
186	Which of the following least resemble an ideal gas?	A. ammonia B. helium C. hydrogen

		D. trichloromethane
187	London dispersion forces are the only force present among the:	A. molecules of water in liquid state B. atoms of helium in gaseous state at high temperature C. molecules of solid iodine D. molecules of hydrogen chloride gas
188	Acetone and chloroform are soluble in each other due to:	A. intermolecular hydrogen bonding B. dipole-dipole interaction C. instantaneous dipoles D. all of the above
189	NH^3 shows a maximum boiling point among the hydrides of V-A group elements due to :	A. very small size of nitrogen B. lone pair of electrons present on nitrogen C. enhanced electronegative character of nitrogen D. pyramidal structure of NH³
190	what is it difficult to cook food at high as compared to at sea level? Choose the correct reason.	A. H-bonding in H₂O changes with height B. temperature at the top of mountain is low C. density of water decreases at the mountain D. boiling point of water decreases at the mountain
191	All of following acids have hydrogen bond in liquid state except:	A. nitric acid B. sulphuric acid C. hydrochloric acid D. hydrofluoric acid
192	chemist was able to measure the value of lattice energy of KCl to be 690 kj/mol. From this experiment , he concluded that:	A. lattice energy of KBr is 665 kj/mol and that of Ki is 630 kj/mol B. lattice energy of KBr is 765 kj/mol and that of Kl 730 kj/mol C. lattice energy of KBr is 730 kj/mol and that of Ki 765 kj/mol D. lattice energy of KBr is 630 kj/mol and that of kL 665 KJ/mol
193	Which one of the following is not a form of chemical bonding?	A. covalent bonding B. hydrogen bonding C. ionic bonding D. metallic bonding
194	Which one of the following statements about positive ions is incorrect?	A. they are also known as cations B. they are formed when electrons are removed from atoms C. they are larger than the atom from which hay were formed D. they are smaller than the atom from which they were formed
195	which one of the following statements bout negative ions is incorrect?	A. they are also know as anions B. they are formed when atoms gain electrons C. they are large than the atom from which they were formed D. they are smaller than the atom from which they were formed
196	Which one of the following equations represents the 1st ionization energy of Na?	A. Na(s) ---->Na⁺ (g) + e⁻ B. Na(g) --->Na⁺ (g) + e⁻ C. Na(s) --->Na⁺ (s) + e⁻ D. Na (s) + e⁻ ---> Na⁺ (g)
197	Which of the following equations represents the 2nd ionization energy of Na?	A. Na(g) ---> Na²⁺ (g) + 2e⁻ B. Na(s) ---> Na²⁺ (g) + 2e⁻ C. Na⁺(s) ---> Na²⁺ (g) + e⁻ D. Na⁺(g) ---> Na²⁺ (g) + e⁻
198	Which of the following successive ionization energies belong to a Group ll element?	A. 320,600,1110,1700,5650, B. 577,1820,2740,1160,14800, C. 428,3070,4600,5860,7990 D. 736,1451,7740,10500,13600
199	Which one of the following pair of atoms is most likely to form an inoic bond?	A. Na and F B. C and F C. N and F D. O and F
200	Aluminium is in Group lll, its oxide will have the formula.	A. AlO B. AlO₂ C. Al₂O₃ D. Al₃O₂
201	What water freezes at 0◦ , Its density decreases dues to:	A. cubic structure of ice B. empty spaces present in the structure C. change of bond lengths D. change of bond angles
202	In order to mention boiling point of water at 110◦C the external pressure should be:-	A. between 760 torar an 1200 torr B. between 200 torr and 760 torr C. 765 torr D. any value of preessure
203	Lonic solids are characterized by:	A. low melting points B. _{good conductivety in solid state} C. high vapour pressures D. solubility in polar solvents

204	London forces are more affective at:	A. high temperature B. low temperature C. low pressure D. high pressure
205	A student put two eggs A and B in HCL solution, After five minutes he took them out for weighing but egg dropped in water accidentally. The student was able to take it out after 30 minutes, He weighed it, Its weight was 40.33g. Weight of egg B was also 40.33g. Teacher told him that if both eggs have been dropped in water, the weight of egg B would have been:	A. equal to that of egg A B. less than that of egg A C. greater than that of egg A D. unaffected instead
206	Which one of the following statements about sodium chloride is incorrect?	A. it has a high melting point B. it conducts electricity at room temperature C. it is soluble in water D. it is brittle
207	The structure normally associated with ionic bonding is:	A. a giant lattice B. a simple molecule C. a giant molecule D. a regular arrangement of ions surrounded by a sea , or cloud, of electrons
208	Covalent bonds are least likely to be formed:	A. between atoms of the same element B. between atoms of different elements on the right of the periodic table C. by head of the group elements with high ionization energies D. between an element in Group I and an element in Group VII
209	In which one of the following does the central atom not possess an 'octet' in its outer shell?	A. BH₃ B. CH₄ C. NH₃ D. H₂O
210	Instantaneous dipole-induced dipole forces are also known as:	A. dipole-dipole interactions B. hydrogen bonds C. covlent bonds D. Van der Waals forces
211	The correct order of increasing attractive strength for weak intermolecular forces is....	A. dipole-dipole interaction hydrogen bonding, van der Waals forces B. van der waals forces dipole- dipole interaction, hydrogen bonding C. hydrogen bonding, dipole-interaction, van der Waals forces D. hydrogen bonding, van der Waals forces, dipole-dipole interaction
212	Amorphous solids:	A. have sharp melting point B. undergo clean cleavage when cut with knife C. have prefect arrangement of atoms D. can possesses small regions of orderly arrangement
213	The molecule of CO_2 in dry ice form are the:	A. ionic crystals B. covalent crystals C. molecular crystals D. any type of crystals
214	Which of the following is a pseudo solid?	A. CaF₂ B. glass C. NaCl D. all these
215	Rte of evaporation of petrol is greater than that of water at room temperature. This is due to the reason that:	A. petrol is an organic compound B. water molecules have small size C. petrol molecules do not have D. petrol molecules have greater size
216	The attracted forces which are created due to repulsion of electronic cloud of the molecules are:	A. ion-dipole forces B. dipole-dipole forces C. dipoles-induced dipole forces D. instantaneous dipole-induced dipole
217	Honey contains glucose and fructose along with some other ingredients. It has greater viscosity due to:	A. irregular shape of the molecules B. greater molecular size and strong intermolecular forces C. H-bonding D. irregular shape of the molecules
218	which one of the following exhibits intermolecular hydrogen bonding?	A. HF B. HC C. HBr D. HI
219	Which of the following is not a macromolecule?	A. diamond B. graphite C. iodine D. silica
220	Which of the following statement about graphite is not true?	A. The coordination number of carbon atoms is 4. B. the carbon atoms are arranged layers. C. the layers in graphite are attracted to each other weak forces.

	true?	D. the corbon atoms use only three of their four outer electrons for covalent bonding.
221	Which one of the following statements about diamond is not true?	A. the coordination number of carbon atoms is 4 B. diamond is an isotpe of graphite C. diamond has a high melting point D. diamond has a rigid tetrahedral, structure
222	Which of the following pairs of not form a dative covalent bond to each other?	A. NH₃ and H⁺ B. H₂O and H⁺ C. NH₃ and BF₃ D. CH₄ and AlCl₃
223	Diamond is a bad conductor of electricity because:	A. it has a tight structure B. it has a high density C. there are no free electrons D. none of the above
224	The forces present between the ions and water molecules are called:	A. dipole-dipole forces B. dipole-induced dipole forces C. London dispersion forces D. ion-dipole forces
225	In which of the following a re dipole-dipole interaction present?	A. molecules of CCL₄ B. molecules of solid iodine C. molecules of NH₃ D. atoms of the helium gas
226	In which of the following compounds H-binding is not present?	A. ethanol B. ether C. water D. ammonia
227	NaCl is completely ionized in water due to the presence of:	A. dipole-dipole forces B. ion- dipole forces C. H-bonding D. London dispersimforces
228	In which of the following molecules, strongest H-bond is shown?	A. hydrogen fluoride B. water C. hydrogen sulphide D. ammonia
229	All the following have crystals except:	A. potassium bromide B. diamond C. cadmium sulphide D. sodium chloride
230	Water has high boiling point which is due to:	A. high electric constant B. weak dissociation C. high specific heat D. H-bonding between its molecules
231	The maximum possible number of hydrogen bonds in which a H_2O molecule can participate is:	A. 1 B. 2 C. 3 D. 4
232	The question vapour cause by heating a liquid is due to:	A. increase of intermolecular interactions B. increase of K.E of molecules C. decrease of surface tension D. increase in potential energy of molecules
233	Air can be distilled fractionally because the constiltuents of the air:	A. have different densities B. can be liquefied C. are gases at room temperature D. have different boiling points
234	The maximum hydrogen bonding is in:	A. diethyl ether B. ethanol C. water D. benzene
235	Evaporation of liquid takes place at every temperature. What when temperature becomes constant?	A. the rate of condensation is greater than teh rate of condensation B. it depends upon the nature of the liquid C. rate of evaporation is greater than the rate of condensation D. the rate of condensation and evaporation become equal
236	Which one of the following is not true of metallic bonding?	A. it gives rise to excellent electrical conductivity B. electrons are following to move throughout the structure C. the strength of metallic bonds increases down a group D. the strength of metallic bonding affects the boiling point of metals
237	Which one of the following statements about melting point of metals is true?	A. sodium has a lower melting point than potassium B. sodium has a higher melting point than magnesium C. potassium has a higher melting point rubidium D. lithium has a lower melting point than sodium
		A. in solids the particles vibrate about fixed positions

238	Which one of following statement about three about three states of matter is incorrect?	B. energy is released when a gas turns back to a liquid C. particles in gases move in a random manner D. the closer particles are together, smaller the force of attraction between them
239	covalent network of crystals has:	A. lower melting point than molecular crystals B. higher melting point than molecular crystals C. higher melting point than molecular crystals D. H-bonding
240	Kerosene is liquid at room temperature.This is due to:	A. organic nature B. H-bonding C. molecular size D. dipole-dipole forces
241	When two ice cubes are pressed together they unite to form one cube. which of the following forces is responsible for holding them together?	A. H-bonding B. Covalent bonding C. van der waal's forces D. dipole-dipole interaction
242	Which is the correct order of boiling points	A. structure of ice B. solution of ethanol in water C. solution o fNaCl in benzene D. linking of helix protein molecule
243	The typical range of the H-bonding is:	A. 1-2 kj/mol of bonds B. 5-25 kj/mol of bonds C. 5-25 kj/mol of bonds D. 500 kj/mol of bonds
244	The boiling point of radon (211k)id higher than boiling point of helium (4.4k). This is due to the reason that:	A. the atomic mass Rn is larger than that of He B. the atomic mass Rn is larger than that of He C. the dispersion forces between Rn atoms are more prominent than between he atoms D. rn atomic number of Rn is larger than that of He
245	NH_3 shows maximum boiling among the hydrides of group V elements. The is due to:	A. pyramidal structure of NH₃ B. H-bonding between its molecules C. enhanced electronegative character D. very small size of nitrogen
246	Dipole-dipole forces are present between:	A. non-polar molecules B. polar molecules C. both polar and non-polar D. none pf above
247	Which of the following may be called as London dispersion forces?	A. instantaneous dipole-induced dipole forces B. dipole-dipole forces C. ion-dipole forces D. dipole-dipole forces
248	Choose the example having hexagonal system:	A. graphite B. sugar C. sulphur D. diamond
249	Allotropic forms of carbon are:	A. five B. three C. four D. two
250	The existing property of an element in to more than are crystalline state is termed as:	A. isomorphism B. polymorphism C. isotropy D. allotropy
251	What is the reason of ionic solids for not conducting electricity?	A. free electrons are less B. ions don't have translatory mention. C. ions don't have translatory mention D. the coordination number of the ion is very high.
252	The boding which covalent molecules containing hydrogen and one of the small electronegative element such as O, For Mis called:	A. ionic bonding B. bridge bonding C. H-bonding D. metalic bonding
253	An example of ion-dipole force is the solution of:	A. bromine inbenzene B. ethanol is water C. NaCl in water D. glucose in water
254	There are three different substances argon hydroiodic acid and hydroiodic acid. the correct sequence in which the boiling point increases is:	A. HI > Ar > HCl B. Ar < HCl < HI C. HI > HCl > Ar D. HCl < HI < Ar
	Keeping in view the charge density select the	A. LiBr B. KCl

255	compound amoung the following having highest lattic energy:	B. KCl C. MgO D. NaF
256	Someone is saying that glass must be a super cooled liquid. The reason that he might have in his mind is that glass has :	A. definite shape B. definite-volume C. crystalline structure D. no crystalline structure
257	Meniscus is the shape of the surface of a liquid in a cylindrical container:	A. meniscus may be convex B. meniscus is concave C. meniscus may be convex or concave depending upon the nature of metal D. meniscus is plane
258	coordination number of $N^{a}+$ in NaC is:	A. 1 B. 2 C. 4 D. 6
259	Some substance are good conductors of electricity in both the solid and liquid states. These substance are generally:	A. molecular solids B. ionic substances C. metallic substances D. covalent network solids
260	Keeping in view different factors which affect the melting point of a substance.the compound having melting point among the following is:	A. LiCl B. NaCl C. CsCl D. RbCl
261	All of the following substances are crystalline except:	A. carbon B. ice C. plastic D. sucrose
262	In a crystal the atoms are locate at the position of:	A. infinite potential energy B. minimum potential energy C. Zero potential energy D. maximum potential
263	All of the following have cleavage planes except:	A. molecular crystals B. metallic crystals C. covanent crystals D. ionic crystals
264	SiO_2 is an example of:	A. metallic crystals B. Ionic crystals C. a crystal whose structure depending upon the temperature D. covalent crystals
265	Which statement explains why the boiling point of methane is higher than that of neon? [A_r:H.1:c,12:Ne,20]	A. A molecule of methane has a greater mass than a molecule of neon B. Molecules of methane form hydrogen bonds but those of neon do not C. Molecule of methane have strongel intermolecular forces than those of neon D. The molecule of methane is polar, but that of neon is not
266	Which ion is most polarising?	A. Al³⁺ B. Ba²⁺ C. Mg²⁺ D. Na⁺
267	Which of the following solids has a simple molecular lattice?	A. magnesium oxide B. sodium C. silicon(IV) oxide D. sulphur
268	The gecko a small lizard can up a smooth glass window the gecko has millions of microscopic hairs on its toes and each hair has thousand of pads at its tip the result is that the molecules in the pad are extremely close to the glass surface on which the gecko is climbing. What is the attraction between the gecko is climbing.	A. co-ordinate bonds B. covalent bonds C. ionic bonds D. van der Waals forces
269	Which element is expected to show the greatest tendency to form some covalent compounds?	A. aluminium B. calcium C. magnesium D. sodium
270	which chlorine compound has bonding that can be described as ionic with some convalent character?	A. NaCl B. MgCl₂ C. AlCl₃ D. SiCl₄
271	For gases obeying Boyle's law, if pressure is quadrupled, the volume becomes	A. Double B. One half C. One fourth D. Remains unchanged

		D. Remains constant
272	Which of the following gases have lowest density at room temperature	A. CO B. N₂ C. Ne D. NH₃
273	Gases are good conductor of electricity at	A. Low temperature B. Low pressure C. High pressure D. Low temperature and high pressure
274	The volume of 2.8 g of CO at 27°C and 0.0821 atm is	A. 30 dm³ B. 3 dm³ C. 0.3 dm³ D. 1.5 dm³
275	At higher temperature isotherm moves away from both the axes because of increase in	A. Pressure B. Volume C. Number of moles D. All
276	Which volume of gas has minimum value	A. Apparent volume B. Actual volume C. Excluded volume D. All have equal value
277	How many balloons of 0.25 dm^3 capacity at I atmospheric pressure can be filled from a hydrogen gas cylinder of 5 dm^3 capacity at 10 atmospheric pressure	A. 50 B. 90 C. 180 D. 200
278	What are the S.I. units of excluded volume "b" in Vander Waal's equation	A. dm³mol⁻¹ B. m³mol⁻¹ C. mol dm⁻³ D. mol m⁻³
279	What will be the ratio of volume of equal masses of O_2, H_2 and CH_4 kept in same container under same conditions	A. 2 : 16 : 2 B. 1 : 16 : 2 C. 2 : 16 : 1 D. 1 : 2 : 1
280	By increasing pressure two times and decreasing temp. two times the volume of gas	A. Volume increases 4 times B. Volume decreases 4 times C. Volume increases 2 times D. Volume decreases 2 times
281	At what temperature, would N_2 molecules have the same average speed as He-molecules at 300 k?	A. 1100 K B. 2100 K C. 420 K D. None
282	If V_1= 5 litres, P_1= 2 atm, T_1= T_2= 273°C and V_2= in liter	A. 5 B. 80 C. 125 D. 10
283	R = 0.08205:	A. atm dm³mol⁻¹k⁻¹ B. J mole⁻¹k⁻¹ C. Nm mol⁻¹k⁻¹ D. cal. mol⁻¹k⁻¹
284	Which one of the following is not true relationship	
285	Covalent solids are composed of	A. Ions B. Different molecules C. Neutral atoms D. Diethyl ether
286	Which of the following liquids have low vapour pressure at 25°C	A. Water B. Ethyl alcohol C. Acetone D. Diethyl ether
287	Which of the following is not molecular crystal	A. Sugar B. Iodine C. Ice D. Graphite
288	Which element exists as discrete small molecules in the solids state	A. Aluminum B. Silicon C. Iodine D. Sodium
289	Which one is not related with evaporation	A. Continuous B. Cooling C. Exothermic D. Spontaneous

290	Which of the following molecules should be more volatile	A. HF B. HCl C. HBr D. HI
291	When liquid water changes to ice, the volume expands. The expansion in volume is	A. 5% B. 7% C. 9% D. 12%
292	Which of the following has no hydrogen-bonding	A. Diethyl ether B. Water C. Ethyl alcohol D. Phenol
293	Steam causes more seers burns than boiling water. It is due to	A. Latent heat of fusion B. Latent heat of vaporization C. Latent heat of sublimation D. All of above
294	Vapour pressure is not affected by	A. Surface area B. Intermolecular forces C. Temperature D. Nature of liquid
295	Which solids are called true solids	A. Crystalline B. Vitreous C. Amorphous D. Metallic
296	The nature of I_2crystals are	A. Metallic B. Covalent C. Ionic D. Molecular
297	Hydrogen bonding is involved in	A. Solubility B. Detergents C. Biological molecules D. All the above
298	Amorphous substance show (i) Short and long range order (ii) Short range order (iii) Long range order (iv) Have no sharp melting point	A. (i) and (ii) are correct B. (ii) and (iv) are correct C. (ii) (iii) and (iv) are correct D. (i) and (iv) are correct
299	Which of the following is a non-crystalline solids pair	A. Diamond, wood B. Glass, table salt C. Wood, glass D. Sucrose, glass
300	In graphite crystal, carbon is	A. sp hybridized B. sp²hybridized C. sp³hybridized D. None
301	A solid has a sharp melting point slightly above room temperature and is a poor thermal and electrical conductor, its crystal classification by bond type is	A. Ionic B. Metallic C. Molecular D. Covalent
302	Which pair of molecules have debye force	A. Ne and Ne B. Argon and water C. Na⁺ion and water D. Water and water
303	Question Image	A. T₁= T₂= T₃ B. T₁< T₂< T₃ C. T₁> T₂> T₃ D. T₁> T₂= T₃
304	NH_3gas is liquefied more easily than N_2Hence	A. Van der Waals constants a and b of NH₃> that of N₂ B. Van der Waals constants a and b of NH₃< that of N₂ C. a(NH₃) > a (N₂) but b (NH₃) < b(N₂) D. a (NH₃) < a (N₂) but b (NH₃) > b (N₂)
305	If v is the volume of one molecule of a gas under given conditions, then Van der Waals constant b is ($N_A$is Avogadro number)	
306	Question Image	

307	The state of matter which exist only within a relatively narrow range of temperature and pressure	A. Solid B. Gas C. Liquid D. Plasma
308	Gases are effused through a whole due to _____ motion	A. Vibration B. Rotaional C. Translational D. Chaotic
309	Liquids have definite volume due to	A. Negligible spaces B. Intermolecular force C. Motion D. Both a and b
310	The solid particles posses only _____ kinetic energy	A. Translational B. Rotational C. Viberational D. Circular
311	The one atmospheric pressure of air in term of pound per square inches is	A. 101.325 B. 1.01325 C. 760 D. 14.7
312	The unit of pressure _____ is commonly used by meteorologists	A. mm of Hg B. Kilopascal C. Millibar D. Pound per square inch
313	The gases law describe the _____ Behaviour of gases	A. Variable B. Constant C. Uniform D. Best
314	The pressure of 5dm^3gas increase from 250 torr to 500 torr then new volume of gas	A. 500 cm³ B. 375 cm³ C. 2500 cm³ D. None of these
315	The curve which is obtain from Boyle's law is called as	A. Isochoric B. Isotherm C. Adiabatic D. All of these
316	When graph is plot between P and 1/V at constant temperature. A straight line obtains which move toward _____ when temperature increase	A. Pressure axis B. Volume axis C. 1/V axis D. 1/P axis
317	If 250 $cm^3$of hydrogen gas is cooled from 127°C to -73°C at constant pressure then new volume of gas is _____ dm^3	A. 0.25 B. 0.375 C. 0.125 D. 0.0625
318	The temperature at which volume of ideal gas is hypothetically zero is called	A. Absolute zero B. 0°C C. OK D. Both a and c
319	At constant pressure, if the original volume is 546 cm^3at which temperature the volume of gas 552 cm^3	A. 1°C B. 2°C C. 3°C D. 4°C
320	Charle's law only obeys when temperature takes in _____ scale	A. Celsius B. Fahrenheit C. Kelvin D. Rickey
321	One degree on Celsius scale is _____ time greater then Fahrenheit scale	A. 9/5 B. 5/9 C. 6/5 D. 5/6
322	The value of R in term of dm^3torr $k^{-1}mol^{-1}$	A. 62400 B. 62.4 C. 8.313 D. 0.0821
323	The mass of 8.5 $dm^3$of oxygen gas at 0.0821 atm and -1°C is	A. 100 g B. 10 g C. 1 g D. 0.1 g
324	If the pressure of gas reduced to one half and temperature is increased twice then density of gas will	A. 4 times B. 2 times C. 1/2 times

	be	D. 1/4 times
325	The volume of gas depends upon the _____ molecules	A. Size of B. Molecular weight C. Space between D. Both a and b
326	The law of distribution of energy is given by	A. Clausius B. Maxwell C. Bernoulli D. Boltzmann
327	The mono atomic gas molecules are _____ gas molecules	A. Halogen B. Zero C. Noble D. Both b and c
328	The critical temperature of CO_2_____°C at 73 atm critical pressure	A. 21.142 B. 28.892 C. 31.142 D. 35.452
329	Considering the physical properties of the gases, which of the following statements about particles of gas is not true. The particles	A. orderly arranged B. randomly moving C. having wide spaces D. causing pressure
330	As gases can adopt the shape of the container so they have	A. no fixed shapes B. fixed shapes C. different shapes D. definite shapes
331	If allowed to expand, the gases suddenly	A. heat up B. move randomly C. react D. cool down
332	Which one the following is not postulated in the kinetic molecular theory of gases	A. molecules of all the gases have same size and same mass B. molecules are in chaotic motion C. all molecular collisions are elastic D. the volume of the molecules is negligible
333	According to Boyles law, at constant temperature the product of pressure and volume of a given mass of gas is	A. whole number B. a constant C. fraction D. a multiple
334	Which of the following laws study the pressure-volume relationship of a gas at constant temperature,we get	A. a straight line B. a curve with different peaks C. straight line parallel to x-axis D. a curve called isotherm
335	The graph between P ony-axis and 1/V at x-axis for a given mass of a gas at temperature T is a	A. straight line B. curved upward C. curved downward D. circular
336	Which of the following is the unit for pressure of a gas in system international	A. Nm⁻² B. mm of Hg C. atmosphere D. torrr
337	Pressure remaining constant, at which temperature the volume of a gas will become twice of what it is at 0°**C**	A. 546°C B. 200°C C. 546 K D. 273 K
338	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will	A. remain unchanged B. increase four times C. reduce to 1/4 D. be doubled
339	How should the conditions be changed to prevent the volume of a given gas from expanding when its mass in increased	A. temperature is lowered and pressure is increased B. temperature is increased and pressured is lowered C. temperature and pressure both are lowered D. temperature and pressure both are increased
340	One atmosphere is equal _____ Pascal	A. 760 B. 101325 C. 14.7 D. 1.01325
341	One Pascal is equal to	A. 1 Nm⁻² B. 1 Nm C. 1 Nm⁻¹ D. 1 Nm²

