RUHS

RUHS Entrance Examination 2021 Question Paper

Paramedical 2021

Q. No. 1 0052001	**The percentage error in measurement of voltage and current are 5% and 3% respectively. The maximum error in measurement of resistance is**
Option A	15%
Option B	1.67%
Option C	8%
Option D	2%
Correct Option	**C**

Q. No. 2 0052002	**If V is the potential drop across the wire in which current I is flowing, then dimensional formula of VI is**
Option A	ML^2T^{-3}
Option B	MLT^2
Option C	ML^2T^{-2}
Option D	$ML^{-1}T^2$
Correct Option	**A**

Q. No. 3 0052003	**A body moving in a straight line covers half of its distance with a speed of 3m/s. The other half of its distance is covered in two equal intervals of time with speed of 4m/s and 5m/s respectively. The average speed of the particle during this motion is**
Option A	4 m/s
Option B	5 m/s
Option C	4.5 m/s
Option D	5.5 m/s
Correct Option	**C**

Q. No. 4 0052004	**A body thrown vertically upward with a velocity of 20m/s from a point at a height of 25m from the ground. How much time will the body take to hit the ground? Take (g = $10ms^{-2}$)**
Option A	4 sec
Option B	5 sec
Option C	3 sec
Option D	6 sec
Correct Option	**B**

Q. No. 5 0052005	**Train A moves eastwards with a speed of 15m/s and train B moves westwards with a speed of 25m/s. What is the relative velocity of train A with respect to train B?**
Option A	40m/s
Option B	10 m/s
Option C	-10 m/s

Option D	25 m/s
Correct Option	**A**

Q. No. 6 0052006	For what value of 'b' vector $\vec{A} = \hat{i} + \hat{j} + 2\hat{k}$ and $\vec{B} = 2\hat{i} + 4\hat{j} - b\hat{k}$ are perpendicular.
Option A	4
Option B	3
Option C	-2
Option D	1
Correct Option	**B**

Q. No. 7 0052007	**If the maximum range of a projectile is 'R' then the maximum height attained by the projectile is**
Option A	R/2
Option B	R
Option C	R/4
Option D	2R
Correct Option	**C**

Q. No. 8 0052008	**The speed of tip of the second hand of the watch of length 1 cm is**
Option A	π/15 cms^{-1}
Option B	2 π/15 cms^{-1}
Option C	π/60 cms^{-1}
Option D	π/30 cms^{-1}
Correct Option	**D**

Q. No. 9 0052009	**A bullet hits a block resting on a frictionless horizontal plane surface and gets embedded, what is conserved**
Option A	Momentum
Option B	Kinetic Energy
Option C	Both momentum and Kinetic Energy
Option D	Angular Momentum
Correct Option	**A**

Q. No. 10 0052010	**A player kicks a football of mass 0.5 kg and the football begins to move with velocity 10m/s. If contact between the football and leg lasts for 1/50 seconds, then the force acted on the football is**
Option A	2500N
Option B	1250N
Option C	250N
Option D	625N
Correct Option	**C**

Q. No. 11 0052011	**A force of 5N acting on a body displaces it through 10m in a straight line. If the work done is 25J, then at what angle the force acts with the direction of motion?**
Option A	Zero
Option B	30^o
Option C	90^o
Option D	60^o
Correct Option	**D**

Q. No. 12 0052012	**Two bodies having their masses in ratio 4:1 are moving towards each other with same velocity 'v'. The velocity of center of mass of the system is**
Option A	v
Option B	$\frac{3}{5}v$
Option C	$\frac{1}{2}v$
Option D	$\frac{2}{5}v$
Correct Option	**B**

Q. No. 13 0052013	**If the linear momentum of a body is increased by 50%, the Kinetic Energy will be increased by**
Option A	25%
Option B	50%
Option C	125%
Option D	100%
Correct Option	**C**

Q. No. 14 0052014	**A satellite revolves around a planet in an elliptical orbit. Its maximum and minimum distances from planet are $1.5x10^7$m and $0.5x10^7$m respectively. If the speed of the satellite at the farthest point is $5x10^7$ ms^{-1}, then its speed at the nearest point will be**
Option A	$1.5x10^8$ ms^{-1}
Option B	$1.5x10^7$ ms^{-1}
Option C	$1.0x10^8$ ms^{-1}
Option D	$2.5x10^8$ ms^{-1}
Correct Option	**A**

Q. No. 15 0052015	**The time period of a satellite in a circular orbit of radius R is T. The time period of satellite in circular orbit of radius 4R will be**
Option A	4T
Option B	8T
Option C	T/8
Option D	T/4
Correct Option	**B**

Q. No. 16 0052016	**The time period of a simple pendulum is T. If the mass of the bob of the simple pendulum is doubled, then the time period will be**
Option A	T/2
Option B	4T
Option C	2T
Option D	T
Correct Option	**D**

Q. No. 17 0052017	**The reciprocal of bulk modulus of a material is called**
Option A	Rigidity
Option B	Viscosity
Option C	Poisson's ratio
Option D	Compressibility
Correct Option	**D**

Q. No. 18 0052018	**Molar specific heat at constant pressure (C_p) for diatomic gasses is**
Option A	$\frac{7}{2}R$
Option B	$\frac{3}{2}R$
Option C	$\frac{5}{2}R$
Option D	$2R$
Correct Option	**A**