342	At constant temperature, volume of given mass of a gas is inversely proportional to pressure on it. This is statement of	A. Charles law B. Boyle's law C. Hooks law D. Grahams law
343	Which value is designated as absolute zero or zero of the Kelvin scale?	A. -273.15°C B. -173.15°C C. 273°C D. none of these
344	The instrument that is used to measure the pressure of a gas is called	A. viscometer B. photometer C. barometer D. stalagmometer
345	The scale of temperature that shows the freezing point of water at 0° **is called**	A. Fahrenheit B. Kelvin C. absolute D. Celsius
346	According to charles law there will be a change in the volume of a given mass of a gas by 1/273 of its original volume at 0°**C if the temperature of the gas is changed by**	A. 10° B. 1°C C. 100°C D. 2°C
347	Absolute zero, the lowest temperature on kelvin scale lies at	A. -273°C B. 273° C. -100°C D. 100°C
348	Equal volume of all gases at same temperature and pressure contain number of molecules	A. different B. multiples C. equal D. in fractions
349	The volume of a gas that is occupied by its one mole at STP is called	A. total volume B. normal volume C. molar volume D. atomic volume
350	Which is the example of diffusion of gases	A. bubbling in soda bottle B. vapour condensing on a moist surface C. hot air rising above a candle D. spreading of smell from a scent bottle
351	The original volume of a gas at 0° is 273 cm^3at constant pressure, its volume at 273°C becomes	A. zero cm³ B. 546 cm³ C. 446 cm³ D. 346 cm³
352	The gases H_2, O_2, H_2S and SO_2diffuse in the order	A. SO₂>H₂S>H_{2>}O₂ B. H₂S>SO₂>O₂>H₂ C. O₂>SO₂>H₂>H₂S D. H₂>O₂>H₂S>SO₂
353	Volume of O_2gas at 0°C is 273 cm^3, then volume of O_2gas at -10°C is	A. 263 cm³ B. 163 cm³ C. 173 cm³ D. 73 cm³
354	If absolute temperature of a gas is doubled and pressure is reduced to one half, then the volume of the gas will	A. remains unchanged B. increases unchanged C. reduces to 1/4 D. increases 4 times
355	If a graph is plotted between temperature on x-axis and volume on Y-axis for 1 mole of gas,then we get straight line which cuts the temperature axis at	A. -300°C B. 300 K C. -273.15 K D. 273.15°C
	Density of H_2gas at 0°C is 0.09 under 1 atmospheric	A. 0.36 B. 1.00

356	pressure. The density of O_2gas under the same conditions of temperature and pressure is	C. 1.44 D. 1.18
357	If 1 mole of an ideal gas is heated from 273.15 K to 283.15 K at 1 atmospheric pressure, then increase in its energy is	A. 0.082 atm.dm³ B. 0.821 atm.dm³ C. 8.21 atm.dm³ D. 40.6 kJ
358	The value of R is SI units is	A. 0.0821 dm³. atm. J⁻¹mole⁻¹ B. 62.4 dm³torr K⁻¹mole⁻¹ C. 8.31 dm³atm. K⁻¹mole⁻¹ D. 8.31 JK⁻¹mole⁻¹
359	One $dm^3$of O_2at STP has mass	A. 32 g B. 16 g C. 4.438 g D. 1.4383 g
360	The partial pressure of $CH_4$and $O_2$are 500 torr and 100 torr repectively in a 10 dm^3vessel at 0°C. The ratio of number of molecules of CH_4: $O_2$is	A. 1: 2 B. 5 : 1 C. 5 : 2 D. 2 : 1
361	Equal masses of $CH_4$and $O_2$are mixed in a 10 dm^3container at 25°C. The partial pressures of $CH_4$and $O_2$are in the ratio of	A. 1 : 2 B. 2 : 1 C. 1 : 1 D. 2 : 3
362	$H_2$and $O_2$are enclosed in porous vessel. The effusion of these gases will take place like	A. H₂effuses 4 times the rate of effusion of O₂ B. O₂effuses into air 4 times the effusion of H₂ C. both effuse at same rate D. H₂effuses at 8 times the rate of effusion of O₂
363	Which pair of the gases doesn't obey Dalton's Law of partial pressures	A. H₂and O₂ B. N₂and O₂ C. H₂S and H₂ D. NH₃and HCl
364	H_2effuses through a porous pot at a rate of 500 cm^3per minute at 0°C.The rate of diffusion of O_2through the same vessel at 0°C per minute is	A. 500 cm³ B. 250 cm³ C. 1 dm³ D. 125 cm³
365	A mixture of H_2, H2 and CH_4has total number of 0.51 mole and total pressure of 1 atmosphere. If the mass of $H_2$is 0.8 gram, then its partial pressure is	A. 0.4 atm B. 0.6 atm C. 0.776 atm D. 0.667 atm
366	The partial pressure of 0_2in the lungus is	A. 116 torr B. 159 torr C. 560 torr D. 760 torr
367	The highest temperature above which a gas cannot be liquified no matter how much pressure is applied, is called as	A. critical temperature B. absolute zero C. liquefaction temperature D. boiling point
368	All gases liquefly before reaching at	A. 273°K B. 373°K C. 0 K D. 73°C
369	Ar has low critical temperature and pressure due to its	A. small size B. monatomic molecule C. low polarizability D. liquefaction temperature close to room temperature
370	Real gases deviate at low temperature from ideal behaviour due to	A. there is transitional motion of molecule B. the collissions between the molecules are decreased C. volume of gas is decreased D. the inter molecular attractive forces become significant
371	The gas which obeys the gas laws at all conditions of temperature and pressure is	A. ideal gas B. perfect gas C. real gas D. noble gas
372	Ethene $C_2H_4$and N_2gases diffuse at the same rate at room temperature. it is due to the reason	A. these are non polar gases B. their molecular masses are same C. both are covalent molecules D. both have multiple bonds
		A. -10.0°C and 50 atm B. -10<span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-

373	The deviation of a real gas from ideal behaviour is maximum at	size: small;">°C and 2 atm C. 100°C and 2.0 atm D. 0°C and 2 atm
374	Hydrogen has a = 0.245 atm. dm^3. $mole^{-2}$and b = 0.0266 dm^3. $mole^{-1}$$SO_2$gas has a = 6.170 atm. $dm^3mole^{-2}$and b = 0.0564 dm^3mole where a and b are Van der Waal's constant	A. H₂gas deviates more from ideal behaviour tha SO₂ B. SO₂gas deviates more form ideal behaviour than H₂ C. both deviate from ideal behaviour equality D. both are ideal gases
375	When a compressed gas is allowed to pass through a nozzle of a jet into a region of low pressure, it produces	A. cooling B. vaporization C. fusion D. expansion
376	The rate diffusion of $H_2$is 4 times than the of an unknown gas at same temperature and pressure, the molecular mass of unknown gas is	A. 32 B. 16 C. 4 D. 64
377	What is the weight of 10 litres of CO_2at 27°C and 2 atm?	A. 89.3 g B. 36.1 g C. 125 g D. 127 g
378	Value of gas constant R is	A. 8.314 J K⁻¹mol⁻¹ B. 0.082 J K⁻¹mol⁻¹ C. 273.15 J K⁻¹mol⁻¹ D. 101325 J K⁻¹mol⁻¹
379	According to Avogadros law 1 mole of gas at S.T.P has a volume of	A. 22.4 dm³ B. 24 dm³ C. 24000 cm³ D. 2m³
380	The cause of deviation form ideal behaviour is because	A. the actual volume of gas molecules is not negligible B. there is force of attraction between molecules of a gas C. both a and b D. none of these
381	Density of a gas is usually expressed in	A. Kg m³ B. Kg dm³ C. g dm⁻³ D. g cm⁻³
382	If V_1= 5 litters, P_1= 2 atm, T_1= 273°C, T_2= 0°C and V_2= ? When P_2= 1 atm.	A. 5 lit B. 10 lit C. 2.5 lit D. 12.5 lit
383	A real gas obeying Vander Waal's equation will resemble ideal gas if	A. Both a and b are large B. Both a and b are small C. a is small and b is large D. a is large and b is small
384	At ordinary temperature, the most nearly ideal gases are	A. N₂ B. He C. H₂ D. all these
385	The rate of diffusion of two gases are inversely proportional to the square roots of their densities or molecular weights, is a statement of	A. Charle's Law B. Boyle's Law C. Graham's Law D. Dalton's Law
386	The total pressure exerted by a mixture of gases is the sum of the partial pressure of all the gases present is a statement of	A. Charle's Law B. Boyle's Law C. Dalton's Law D. Graham's Law
387	Which is correct?	A. 1 mm Hg = 1 torr = 1 atm B. 1 mm Hg = 760 torr = 1 atm C. 760 mm Hg = 760 torr = 1 atm D. 760 mm Hg = 1 torr = 1 atm
388	For a gas the isotherm is the graph between	A. V and T B. T and P C. n and T D. P and V
389	Which gas diffuses more rapidly?	A. O₂ B. SO₃ C. NH₃ D. H₂
		A. the gas molecules are in random motion

390	Which of the following is not a correct postulate of the kinetic theory of gases	B. the collision between the molecules are perfectly elastic C. the average kinetic energies of different gases are equal at a particular temperature D. the pressure exerted on the walls of the container is due to intermolecular forces
391	Which gas molecules escape through a hole of molecular dimension this phenomenon is called	A. diffusion B. mixing C. effusion D. flowing of gas
392	Which of the following govern the diffusion of gases	A. Dalton's law B. Avogadro's law C. Graham's law D. Newton's law
393	A term to express the partial pressure of water vapours in a gas is known as	A. vapour pressure B. aqueous tension C. partial pressure D. moisture
394	At different temperature, the vapour pressure of water is	A. different B. same C. low D. high
395	The ideal gas law holds best under the conditions of	A. high pressure and high temperature B. low pressure and high temperature C. low pressure and low temperature D. high pressure and low temperature
396	The attractive forces between molecules of a gas and their sizes can be ignored at	A. high pressure B. low temperature C. low temperature and high pressure D. low pressure and high temperature
397	S.I units for measurements of pressure	A. Pascal B. mm of Hg C. atm D. Torr
398	What is the weight of 10 $dm^3$of CO_2at 27°C and 2 atm?	A. 89.3 g B. 56.1 g C. 125 g D. 127 g
399	What is the numerical value of 'R; (the gas constant) in S.I units?	A. 83143 J/mole/K B. Avogadro's law C. 83.143 J/mole/K D. 8.3143 J/mole/K
400	What is the mass of 10^{20}molecules of CO_2at STP?	A. 7.3 x 10⁻³g B. 7.9 x 10⁻³g C. 3.2 x 10⁻³g D. 4.9 x 10⁻³g
401	Deep sea divers breath air under increased pressure, therefore they use a mixture of	A. 96% N₂and 4% O₂ B. 96% O₂and 4% N₂ C. 94% N₂and 6% O₂ D. 94% 0₂and 6% N₂
402	Equal volumes of all gases at STP contain equal no of molecules is called	A. Dalton's law of partial pressure B. Graham'a law of diffusion C. Avogadro's law D. None
403	Joule is a unit of energy which is defied as	A. Kgm⁻²s⁻² B. Kgm²s⁻¹ C. Kgms⁻² D. Kgm²s⁻²
404	The phenomenon in which sudden expansion of a gas causes cooling is called	A. evaporation B. cooling C. Joule Thomson effect D. sublimation
405	Real gases deviate from the ideal behaviour at very	A. high pressure B. low temperature C. low pressure D. both a and b
406	Which one the following gases is ideal at -200°C?	A. N₂ B. He C. both D. none
407	Diffusion of different species is due to difference of	A. potential energy B. temperature C. density

		C. density D. all the above
408	Which of the following may be called London dispersion forces	A. dipole-dipole forces B. ion-dipole forces C. dipole-induced dipole forces D. instantaneous dipole-induced dipole forces
409	Which of the following molecules have a permanent dipole	A. CH₄ B. CHCl₃ C. CCl₄ D. CO₂
410	An example of ion-dipole force is solution of	A. NaCl in water B. Glucose in water C. Bromine in benzene D. Ethanol in water
411	The boiling point of radon (211 K) is higher than boiling point of Helium (4.4 K) because	A. the atomic number of Rn is larger than that of the He B. the atomic mass of Rn is larger than that of He C. the dispersion forces between Rn atoms are more prominent that between He atoms D. Rn atoms are joined by dipole-dipole force whereas He atoms are joined by hydrogen bonding
412	In which system hydrogen bonding is not present	A. solution of ethanol in water B. linking of helix in protein molecule C. structure of ice D. solution of NaCl in benzene
413	Acetone and Chloroform are soluble in each other due to	A. intermolecular hydrogen bonding B. ion-dipole interaction C. instantaneous dipoles D. dipole-induced dipole interaction
414	NH_3shows a maximum boiling point among the hydrides of Vth group elements due to	A. very small size of nitrogen B. hydrogen bonding between its molecules C. enhanced electronegative character of nitrogen D. pyramidal structure of NH₃
415	When water freezes at 0°C, its density decreases due to	A. cubic structure of ice B. empty spaces present in the structure of ice C. change of bond lengths D. change of bond angles
416	The bonding which occurs among polar covalent molecules containing H and one of the small electronegative element such as O, F or N is called	A. bridge bonding B. metallic bonding C. hydrogen bonding D. Ionic bonding
417	London forces are more affective at	A. low temperature B. high temperature C. low pressure D. low temperature and high pressure
418	When two ice cubes are pressed together they unite to form one cube. Which of the following forces is responsibles for holding them together	A. Van der Waal's B. covalent bonding C. hydrogen bonding D. dipole-dipole interaction
419	Water has high boiling point which is due to	A. weak dissociation B. hydrogen bonding C. high specific heat D. high dielectric constant
420	In which of the following compounds hydrogen bonding is not present	A. water B. ethanol C. ether D. ammonia
421	The maximum possible number of hydrogen bonds in which a H_2O molecule can participate is	A. 1 B. 2 C. 3 D. 4
422	Which one of the following molecules show maximum hydrogen bonding?	A. H₂O B. H₂Se C. H₂S D. HF
423	In which of the following molecules strongest hydrogen bond is shown	A. water B. ammonia C. hydrogen fluoride D. hydrogen sulphide
424	For the purpose of interacts which one of the following arrangements represents the correct of increasing stability?	A. covalent < hydrogen bonding < London forces < dipole-dipole B. London forces < hydrogen bonding < dipole-dipole < covalent C. London forces < dipole-dipole < hydrogen bonding < covalent D. Dipole-dipole < London forces < hydrogen bonding < covalent

425	CO_2gas is dissolved in water due	A. dipole-dipole interactions B. higher molecular mass of CO₂ C. ion dipole attractive forces D. hydrogen bonding
426	The boiling point of Kr is higher (-152.23°C) than that of helium (-268.6°C) due to	A. Kr forms greater number of covalent bonds B. greater polarizability of Kr than He C. Kr has lowest freezing point D. Kr is in liquid state at ordinary temperature
427	The attractive forces which are created due to repulsion of electronic cloud of the molecules are	A. dipole-dipole forces B. ion dipole forces C. instantaneous dipole-induced dipole forces D. dipole-induced dipole forces
428	The attractive forces which exist between ionic compounds and water molecules are	A. dipole-dipole forces B. ion diopole forces C. istantaneous dipole-induced dipole forces D. dipole-induced dipole forces
429	NaCl is completely ionized in water due to presence of	A. hydrogen bonding B. dipole dipole forces C. ion dipole forces D. London dispersion forces
430	Boiling point of H_2O is higher than that of HF although F is more electronegative than O. It is due to	A. stronger dipole dipole forces in H₂O B. H₂O is neutral HF is acidic C. H₂O is angular, but HF is linear D. number of hydrogen bonds more in H₂Othan in HF
431	H_2O is liquid at room temperature whereas H_2S is a gas because	A. H₂O used as drinking water, but H₂S has rotten egg smell B. H₂O is neutral. H₂S is a weak acid C. stronger hydrogen bonding in H₂O than in H₂S D. H₂O occurs abundantly than H₂S
432	NH_3can form only one hydrogen bond per molecule though it has three partially positively charged hydrogens	A. nitrogen in NH₃has only one ions pair of electrons which can make one H-bond B. ammonia is a base C. ammonia is a weak acid D. it ionizes to give one H⁺
433	Vapour pressure of a liquid is more if	A. the intermolecular forces between the molecules of the liquid are strong B. the intermolecular forces between the molecules of the liquid are weak C. more liquid is present in a container D. liquid has more surface area to evaporate
434	Which order of vapour pressure in the following liquids is correct	A. water > ethanol > acetone > ether B. ether > acetone > ethanol > water C. ether > ethanol > acetone > water D. water > ether > acetone > ethanol
435	Vapour pressure of a liquid	A. increasing with increase of temperature B. increases with decrease of temperature C. increases with size of container D. increases with volume of liquid
436	The amount of heat required to vaporize one mole of liquid at its boiling point without change in temperature is called	A. molar heat of vaporization B. molar heat of sublimation C. molar heat of fusion D. none of these
437	The pressure exerted by the vapours in equilibrium with its pure liquid at given temperature is called the	A. equilibrium pressure B. atmospheric pressure C. vapour pressure D. external pressure
438	Which does not affect vapour pressure	A. Nature of liquid B. intermolecular forces C. Temp D. None of these
439	When vapour pressure is equal to atmospheric pressure than it is called	A. Evaporation B. M.P C. B.P D. Freezing point
440	Which liquid is more volatile?	A. water B. mercury C. benzene D. honey
441	Which of the following liquid has higher boiling point?	A. HCl B. HBr C. H₂O D. Br₂
		A. H₂O

442	Which of the following liquid has high vapour pressure?	A. H₂O B. ether C. CH₃OH D. C₂H₅OH
443	At room temperature, the vapour pressure of water and ether will be	A. equal B. different C. zero D. almost same
444	If there are weak intermolecular forces in a liquid, it will be	A. more volatile B. less volatile C. more dense D. less heavy
445	Which forms metallic cyrstals	A. Cu B. NaCl C. Diamond D. None
446	Dipole-dipole forces and London forces are collectively called	A. hydrogen bonding B. Vander Waals forces C. Covalent bonding D. Ionic bonding
447	Which of the following is not a property of crystalline solid	A. geometric shape B. cleavage plane C. anisotropy D. isomerism
448	On the basis of intermolecular forces diamond is a	A. ionic solid B. covalent solid C. metallic solid D. molecular solid
449	Intermolecular forces are _____ than binding forces	A. stronger B. Equal C. Weaker D. None
450	Ionic solids are characterized by	A. low melting points B. good conductivity in solid state C. high vapour pressure D. solubility in polar solvents
451	Amorphous solids	A. have sharp melting points B. undergo clean cleavage when cut with knife C. have perfect arrangement of atoms D. can possesses small regions of orderly arrangements of atoms
452	The molecules of CO_2 is dry ice form the	A. ionic crystals B. covalent crystals C. molecular crystals D. any type of crystal
453	Diamond is a bad conductor because	A. it has light structure B. it has a high density C. there are no free electron present in the crystal of diamond to conduct electricity D. it transparent to light
454	A temperature at which two cyrstalline forms of a substances coexist in equilibrium is called	A. standard temperature B. critical temperature C. transition temperature D. absolute temperature
455	Two substances that have the same crystal structure are said to be	A. isomorphous B. anisotropic C. isotropic D. polymorphous
456	If a = b = c and x = y = z 90° then crystal structure is	A. Cubic B. Tetragonal C. Orthorhombic D. Triclinic
457	The system in which all the three axes are unequal and are at righ angle to each other is called	A. cubic B. hexagonal C. orthorhombic D. tetragonal
458	The system in which two out of three axes are of equal length and angles are all 90°	A. cubic system B. hexagonal system C. trigonal system D. tetragonal system
459	The amount of energy released when gaseous ions of opposite charges combine to give one mole of a crystalline ionic compound is called	A. bond energy B. heat of formation C. lattice energy

	crystalline ionic compound is called	D. ionization energy
460	Diamond and graphite are	A. isomorphous B. polymorphous C. allotropes D. none of these
461	The reason that diamond and graphite have different physical properties is	A. density B. color C. bonding D. hardness
462	The particles in solids are	A. widely separated and moving randomly B. widely separated not moving C. moving randomly but not separated D. close together and vibrating slightly
463	In NaCl cyrstal Na^+ion is surrounded by how many ions of Cl^-	A. 4 B. 6 C. 8 D. 10
464	The smallest unit of a crystal that shows all the characteristic properties of its pattern is called	A. cell B. electrolyte C. unit cell D. crystal
465	$Cl_2$is a gas while iodine is a solid due to	A. stronger London forces with high polarizability B. greater electro negativity of Cl than iodine C. stronger dipole dipole forces D. iodine is colored while chlorine is colourless
466	Boiling point of water is higher (100°C) than that of ethanol (78.5°C) although both have hydrogen bonding. This is because	A. water molecules are closely packed B. water is more acidic than ethanol C. ethanol is an organic liquid D. number of hydrogen bonds are more in H₂O
467	It is very much difficult to cook food at Mount Everest, because	A. temperature of atmosphere is very low B. the boiling point of water is 69°C C. water becomes heavier D. the boiling point of water is increased
468	Liquid crystals are used for the early diagnosis of breast cancer by	A. injecting liquid crystals B. taking liquid crystals as diet C. painting liquid crystals on the surface of breast D. inhaling the smell of liquid crystals
469	Boiling point of water remains 100°C although heat is continuous supplied. it is because	A. decomposition of water takes place B. hydrogen bonding is increased C. external atmospheric pressure is not changing D. kinetic energy of H₂O molecules is increasing
470	Rise in vapour pressure of water from 30 to 60°C is only 32 torr to 149.4 torr (117.4 torr) but from 60 to 90°C is 149.4 to 527.8 torr (378.4 torr).it is due to	A. change in geometry of H₂O molecules at higher temperature B. decrease in volume takes place at higher temperature C. vapour pressure of liquids increases rapidly closer to their boiling points D. boiling starts
471	Solids in which atoms, ions or molecules are not regularly arranged are	A. crystalline solid B. amorphous solids C. liquid crystals D. low melting points
472	Which of the following solid is amorphous	A. NaCl B. diamond C. glass D. MgO
473	Which of these are isomrophous to one another NaCl, NH_4Br, K_2CrO_4, K_2SO_4	A. NaCl and NH₄Br both cubic B. NH₄Br and K₂SO_{4 both tetragonal} C. K₂CrO_{4 and}K₂SO₄orthorhombic D. NaCl and K₂SO₄both rhobohedral
474	In the formation of NaCl crystals from its aqueous solution, its cubic shape is changed to needle like when 10% urea is present as impurity, this phenomenon is called as	A. habit of crystal B. polymorphism C. anisotropy D. cleavage
475	$AgNO_3$ is a polymorphic having two different crystalline forms which are	A. cubic, tetragonal B. monoclinic, hexagonal C. cubic, orthorhombic D. orthorhombic, rhombohedral
476	The crystal of $K_2SO_4$and $K_2CrO_4$are orthorhombic. These are isomrophs due to	A. same physical properties B. their cations identical C. number of O atms is equal D. same shape of SO₄⁻²and CrO₄⁻²tetrahedral

		⁻²tetrahedral
477	$NaNO_3$and $CaCO_3$crystals are Rhombohedral isomrophism is due to	A. both soluble in water B. their cations belong to S block element C. same shape of NO₃⁻¹and CO₃⁻²ions which is triangular planar D. same number of O atoms
478	A crystal system in which the unit cell has different all cell lengths but all angles equal to 90° it is called as	A. orthorhombic B. triclinic C. monoclinic D. cubic
479	Grey tin crystals belong to	A. tetragonal B. cubic C. orthorhombic D. rhomtrohedral
480	The crystal system which has all cell angles equal, but not 90°and less than 120° , the system is	A. orthorhombic B. monoclinic C. hexagonal D. rhombohedral
481	Sugar crystals belong to the system	A. cubic B. monoclinic C. triclinic D. orthorhombic
482	$CuSO_45H_2O$ crystals belong to	A. triclinic B. cubic C. tetragonal D. orthorhombic
483	Ionic crystals are brittle because	A. they have cubic geometry B. they are bad conductors of electricity C. coordination number of cations and anions is same D. cations and anions are arranged in alternate positions in layers
484	Diamond and silicon carbide are insoluble in all solvents because	A. they have high melting and boiling points B. absence of three electrons C. they are huge giant three dimensional molecules (macromolecules) D. their unit cells have tetrahedral geometry
485	Which of the following is pseudosolid?	A. CaF₂ B. Glass C. NaCl D. All
486	One statement of isomorphism is incorrect	A. they have different chemical properties B. they have same physical properties C. they have same atomic ratio D. they have definite geometric shape
487	In metallic crystals the atomic orbitals combine to produce a large number of closely bands of energy according to	A. electron pool theory B. molecular orbital theory C. valence bond theory D. electrostatic force of attraction
488	Metals are good conductor of electricity, but their conductivity decreases by increase in temperature because	A. electrons attracted strongly by the nuclei which resists their free motion B. atoms form ionic bond and no free electrons C. electrons go to the iocalized orbital not free D. positive metal ions begin to oscillate and their motion hinders the free movement of electrons
489	Freshly cut metals have a shining surface because	A. electrons excited, then excited electrons release energy as light B. metals have brittle nature C. metals conductivity increases D. metals are malleable and ductile
490	When stress is applied to the metals, the metals are malleable and ductile because	A. their layers slip pass each other B. atoms lose electrons C. mobility of electrons increased D. none of the above
491	The forces of attraction between ions and water molecules are known as	A. dipole-dipole forces B. London forces C. dipole- induced dipole forces D. ion-dipole forces
492	London forces are	A. stronger than dipole-dipole interactions B. weaker than dipole-dipole interactions C. equal to dipole-dipole interactions D. sometimes stronger and sometimes weaker than dipole-dipole interactions
493	Which of the following has isomorphous structure with MgO	A. NaF B. S C. Sn D. N

494	Mercury does not wet the glass because of	A. repulsion B. weak cohesive force C. high viscosity D. capillary action
495	The spreading of ink on blotting paper is due to	A. capillary action B. hydrogen bonding C. intermolecular forces of the ink D. intermolecular forces of the ink and paper
496	The compound that has zero dipole moment is	A. HCl B. H₂S C. NH₃ D. CH₄
497	Surface tension is measured by	A. viscometer B. barometer C. stalagmometer D. manometer
498	Viscosity of a liquid is measured by	A. barometer B. thermometer C. viscometer D. manometer
499	Stalagmometer is used to measure	A. the resistance to flow of a liquid B. capillary action of a liquid C. Meniscus of the liquid D. surface tension of the liquid
500	Glycerin boil at 290°C under normal atmospheric pressure. If the pressure is reduced to 50 mm of Hg, it will boil	A. above the given temperature B. below the given temperature C. at the same temperature D. at 25°C
501	Which is trigonal cyrstal	A. BaSO₄. 4H₂O B. FeSO₄ C. NaNO₃ D. None
502	The process in which solid is directly coverted into gaseous state is called	A. evaporation B. boiling C. sublimation D. transformation
503	The amount of heat required to convert one mole of solid into liquid is called	A. molar heat of fusion B. heat of fusion C. heat of vaporization D. heat of liquefaction
504	Crystal lattice of the substances can be categorized into	A. five types B. seven types C. six types D. none of these
505	There are _____ types of solids	A. 1 B. 2 C. 3 D. 4
506	Lattice energy is also termed as	A. ionization B. crystal energy C. dissociation D. bond energy
507	The crystal system are of	A. 7 types B. 10 types C. 5 types D. 8 types
508	The forces of attraction between the solid atoms of helium are	A. hydrogen boding B. coordinate covalent bond C. covalent bond D. London dispersion force
509	A gas is heated in a closed vessel. Which of the following statement is not true for the gas?	A. the intermolecular forces between particles weaken B. the kinetic energy of particles increases C. the total internal energy of the gas remains constant D. the total internal energy of the gas increases
510	Which of the following is not a postulate of the kinetic theory of gases?	A. when gas particles collide, their total kinetic energy increases B. gases consist of molecules in a constant state of random motion C. when gas particles collide their total kinetic energy does not change at all D. The gas particles travel in straight lines unit they collide with one another or with the walls of the container
511	The volume of an ideal gas is decreased to half, What will happen to the force exerted on the walls of the	A. the force is halved B. the force increases by a factor of 4

	container by the gas particles?	C. the force remains constant D. the force increased by a factory of 2
512	Under what conditions do real gases show close to ideal gas behavior?	A. low pressure, low temperature B. high pressure, low temperature C. low pressure, high temperature D. high pressure, high temperature
513	What does no happen when an ideal gas is heated?	A. an increase in the average energy of the gas particles B. an expansion in the range of kinetic energies possessed by particles C. an increase in the number of molecules with lower energies D. a drop in the number of molecules with lower energies
514	Intermolecular forces exist between molecules of group 7 elements which of the following sequence represents the strength of the intermolecular forces?	A. Cl₂> Br₂> I₂ B. Br₂> Cl₂> I₂ C. Cl₂> Br₂> I₂ D. I₂> Br₂> Cl₂
515	Which of the following is a reason why real gases do not behave as ideal gases do?	A. real gases have intermolecular forces between the molecules B. real gases do not have intermolecular forces between the molecules C. real gases exist as molecules D. molecules of real gases attract each other more strongly than molecules of ideal gases
516	A substances has M_r74.5, a melting point of 772°C and a boiling point of 1407°C. It conducts electricity only when in the liquid state.What is the bonding present in this substances?	A. covalent B. ionic C. metallic D. hydrogen bonding
517	Which of the following tends to approach ideal gas like behavior at R.T.P	A. ammonia B. neon C. carbon dioxide D. chlorine
518	What types of bonds are broken when water turns into steam on heating?	A. covalent B. permanent dipole interactions C. hydrogen bonds D. induced dipole interactions
519	Which pair of elements have bonds of the same type between their molecules in the solid state?	A. phosphorous and nitrogen B. sulphur and magnesium C. carbon and sodium D. hydrogen and sodium
520	Which pair of elements will have the same type of bonds between their atoms in the solid state?	A. carbon and calcium B. lithium and boron C. aluminium and phosphorus D. nitrogen and carbon
521	Which one of the following will behave least like an ideal gas at high temperature and low pressure?	A. hydrogen fluoride B. helium C. oxygen D. carbon dioxide
522	Which of the following is the simplest form of matter?	A. Gaseous state B. Liquid state C. Solid state D. All of above
523	Which state about gases is not correct?	A. They spread throughout the vessel. B. Pressure is due to collision. C. There are larger spaces between the molecules. D. Molecules are arranged regularly.
524	The movement of gas molecules from a region of high pressure to vacuum is called:	A. Evaporation B. Effusion C. Conduction D. Diffusion
525	All gases can be compressed by:	A. Keeping constant pressure B. Decreasing pressure C. Increasing pressure D. None of above
526	Gases exert pressure on walls of container because the gas molecules:	A. Obey gas laws. B. Have definite volume. C. Collide with the walls of container. D. Collide with each other.
527	Gases of air, always remain in random motion and do not settle due to:	A. Difference of molecules masses of air gases. B. Difference in partial pressure of gas molecules. C. Unequal number of different gas molecules. D. Elastic collision of gas molecules.
528	The rate of diffusion of a gas is:	A. Inversely proportional to its density. B. Inversely proportional to square root of its molecules mass. C. Directly proportional to molecular mass. D. Directly proportional to its density.

529	In gasses and liquid, temperature is the measure of:	A. Average transnational kinetic energies of molecules. B. Average vibrational kinetic energies of molecules. C. Average rotational kinetic energies of molecules. D. None of above.
530	In solid, the temperature is the measure of:	A. Rotational kinetic energies. B. Translational kinetic energies. C. Vibrational kinetic energies. D. None of above.
531	Cooling happens under the Joule Thomson Effect due to sudden:	A. Contraction. B. Absorption. C. Expansion. D. All of above.
532	Gases show uniform behavior towards their:	A. Internal conditions. B. External conditions. C. Internal and external conditions. D. None of above.
533	Liquids are less common than:	A. Solids. B. Plasmas. C. Gases. D. All of above.
534	The intramolecular forces in gases are:	A. Weak. B. Normal. C. Very weak. D. Strong.
535	The relationship between volume of a given amount of gas and prevailing conditions of temperature and pressure are:	A. Charle's law B. Graham's law C. Boyle's law D. Gas laws
536	In Boyle's law which of the following pair remains constant:	A. Temperature and quality of a gas. B. Pressure and quality of a gas. C. Temperature and pressure. D. Temperature and quantity of a gas.
537	In Boyle's law which of the following pair is variable:	A. Temperature and quantity of a gas. B. Pressure and volume. C. Volume and quantity of a gas. D. Pressure and quantity of a gas.
538	For gas obeying Boyle's law if pressure is double, the volume becomes:	A. Remains constant. B. Double. C. One half. D. None of above.
539	According to Boyle's law, which parameters give a straight line parallel to x-axis, when we plot a graph between:	A. V and T B. P and V C. P and 1/V D. P and PV
540	Boyle's law does not fall even:	A. Temperature is extremely high. B. Pressure is extremely high. C. Mixture of gases is taken. D. All of above.
541	A graph between P and 1/V at constant temperature and number of moles of a gas meets the:	A. Y-axis B. X-axis C. Origin D. None of above
542	A graph between P and PV constant temperature and number of moles is parallel to:	A. Y-axis B. X-axis C. Z-axis D. Pressure axis
543	The product of pressure and volume remains constant when temperature and quantity of gas is:	A. Zero B. Variable C. Kept constant D. None of above
544	The ratio of volume to temperature on Kelvin scale is constant according to:	A. Charle's law B. Newton's law C. Coulomb's law D. Boyle's law
545	The graph between pressure and volume at constant temperature for gas is:	A. Isobaric B. Isothermal C. Isotherm D. None of above
546	The destiny of a gas is directly proportional to pressure, inversely proportional to temperature and directly proportional to:	A. Viscosity B. Molar mass C. Momentum

	directly proportional to:	D. All of above
547	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will be:	A. Remain uncharged B. Double C. Reduced D. Increased four times
548	Absolute temperature of a gas is proportional to:	A. Rotational Kinetic energy B. Translational Kinetic energy C. Vibrational Kinetic energy D. Potential energy
549	The highest temperature at which a substance can exist as a liquid is called its:	A. Critical temperature B. Zero temperature C. Absolute temperature D. None of above
550	Keeping the temperature constant, if the gas is expended:	A. Kinetic energy of molecules will increase. B. Number of gas molecules increases. C. Temperature will increase. D. Pressure will decrease.
551	At constant temperature when pressure of a gas is plotted against volume, the curve is:	A. Slanting straight line. B. Parabolic. C. Straight line, parallel to pressure axis. D. Of neither type.
552	The volume occupied by 1.4g of N2at STP is:	A. 2.24 dm3 B. 1.12 dm3 C. 112 cm3 D. 22.4 dm3
553	A gas is heated in such a way that its volume and absolute temperature both are doubled. the pressure of gas:	A. Becomes 4 time B. Becomes half C. Becomes 2 time D. Remains same
554	If the number of gas molecules are doubled in the certain volume the pressure is:	A. Increased to four times B. Remains unchanged C. Doubeld D. Decrease to half
555	At same temperature which substance has high kinetic energy:	A. Liquid water B. N₂gas in a container C. Solid piece of iron D. Solution of alcohol and water
556	Which one of the following gases has lowest density at room temperature:	A. NH₃ B. Ne C. N₂ D. CO
557	Which of the following equation is for idea gas:	A. PV = dRT B. PR = nTP C. PM = nRT D. PV = nRT
558	If R, T, M, V and P are gas constant, temperature, molar mass, volume and pressure then density is given by:	A. M/V B. RT/M C. PM/RT D. V/M
559	The value of general gas constant R is derived from:	A. Newton's Cooling law B. Maxwell's law C. Avogadro's law D. Charle's law
560	Equal volumes of ideal gases contain equal number of molecules at:	A. Same temperature B. Same pressure C. Same environmental conditions D. Both (A) and (B)
561	Oxygen molecule is 16 times heavier than:	A. Helium B. Hydrogen C. Neon D. Aluminium
562	One molecule of gas is approximately Distance_____ times its own diameter from its neighbour at room temperature.	A. 30 B. 3000 C. 3 D. 300
563	Which pair of gases do not obey Dalton's law of partial pressures?	A. H2 and He B. NH3and HCl C. H2 and O2 D. N2 and O2
		A. The ratio of their partial pressure

564	Total pressure of mixture of two gases is:	B. The product of their partial pressure C. The difference partial pressure D. The sum of their partial pressure
565	Partial pressure of gases in a mixture depend upon:	A. Number of moles B. Number of protons C. Number of electrons D. Number of neutrons
566	The partial pressure of gas can be calculated if we know total pressure of mixture and:	A. Number of protons B. Number of electrons C. Number of neutrons D. Mole fraction of gases
567	Dalton's law finds its application during the process of:	A. Digestion B. Respiration C. Reproduction D. All of above
568	Deep sea divers take oxygen with:	A. A heavy gas B. A lighter gas C. An inert gas D. All of above
569	Which of the following is an example of diffusion?	A. Spreading of smell of flowers in garden B. Steam condensing on a cold window C. Bubbles rising in a beaker of boiling water D. All of above
570	What can be deduce about two gases which have the same molecular mass:	A. They have same numbers of atoms in a molecule B. They have same rate of diffusion C. They have same boiling points D. They have equal solubility in water at room temprature
571	Which of the following gases diffuse quickly:	A. N₂ B. NH₃ C. CO₂ D. Cl₂
572	The ratio of diffusion of equal volume of He and SO_2 is (molecular mass He = 4, SO_2 = 64):	A. 1:4 B. 16:1 C. 1:16 D. 4:1
573	Which of the following gases have maximum root mean square velocity at 25°C:	A. SO₂ B. NH₃ C. CO₂ D. H₂S
574	The rate of diffusion of a gas of molar mass 72 as compared to H_2 will be:	A. Same B. 6 times C. 1.4 times D. 1/6 times
575	The diffusion of gasses at absolute zero will be:	A. Slightly decrease B. unchanged C. Slightly increased D. Zero
576	The rate of diffusion of a gas is inversely proportional to:	A. Density of a gas B. Velocity of the gas C. Viscosity of the gas D. All of above
577	Smell of cooking gas during leakage from gas cylinder is detected because of the property of:	A. Effusion B. Evapotration C. Diffusion D. Conduction
578	The distribution of energies among the molecules of gases was studied by:	A. Maxwell B. Coulomb C. Newton D. Boltzmann
579	Lind's ,method for liquefaction of gases is based on the principle of:	A. Graham's law of diffusion B. Joule Thomson effect C. Avogadro's hypothesis D. Dalton's law of partial pressure
580	The total K.E. of one mole of an ideal gas is given by:	A. 1/2 RT B. 3/2 RT C. 1/2 KT D. 3/2 KT
581	The kinetic energy of three moles of gas is:	A. 3/2 RT B. 3 RT C. 1/2 RT D. 2 RT

582	An ideal gas cannot be liquefied because:	A. It solidify before becoming a liquid B. Its critical temperature is always above 0^oC C. It is molecule are relatively smaller in size. D. Forces operative between its molecules are negligible
583	The value of critical temperature of a gas depends upon its:	A. Size B. Intermolecular forces in it C. Shape D. All of above
584	The non polar gases of low polarizability have a very:	A. Low critical temperature B. Stable critical temperature C. High critical temperature
585	During sudden expansion of a gas energy is needed to overcome the intermolecular:	A. Vibrations B. Attractions C. Repulsions D. All of above
586	When a compressed gas is allowed to expand into a region of low pressure, it produce:	A. Vapours B. Cooling effect C. Heating effect D. None of above
587	The critical temperature of NH_3 is greater than CO_2 due to its:	A. Greater polarity B. Stable polarity C. Lesser polarity D. None of above
588	Absolute zero is equal to:	A. -273.15K B. -273.15^oC C. -237.15K D. -273 ^oC
589	The gas which obey's the gas laws at all conditions of temperature and pressure is called:	A. Perfect gas B. Super gas C. Ideal gas D. Real gas
590	At 100 atm, CH_4 develops:	A. Ideal attitude B. Non-ideal attitude C. Serious attitude D. Laughing attitude
591	The basic distinction between solids, liquids and gases lies in difference between.	A. Strength of the bonds B. Size of molecules C. space which the molecules occupy D. All of above
592	Most of the universe consists of the matter in :	A. Gaseous state B. Liquid state C. Plazma state D. Solid state
593	Inside every fluorescent lamp there is present a:	A. Gas B. Plasma C. Liquid D. Solid
594	Mass spectrometry is used to determine the	A. Number of isotopes of an element B. Relative abundance of isotopes C. Relative isotopic masses D. All of these
595	The stoichiometric calculations for a chemical reaction results in	A. Actual yield B. Percentage yield C. Theoretical yield D. Selectivity
596	1 gram molecule refers to amount in grams	A. Equivalent to 1 mole of an atom B. Equivalent to 1 mole of a molecule C. Equivalent to 1 mole of an ionic species D. Of an ionic compound
597	Number of H+ ions when 0.1 mole of sulfuric acid is completely ionized in water	A. 4x6.022x10ê23 B. 1×6.022x10ê23 C. 2x6.022 x10ê23 D. 2x6.022x10ê22
598	1 gram formula refers to	A. Amount in grams equivalent to 1 mole of a atom B. Amount in grams equivalent to 1 mole of a covalent compound C. Amount in grams equivalent to 1 mole of a ionic compound D. Amount in grams equivalent to 1 mole of an ion
599	How many electrons have to be removed to ionize 1.0 x 10(-6) moles of Ne atoms to Ne+ ions in a neon advertising tube:	A. 6.02x10ê23/1.0x10ê-6 B. 1.0x 10ê-6 x 6.02x 10ê23 C. 1.0x10ê-6 x 6.02×10ê23/20.2 D. 1.0x10ê-6 x 6.02x10ê23/9.65x10ê-1

600	One mole of SO2 contains	A. 6.022 x 10(23) atoms of oxygen B. 6.022x 10 ê23 atoms of sulfur C. 18.1x 10 (23) molecules of SO2 D. 4 g molecule of SO2
601	Mg(s) + 2HCl(aq). ---------- MgCl2(aq)+ H2(g) Given that; Mg=21g and HCl=21g, the excess reactant is	A. Mg B. HCl C. Both are in stoichiometric amounts D. None of these
602	5604 cm3 of H2 gas at STP contains atoms of hydrogen	A. 6.02×10 (23) B. 2.6x10(22) C. 3.01x10(23) D. 1. 50x 10(23)
603	Number of moles present in 0.6 gram of silica is (Atomic mass Si = 28, O=16)	A. 0.01 mole B. 0.064 mole C. 0.044 mole D. 0.054 mole
604	Gram atoms of hydrogen in 5.5 g H2	A. 5.50 B. 2.25 C. 5.45 D. 2.20
605	Which of the following contains I mole of the stated particles	A. Chlorine molecules in 35.5 g of chlorine gas B. Electrons in 1 g of hydrogen gas C. Hydrogen ions in 1 dm^3 of 1 mol dm^{-3} aqueous sulfuric acid D. Oxygen atoms in 22.4 dm^3 of oxygen gas at STP
606	During combustion analysis, which one is used for absorbing carbon dioxide:	A. 50% KOH B. 5% KOH C. Mg(ClO4)2 D. Silica gel
607	Molecular ions are produced in mass spectrometer. Which type of molecular ion formed more abundantly.	A. Negatively charged B. H^+ ions C. Positively charged D. equal positive and negative ions
608	The height of the peak in the mass spectrum shows	A. Number of isotopes B. Relative abundance C. Mass number D. Number of protons
609	Combustion analysis is performed for the determination of	A. Molar mass of the compound B. Empirical formula of the compound C. Structural formula of the substance D. Mass of halogens present in organic compounds
610	250cm of 0.2 molar potassium sulphate solution is mixed with 250cm of 0.2 molar KCl solution. The molar concentration of K ions is:	A. 0.2 molar B. 0.25 molar C. 0.3 molar D. 0.35 molar
611	When liquid solute is dissolved in liquid solvent, then the best unit of concentration is?	A. % W/W B. % W/V C. % V/V D. %V/W
612	How many grams of NaOH are present in 250 cm3 of its 0.2M solution	A. ,4 g B. , 0.4 g C. , 10 g D. , 2 g
613	When we dissolve 15.8 g of KMnO4 in 1000g of H20. The solution is	A. , 0.1 M B. 0.1 M C. 0.2 M D. 0.2 M
614	The largest number of molecules are present in	A. 3.6 g of H2O B. 4.6 g of C2H5OH C. 2.8 g of CO D. 5.4 g of N2O5
615	The number of moles of CO2 which contain 16g of oxygen	A. 0.25 B. 1.00 C. 1.50 D. 0.50
616	In s solution 7.8 g of benzene (C6H6) and 46g of toluene (C6H5CH3) is present. The mole fraction of toluene is	A. 1/3 B. 1/5 C. 2/3 D. 5/6
617	The molarity of 2% W/V NaOH solution is	A. 2 B. 0.25 C. 0.05

		D. 0.5
618	The best concentration unit used for K^+ ions present in potable water is	A. ppm B. Mole fraction C. Molarity D. Molality
619	Haemoglobin molecule is how many times heavier than helium atom	A. 68000 times B. 17000 times C. ,34000 times D. , 1700 times
620	Which of the following is pure substance	A. Distilled water B. , Sea water C. , NaCl (aq) D. Brass
621	How many isotopes are present in palladium	A. Two B. Four C. Six D. nine
622	Naturally occurring isotopes of silver are	A. ,Two B. , Four C. , Forty seven D. , sixteen
623	Atoms having same mass number but different atomic numbers are called.	A. Isotopes B. isobars C. Isotones D. isomers
624	If empirical formula of a compound is CH2 and its molecular mass is 56amu. What will beits molecular formula	A. CH2 B. C3H6 C. C2H4 D. C4H8
625	Which of the following compound have empirical formula, but no molecular formula	A. H20 B. C6H6 C. H₂O₂ D. NaCl
626	Moles of protons in 20g of SO3	A. 10 B. 20 C. 40 D. 80
627	Which of the following is a limitation of balanced chemical equation	A. Conditions and rate of reactions B. Physical state and mechanism C. Reactants and products and their coefficients D. Both (a) and (b)
628	6Na+ Fe2O3 -------- 3 Na2O+2Fe For above reaction, if you are provided with 230g Na and 320g Fe2O3, then limiting reactant is	A. , Na B. Na2O C. Fe2O3 D. none of these
629	The sole produets of combustion analysis are	A. CO2 and NH3 B. H2O and Mg(ClO4)2 C. CO2 and KOH D. CO2 and H2O
630	Styrene has empirical formula CH, and there is 92.2%C and 7.75% hydrogen. If molar mass is 104g mol^{-}, what will be integral multiple (n) to get molecular formula:	A. 2 B. 4 C. 6 D. 8
631	If increase in temperature and volume of an ideal gas is two times, then the initial pressure P changes to	A. 4P B. P C. 2P D. 3P
632	Helium atom is two times heavier than a hydrogen molecule. At 298 K, the average kinetic energy of a helium atom is	A. same as that of a hydrogen molecule B. half that of a hydrogen molecule C. two times that of a hydrogen molecule D. four times that of hydrogen molecule
633	For an ideal gas, number of mole in terms of its pressure P, temperature T and gas constant is	A. PT/R B. PRT C. PV/RT D. RT/P
634	Which type of motion is exhibited by gases?	A. Vibrational B. Transitional C. Rotational D. All of them
	The volume of given mass of gas is directly	A. Boyle's law B. Charles's law

635	proportional to absolute temperature when pressure is kept constant this is called	B. Charles's law C. Graham's law D. Dalton's law
636	If temperature is 73K and volume is 146 cm3 then calculate the value of K=V/T	A. 5 B. 4 C. 3 D. 2
637	An ideal gas, obeying Kinetic theory of gases cannot be liquified, because	A. its critical temperature is above 0°C B. its molecules are relatively small in size C. It solidifies before becoming a liquid D. Forces acting between its molecules are negligible
638	What are the conditions under which the relation between volume (V) and number of moles (n) of gas is plotted? (Pressure; T-temperature)	A. constant P and T B. constant P and V C. constant T and V D. constant n and v
639	If a gas expands at constant temperature	A. The pressure decreases B. The Kinetic energy of the molecules remains the same C. The kinetic energy of the molecules decreases D. The number of molecules of the gas increase
640	The density of neon will be highest at	A. STP B. 0°C, 2 atm C. 273°C, 1 atm D. 273°C, 2 atm
641	An ideal gas expands according to PV=constant. On expansion, the temperature of gas	A. will rise B. will drop C. cannot be determined because the exteral pressure is not known D. will remain same
642	Acording to the kinetic theory of gases	A. The pressure exerted by a gas is proportional to mean square velocity of the molecules B. The pressure exerted by the gas is proportional to the root mean square velocity of the molecules C. The root mean square velocity is inversely proportional to the temperature D. The mean translational KE of the molecule is directly proportional to the absolute temperature
643	According to kinetic theory of gases kinetic energy depends on	A. Temperature B. Collision C. Pressure D. Atomic number
644	Which is not true in case of an ideal gas?	A. It cannot be converted into a liquid B. There is no interaction between the molecules C. All molecules of the gas move with same speed D. At a given temperature P'V is proportional to the amount of the gas
645	The molecular speed Crms of gas is	A. Independent of temperature B. Proportional to the absolute temperature C. Proportional to the square root of absolute temperature D. Proportional to the square of absolute temperature
646	At constant volume, for a fixed number of moles of a gas the pressure of the gas increases with size of temperature due to	A. increase in average molecular speed B. increase in number of moles C. increase in molecular attraction D. decrease in the distance between the molecules
647	The root mean square velocity of a gas is doubled when the temperature is	A. reduced to half. B. reduced to one-fourth C. increased four times D. inereased two times
648	Which one of the following statements is wrong for gases?	A. gases do not have a definite shape and volume B. volume of the gas is equal to volume of container confining the gas C. confirmed gas exerts uniform pressure on the walls of its container in which it is enclosed D. mass of gas cannot be determined by weighing a container in which it is enclosed
649	The pressure of gas at constant temperature in a container of 2dm3 is 10 atm what will be its final pressure if it is connected with 10 dm3 container	A. 2 atm B. 1.6 atm C. 5 atm D. I atm
650	One dm3 of H2 and O2: has different masses but no. of particles are	A. same B. H2 has greater C. different D. O2 has greater
651	.The number of moles in 2.24 dm3 of H2 gas at STP is:	A. 1 B. 0.1 C. 10 D. 0.01
		A. Boiling point of water

652	Theoretically, the temperature at which volume of gas become equal to zero is called	A. Boiling point of water B. Zero absolute C. Zero Kelvin D. both B and C
653	The motion imparted to the gas molecules by gravity is	A. very small B. very large C. negligible D. appreciable
654	The temperature of a gas is directly proportional to its	A. average translational kinetic energy B. enthalpy C. internal energy D. hydration energy
655	The pressure exerted by gas molecules is due to their	A. collisions B. densities C. masses D. kinetic energy
656	The volume of gas depends upon the------- moleules	A. Size of B. Space between C. Molecular weight D. both a and b
657	The mono atomic gases are	A. Halogens B. Noble gases C. 6h group elements D. Nitrogen and oxygen
658	Gas is enclosed in a container of 20cm3 with the moving piston. According to kinetic theory of gases, what is the effect on freely moving molecules of the gas if temperature is increased from 20°C to 100C.	A. Colliding capability of molecule will become lower B. Pressure will become one half C. Temperature has no effect on freely moving molecules D. Volume will be increased
659	Which of the following is the correct equation to calculate relative molecular mass of a gas	A. M=mPRTV B. M=mPR/VT C. M=PV/mRT D. M=mRT/PV
660	Which of the statement is applicable for both ideal and real gases molecules?	A. Have no forces of attraction B. Collisions between the molecules is elastic C. Molecules are in random movement D. The actual volume of gas is negligible as compared to the volume of gas
661	At absolute zero the molecules of hydrogen gas will have	A. Only translatioral motion B. Only vibrational motion C. Only rotational motion D. All the motion are ceased
662	According to the general gas equation, density of an ideal gas depends upon	A. Pressure B. Temperature C. Molar mass of the gas D. All of the above
663	The actual volume of gas molecules is considered negligible at following pressures	A. 2atm B. 4atm C. 6 atm D. 8 atm
664	Charles's law is only obeyed at which temperature scale	A. Celsius B. Kelvin C. Fahrenheit D. both A&B
665	The relationship between density and molar mass of a gas is	A. Directly proportional B. ^{Inversly proportional} C. Straight line D. Stoichiometric
666	At higher temperature isotherm of Boyle's law moves away from both axis, is due to increase in	A. pressure B. No. of moles C. Volume D. all of these
667	Under which condition CO has the maximum molar volume.	A. high T and P B. Low T and High p C. high T and low pressure D. Low T and low P
668	If volume of an ideal gas at 0°C 536cm3, what is volume at 1°C	A. 373 cm3 B. 646 cm3 C. Becomes 0cm3 D. 746 cm3
669	The number of molecules in 22.4 dm3 of gas at 0°C and 1 atm are	A. 6.02×10(23) B. 6.02× 10(25) C. 6.02×10(22) D. 6.02×10(21)

670	At higher temperature isotherm of Boyle's law moves away from both axis, is due to increase in:	A. pressure B. No. of moles C. Volume D. All
671	Under which condition CO has the maximum molar volume	A. high T and P B. Low T and High p C. high T and low P D. Low T and low P
672	If volume of an ideal gas at 0C° 536cm3, what is volume at 1°C	A. 373 cm3 B. 646 cm3 C. Becomes 0cm3 D. 746 cm3
673	The volume of a real gas	A. is constant B. increases with T decrease C. becomes zero at absolute zero D. never becomes zero
674	At higher temperature what is true for gases	A. pressure is decreased B. volume is decreased C. number of moles are decreased D. KE is increased
675	Density of a gas increases by	A. increasing value of R B. decreasing value of R C. increasing T D. decreasing T
676	The weakest intermolecular forces present in a liquid may be	A. Dipole-induced dipole forces B. dipole-dipole forces C. instantaneous forces D. electrostatic forces between ions in a ionic solid
677	The nature of the attractive force in acetone and chloroform are	A. dipole-induced dipole forces B. dipole-dipole forces C. ion-dipole forces D. instantaneous forces
678	The nature of crystals formed due to London forces of interaction are	A. molecular B. metallic C. ionic D. covalent
679	Liquid hydrocarbon is	A. methane B. propane C. ethane D. hexane
680	The forces which are present between the ions and the water molecules are known as	A. dipole-induced dipole forces B. dipole-dipole forces C. ion-dipole forces D. London dispersion forces
681	Strong dipole-dipole forces among the liquid molecules are responsible for	A. very high heat of vaporization B. very low heat of vaporization C. cannot be predicted D. negligible forces are these
682	Dipole-dipole interaction are present in the	A. atoms of the He gas B. molecules of CCl4 C. molecules of solid iodine D. molecules of :NH3
683	Polarizability is responsible for intermolecular forces and it	A. increases down the group B. decreases down the group C. almost remains the same D. increased along a period
684	The boiling points of the halogens	A. increases down the group B. decreases down the group C. remains constant D. can not be predicted
685	Saturated hydrocarbons having carbon atoms more than 20 in a molecule are solids due to	A. higher densities B. higher molar masses C. the chain, are more zig-zag D. all are correct
686	The boiling point of higher alkanes are greater than those of lower alkanes due to reason that	A. higher alkanes have greater number of atoms B. the polarizabilities of higher alkanes are greater C. higher alkanes have greater hydrogen bonding D. higher alkanes have zig-zag structures
687	Dipole-induced dipole forces are also called	A. dipole-dipole forces B. ion-dipole forces

	Dipole-induced dipole forces are also called	C. Debye forces D. London-dispersion forces
688	The polarizabilities of elements mostly increase down the group due to the reason that	A. the atomic numbers increase B. number of protons increase C. number of shells increase along with increase of shielding effect D. the behaviour of the elements remain the same
689	Hydrogen bonding is not present in which of following compound?	A. Ammonia B. Ethanol C. Ether D. Water
690	H-bonding is maximum in:	A. ethanol B. benzene C. diethyl ether D. water
691	Ice floats on water because	A. the hydrogen bonding in ice is stronger than that of in water B. empty spaces are left in ice C. ice has two-dimensional structure D. the bond length of the oxygen and hydrogen bond is different in water and ice
692	Oxygen and sulphur are present in VI-A group of the periodic table The hydride of oxygen i.e., H2O is liquid at room temperature but the hydride of sulphur (H2S) is a gas. This is due to	A. greater bond angle of water than Hs B. greater bond lengths in HS than H2O C. hydrogen bonding in water D. acidic character of HS
693	The boiling point of H2O is 100°C while that of C2H5-OH is 78.5C°. The reason is that:	A. H2O molecules are small-sized B. the bond angles at oxygen atom are different C. C2H5-group is electron donating D. the number of H-bonds are greater in H20, than C2H5-OH
694	Halogens form halogen acids. HF is the weakest among all of them This is due to the reason that	A. fluorine is a very small-sized atom B. fluorine is highly electronegative atom C. there is strong hydrogen bonding in HF D. the polarity of HF bond is less
695	Hydrogen bonding is extensively present in proteins which form the spiral. The hydrogen bond being produced is between	A. nitrogen and hydrogen atom B. oxygen and hydrogen atom C. carbon and hydrogen atom D. oxygen and carbon atom
696	H2O and HF are the hydrides of the second period. Fluorine is more electronegative than oxygen. Anyhow, the boiling point of water is greater than that of HF. This is due to:	A. water is more polar than HF B. water has a bent structure C. HF has a zig zag structure after making hydrogen bonding D. the number of hydrogen bonds produced by water are greater than that of HF
697	The long chains of amino acids are coiled around one another into a spiral by	A. ionic bond B. Van der Waal's forces C. hydrogen bonding D. overlapping of orbitals
698	At freezing point of water, the density decreases due to	A. change of bond angles B. change of bond lengths C. cubic structure of ice D. empty spaces present in the structure of ice
699	Ice occupies more space than liquid water	A. 9% B. 10% C. 11% D. 12%
700	The B.P of glycerine at 760 torr pressure is	A. 200°C B. 290C° C. 250C° D. 262C°
701	The vapour pressure of a liquid depends upon	A. amount of the liquid B. surface area C. temperature D. size of container
702	The B.P. of compound is mostly raised by	A. dipole-induced dipole interactions B. london dispersion forces C. intramolecular H-bonding D. intermolecular H-bonding
703	Which of the following liquid has highest bolling point	A. HCl B. HBr C. H2O D. Br2
704	Vapour pressure of a substance does not depend upon:	A. physical state of matter B. temperature C. intermolecular forces D. surface area

		B. surface area
705	Point out the substance which has maximum vapour pressure at a given temperature?	A. Acetone B. Water C. Ethanol D. Acetic acid
706	Liquids evaporate at every temperature. When the temperature becomes constant for a liquid, then:	A. rate of evaporation is greater than the rate of condensation B. the rate of condensation is greater than the rate of evaporation C. The rate of condensation and evaporation become equal D. it depends upon the nature of the liquid
707	The boiling of water may be 120°C, when the external pressure is	A. greater than 760 torr B. less than 760 torr C. equal to 760 torr D. variable
708	Which of following factor affect vapour pressure of a liquid?	A. temperature B. inter molecules forces C. size of the molecules D. all of these
709	In order to maintain the boiling point of water at 110 C°, the extemal pressure should be	A. 550 torr B. between 500 and 760 tor C. between 760 and 1500 torr D. any pressure can be maintained
710	The boiling point of glycerin at 1 atmospheric pressure is:	A. 290°C B. 390°C C. 190C° D. 210°C
711	Amount of heat absorbed when one mole of a solid melts into liquid form at its melting point is called:	A. heat of vaporization B. latent heat of fusion C. molar heat of fusion D. molar heat of sublimation
712	The B.P of H2O at Murree Hills is	A. 99.8C B. 98°C C. 100C° D. 89°C
713	Water may boil at 120 °C when external pressure is:	A. 100 mm of Hg B. 700 mm of Hg C. 760 mm of Hg D. 1489 mm of Hg
714	Cholestryl benzoate tums into milky liquid at	A. 140°C B. 145°C C. 148C° D. 149°C
715	Which of the following is not the property of liquid crystal	A. anisotropic B. isotropic C. three dimensional arrangement D. fluidity
716	Point out that which is not an application of liquid crystals?	A. Source of energy B. In display of electrical devices C. For skin thermography D. As temperature sensor
717	The hydrocarbon with maximum B.P is	A. CH4 B. C6H14 C. C4H10 D. C2H6
718	What s the boling point of H2O at the peak of Mount Everest?	A. 101 C° B. 69°C C. 100 C° D. 98° C
719	Evaporation occurs at all temperatures and is effected by	A. surface area B. temperature C. intermolecular forces D. all of these
720	The value of the vapour pressure of water at its boiling point at Karachi and Murree is	A. same B. different C. depends upon the environmental conditions in both cities D. greater at Murree and less at Karachi
721	CO2 and SO2 are both triatomic molecules, but heat of vaporization of SO2 is greater than that of CO2. This is due to	A. greater electronegative character of sulphur B. greater size of SO2 molecule C. SO2 is polar and CO2 is non-polar D. SO2 is more acidic in nature than CO2
722	To cook the food at a high mountain is difficult as	A. the temperature at the top of the mountain is low B. the density of water decreases at the mountains

722	compared to at sea level. The reason is that:	C. the boiling point of water decreases at the mountain D. the hydrogen bonding in water changes with the change of height
723	Glycerine is a polar compound. It boils at 290°C under one atmospheric pressure. It should be distilled under reduced pressure due to reason that	A. there are strong intermolecular forces between molecules of glycerine B. it decomposes at 290°C C. low pressure makes the liquid to boil at high temperature D. the reduced pressure decreases the boiing point of liquids
724	Crystals can be classified into	A. 7 crystal systems B. 4 crystal systems C. 3 crystal systems D. 14 crystal systems
725	Which among the following will show anisotropy?	A. Wood B. Glass C. Paper D. BeCl2
726	How many allotropic forms are present in carbon?	A. Two B. Four C. Three D. Five
727	Hardness of diamond is attributed to the	A. strength of the ionic bonds in the structure B. three-dimensional network of covalent bonds C. three-dimensional network of covalent bonds D. absence of valence electrons in carbon atoms
728	In diamond, the carbon atoms are arranged in a	A. tetrahedral manner B. hexagonal manner C. square planar manner D. octahedral manner
729	The examples of a hexagonal system is	A. sugar B. graphite(a=b not equal to c) {Alpha =beta. not equal to gamma} C. sulphur D. diamond
730	Which one is an isomorphic pair?	A. NaNO3, CaCO3, B. NaF, MgO C. K2SO4 ,K2Cr2O7 D. Zn, Cd
731	Polymorphism is shown by AgNO3. Which one of the following options is true for AgNO3?	A. Orthorhombic and rhombohedral B. Cubic and orthorhombic C. Cubic and tetragonal D. Monoclinic and hexagonal
732	The transition temperature of KNO3, is	A. 13.2°C B. 95.5°C C. 128°C D. 32.02°C
733	The existence of an element in more than one form is called	A. allotropy B. isomorphism C. polymorphism D. isotropy
734	The transition temperature of tin is	A. 95.5 C° B. 13.2 C° C. 13.2°C D. 128.5°
735	K2SO4, and K2Cr2O4, are isomorphous solids and exist in	A. cubic form B. orthorhombic form C. trigonal form D. tetragonal
736	Which impurity makes the shape of NaCl crystal needle like	A. MgSO4 B. urea C. glucose D. MgCO3
737	The hexagonal closed packing is associated with	A. Ag, Cu, Au B. Zn, Cd, Hg C. Li, Na, K D. NaCl, KBr
738	The most unsymmetrical one in crystal system is	A. triclinic B. Li, Na, K C. monoclinic D. hexagonal
739	Structure of CrO4(-2) is'	A. triclinic B. cubic C. octahedral D. tetrahedral

740	A crystal system in which all three angles and all three edges are different is called	A. triclinic B. rhombohedral C. cubic D. hexagonal
741	What is the co-ordination number of face centered cubic structure?	A. 12 B. 8 C. 6 D. 10
742	In crystal of sodium chloride, a Cl-1 ion present at the corner of cube is shared between how many cubes?	A. 8 B. 4 C. 6 D. 10
743	Which property is associated with ionic solids?	A. Solubility in polar solvents B. Low melting points C. Good conductivity in solid state D. High vapour pressure
744	The structure of sodium chloride is	A. simple cube B. body centered cubic C. face centered cubic D. depends upon conditions
745	An element from the given below exists as discrete small molecules in the solid state. Which is that?	A. Sodium B. Silicon C. Iodine D. Iron
746	One of the following is a ionic solid. Which is that?	A. Fe B. KBr C. Diamond D. Cr
747	LiF is a crystalline substance and has	A. ionic crystal B. metallic crystal C. covalent crystal D. molecular crystal
748	Some of crystals are good conductors of heat and electricity, they may be	A. ionic in nature B. of metallic character C. covalent in nature D. of molecular nature
749	Ionic solids are characterized by which one of the following properties	A. moderately low pressure B. high vapour pressure C. good conductivity in solid state D. solubility in polar solvents
750	Ionic solids don't conduct the electrical current because	A. ion do not have translatory motion B. free electrons are less C. the coordination number of the ion is very high D. strong covalent bonds are present in their structure
751	The number of Cl- ions per unit cell of NaCl are	A. 6 B. 4 C. 2 D. 8
752	The Cl- ion present at the corner of the unit cell is NaCl crystal, contributes	A. 1/8 th B. 1/4 th C. 1/2 th D. 1
753	NaCl has face centered cubic structure. The Na ion at the face of the unit cell is shared by	A. 2-unit cells B. 4-units cells C. only one unit cell D. 8-unit cells
754	The number of Na+, ions which surround each Cl- ion in the NaCl crystal lattice is	A. 8 B. 12 C. 6 D. 10
755	Substance that does not show the process of sublimation is	A. K2Cr2O7 B. iodine C. naphthalene D. NH4Cl
756	The crystal of diamond is	A. ionic B. molecular C. covalent D. metallic
757	In most of the cases the molecular crystals are	A. very soft B. soft C. extremely hard D. sufficiently hard

		D. sufficiently hard
758	The crystals formed due to London forces of interaction are	A. ionic B. covalent C. molecular D. metallic
759	The nature of crystal of diamond is	A. metallic B. molecular C. covalent D. ionic
760	The molecules of CO_2, in dry ice form the	A. covalent crystals B. molecular crystals C. none of these crystals D. ionic crystals
761	The geometry of diamonds is	A. tetragonal B. cubic C. rhombohedral D. none of these
762	Which of the following solids does not have a covalent bond?	A. Silica B. Copper C. Diamond D. Graphite
763	In diamond, which hybridization is there?	A. sp2 B. dsp2 C. sp3 D. sp
764	in diamond a unit cell is tetrahedral and averall crystai structure is	A. face centred cubic B. body centred cubic C. tetrahedral D. hexagonal
765	Which attractive forces cause molecular solids to be formed?	A. Ionic B. Metallic C. Covalent D. van der Waals
766	How temperature affects the electrical conductivity of metals?	A. Does not change at all B. Decreases with increasing temperature C. Increases with increasing temperature D. Decreases with decreasing temperature
767	Metallic bonds have been explained by many theories. Luis Pauling has proposed a theory called	A. molecular orbital theory B. electron gas theory C. band theory D. valence bond theory
768	The electrical conductivity of the metals decreases with the increasing temperature. This is because	A. the number of free electrons decrease B. the bonds of the metal atoms become weak C. the to and fro motion of the metal ions decrease D. the increase of to and fro motion of the metal ions hinders the free movement of electrons
769	All the metal shine when they are freshly cut The reason is	A. the conductivity of the metal is increased B. the process of cutting gives energy to the metal atoms C. the electrons become less delocalized according to valance bond theory D. the electrons are excited at higher energy levels and emit the photons when they fall back
770	The arrangement ABC, ABC .... is referred as	A. cubic close packing B. octahedral close packing C. hexagonal close packing D. tetrahedral close packing
771	Amorphous means	A. arranged B. ordered C. shaped D. shapeles (no arrangements)
772	Plastics are amorphous solids and	A. have sharp melting points B. undergo clean cleavage when cut with knife C. do not undergo clean cleavage D. possess orderly arrangement over long distances
773	In the reaction A2 (g) + 4B2 (g) <----------> 2AB4 (g) such that $\Delta H < 0$, the formation of AB4(g) will be favoured at	A. Low temperature and high pressure B. Low temperature and low pressure C. High temperature and low pressure D. High temperature and high pressure
774	In the reaction A2 (g) + 4B2 (g) <----------> 2AB4 (g) such that $\Delta H < 0$, the formation of AB4(g) will be favoured at	A. Low temperature and high pressure B. Low temperature and low pressure C. High temperature and low pressure D. High temperature and high pressure

775	Consider the reaction PCl5 (g) <---------> PCl3 (g) +Cl2 (g) in a closed container at equilibrium. At a fixed temperature, what will be the effect of adding more PCl5 on the equilibrium constant	A. It increases B. It remains unaffected C. It decreases D. Can't be predicted without Ki
776	The oxidation of SO2 to SO3 is exothermic reaction. The yield of SO3 will be maximum if	A. Temperature is increased and pressure is kept constant B. Temperature is reduced and pressure is increased C. Both temperature and pressure are increased D. Both temperature and pressure are increased
777	If the concentration of salt is greater than the acid in buffer solution, then the	A. pH = pKa B. pH = pKb C. pH > pKa D. pH < pKb
778	In a saturated solution of AgCl, the molar concentration of Ag+ and Cl- is 1.0x10(-5)M each. What is the value of Ksp	A. 1.0x10(-5) B. 1.0x10(-15) C. 0.1x10(-5) D. 1.0x10(-10)
779	The solubility of Fe(OH)3 is 'x' mole per dm3. Its Ksp would be	A. 9X3 B. 3X4 C. 27X4 D. 9X4
780	For the reaction H2(g) +I2 (g) <---------> 2HI(g). The equilibrium constant changes with	A. Total pressure B. Catalyst C. Concentration of H2 and I2 D. Temperature
781	The decomposition of N2O4 to NO2 is carried out at 280°C in chloroform. When quilibrium is reached. 0.2 moles of N2O4 and 0.02 mole of NO2 are present in 1:1 ratio The equilibrium constant for the reaction N2O4------> 2NO2 is	A. 0.01 B. 0.001 C. 0.02 D. 0.002
782	In a given system, water and ice are in equilibrium, if the pressure is applied to the above system then	A. Morc ice is formed B. Amount of ice and water will remain the same C. more ice is melted D. both A and B
783	The solubility product of AgCl is 2.0 x 10(-10) mol2 dm(-6). The maximum concentration Ag+ ions in the solution is:	A. 1.41 × 10(-5) mol. dm(-3) B. 1.41 × 10(-10) mol. dm(-3) C. 2.0 × 10(-10) mol. dm(-3) D. 4.0 × 10(-20) mol. dm(-3)
784	An excess af silver nitrate is added to the aqueous barium chloride and the precipitate is removed by filtration. What are the main ions in the filtrate?	A. Ag+ and NO3-, only B. NO3- and Ba+2 only C. Ag+ and NO-3, and Ba+2 only D. Cl- and NO-3, and Ba+2 only
785	pH of 10-4 mole dm-3 of HCl	A. 2 B. 4 C. 3 D. 5
786	The most suitable temperature for preparing ammonia gas is	A. 250°C B. 450°C C. 350°C D. 550°C
787	The Kw. of water at 25 C° is given by	A. 10(-7) B. 10(-10) C. 10(-12) D. 10(-14)
788	When HCl gas is passed through saturated solution of rock salt, the solubility of NaCl	A. Increases B. May increase or decrease C. Decreases D. None of these
789	For what value of Kc almost forward reaction is complete	A. Kc.=10(-30) B. Kc.=1 C. Kc = 10(30) D. Kc,=0
790	In which of the following Equilibria will Kc and Kp have not the same value	A. 2HI <--------> H2+I2 B. 2SO2 + O2 <--------> 2SO3 C. N2 + O2 <---------> 2NO D. All of these
791	Correct relationship b/w Kc and Kp can be written as	A. Kp=, Kc(R)Δn B. Kc=Kp (RT)Δn C. Kp.= Kc.(RT)Δn D. Kp=Kc (R/N)Δn

792	If the temperature is inereased of following reaction, then will go in N2 +3H2 <---------> .2NH3, ΔH= -Ve	A. Forward direction B. Reverse direction C. Remain constant D. Cannot be predicted
793	If the volume term is present in denominator of Kc expression, then which one is correct	A. Increase in pressure will shift the reaction backward B. Increase in pressure will shift the reaction forward direction C. Decrease in volume will shift the reaction forward direction D. Reaction will not effected
794	Which statement is incorrect	A. pH and [OH-] are inversely related to cach other B. pOH and [OH-] are inversely related to each other C. pH and [OH-] are directly related to each other D. pOH means potential of hydroxyl ion concentration
795	pH of an aqueous solution is 3.0 at 25°C. The hydrogen ion concentration in the solution would be	A. 0.001 B. 0.01 C. 0.0001 D. 10(-5)
796	Which one is very weak acid	A. HF B. HCl C. H2CO3 D. H2O
797	Which one is correct about conjugate acid-base concept?	A. Conjugate base of a very weak acid is relatively very strong B. Conjugate base of a very weak acid is relatively very weak C. Conjugate base of a very strong acid is relatively very weak D. Both A and C
798	Which one increases by common ion effect except?	A. Crystallization B. Solubility C. Association of ions D. All of these
799	A basic buffer solution can be prepared by mixing	A. Strong acid and its salt with weak base B. Weak base and its salt with strong acid C. Strong base and its salt with weak acid D. Weak acid and its salt with strong base
800	Which one is best buffer those have	A. pH = pKa B. pH > pKa C. pOH < pKb D. pKa =0
801	The pH of ideal buffer is	A. 10 B. 7 C. Less than 7 D. 0
802	If ionic product is equal to Ksp then the solution is	A. Unsaturatec B. Ideal C. Supersaturated D. Saturated
803	The solubility product is only applicable for those substance whose molar concentrations is	A. 0.01 B. Equal to 1 C. Less than 0.01 D. Greater than 10
804	What will be the pH of 1.0 mol dm -3 of H2X, which is only 50% dissociated	A. 1 B. 0 C. 2 D. Less than 0
805	What will be the pH of 1.0 mol dm-3 of NH4OH, which is 1% dissociated	A. 2 B. 12 C. 0 D. 2.7
806	Buffer solutions are used in except	A. Clinical analysis B. Nutrition C. Soil science D. Qualitative analysis
807	Buffer action can be explained by except	A. Common ion effect B. Le-Chatelier's principle C. Law of mass action D. Solubility product
808	At equilibrium, the concentration of reactants and products are	A. Constant B. Maximum C. Different D. Equal
809	For N2: +3H2<--------> 2NH3, if Kc is 1 than value of Kp at 273K would be	A. 1/22.414 B. 1/(22.414)2 C. 22.414 D. 11.207

810	A certain buffer solution contains equal cone. of X- and HX. Ka for HX is 10(-8). The pH of buffer is	A. 3 B. 11 C. 8 D. 14
811	Which of the following is a base according to lowery Bronsted concept?	A. I-1 B. HCl C. H3O+ D. NH4+1
812	With increase in temperature, ionic product of H2O	A. Decreases B. Remains same C. Increases D. May increase or decrease
813	According to Lowery Bronsted concept, which of the following is considered as an acid?	A. BF3 B. OH- C. H3O+ D. Cl-
814	The units of ionic product of H2O is	A. Mole dm-3 B. Mole2 dm-6 C. Mole-1 dm-3 D. Mole-2 dm-6
815	On adding NH3 to water	A. Ionic product will increase B. [H3O+] will inerease C. Ionic product will decrease D. [H3O+] will decrease
816	Which one of the following has the lowest pH values	A. 0.1 M HCl B. 0.01 M HCl C. 0.1 M KOH D. 0.01 M KOH
817	Which Henderson equation is not correct?	A. pH= pKa +log [salt/acid] B. pH = pKa - log [salt/acid] C. pH= pKa - log[acid/salt] D. Pka = pH - log [salt/acid]
818	The pH of neutral water is 6.8 then the temperature of H2O is	A. 25°C B. More than 25°C C. less than 25 C° D. Not predicted
819	The solubility of A2B3 is X mole dm-3. Its Ksp is?	A. 6X(5) B. 36X(5) C. 64X(5) D. 108X(5)
820	A basic buffer solution can be prepared by mixing?	A. Weak acid and its salt with strong base B. Weak base and its salt with strong acid C. Strong acid and its salt with weak base D. Strong base and its salt with strong acid
821	If Kc value is small then equilibrium position will shift	A. Towards left B. Remains unchanged C. Towards right D. It is always constant value
822	The value of Kc for H2O at 25C° is	A. 1x10 (-14)mole dm-3 B. 14 mol dm-3 C. 1.86×10(-16) mol dm-3 D. 1.0x10 (-7)moldm-3
823	Ionization of KClO3. is suppressed by	A. Increasing temperatuse B. adding KCl C. adding NaNO3 D. Decreasing temperature
824	Rusting of iron is the example of	A. Fast B. Slow C. moderate D. depends upon conditions
825	Reaction kinetics is important to discover the---under which reaction will proceed most economically:	A. rate constant B. Conditions C. volume D. equilibrium point
826	The reaction kinetics concerned with the	A. Rate of reaction B. Direction of reaction C. Factor effecting rate of reaction D. both a &b
827	Consider gas is measure in bars then the units of rate of reaction is	A. Mole dm-3 sec B. Bars sec C. Mole dm-3 sec-1

	of reaction is	C. Mole dm-3 sec-1 D. Bars sec-1
828	The concentration of product is increasing from 30 mole/dm3 to 40mol/dm3 in 0.5 sec then rate of reaction will be------moledm-3sec-1	A. 0 B. 20 C. 15 D. 25
829	When the concentration of product is increased the instantaneous rate of reaction with reference to reactants will be	A. Positive B. Negative C. the same D. falling curve
830	The rate of reaction for a reaction is 30 mol dm-3sec-1 if the product of concentration of 10.reactant is unity the specific rate constant is	A. 25 B. 2.5 C. 30 D. 15
831	The number of reacting molecules whose concentration change during reaction is called	A. Activated molecule B. Rate of reaction C. Order of reaction D. half-life
832	The reaction which is zero order	A. Decomposition ofN2O5 B. Formation of Glucose in plant C. Formation of FeI2 D. Chorination of methane in sunlight
833	The order of reaction provides valuable information about of reaction	A. Condition B. Concentration C. Mechanism D. Parameters
834	Spectrometry method is applicable if a reactant or a product absorbs radiation	A. Ultraviolet B. Visible C. Infrared D. Any of these
835	In dilatometric method is directly proportional to extent of reaction	A. Change in concentration B. Change in pressure C. Chang in volume D. Change in temperature
836	If reactants are conductor of electricity, then method is used to measure the change in concentration of reaction	A. Optical rotation B. Refractrometric C. Dilatometric D. Electrical conductivity
837	The conversion of molecules of A to B follows a second order kineties. Doubling the concentration of A will inerease the rate of formation of B by a factor of	A. 2 B. 4 C. 1/2 D. 1/4
838	The rate of reaction between A and B increases by a factor of 100, when the concentration of A is increased 10 folds, the order of reaction with respect to A is	A. 10 B. 1 C. 4 D. 2
839	In the reaction A+B→ Products, if B is taken in excess, then it is an example of	A. Second order reaction B. zero order reaction C. Pseudo first order reaction D. first order reaction
840	The number of atoms or molecules whose concentrations determines the rate of a chemical reaction is called the	A. Molecularity of the reaction B. specific activity of the reaction C. Order of the reaction D. rate constant of the reaction
841	Unit of the rate constant depends upon the	A. Molecularity of reaction B. Order of reaction C. Concentration terms D. Number of reactants
842	Which property of liquid is measured by polarimeter	A. Conductance B. Optical activity C. Refractiye Indéx D. Change in volume
843	The slope of the graph is steepest at the beginning of reaction showing	A. Rapid decrease in concentration of reactants B. Rapid increase in concentration of reactants C. Fast rate of reaction D. All of the above
844	When does average rate become equal to instantaneous rate of reaction	A. At the start of reaction B. time interval is zero C. at the end of reactior D. time interval approaches zero
		A. First order

845	A reaction A- B is independent of concentration of reactant A. The order of reaction will be	B. Second order C. Third order D. Zero order
846	For a chemical reaction in which one of the reactant also act as solvent, the order will be	A. First order B. Third order C. Second order D. pseudo-first order
847	The study of which one of the followings guides to the mechanism of the reaction	A. Order of reaction B. Rate of reaction C. Half-life period of reaction D. Rate determining step
848	Substance which is formed as well as consumed during a chemical reaction and have temporary existence.	A. Reactant B. product C. Catalyst D. Intermediate
849	The collision which results in chemical reaction	A. Effective collision B. Ineffective collision C. Useless collision D. All of the above
850	The radioactive disintegration of 238U92 is	A. First order B. Second order C. Third order D. Zero order
851	All the Hydrolytic reactions are	A. First order B. Second order C. Third order D. pseudo-first order
852	Amount of product formed increases with time, this statement is true for reactions-------with kinetics	A. 1s order B. 3rd order C. zero order D. Any order
853	Higher the surface area available for reaction	A. slower the reaction B. faster the reaction C. constant the reaction D. lower the Ea
854	When the concentration of reactants is taken as unity the rate of reaction is equal to	A. average rate B. concentratian of reactant C. instantaneous rate D. specific rate constant
855	Doubling the pressure in a liquid phase reaction	A. Will double the rex B. Will increase the rex C. Will decrease the rex D. Will not alter the concentration of reactant
856	Half-lives required to convert 100% reactant to produet for a first order reaction are	A. 10 B. 1000 C. 100 D. Infinity
857	The reaction takes place among the molecules when they have:	A. Activation energy B. Properly oriented C. Concentrated D. Activation energy and proper orientation
858	Which of the following statement about the order of reaction is true?	A. The order of reaction can only be determined by experiment B. a second order reaction is also bimolecular C. The order of reaction is always non-zero D. The order of reaction increases with increasing temperature
859	For reaction of methane and chlorine light is not available then	A. Reaction will take place rapidly B. No Reaction take place C. Reaction occurs at double the rate D. May all cases occur
860	If the reaction "P+Q→R+S' is deseribed as being of zero order with respect to P, it means that	A. P is catalyst in this reaction B. P molecules do not possess sufficient energy to react C. The concentration of P does not change during the reaction D. The rate of reaction is independent of the concentration of P
861	If the rate of the reaction is equal to the rate constant, the order of the reaction is	A. 3 B. 1 C. 0 D. 2
862	For a chemical reaction which can never be a fractional no	A. order B. molecularity C. half-life D. rate constant

863	In which of the following techniques rate of reaction is directly related with number ofions	A. Spectrometry B. Dilatometric method C. Conductometric method D. Refractometric method
864	Rate of which reaction increases with temperature?	A. Exothermic and endothermic reactions B. Endothermic reactions C. Exothermic reactions D. None of these
865	Which of the following reactions are usually slow?	A. Neutralization of acids and bases B. Displacement Reactions C. Organic substitution reaction D. Free radical reactions
866	For a chemical reaction to occur	A. The vessel shall be open B. Reacting molecules should have less energy than Ea at time of collision C. Reacting molecules must be properly oriented and energy more than or equal to Ea D. The reacting molecules must not collide with each other
867	The increase in reaction rate as a result of increase in temperature from 10K to 90K is	A. 512 B. 256 C. 400 D. 112
868	By increasing the concentration of reactants, the rate of reaction	A. Decreases B. Increases C. Remains constant D. Not predicted
869	If the energy of the activated complex lies close to energy of reactants, it means that reaction is	A. Slow B. Exothermic C. Endothermic D. Exothermic and fast
870	Enthalpy of neutralization of strong acids and strong bases have same values because	A. Neutralization leads to the formation of salt and water B. Acids always give rise to H+ and bases always furnish OH- C. Strong acids and bases are ionic substances D. The net change involves the combination of H and OH ions to form water
871	For an endothermic reaction, enthalpy of reactants	A. Is smaller than that of the products B. Is greater than that of the products C. Must be greater or smaller than that of the products D. Is equal to that of the products
872	Which of the following has positive value of enthalpy	A. Neutralisation B. Atomization C. combustion D. All of the above
873	The net heat change in a chemical reaction is the same whether it is brought about in two or more different ways in one or several steps.it is known as	A. Henry's law B. Hess's law C. joule's law D. Law of conservation of energy
874	Hess's law is analogous to	A. Law of heat summation B. law of increasing entropy C. Law of heat exchange D. Ist law of thermodynamics
875	NaOH+HCl- NaCl+ H2O. Enthalpy change in the above reaction is called	A. Enthalpy of reaction B. Enthalpy of Neutralisation C. Enthalpy of formation D. Enthalpy of combustion
876	If a reaction involves only solids and liquids, which of the following is true?	A. ΔH = ΔE B. ΔH =ΔE C. ΔH>ΔE D. AH =AE +nRT
877	Calorie is equivalent to	A. 0.4184J B. 4.184J C. 418.4J D. 40.18J
878	The values of ΔH for the process I(g)+e-1---------> I-1(g) is:	A. >0 B. <0 C. 0 D. None
879	The enthalpy of formation of a compound is	A. Positive B. Either positive or negative C. Negative D. None
880	What is correct about heat of combustion	A. It is applicable to gaseous substances only B. It is always negative C. It is always positive

		D. It is positive in some cases while negative in other
881	What is not correct about ΔHF	A. It is always negative B. İts value gives an idea about the relative stability of reactants and the products. C. Its value can be greater or less than zero D. Value depends upon nature of bonds
882	If an endothermic reaction is allowed to take place very rapidly in air, the temperature of the surrounding air will	A. Remains constant B. Increase C. Decrease D. Either increase or decrease E. One Joule is equivalent to
883	One Joule is equivalent to	A. 4.184 cal. B. 0.4184cal. C. 1/2 cal. D. 1/4.184 cal
884	The heat of reaction depends upon	A. Temperature of the reactants B. Physical states of the reactants and the products C. Both A) and B) D. Path of the reaction and the temperature
885	The exothermic process is	A. Evaporation B. Sublimation C. Respiration D. Boiling
886	During an exothermic or endothermic reaction which one of the following formula is used to calculate the amount of heat evolved or absorbed	A. ΔH = ΔE+PV B. ΔE= q+w C. Δp =ΔH D. q = m x s x ΔT
887	Most of the reactions which give stable products are	A. Endothermic B. Exothermic C. Isothermal D. Non of these
888	The measurement of enthalpy change at standard conditions means that we should manage the measurement at	A. 24°C at 1 atm B. 25°C at 1 atm C. 0C° at 1 atm D. 100C° 1 atm
889	Total heat content of a system is called	A. Internal energy B. Entropy C. Enthalpy D. All of these
890	The enthalpies of all elements in their standard states are	A. Unity B. always +ve C. always -ve D. zero
891	A state function which describes together the internal energy and product of pressure and volume is called	A. Enthalpy B. internal energy C. Work D. Kinetic energy
892	The enthalpy change for the reaction $C_2H_2 + 5/2\ O_2$ -------> $2CO_2 + H_2O$ is known as enthalpy of	A. Fomation of CO_2 B. Fusion ofC_2H_4 C. Combustion of C_2H_4 D. Vaporization of C_2H_2
893	The value of ΔV being very small. The term PΔV can be neglected for process involving	A. Liquid and gas B. Solids and gases C. Liquid and solid D. None of these
894	The lattice energy of NaCl is	A. 787 j/ mole B. 790 kj/mol C. 780 kJ/ mol D. -787 kI / mole
895	Decomposition of H_2O is	A. Endothermic reaction B. Nuclear reaction C. Exothermic reaction D. Zero nuclear reaction
896	According to Hess's law, the enthalpy change for a reaction	A. Depends on path B. Independent of the path C. The sum of ΔE and ΔH D. None of these
897	Enthalpy of formation of one mole of ionic compound form gaseous ion under standard condition is called	A. Gibb's energy B. Gibb's energy C. Bond energy D. Lattice energy

		D. Lattice energy
898	Choose from the followings the correct statement about Born Haber cycle	A. Born Haber cycle is different from Hess's law B. The energy changes in a cyclic process is not zero C. The lattice energy of crystalline substances can be calculated easily D. None
899	Change in enthalpy (ΔH) of a system can be calculated by	A. ΔH=ΔE - PV B. ΔH =ΔE +q C. ΔH = ΔE - q D. ΔH = ΔE + PΔV
900	If internal energy of the system is increased	A. Change in state of the system may occur B. Temperature of the system may rise C. Chemical reaction may take place D. All of these
901	Enthalpy of a reaction can be measured by	A. Glass calorimeter B. Barometer C. Manometer D. Thermometer
902	In order to determine ΔH (latt) of ionic compound which is correct relationship	A. ΔH latt. = ΔHf - ΔHx B. ΔH latt. = ΔHa + ΔHv C. ΔH latt. = ΔHf + ΔHx D. ΔH latt. = ΔHf - ΔH sol.
903	Enthalpy of neutralization (ΔH°n) per mole of H2SO4/ Ba(OH)2 is	A. +57.4 kJmol-1 B. -114.8 kJmol-1 C. -57.4 kJmol-1 D. -57.4 kJmol-1
904	Whenever a reaction is endothermic, then it means that	A. Heat is transferred system to the surrounding B. Heat is transferred from surrounding to the system C. Heat content of the products is less than that of reactants D. Heat content of the reactants is greater than the products
905	How much heat is absorbed by 100 g of water when its temperature decreases from 25°C to 5°C? (heat capacity is 4.2 J/gK)	A. 84,000J B. 2000/4.2J C. -2000/4.2j D. -8400J
906	One of the best applications of Hess's law to calculate the lattice energy of ionic compound is	A. Measurement of enthalpy change in a calorimeter B. Studying of first law of thermodynamics C. Measurement of a heat of formation of a compound D. Born-Haber cycle
907	Enthalpy of a system can be calculated by which of following relationship	A. q=ΔE B. q=m×S×ΔT C. q=pv D. q=m×v×ΔT
908	Which of the following processes has always. ΔH=-ve	A. Formation of compound B. Dilution of a solution C. Dissolution of ionic compound D. Combustion
909	ΔH=ΔE is true for which of the following reaction	A. K+H2O----->KOH+H2 B. N2+3H2------>2NH3 C. AlCl3+3NaOH--->Al(OH)3+3 NaCl D. 4Na + O2----->2Na2O
910	One kilo calorie is equal to	A. 4.184J B. 1000J C. 4184J D. 1kJ
911	By convention, the standard heat of formation of all elements is assumed to be	A. Zero B. positive C. Negative D. Infinity
912	The change in enthalpy of a system when one mole of the substance is completely burnt in excess of air or oxygen is called	A. Heat of reaction B. Heat of formation C. Heat of atomization D. Heat of combustion
913	Which of the following enthalpy change always have a negative value	A. ΔHf B. ΔH sol C. ΔHc D. ΔHat
914	The change in enthalpy when one mole of a substance is dissolved in a specified quantity of solvent at a given temperature is called	A. Heat of reaction B. Heat of solvation C. Heat of combustion D. Heat of solvent
915	Neutralization of acid-base is	A. Spontaneous B. Exothermic

		C. Non spontaneous D. Both "a" and "c
916	Born-Haber cycle is an application of	A. Hess's law B. 1" law of thermodynamics C. Avogadro's law D. 1law of thermochemistry
917	ΔH° represent the enthalpy change at	A. 0°C and 1 atm pressure B. 25°Cand 1atm C. 0K and I atm pressure D. 25°C and 2 atm pressure
918	The enthalpy change AH of a process is given by the relation	A. ΔH =ΔE + PΔV B. ΔH=ΔE +W C. ΔH =ΔE-ΔnRT D. ΔE =ΔH + PΔV
919	A system absorbs 100 kJ heat and performs 50 kJ work on the surroundings. The increase in internal energy of the system is	A. 50kJ B. 100 kJ C. 150kJ D. 5000 kJ
920	The element which has greatest value of Reduction potential is used as	A. Strongest reducing agent B. Weak oxidizing and strong reducing agent C. Strongest oxidizing agent D. None of these
921	If Cl2 is passed through hot NaOH. NaClO3 is formed and the oxidation number of Cl changes from	A. -1 to 0 B. 0 to +5 C. 0 to-1 D. 0 to +1
922	The emf produced by galvanic cell is called	A. Cell potential B. Oxidation potential C. Redox potential D. Reduction potential
923	Stronger the oxidizing agent, higher is	A. Redox potential B. Standard reduction potential C. Reduction potential D. _{Oxidation potemial}
924	Which of following is oxidation state of oxygen in peroxides?	A. -2 B. 1/2 C. -1 D. +2
925	The reduction potentials of non-metals are A =+0.54V, B=+1.08V, C=+1.36V. D= +2.87V Which non -metal can displace all other from aqucous solution of their salts	A. A B. C C. B D. D
926	By the electrolysis of CuCl2 using inert electrodes of platinum which species is deposited at cathode	A. H2 B. O2 C. Cu D. Cl
927	Which of the following statements is not correct about galvanic cell?	A. Anode is negatively charged B. Cathode is positively charged C. Reduction occurs at anode D. Reduction occurs at cathode
928	If a strip of Cu metal is placed in a solution of FeSO4	A. Cu will be deposited B. Cu and Fe both dissolve C. Fe is precipitated out D. No reaction take place
929	Which of the following is an application of electrochemical series	A. Prediction of the feasibility of chemical reaction B. Calculation of the cell voltage C. Prediction of reaction of metal with dilute acid D. All of the above
930	Electrolytic products of dilute aqueous solution of sodium sulphate is	A. Na. SO2 B. H2. S02 C. Na. O2 D. H2,O2
931	Which of the following salts would give the same products irrespective of whether its molten form or concentrated aqueous solution is electrolysed?	A. Magnesium bromide B. Magnesium sulphate C. Copper sulphate D. Copper chloride
932	Zinc reacts with dilute acids to liberate hydrogen. This is because:	A. Zn2+ ion is a powertul osidising agent than H' ion B. H+ ion is a powerful oxidising agent than Zn ion C. Zn2+ ion is a powerful reducing agent than H' ion D. H+' ion is a powerful reducing agent than Zn- ian
	Molten lead and iead (II) bromide both conduct	A. Both undergo chemical change when they conduct

933	electricity. Which one of the following statements relating to this is true?	B. Both conduct by the movement of charge particles C. Both will also conduct in the solid state D. Both contain mobile electrons
934	The cell which converts electrical energy to chemical energy is called	A. Electrochemical cell B. Voltaic cell C. Galvanic cell D. Down's cell
935	The potential difference set up at 25 C and 1 atm when clectrode is dipped m Tis one molar ionic sohution is called	A. Single electrode potential B. electrode potential C. Standard electrode potential D. Standard hydrogen electrode
936	On ascending the electrochemical series strength as reducing agent	A. Increases B. Decreases C. Remains same D. not determinable
937	When a metal rod is dipped in its one molar ionie solution	A. Electricity is produced B. Electricity is consumed C. Redox reaction occurs D. Potential difference is set up
938	The standard reduction potential of Zinc is	A. 0.76V B. 0.34 C. -0.34V D. -0.76V
939	Which one of the following metals can replace the Copper from aqueous solution of its salt more easily?	A. Cd B. Fe C. Zn D. Na
940	Only those metals can replace Hydrogen from dilute acids, which have	A. High negative reduction potential B. Low negative reduction potential C. High positive reduction potential D. low positive reduction potential
941	Coinage metals Cu. Ag, and Au are the least reactive because they have	A. Negative reduction potential B. Positive reduction potential C. Negative oxidation potential D. Positive oxidation potential
942	The products of electrolysis of which of the followings are known	A. Fused electrolyte B. Aqueous solution of eleetrolyte C. Solid electrolyte D. Solid metal
943	During the electrolysis of Fused NaCl, the products are	A. Na and H2 B. Na and Cl2 C. Na and O2 D. H2 and Cl2
944	The electrochemical reactions occurring at both the electrodes along with the electrolytic conduction constitute	A. Oxidation B. reduction C. Redox reaction D. electrolysis
945	The working condition/s for SHE	A. 1atm pressure B. 1M H-solution C. 298K temperature D. All of these
946	The potential of SHE is taken as zero which is avalue	A. Reference B. Arbitrary C. Exact D. Experimental
947	The electrochemical series is based on	A. pH scale B. Redox scale C. Hdrogen scale D. Arrhenius scale
948	SHE acts as anode when connected with Cu electrode but act as cathode with Zn electrode	A. Zn has less reduction potential than hydrogen and Cu B. Zn has high reductionl potential than hydrogen and Cu C. Zn is below electrochemical series than hydrogen and Cu D. Zn has least tendency to lose electron
949	If a salt bridge is removed from two half cells the emf is	A. Increased B. Decreased C. Dropped to zero D. Electrodes will be reversed
950	The element with highest E°red	A. N B. F C. O

		D. Cl
951	The reaction which is responsible for the production of electricity in the voltaic cell is	A. Hydrolysis B. Oxidation C. Reduction D. Redox
952	In all oxidation reactions, atoms of an element in a chemical species lose electrons and increases their	A. Oxidation states B. Reduction states C. Electrode D. Negative charges
953	In MgCl2, the oxidation state ofCl is	A. Zero B. -2 C. +2 D. -1
954	In SO_4^{-2} the oxidation number of sulphur is	A. -8 B. -6 C. +8 D. +6
955	The common oxidation number of halogens is	A. -1 B. +1 C. -2 D. 0
956	The oxidation state of carbon in $C_2O_4^{-2}$ is	A. +4 B. -4 C. +3 D. +2
957	The value of oxidation number of chlorine in HClOs is	A. +7 B. +5 C. -1 D. +3
958	In voltaic cell a saht bridge is used in order to	A. Pass the electric current B. Prevent the flow of ions C. Mix solutions of two half cells D. Allow movement of' ions between two cells
959	In an electrochemical series, elements are arranged on the basis of	A. pH scale B. pKa scale C. pOH scale D. Hydrogen scale
960	The standard electrode potential of hydrogen is arbitrarily taken at 298k is	A. 1.00volt B. 0.10 volt C. 0.00 volt D. 10.0 volt
961	Coinage metals Cu, Ag and Au are the least reactive because they have	A. Negative reduction potential B. Negative oxidation potential C. Positive reduction potential D. Positive oxidation potential
962	During oxidation process, oxidation number of an element	A. Decreases B. Increases C. Remains constant D. Both a and b
963	Stronger is the oxidizing agent, stronger is the	A. emf of cell B. Oxidation potential C. Reduction potential D. Reduction potential
964	Which of the following metal does not liberate hydrogen on reaction with acid?	A. Mg B. Pt C. Zn D. Ca
965	Which one of the following elements is the strongest reducing agent?	A. Chlorine B. Sodium C. Magnesium D. Aluminium
966	Rusting of iron metal Fe occurs when Fe gets converted into Fe2O3 What happen with Fe?	A. F'e is neutralized B. Fe is sublimed C. Fe is reduced D. Fe is oxidized
967	During space flights, astronauts ohlained water from	A. Nickel cadmium cells B. Lead accumulator C. Fuel Cell D. Alkaline battery

968	The electrolyte used in fuel cell is	A. KOH B. NaCl(aq) C. NaNO3 D. Molten NaCl
969	Which of the following molecules has angel of 120°	A. BeCl2 B. BF3 C. CH4 D. NH3
970	Which of the following bonds is not present in NH4CL	A. Ionic bond B. Covalent bond C. Co-ordinate covalent bond D. De-localized covalent bond
971	Most reactive among the following	A. Li B. Mg C. Ca D. Na
972	Geometry of NH3 is	A. ^{Tetrahedral} B. Square planer C. Pyramidal D. Linear
973	Which molecule is least ionic"	A. NaCl B. HCL C. HF D. CsF
974	In which molecule. all atoms are coplanar?	A. CH4 B. BF3 C. NH3 D. PH3
975	Total number of valence electrons in CH4	A. 8 B. 9 C. 10 D. 12
976	Which of the following best describes the shape and polarity of the carbon disulphide molecule?	A. Bent and polar B. Linear and non-polar C. Pyramidal and polar D. Bent and non-polar
977	Energy of atom in compound is	A. Higher than individual atom B. Lower than individual atom C. equal to individual atom D. Impossible to predict
978	Bond will be covalent when electronegativity difference of bonded atom is	A. Equal to 1.7 B. between 0.5 to l.7 C. Greater to 1.7 D. zero
979	Mostly ionic compounds are produced between elements of group	A. IA and IIA B. IB and VIB C. IA. IIA and VII-A D. IA and IB
980	Which one of the followings has polar covalent bonds hut is overall nom-polar molecule:	A. HF B. CO₂ C. CH₄ D. N₂
981	Geometry of simple molecule with sp2 hybridization	A. Triangular planar B. Trigonal C. Square planner D. Pyramidal
982	Carbon-Carbon double bond length in C3H6	A. 154 pm B. 134 pm C. 120 pm D. 105 pm
983	Polarity of a molecule is expressed in terms of	A. Bond strength B. Dipole moment C. Bond length D. Shape
984	A covalent bond may be	A. 100% covalent B. Partial ionic C. 100% ionic D. Both a and b
985	Bonding in MgO is an example of	A. Ionic bond B. Polar bond C. Covalent bond

		C. Covalent bond D. Coordination covalent bond
986	Covalent bonds are	A. directional B. Bidirectional C. Multidirectional D. Non directional
987	Energy required to remove electron from an atom	A. Ionization potential B. Electronegativity C. Electropositivity D. Electron affinity
988	Greater shielding effect corresponds to ionization potential value	A. greater B. lesser C. remain same D. no effect
989	Elements having high ionization potential values are	A. metals B. non- metal C. liquids D. solid
990	Ionic bond is produced after complete transfer of	A. nucleus B. neutrons C. electrons D. protons
991	Elements of group IA and IIA are	A. electronegative B. neutral C. electropositive D. non-metals
992	Total number of valence electrons in phosphonium ion (PH4-) is	A. 8 B. 9 C. 12 D. 10
993	pi-bond can be formed by sideways overlap of	A. s-orbital B. d-orbital C. p-orbital D. sp orbital
994	what is the exact value of angle in BF3	A. 90 B. 104.51 C. 119.5 D. 120°
995	Octet rule is not allowed in the formation of	A. NF3 B. B.CF4 C. CCl4 D. PCl5
996	The ionization energy	A. generally increases from left to right in a period B. increases from top to bottom in a group C. does not change in a period D. does not change in a group
997	In a period the atomic radii	A. increase B. decrease C. remain same D. first increase, then decreased
998	In a group, the atomic radii from top to bottom	A. increase B. decrease C. don't change D. show variable trend
999	A molecule that has polar bonds but is overall non - polar	A. IF B. CCl4 C. PCl3 D. All
1000	The no. of lp's on oxygen in CO are	A. 1 B. 3 C. 4 D. 2
1001	Which one is a non-polar compound?	A. SnCl2 B. PH3 C. Gecl4 D. H2O
1002	What is true for a molecule with standard geometry	A. It lacks a lp B. It can't be a donor C. It can be an acceptor D. All
		A. it has positive charge B. The central atom is not electron deficient

1003	H3O+ can't accept a lp because	B. The central atom is not electron deficient C. The shell of oxygen has reached its limit D. it already has a coordinate bond
1004	What is not true for NH4Cl	A. It has ionic bond B. It has covalent bond C. It has coordinate bond D. It has hydrogen bond
1005	At compromise distance the forces dominating between atoms are	A. repulsive forces B. attractive forces C. Dipole induced dipole force D. H-bonding
1006	Low IE is a symbol of	A. high electronegativity B. small size C. High electron affinity D. Metallic character
1007	Which one of the following has zero dipole moment	A. NH3 B. CHCl3 C. H2O D. BF3
1008	Among the following molecules, which one has coordinate covalent (dative) bond?	A. CCl4 B. CO2 C. CO D. CH4
1009	Which of the following molecule has zero dipole moment?	A. PCl3 B. BF3 C. NH3 D. H2O
1010	For formation of ionic bond, electronegativity difference should be	A. Equal to zero B. Equal to 0.5 C. More then 1.7 D. Less than 1.7
1011	The ionization energy of hydrogen atom is	A. Zero B. 131.3kJmole C. 13.13kJ/mole D. 1313kJ/mole
1012	The elements for which the value of ionization energy is low can	A. Gain electrons readily B. Lose electron less readily C. Gain electrons with difficulty D. Lose electron readily
1013	The shielding effect of inner electron is responsible for	A. Having no effect on ionization energy B. Decreasing ionization energy C. Increasing ionization energy D. Increasing electronegativity
1014	What will be the shape of a molecule which containstwo sigma bond pairs and one lone pair?	A. Linear B. V shape C. Tetragonal D. Triangular
1015	A molecule which contains two lone pairs and two bond pairs of electrons in valence shell of central atom, geometrical shape of molecules will be	A. Tetrahedral B. Trigonal pyramidal C. Angular D. Linear
1016	Which one of the following elements is not an alkali metal?	A. Na B. Sr C. Cs D. Rb
1017	Which one of following property is not true about alkali metals?	A. Strongest bases due to their hydrides B. Low ionization energy C. Oxidation number more than +1 D. Form acidic oxides
1018	Lithium differs from rest of members of its group due to which of following reasons	A. High E.N of Li+1 B. Small radius C. High charge density D. All above are correct
1019	One of the following metals is the most reactive and form super oxide. Indicate that	A. Mg B. K C. Be D. Li
1020	Which is the least reactive of all the alkali metals	A. Li B. Na C. K D. Cs
		A. neutral

1021	The elements of group I-A react violently with water and make the solution	A. neutral B. amphoteric C. acidic D. alkaline
1022	Which of the following does not give flame test?	A. Li B. Ba C. Mg D. Sr
1023	Which one of the following elements is most electropositive out of group I -A and II-A group?	A. K B. Mg C. Na D. Ca
1024	Which set of elements is good loser of electrons	A. F2. Cl2, Br2 B. N, P. As C. O. S, Se D. Li, Na, K
1025	Which of the following are not known to form compounds in more than one oxidation state?	A. Transition metals B. Halogens C. Alkali metals D. Noble gases
1026	Which of the following belongs to alkaline earth metals	A. Cu B. Zn C. Sn D. Mg
1027	Compared with alkaline earth metals, the alkali metals exhibit.	A. lower ionization energies B. greater hardness C. high boiling point D. smaller ionic radii
1028	Li resembles with Mg, because	A. the ratio of their charge to size is nearly the same B. both have nearly same size C. both are metallic in nature D. both are found together in nature
1029	Soda lime is often employed to remove both	A. H2O and NO2 B. CO2, and NO2, C. H2O and CO2 D. H2S and CO2
1030	Elements of group II-A are called	A. f-block elements B. s-block elements C. p-block elements D. d-block elements
1031	The alkaline earth metals are called so because they	A. form alkaline solution and are present in earth crust as minerals B. form alkaline solution and are found in nature states C. are present in earth crust D. are present in earth crust as their minerals
1032	Which element differs from rest of elements of its group?	A. Ba B. Mg C. Ca D. Be
1033	Beryllium differs from other elements of group II-A due to	A. high charge density B. comparatively high nuclear charge C. small radius D. all above
1034	Which of the following configurations corresponds to alkaline earth metals?	A. [Ar] 3d10, 4s2 B. [Ne] 3d2, 3p2 C. [Ar] 4s2 D. [Ar], 3d10, 4s1
1035	Elements of II-A group are called alkaline earth metals due to the reason that	A. they occur in earth only B. they form divalent cations only C. they have ns2 electronic configuration D. their oxides and hydroxides are alkaline in nature and metals are present in earth crust
1036	Plaster of Paris is obtained from	A. marble B. bauxite C. gypsum D. limestone
1037	Asbestos is commonly used in making	A. wall board B. black board C. soft board D. hard board
1038	One of the following does not give the flame test. Which is that	A. Sr B. Ba C. Be

		D. Na
1039	How magnesium reacts with water?	A. In frozen ice water B. With cold water C. In with steam D. In hot state
1040	Which of the following element has high m.p and b.p, it acts as a reducing agent, and can react with bases?	A. Sr B. Ca C. Be D. Mg
1041	Which alkaline earth metal makes peroxide?	A. Ba B. Be C. Mg D. Ca
1042	Corrundam is ore of which element?	A. Al B. Th C. In D. Mg
1043	What is the formula of bauxite?	A. Al2O3.2H2O B. Al2O3 C. Na2B4O7 .10 H2O D. Ca2B6O11. 5H2O
1044	What is the formula of cryolite?	A. Al2O3.2H2O B. Na2B4O7 .10 H2O C. Na3AlF6 D. Ca2B6O11. 5H2O
1045	What is the formula of clay?	A. Asbestos B. Talc C. H2Al2(SiO4)2.H2O D. Na2SiO3
1046	Formula of sodium beryllite is	A. Na2B4O7 B. Na2BeO2 C. BeONa D. Na2B4O7 .10 H2O
1047	Which is not mineral of Al?	A. Diaspore B. Corrundam C. Bauxite D. Galena
1048	What is the formula of dolomite?	A. CaMg3 (SiO3)4 B. MgCO3 C. MgCO3.CaCO3, D. MgSO4
1049	What is the formula of magnesite?	A. PbS B. MgSO4. 7H2O C. MgCO3 D. CaCO3
1050	What is the formula of talc or soapstone?	A. Na2B4O7.10H2O B. H2Mg3(SiO3)4 C. Cu2S D. NaNO3
1051	About 25% of earth crust mass is made up of element	A. Oxygen B. Silicon C. Aluminium D. Aluminates
1052	What is name of hydrated variety of quartz?	A. Rose quartz B. Smokey quartz C. Silica D. Opal
1053	What is the formula of silica?	A. Si2O3 B. SiO2 C. Si3O4 D. SiO-
1054	The general electronic configuration of group IV-A elements is	A. ns2, np6 B. ns2, np4 C. ns2, np3 D. ns2, np2
1055	Elements of group IV-A are	A. neither strongly electropositive nor strongly electronegative B. strongly electropositive C. strongly electronegative D. none of these
		A. C

1056	The element which exhibits maximum catenation property is	B. Pb C. Ge D. Sn
1057	Which of the following elements is most metallic	A. Bi B. sb C. As D. P
1058	Which pair of following pair is metalloid?	A. Antimony and bismuth B. Phosphorous and arsenic C. Nitrogen and phosphorous D. Arsenic and antimony
1059	Which one of the following doesn't exhibit allotropy?	A. Bi B. As C. N D. P
1060	Which element of group V-A and VII-A does not use d-orbital?	A. Nitrogen B. Sulphur C. Arsenic D. Chlorine
1061	Which of the following compounds is not known?	A. SbCl B. NCl3 C. Nl3 D. NCl5
1062	The reaction between Cu and conc. H2SO4 produces	A. Cu+2 B. SO₂ C. SO₃ D. H₂
1063	Which compound gives carbon when heated with conc. H2SO4.	A. Starch B. Ethyl alcohol C. Oxalic acid D. Formic acid
1064	Which noble gas is used in mixture used for breathing by divers?	A. Ge B. Ar C. Kr D. He
1065	Fluorine is largely used in	A. rocket fuels B. making Teflon C. making freon D. All
1066	D-block elements are also called	A. Non-typical transition element B. Outer transition elements C. Abnormal transition elements D. Inner transition
1067	The strength of binding energy of transition elements depends upon	A. Number of electron pairs B. Number of unpaired electrons C. Number of neutrons D. Number of protons
1068	Group VIB of transition elements contains	A. Zn. Cd. Hg B. Cr. Mo, w C. Fe. Ru, Os D. Mn. Te. Re
1069	Stability of Cu-metal is due to filled of d-orbital	A. Half B. Completely C. Partially D. Quarterly
1070	Group of element belongs to IIB group	A. Zn. Cd. Hg B. Cu. Ag. Au C. Sc. Y. La D. Ni. Pd. Pt
1071	Which of the following shows group IIIB	A. Zn, Cd. Hg B. Cu. Ag. Au C. Sc. Y. La D. Ni. Pd. Pt
1072	All 3d series elements show an oxidation state of oxidation state	A. +1 B. +2 C. +3 D. Zero
1073	The maximum oxidation state of Mn is	A. +6 B. +7 C. +5 D. +4

1074	A transition element X has a configuration [Ar) 4s3dd in its +3 oxidation state. Its atomic number is	A. 25 B. 26 C. 22 D. 19
1075	Paramagnetic behaviour is caused by the presence of	A. Unpaired electrons B. Paired electrons C. Paired protons D. Paired electrons in an atom. molecule or ion
1076	The number of unpaired electrons present in Fe ions is	A. 1 B. 2 C. 5 D. 0
1077	Zn has	A. Zero unpaired electrons B. Three unpaired electrons C. Five unpaired electrons D. One paired electrons
1078	Electrons in 5d energy level are filled up in case of	A. Lanthanides B. Transition metals C. Actinides D. Rare gases
1079	Highest oxidation state af the transition elements is	A. +8 B. +7 C. +5 D. +1
1080	When light is exposed to a typical transition element, then electrons jumps from low orbitals to higher orbitals in	A. f-orbitals B. s-orbitals C. p-orbitals D. d-orbitals
1081	Which of the following is a non-typical transition element?	A. Cr B. Zn C. Mn D. Fe
1082	In the electronic configuration of Cr one electron from 4s sub-shell is transferred to 3d sub-shell because	A. The 3d orbital is of lower energy than 4s B. The half-filled d-subshell is more stable than 4 electrons having d-subshell C. The 4s orbital is of equal energy to 3d orbital D. 6 unpaired electron make Cr more paramagnetic
1083	In [Ti (H2O)]3+ which colour is transmitted	A. Yellow B. Blue and red C. Blue and yellow D. red and yellow
1084	which of the following d blocks element can showthe highest oxidation number is its ompound	A. Chromium B. iron C. Copper D. Manganese
1085	Oxidation state of Mn' in KMnO4. K2MnO4, MnO2 and MnSO4 is in the order	A. +7.+6.+2,+4 B. +6,+7,+2,+4 C. +7. +6.+4.+2 D. +4, +6, +7,+2
1086	Which pair of transition elements shows abnormal electronic configuration?	A. Sc and Zn B. Cu and Sc C. Zn and Cu D. Cu and Cr
1087	which one pair has the same oxidation state of-Fe?	A. FeSO4 and FeCl4 B. FeCl4and FeCl3 C. FeSO4 and FeCl2 D. Fe2(SO4)3 and FeSO4
1088	which of the following is a typical transition metal?	A. Sc B. Y C. Ra D. Co
1089	d-d transition cannot be observed in	A. Cr B. Cu C. Mn D. Zn
1090	Which of the elements has seven electrons in d-subshell?	A. Zn B. Co C. Cu D. Fe
1091	Which ion has maximum number of unpaired electrons in 3d subshell and shows maximum paramagnetic behavior?	A. Cr+3 B. Ni+2 C. Co+2 D. Fe+3

1092	The total number of 3d-series transition elements is	A. 10 B. 40 C. 14 D. 58
1093	Which of these has at least one d electron	A. Sc+3 B. Mn+7 C. Ti+4 D. Cr+3
1094	Which of the following pair has the same no. of electrons in d- subshell	A. Sc+3,Ti+3 B. Mn+2,Fe+3 C. Ti+3,V+3 D. Cr+3.Co+2
1095	No of unpaired electrons are maximum in	A. V+3 B. Mn+2 C. Fe+3 D. Cr+3
1096	Variable Oxidation state of is related to transition elements	A. empty d-subshells B. Completely filled C. Partially filled d-subshell D. d-d transition
1097	What is the sequence of electron take up and removal from 4s orbital a transition metal in 3d series?	A. Enters first, leaves after 3d electrons removal B. Enters after 3d electrons, leaves after 3d electrons C. Enters after 3d eleetrons, leaves first D. Enters first and leaves first
1098	Which of the followings has electronic configuration of Ar in +3 oxidation state	A. Sc B. Mn C. Ti D. Zn
1099	The element which shows highest binding energy	A. V B. T C. So D. Cr
1100	At which oxidation state Cu achieves electronic configuration of Zn+2	A. 0 B. +2 C. +1 D. +3
1101	Zine does not show variable oxidation state, because	A. Its d-subshell is incomplete B. Its d-subshell is complete C. It is relatively soft metal D. It has two electrons in outermost shell
1102	The oxidation state of transition elements is usually	A. Variable B. Single C. Constant D. Infinite
1103	The highest oxidation state of manganese is	A. +7 B. -7 C. +6 D. +4
1104	Which of the folowing compound is expected to be colored	A. Na2SO4 B. ZnCl2 C. MgF₂ D. CuF₂
1105	Which of the following transition metal forms colourless compounds in +4 oxidation state?	A. Ti B. Cr C. Cu D. Zn
1106	Number of electrons involved in d-d transition of [Ti(H2O)6]+3	A. 1 B. 3 C. 2 D. 4
1107	Ti+3 shows minimum absorption (maximum transmittance) at-------and-------wavelength	A. Yellow, Green B. Red. Yellow C. Blue. Green D. Red. Blue
1108	d-d transition cannot be shows by	A. Cu+1 B. Sc+3 C. Zn+2 D. All
1109	When light is exposed to transtion element, then	A. Orbitals of s-subshell B. Orbitals of d-subshell

	electrons jump from lower orbitals to higher orbitals in	C. Orbitals of p-subshell D. between different shells
1110	Catalyst used for ammonia synthesis is	A. Cu B. Co C. Zn D. Fe
1111	TiCl4 is used as catalyst for manufacture of	A. Sulphuric acid B. Plastics C. Ethanol D. Tetraethyl lead
1112	Transition compounds which occur as tripositive ions have no	A. 4s-electron B. 3p-electron C. 3s-electron D. 2s-electron
1113	Which of the following are responsible for the colour developed in transition elements compounds?	A. s-orbitals B. p-orbitals C. d-orbitals D. f-orbitals
1114	The energy difference of d-orbitals varies from	A. Atom to atom B. Ion to ion C. Electron to electron D. proton to proton
1115	[Ti (H20)6]3+ ion isin colour.	A. Yellow B. Blue C. Violet D. Red
1116	The maximum number of isomer for an alkene with the molecular formula C2H8	A. 2 B. 3 C. 4 D. 5
1117	Which of the following compound shows the geometrical isomerism	A. 2-butene B. 2-butyne C. 2-butanol D. Butanol
1118	Nitro alkanes exhibit the:	A. Chain isomerism B. Positional isomerism C. Functional group D. Metamerism
1119	State of hybridization of carbon in the carbocation is	A. sp3 B. sp C. sp2 D. dsp2
1120	2-propanol shows-----isomerism with 1-propanol	A. Chain isomerism B. Positional isomerism C. Metamerism D. Geometrical isomerism
1121	If similar groups are attached to the same side, of C=C of alkene then it is	A. Cis isomer B. Trans isomer C. Tautomer D. All
1122	Indicate the number of open chain isomers of C6H14	A. 4 B. 5 C. 6 D. 7
1123	Ether show the phenomenon of	A. Positional isomerism B. Functional group isomeris C. Meta merism D. Cis trans isomerism
1124	As the number of carbon atoms increases the number of isomers also increase. The 5 C compound pentane has as many as	A. 3 isomers B. 5 isomers C. 6 isomers D. 10 isomers
1125	1-chloropropane and 2.chlorpropane are isomers of each other, the type of isomerism in these two is called	A. Cis-trans isomerisn B. Position isomerism C. Chain isomerism D. Functional group isomerism
1126	Name the compound, which shows geometric isomerism	A. l-bromo-2-chloropropene B. 2.3-dimethy lpropene C. 2-pentene D. Both A & B
		A. Aromatic compounds

1127	Cyclobutane structure is categorized under	B. Aliphatic compounds C. Alicyclic compounds D. Heterocyclic compounds
1128	Butane molecule can have maximum no of isomers	A. 2 B. 5 C. 4 D. 3
1129	Glucose and fructose are isomers	A. Chain isomers B. Position isomers C. Functional group isomers D. Metamers
1130	Which of the compounds cannot show positional isomerism?	A. Alkanes B. Alkenes C. Alkynes D. Alcohols
1131	The hetero atom in py ridine is	A. Oxygen B. Nitrogen C. Chlorine D. Sulphur
1132	A doubly bonded carbon is	A. cannot be sp2 hybridized B. can be sp hybridized C. can attach with three carbons D. can attach with three hydrogens
1133	In homocyclic compounds the ring consists of	A. Carbon and oxygen atoms B. Carbon and nitrogen atoms C. Only carbon atoms D. Carbon atoms with one hetero atom
1134	Alicyclic compounds are the homocyclic compounds which contain a ring of	A. 5 or more carbon atoms B. 6 or more carbon atoms C. 3 or more carbon atoms D. 4 or more carbon atoms
1135	Which one of the following is not an alicyclic compound?	A. Cyclohexene B. Cyclohexane C. Benzene D. Cyclopentane
1136	Which one of the following is an aromatic compound?	A. Benzene B. Thiophene C. Furan D. All of them
1137	Furan is a compound	A. Acyclic B. Alicyclic C. Heterocyclic D. non-aromatic
1138	The bond angle between any two sp hybrid orbitals is A.109.28°	A. 107.09° B. 120° C. 90° D. 80°
1139	Which one of the following does not show isomerism?	A. Propane B. Hexane C. Butane D. Pentane
1140	Butane has isomeric forms	A. 3 B. 4 C. 2 D. 1
1141	The structural isomerism arises due to the difference in the	A. Number of atoms in the molecule B. Arrangements of atoms in the molecule C. Number as well as arrangement of atoms in the molecule D. Spatial arrangement of atoms
1142	How many secondary carbon atoms are present in Methylcylopropand	A. 1 B. 2 C. 3 D. 0
1143	Which of the following is not heterocyclic compound?	A. Naphthalene B. Furan C. Pyridine D. Pyrrole
1144	The aliphatic compounds are of two types	A. Straight chain and cyclic B. Branched chain and alicyclic C. Straight chain and branched D. Homocyclic and alicyclic

1145	Which is not present as heteroatom in heteroeyclie compounds?	A. Sulphur B. Nitrogen C. Oxygen D. Chlorine
1146	Which compounds is alicyclic in nature?	A. Cyclobutane B. Iso-bstand C. n-Butane D. Toluend
1147	Pyridine is an example af	A. Homocyclic compound B. Heterocyclic compound C. Carbocyclic compound D. Aliphatic compound
1148	Anthracene contains number of fused benzene rings	A. 1 B. 2 C. 3 D. 4
1149	The isomerism in which the compounds differ with respect to functional group but have same molecular formula is called	A. Metamerism B. Functional group isomerism C. Position isomerism D. Chain isomerism
1150	Which of the following compounds does not exhibit positional isomerism?	A. Alkynes B. Nitroalkanes C. Carboxylic acid D. Alcohol
1151	Total number of possible chain and positional isomers of butyl alcohol among alcohols are	A. Four B. Five C. Two D. Six
1152	Alkanes do not show geometrical isomerism due to	A. Hyperconjugation B. Resonance C. Rotation around single hond D. Restricted rotation around doubled bond
1153	How many esters are possible for C2H8O2	A. 3 B. 2 C. 4 D. 5
1154	Which class of compound cannot show positional isomerism?	A. Alkanes B. Alkene C. Alkynes D. Alcohol
1155	Which one of the following is a powerful electrophile used to attack on the electrons of benzene ring?	A. FeCl2 B. Cl+ C. FeCl-4 D. Cl2
1156	The heat of hydrogenation of most of the alkene is about	A. 120 kJ/mol B. 100 kJ/mol C. 140 kJ/mol D. 105 kJ/mol
1157	Dehydrohalogenation of alkyl halides happens in the presence of	A. Pd B. Ni C. Zn D. KOH/alcohol
1158	Baever's reagent is misture of	A. HCl& ZnCl B. Ageous bromine C. Alkaline KMn4 D. Mix of Br2&KMnO4
1159	The compound used to distinguish the ethyne and ethene is	A. Alkaline KMnO4 B. Ammonical AgNO3 C. Bromine water D. Tollen's Reagent
1160	Ethylene polymerizes at 100 atm pressure and 400 °C to give	A. Polybenzene B. Polypropylene C. Polyalcohol D. Polyethylene
1161	During the nitration of benzene the nitrating agent is	A. NO3 B. NO2+ C. NO2- D. HNO3
1162	C-H bond length in the benzene is	A. 0.99A° B. 1.09A° C. 1.13A°

		C. 1.12A D. 1.34A°
1163	The pi-electrons in the styrene are	A. 13 B. 10 C. 8 D. 6
1164	Naphthalene has two fused aromatic ring of carbon atom the molecular formula	A. C10H8 B. C10H14 C. C10H10 D. C12H12
1165	Which af the following compound reacts slower than benzene in the electrophilic substitution.	A. Phenol B. Nitrobenzene C. Toluene D. Aniline
1166	Among the following the polycyclic aromatic compound is	A. Styrene B. Naphthalene C. Toluene D. Acetophenone
1167	Benzene has pi electron	A. 2 B. 4 C. 6 D. 8
1168	Benzene in the presence of AlCl3 produces acetophenone when reacts with	A. Acetyl chloride B. Ethyl benzene C. Acetic acid D. Ethanoic acic
1169	The substitution of a'-H' by '-NO2' group in benzene is called	A. Nitration B. Sulphonation C. Ammunolusis D. Reduction of benzene
1170	Addition of unsymmetrical reagent to an unsymmetrical alkene is governed by	A. Cannizzaro's Reaction B. Aldol Condensation C. Kirchhoff Rule D. Markownikov's Rule
1171	Which of the following is electrophile for alkylation?	A. NO+2 B. SO3 C. R+ D. Both a & b
1172	Ethene is produced from ethyl chloride by reacting with alcoholic KOH. The process is called	A. Hydrogenation B. Dehydrogenation C. Dehydrohalogenation D. Oxidation
1173	2-Propenol, on rearrangement, yields	A. Propanal B. Propanone C. 2-propano D. Both A and B
1174	When 1-butene reacts with bromine, the product formed will be	A. 1, 3-dihydroxy butane B. But-1, 2-diol C. 1, 3-dihydroxy butan-diol D. 1,2-dibromo butane
1175	Which of the following tests helps to distinguish between alkyne and alkene?	A. Lucas test B. Tollen's reagent test C. Baeyer's test D. Fehling's solution test
1176	Benzene cannot undergo the ------- directly	A. Substitution reaction B. Addition reaction C. Oxidation reaction D. Elimination reaction
1177	Aniline is the derivative of the benzene containing the	A. Hydroxyl group B. Amino group C. Amido group D. Imido group
1178	Which of the following is not an electrophilic substitutional reaction of benzene?	A. Free radical chlorination of benzene B. Friedel Craft alkylation C. Sulphonation D. Nitration
1179	Substituted phenyl group are called	A. Arene groups B. Alkyl groups C. Aryl groups D. Acyl groups
	The angle between the unhybridized 2pz orbital and	A. 180° B. 120°

1180	The angle between the unhybridized 2p2 orbital and the three sp2 hybrid orbitals in ethene is	B. 120 C. 90° D. 60°
1181	2,5-dimethyl-1-hexene has	A. Two sp2 hybridized carbons B. Six sp2 hybrid carbons C. Two double bonds D. Four pi electrons
1182	Acetylide can give back ethyne upon treatment with	A. water B. strong base C. dil. Acid D. weak base
1183	The reaction that generates an ionic bond is	A. Halogenation of ethene B. polymerization of ethene C. Hydrogenation of ethyne D. Reaction of ethyne withs sodamide
1184	The addition of HCl to ethene gives?	A. Chloroethane B. 1,2-dichloroethane C. 1.1-dichloroethane D. 2-chloroethane
1185	A compound that has a nucleophilic carbon?	A. C2H2 B. C2H4 C. C3H8 D. C6H6
1186	The origin ofacidic nature of alkyne is?	A. small size of C B. Small size of H C. polarity of triple bond D. sp hybridization
1187	Ethane when completely halogenated in excess of chiorine can form	A. Hexachloroethane B. Dichloroethane C. Pentachloroethane D. 1.1.2.2-terachloroethane
1188	Glyoxal molecule has?	A. two carbonyl groups B. One aldehydic and one carbonyl group C. Two aldehydic groups D. Two carboxyl group
1189	Active sulphonating agent during sulphonation of benzene is	A. SO2 B. SO3 C. SO3H D. SO3+
1190	Ethene can give all of the following reactions except	A. Addition B. Free radical substitution C. Hydrohalogenation D. Hydration
1191	Benzene reacts with Ethyl chloride in presence of AlCls to give	A. Benzalchloride B. Benzyl chloride C. Ethyl benzene D. Benzotrichloride
1192	Which group activates the benzene ring	A. -COOH B. -COR C. -CHO D. -OH
1193	The reaction of alkyl halide in the presence of alcoholic KOH is	A. Substitution B. Addition C. Acid-base D. Elimination
1194	Tertiary alcohols are the easiest to dehydrate because	A. They form stable carbocation B. They have less hydrogen C. They have bigger size D. They are polar
1195	Ethyl and methyl groups are equidistant in a chain, the preference is given to?	A. Ethyl B. methyl C. both ethyl and methyl D. methyl mostly
1196	Hydration of ethene is an example of	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
1197	The carbon atom of an alkyl group attached with halogen atom is called	A. Electrophile B. Free redical C. Nucleophile D. Nucleophilic centre

1198	The average bond energy of C-Br is	A. 228 kJmol-1 B. 250 kJmol-1 C. 200 kJmol-1 D. 290 kJmol-1
1199	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
1200	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
1201	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
1202	SN2-reactions can be usually observed in	A. Primary alkylı halide B. secondary alkyl halide C. Tertiary alkyl halide D. Both A. and B
1203	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
1204	An amine is produced in the following reaction C2H5l+2NH3-------C2H5NH2 +NH4l. What is mechanism?	A. Electrophilic addition B. Electrophilic substitution C. Nucleophilic addition D. Nucleophilic substitution
1205	Which is a good nucleophile as well as a good leaving group?	A. F- B. Cl- C. Br- D. I-
1206	Chloroform (CHCl3) is?	A. Primary alkyl halide B. Secondary alkyl halide C. Tertiary alkyl halide D. a liquid
1207	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
1208	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
1209	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
1210	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
1211	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
1212	Which of the following is primary alkyl halide	A. Isopropyl halide B. Sec-butyl halide C. Tert-buryi halide D. Neo-pentyl halide
1213	Elimination unimolecular reactions involve	A. Second order kinetics B. First order kinetics C. Third order kinetics D. Zero order kinetics
1214	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
1215	An alkyl halide reacts with NH3 to give	A. Amide B. Cyanide C. Amine D. Aniline

		D. Aniline
1216	The reaction C2H5Cl + aqueous KOH-------- C2H5OH+ KCl is	A. Electrophilic addition B. Nucleophilic addition C. Electrophilic substitution D. Nucleophilic substitution
1217	Correct statement about Nucleophilic substitution bimolecular is	A. Transition state is formed B. Inversion take place C. It is two step reactcn D. Both a &c
1218	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
1219	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
1220	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
1221	The order of reactivitv of alksl halides towards nucleophile is	A. RI>RBr RF>RCI B. RF>RCI>RBr>RI C. RI>RBr> RCI>RE D. RF>RBr>RCI>RI
1222	Which one of the following is NOT a nucleophile	A. NH2+ B. BF3 C. H2O D. CH3-
1223	Which is an intermediate in SvI	A. Ethoxide ion B. Alkene C. Alkyl halide D. Carbocation
1224	Among the following, which one is nucleophile	A. H+ B. Ca2+ C. OH- D. Na+
1225	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
1226	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
1227	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
1228	Which of the following alkyl halides undergoes SN1 reaction fastest	A. Methyl chloride B. Isobutyl chlorido C. Ethy l chloride D. Tertiary butyl chloride
1229	When 2-bromobutane reacts with alcoholic KOH, the reaction is called	A. Chlorination B. Halogenation C. Dehydrohalogenation D. Hydrogenation
1230	Which compound is obtained hy the elimination reaction on bromoethane?	A. Butene B. Ethene C. Propene D. Propane
1231	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
1232	Which one among the following is not a good leaving group	A. HSO4- B. Cl- C. OH- D. Br-

1233	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
1234	Dehydrohalogenation of secondary butyl bromide will give	A. Propene B. 1-Butene C. Butene D. 2-Butene
1235	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
1236	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
1237	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
1238	Which is an intermediate in SN1 reaction	A. Ethoxide ion B. Carbocation C. alkyl halide D. alkene
1239	In beta elimination reaction	A. carbon number changes B. unsaturated compound is formed C. hybridization. ofC remains same D. pi bonds are decreased
1240	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
1241	To prepare ethane by Wurtz synthesis the suitable alkyl halide is	A. Ethyl iodide B. any alkyl iodide C. Ethyl chloride D. Methyl bromide
1242	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
1243	Which of the following undergoes easy dehydration?	A. 3-Methylbutan-2-ol B. Ethanol C. 2.Methylpropan-2-ol D. Methanol
1244	2,4,6-Trinitrophenol is commonly called as	A. Phthalic acid B. Tartaric acid C. Malonic acid D. Picric acid
1245	Tertiary aleohols producewith acidified KMno,	A. Ketones B. Aldehydes C. Malonic acid D. Alkene
1246	Ethyl alcohol reacts with PCL and produces:	A. Haloalkane B. Alkyl halide & H3PO3, C. Alkyl halide & POCl3 D. Alkyl halides &H3PO4.
1247	A compound z' decolorizes bromine water and produces white ppt. The compound 'z'is	A. Alkane B. Alcohol C. Phenol D. Benzene
1248	Which alcohol is most reactive towards sodium metal?	A. Ter Butyl alcohol B. n-Propyl alcolol C. Isopropyl alcohol D. Have same reactivity
1249	Which is most acidic?	A. H2O B. C2H5OH C. C4H9OH D. CH3-CH2-CH2OH
1250	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
1251	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
1252	Ethanol reacts with sodium metal to liberate	A. CO2 gas B. CO gas C. H2 gas D. Steam
1253	The starting substance for the preparation of iodoform is any of the following, except	A. CH3CH(OH)CH3 B. CH3CH2OH C. HCH2OH D. CH3COCH3
1254	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
1255	Which of the substance is not going to react the sodium metal:	A. Acetic acid B. Methanol C. Di methyl ether D. Ethanol
1256	Phenol can be diatingushed from ethyl alcohol by all of the following reagents except	A. Iodoforrn test B. Na C. Br2 /H2O D. NaOH
1257	Phenol is colourless, crystalline and solid	A. Hygroscopie B. Deliquescent C. Moistening D. Odourless
1258	Phenol is completely soluble in water above	A. 25°C B. 62.3℃ C. 68.5°C D. 66.50°c
1259	Which of the following alcohol is more soluble in H2O	A. Propanol B. Butanol C. Pentanol D. Hexanol
1260	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
1261	Which one of the following is more acidic	A. Phenol B. Carboxylic acid C. Alcohols D. Amines
1262	Which of the following is soluble in water?	A. CH3OH B. CCL4 C. CHCl3 D. CS2
1263	In ethyl alcohol, the bond that undergoes heterolytic cleavage most readily is	A. C-C B. C-O C. C-H D. O-H
1264	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
1265	The dehydration of ethyl alcohol with concentrated H2SO4 at 140°C gives	A. Ethene B. Alcohol C. Diethyl ether D. Carboxylic acid
1266	Primary, secondary aad tertiary alcohols can be identified and distinguished by	A. Lucas test B. Iodoform test C. Baeyer's test D. Silver mirror test
1267	Which one of the following alcohol is indicated by formation of yellow crystals in Iodoform tesr?	A. Methanol B. Ethanol C. Butanol D. Propanol
	Which one of the following groups is indicated when	A. Amino group

1268	Which one of the following groups is indicated when HCl is formed by reaction of ethanol with phosphorous pentachloride?	B. Halide group C. Hydroxyl group D. Hydride group
1269	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
1270	Reaction of alcohol with hydrogen chloride, in the presence of Zinc chloride yields	A. Ketone B. Carboxylic C. Alkyl halide D. Ester
1271	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
1272	During esterifcation, the alcobol molecule acts as:	A. Oxidizing agent B. Electrophile C. Reducing agent D. Nucleophile
1273	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
1274	The strongest conjugate base is	A. OH- B. CH3O- C. C6H5O- D. CH3COO-
1275	The number of resonating structures of phenoxide ion are	A. 3 B. 5 C. 6 D. 4
1276	The synthesis of ethene from ethyl alcohol is a reaction	A. Dehydration B. Polymerization C. Addition D. Substitution
1277	CH3CH2CH2OH--------A---------B Here B is	A. Propyne B. Propanal C. Propene D. Propane
1278	1, 3, 5-Pentanetriol has secondary carbon	A. 3 B. 1 C. 2 D. Zero
1279	Tertiary alcohols have alpha bydrogens	A. 1 B. Zero C. 2 D. 3
1280	The alcohol that does not form curbonyl compound on oxidation	A. Ethanol B. iso-butyl alcohol C. ter-butyl alcohol D. neo pentyl alcohol
1281	Esterification of CH3COOH isreaction	A. Acid base B. Electrophilic C. Redox D. Nucleophilic
1282	The compound that reacts the slowest in Lucas test	A. 1-Pentanol B. sec-butyl alcohol C. 3-Pentanol D. ter- butyl alcoho
1283	Which reactant does hnof liberate water on reaction with alcohol	A. NH3 B. K2Cr2O7/15H2O C. HCl D. PCl3
1284	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
1285	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

1286	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
1287	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
1288	Which will not react with phenol	A. NaOH B. Br2 C. KMn04/OH- D. Na
1289	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
1290	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
1291	Formalin contains-------% alcohol.	A. 37 B. 80 C. 8 D. 52
1292	Acetaldehyde cyanohydrin upon hydrolysis prodnces	A. Tartaric acid B. Malonic acid C. Formic acid D. Lactic acid
1293	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
1294	Which one of the followings is resistant to oxidation under normal conditions	A. Methyl alcohol B. Acetaldehyde C. Ethyl alcohol D. Acetone
1295	Formalin is used as:	A. Fungicide B. Germicide C. Sterilizing of surgical instruments D. All three
1296	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-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
1297	Reactivity of carbonyl compounds is due to	A. Electrophilic carbon B. Less stearic hindrance C. Unsaturation of Co D. Polarity of bond
1298	which of the following is not a symmetrical ketone	A. 4-heptanone B. Butanone C. Propanone D. 3-pentanone
1299	The red brown ppt. of Fehling solution and benedict solution tests are of	A. Ag B. Cu2O C. CuO D. AgBr
1300	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
1301	Which of the following compound is least reactive	A. HCHO B. CH3CHO C. CH3COCH3 D. C6H5CHO
1302	Which of the following does not give yellow precipitate with I2+ NaOH	A. Acetone B. Benzaldehyde C. Acetildehyde D. Acetophenone

1303	Which of the follwing dnes not give brick red precispitate wits Fehling's solution	A. Acetaldehyde B. Formalin C. prorionaldehyde D. Acetone
1304	Which of the following gives silver mirror with ammonicaT AgNO3	A. Benzyl alcohol B. Benzene C. Benzoic acid D. Benzaldehyde
1305	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
1306	Which of the following ketone will not give iodoform test	A. Methyl isopropyl ketone B. Dimethyl ketone C. Ethyl isopropyl ketone D. 2-hexanone
1307	Which of the following alcohol cannot be produced by treatment of aldehydes or ketones with NaBH4	A. I-propanol B. 2-Methyl-2-propanol C. 2-propanol D. Ethanol
1308	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
1309	Propanone does not undergo	A. Oxime formation B. Reduction of Fehling solution C. Hydrazone formation with hydrazine D. Reaction with HCN
1310	The reaction of formaldehyde with HCN is	A. Nucleophilic substitution B. Electrophilic substitution C. Nucleophilic addition D. Free radical addition
1311	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
1312	The reagent used to distinguish between ethanol and propanal is	A. I2/ NaOH B. Benedict's reagent C. LiAlH D. sodium nitroprusside
1313	Which of the following gives positive haloform test and positive Fehling solution	A. Acetone B. Echanol C. Acetaldehyde D. Formaldehyde
1314	When calcium formate and calcium acetate are dry heated they form	A. HCOOH B. C2H5OH C. CH3CHO D. HCHO
1315	In aldehydes and ketones carbon of carbonyl group is;	A. sp^3 hyhridized B. sp^2 hybridized C. sp hybridized D. un hybridized
1316	Acetaldchyde and ketone form addition product with	A. Phenyl hydrazine B. Hydroxylamine C. Hydrazine D. hydrogen cyanide
1317	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
1318	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
1319	.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
1320	Which reagent is responsible for the conversion of	A. NaAlH B. NaBH4

1320	ketone to secondar alcohul	C. Al D. Red P
1321	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
1322	Identify the compound, which give iodoform test	A. Methanol B. 3- Hexanol C. Methyl ketone D. Propionaldehyde
1323	2-propanol on oxidation yield	A. Propionaldehyde B. Propanone C. Propanal D. Butanal
1324	Oxidation of secondary alcohol produces	A. Aldehyde B. Ketone C. Alkyl halide D. Ester
1325	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
1326	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
1327	The oxidation of 1 - propanol in the presence of H2SO4, +K2Cr207 produces final product	A. Acetaldehyde B. Propanal C. Acetone D. Propanoic acic
1328	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
1329	2-propanol on Oxidation gives	A. Aldehyde B. Carboxylic Acid C. Ketone D. Alcohol
1330	An organic compound made from oxidation of ethanol is	A. Formic acid B. Acetic acid C. Malonic acid D. Citric acid
1331	Carboxylic acids reacts with sodium carbonate, & gas evolved in this reaction	A. CO2 B. H2 C. CO D. Both a &b
1332	Acetic acid reacts with thionyl chloride to form acetyl chloride, which species acts as nucleophile in the reaction	A. SO3 B. SO2 C. Cl- D. No nucleophile is formed
1333	Ester with raspberry flavor	A. Amyl acetate B. Isobutyl formate C. Amyl butyrate D. Octyl acetate
1334	Estyl butyrate has flavour like	A. Banans B. Jasmine C. Pineapple D. Orange
1335	The derivatives that cannot be prepared directly from the acetie acid	A. Acetamide B. Acetic anhydride C. Ethyl acetate D. Ester
1336	Which of the following metal cannot evolve hydrogen from the acetic acid	A. Sodium B. Potassium C. Magnesium D. Copper
1337	Which of the following acid is unsaturated carboxylie acid	A. Malonic acid B. Oxalic acid C. Succinic acid D. Maleic acid
		A. Ethanol

1338	Which compound is not formed as a result of reaction between acetic acid & HI & red phosphorous	B. Water C. Iodine D. Ethane
1339	In the esterification, first attack is due toon carborylic acid	A. Hydrogen ion B. Alcohols C. Water D. All
1340	Which of the following is a strong acid	A. CH3COOH B. C2H5OH C. HCOOH D. Phenol
1341	Compound X & Y give effervesce with Na2CO3, solution. X gives a white ppt with ammonical AgNO3 while Y gives sweet smell compound on heating with alcohol X &Y are	A. Formic acid & acetic acid B. Acetone & formic acid C. Acetaldehy de & acetic acid D. Acetic acid & acetone
1342	Ethanoic acid reacts with PCl5, to give ethanoyl chloride. HCl and a third compound What is the third compound	A. H3PO3, B. POCl3 C. SO2 D. COCl2
1343	Oils and fats belong to the class of	A. Alcohols B. Hydrocarbons C. Acids D. Esters
1344	A compound X has all of the properties below. It is a liquid at 25°C it mixes completely with water it reaets with aqueous sodium hydroxide, What could X be?	A. _{Ethanoic acid} B. Ethene C. Ethanol D. Ethyl ethanoate
1345	Reaction of acetic acid with LiAlH4 gives	A. Ethanol B. Ethanal C. Ethane D. Ethyl acetate
1346	Slight oxidation of primary alcohol eives	A. Ketone B. Aldehyde C. -Organic acid D. An ester
1347	Which of the following has the lowet solubility in water	A. HCOOH B. CH3COOH C. CH3-CH2-COOH D. C3H7-COOH
1348	Which one of the following will react with bothethand and ethanoic acid at room temperature	A. CaCO3 B. CuO C. Na-metal D. CH3OH
1349	The specie that develops strongest hydrogen bonding with water	A. HCOOH B. B.CH3CH2COOH C. CH3COOH D. ClCH2COOH
1350	Ethanoic acid reacts with all of these to produce water except	A. Ethanol B. Sodium C. Caustic soda D. Sodium hydrogen carbonate
1351	One of the following compound reacts with its own oxidation product (an oxidation involves no loss of carbon) to give sweet odour liquid	A. Propanal B. Propanone C. 1-propanol D. Propanoic acid
1352	In the presence of hot alkaline potassium permanganate solution 2-butene will give	A. Formic acid +acetic acid B. Two moles ethanoic acid C. Two moles of methanoic acid D. Ethylene glycol
1353	All are dicarboxylic acids except	A. Oxalic acid B. Malonic acid C. Picric acid D. Tartaric acid
1354	Esters have fruity smell and are used as artificial favours. Amyl acetate gives flavour of	A. Banana B. Jasmine C. Pineapple D. Orange
1355	The Complete oxidation of ethanol produces first Ethanal than	A. Ethanal B. Propanone C. Ethanoic acid D. Benzoic acid

1356	Velaric acid is obtained from a herb velarian, its IUPAC name is	A. Propionic acid B. Pentanoic acid C. Butyric acid D. Caporic acid
1357	An acid that exists as a cyclic dimer in benzene and shows a molar mass of 120g/mol is	A. CH3COOH B. HCOOH C. Cl2CHCOOH D. Cl3CCOOH
1358	Primany aleohols sornally give us aldehyde when oxidized in the presence of acidified Na2Cr2O7, what will be the product, when the secondary alcohols are oxidized in same condition?	A. Alkenes B. Alkyl halide C. Alkynes D. Ketones
1359	The formation of ester from acetic aciad in presence of acid and ethanol is a	A. Nucleophilic substitution reaction B. Nucleophilic addition reaction C. Electrophilic substituion reaction D. Electrophilic addition reaction
1360	Methyl cyanide, on boiling with mineral acids yield	A. Acetic acid B. Formic acid C. Propanoie acid D. Butanoic acid
1361	Octyl acetate has the flavor of	A. Orange B. Pineapple C. Banana D. Apple
1362	Formamide is formed by the reaction of which acid with ammonia	A. Oualic acid B. Formic acid C. Ethanoic acid D. Propanoic acid
1363	Which one of the following reaction of carboxylic acid is reversible?	A. Esterification B. Salt formation C. Reaction with PCl5 D. Reaction with SOCl2
1364	Final product of hydrolysis of nitrile is	A. Ketone B. Alcohol C. Aldehyde D. Carboxylic acid
1365	The highest melting point is observed by	A. Butanoic acid B. Propanoic acid C. Pentanoie acid D. HCl
1366	Ethane nitrile can be converted into ethanoic acid through.....intermediate	A. Ethyl alcohol B. Acetyl chloride C. Acetamide D. Methyl cyanide
1367	Propanoic acid is functional group isomer of	A. Methyl acetate B. Ethyl acetate C. Propanal D. Proparone
1368	Which compound shows the highest melting point	A. water B. Propanoic acid C. Methanoic acid D. Ethanoic acid
1369	solubility of carboxylic acids decreases in water with increase in molar mass because	A. Bigger molecules are more polar B. bigger molecules have bigger non-polar groups C. bigger molecules make more hydrogen bonds D. bigger molecules can form lesser hydrogen bonds/molecule
1370	In esterification, the OH of carboxylic acid is replaced by	A. OR+ B. R+ C. OR D. R
1371	The formation of acetic anhydride from acetic acid follows the mechanism	A. SN B. AN C. SE D. AE
1372	Carboxylic acid is more acidic than phenol because of the greater stability of	A. Carboxylic acid B. Phenoxide ion C. proton D. Carboxylate ion
1373	Molar mass of formic acid in benzene comes out to be	A. 64 B. 46 C. 32 D. 92

		D. 92
1374	When ethyl magnesium bromide is treated with carbon dioxide and the product hydrolyzed we get	A. formic acid B. propionic acid C. oxalic acid D. acetic acid
1375	Primar structure of proteins refers to	A. Coling and folding in form of specilie structure B. 3d structure C. Number of amino acids in a chain D. Alpha and Beta sheets
1376	Third order of protein structure refers to	A. Bending of protein chain B. Three-dimensional structure of protein C. Number and sequence of amino acids D. Site of disulphide bonds
1377	Abumins and globulins are defined as	A. Derived protein B. Conjugated protein C. Fibrous protein D. Simple Protein
1378	In proteins, the alpha-helix and Beta-pleated sheet are examples of	A. ^{Primary Structure} B. Secondary Structure C. Tertiary Structure D. Quaternary Structure
1379	The most abundant protein in the human body is	A. Collagen B. Keratin C. Myosin D. Albumin
1380	Denaturation of proteins is often characterised by	A. Loss of biological activity B. Aiways being irreversible C. Being ereater the lower the temperature D. Changes in primary structure
1381	Which of the following is not a category of proteins based upon their function?	A. genetic B. Regulatory C. nucleo D. structural
1382	Which of the following is the element not present in all proteins?	A. Carbon B. Hydrogen C. Nitrogen D. Sulphur
1383	Helical structure of proteins is stabilized by	A. Peptide bond B. Dipeptide bond C. Van der Wall's forces D. Hydrogen bonding
1384	Enzymes are	A. simple proteins B. derived proteins C. compound proteins D. conjugated proteins
1385	Prosthetic groups are	A. helical structures in protein B. sulphur containing parts of protein C. non-protein parts in compound proteins D. sites for hydrogen bonding
1386	Lactoglobulin is found in	A. nucleus B. nerve cells C. Plants only D. muscles and in plants
1387	An example of simple protein is	A. lipoprotein B. Cholesterol C. lecithin D. globulin
1388	The structure of protein helps protein to	A. be in proper shape B. attach substrate C. perform is function D. All of these
1389	The protein component of enzyme Is called	A. apoenzyme B. proenzyme C. holoenyme D. co-enzyme
1390	Fe+2 is the co-factor for	A. Chrome oxidase B. Glucose-6-phosphatase C. Carbonic anhydrase D. Hydrolase
1391	Enzymes have been classified on the basis of	A. protein structure B. prosthetic groups

		C. type of reaction they catalyse D. bonding in them
1392	Dehydrogenase is an erample of	A. Transferase B. Hydrolase C. Lyase D. Oxido-reductase
1393	The enzymes that bring about exchange of functional groups like phosphate are called	A. Ligases B. Lyases C. Isomerases D. Transferases
1394	Collagen is a fibrous protein present most abundantly in	A. heart B. nucleus C. connective tissues D. Arteries
1395	The specifie substance (metabolite) that fits on the enzyme surface and is converted to products is called	A. Co-factor B. Isoenzyme C. Prosthetic group D. Substrate
1396	Phosphoprotein comes under the type of proteins	A. Simple protein B. Derived protein C. Conjugated D. Both A & B
1397	An example of bydrolase is	A. Amylase B. Lipase C. Fumarase D. A,C
1398	Succinic thiokinase is an enzyme of the type	A. mutase B. peroxidase C. ligase D. lyase
1399	All are examples of different classes of enzymes except	A. Hydrolases B. Isomerases C. Oxido-reductases D. Mutases
1400	Increased concentration of enzyme alkaline phosphatase is a sign of	A. hemophilia B. heart disease C. thrombosis D. rickets
1401	L-asparginase is helpful in treatment of	A. skin disease B. blood cancer C. heart failure D. obstructive jaundice
1402	The enzymes that catalyse the addition or removal of ammonia are:	A. Lyases B. Ligases C. Transferases D. Kinses
1403	Alpha helix and beta pleated sheath are secondary structures of protein which are maintained by	A. dipole forces B. non-polar interactions C. ionic bonds D. Hydrogen bonds
1404	Which of the following is not a property of enzymes?	A. extraordinary speciffcity B. reversibility of reactions C. high efficiency D. minimum activity at optimum T
1405	Enzymes consist of	A. proteins only B. proteins and non-protein parts C. fats only D. futs and non-fatty components
1406	Proteins loose their ability to work	A. by slight heating B. by change in structure C. by slight cooling D. when inside the body
1407	The most complex strueture a single polypetide can assume is	A. 1° structure B. 2°structure C. 3° structure D. 4° structure
1408	An element that is not an essential par of proteins is	A. O B. N C. H D. S

1409	Amino acids react together to form the primary structure of proteins which is accompanied by	A. addition of water B. addition of ammonia C. removal of ammonia D. removal of water
1410	Proteins have linkage between amino acids	A. imide B. amide C. ester D. ether
1411	Dehydrogenase is an example of	A. ligase B. oxidoreductase C. lyase D. hydrolase
1412	Simplest Structure of a protein that has only covalent bonding between amino acids is	A. 2° structure B. 3°structure C. 1° structure D. 4° structure
1413	UV rays inactivate enzymes because they	A. change sequence of amino acids of enzymes B. They add prosthetic group to them C. They increase their specificity D. affect structure of enzymes
1414	An example of regulatory protein is	A. nucleoprotein B. hemoglobin C. lactoglobulin D. thyroxine
1415	For a particular halogen, the reactivity of alkyl halides	A. remains same with C-increase B. decreases with C-increase C. increases with C-increase D. decreases with C-decrease
1416	The type of isomerism shown by alkyl halides is	A. geometric B. functional C. positional D. metamerism
1417	Glucose is converted into ethanol by the enzyme present in the yeast	A. Urease B. Zymase C. Invertase D. Sucrase
1418	The proteins which give an amino acid and non-protein group on hydrolysis are known as	A. Derived protein B. Albumins C. Conjugated simple protein D. Conjugated protein
1419	The enzyme which is found in saliva, accelerates the conversion of starch into sugar is	A. Pepsin B. Thrombin C. Ptyalin D. Fumarase
1420	Which of the following bond is responsible for joining the amino acids in proteins?	A. Metallic Bond B. Di sulfide bond C. Peptide Bond D. Peptide Bond
1421	Based on the physico-chemical properties, proteins may be classified into the following types	A. Simple proteins B. Compound proteins C. Derived proteins D. All of the above