Q. No. 19 0052019	**Two spheres of the same material but of radii 1cm and 2cm respectively are dropped one by one in the same viscous fluid. Their terminal velocities respectively will be**
Option A	Same for the two spheres
Option B	In the ratio of 1:2
Option C	In the ratio of 1:4
Option D	In the ratio of 4:1
Correct Option	**C**

Q. No. 20 0052020	**Which of the following have maximum thermal conductivity?**
Option A	Copper
Option B	Silver
Option C	Aluminum
Option D	Mercury
Correct Option	**B**

Q. No. 21 0052021	**First law of thermodynamics is a special case of**
Option A	Law of conservation of energy
Option B	Charles's law
Option C	Boyle's law
Option D	Law of conservation of mass
Correct Option	**A**

Q. No. 22 0052022	**In which of the following processes, all the three thermodynamic variables i.e pressure, volume and temperature can change.**
Option A	Isothermal
Option B	Isobaric
Option C	Adiabatic
Option D	Isochoric
Correct Option	**C**

Q. No. 23 0052023	**How much should the pressure of an ideal gas be increased to decrease the volume by 10% at a constant temperature?**
Option A	10%
Option B	9.5%
Option C	5%
Option D	11.11%
Correct Option	**D**

Q. No. 24 0052024	**The energy emitted per second by a blackbody at $1227^{o}C$ is E. If the temperature of the blackbody is increased to $2727^{o}C$, the energy emitted per second in term of E is**
Option A	E
Option B	4E
Option C	16E
Option D	2E
Correct Option	**C**

Q. No. 25 0052025	**The phase difference between the velocity and displacement of a particle executing simple harmonic motion is**
Option A	Zero
Option B	$\pi/2$
Option C	π
Option D	$\pi/4$
Correct Option	**B**

Q. No. 26 0052026	**The electric field of uniformly charged thin spherical shell of charge Q and radius R at a distance r (r < R) from the centre is**
Option A	Zero
Option B	

	$Q/4\pi\epsilon_o r^2$
Option C	$Q/4\pi\epsilon_o r$
Option D	$Q/2\pi\epsilon_o r^2$
Correct Option	**A**

Q. No. 27 0052027	**Electrostatic energy stored in a 10pF capacitor connected to a 50V battery is**
Option A	$1.25x10^{-8}$J
Option B	$1.25x10^{-6}$J
Option C	$1.5x10^{-8}$J
Option D	Zero
Correct Option	**A**

Q. No. 28 0052028	**If the electric field in the region is zero, then electric potential is**
Option A	Zero throughout the region
Option B	Varying from point to point
Option C	Constant throughout the region
Option D	Not uniformly zero
Correct Option	**C**

Q. No. 29 0052029	**A proton is being accelerated by a potential difference of 1 million volts. Then the Kinetic energy is**
Option A	$1.6x10^{-15}$J
Option B	$1.6x10^{-13}$J
Option C	$1.6x10^{-19}$J
Option D	$3.2x10^{-14}$J
Correct Option	**B**

Q. No. 30 0052030	**The combined capacity of two capacitors is 25μF when connected in parallel and 6μF when connected in series. Their individual capacities are**
Option A	15μF and 10μF
Option B	16μF and 9μF
Option C	20μF and 5μF
Option D	18μF and 7μF
Correct Option	**A**

Q. No. 31 0052031	**A current of 1.344A is flowing in a copper wire of cross-section $1mm^2$. If the number density of the electrons is $8.4x10^{22}$ cm^{-3}, then the drift velocity is**
Option A	1 cms^{-1}
Option B	0.01 cms^{-1}

Option C	0.1 cms^{-1}
Option D	10 cms^{-1}
Correct Option	**B**

Q. No. 32 0052032	**The energy stored in a capacitor connected to a battery is E. If the separation between the plates of the capacitor is doubled, then what will be the energy stored in a capacitor?**
Option A	E
Option B	2E
Option C	E/2
Option D	E/4
Correct Option	**C**

Q. No. 33 0052033	**Susceptibility is positive and small for a**
Option A	Ferromagnetic material
Option B	Diamagnetic material
Option C	Non-magnetic material
Option D	Paramagnetic material
Correct Option	**D**

Q. No. 34 0052034	**The resistance of a wire of length 'l' and radius 'r' is 100Ω. If the length of a wire is doubled and radius of the wire is halved, then resistance of the wire is**
Option A	800 Ω
Option B	400 Ω
Option C	200 Ω
Option D	100 Ω
Correct Option	**A**

Q. No. 35 0052035	**A voltmeter has a range 0-V with a series resistance of R ohm. With a series resistance of 2R its range is 0-V_1, then**
Option A	$V_1 > 2V$
Option B	$V_1 < 2V$
Option C	$V_1 = 2V$
Option D	$V_1 \geq 2V$
Correct Option	**B**

Q. No. 36 0052036	**Two long conductors separated by a distance 'd' having current I_1 and I_2 flowing in same direction exerts a force 'F' on each other. If the current in each wire is increased to two times and distance is doubled, the new value of the force between them is**
Option A	F
Option B	2F
Option C	F/2

Option D	F/4
Correct Option	**B**

Q. No. 37 0052037	**An emf of 8V is induced in a coil when a current changes from 8A to 4A in 0.05 seconds. The coefficient of self induction of coil is**
Option A	0.4H
Option B	0.8H
Option C	0.1H
Option D	0.2H
Correct Option	**C**

Q. No. 38 0052038	**The resonant frequency of a LCR circuit is 600Hz and the half power frequencies are 650Hz and 550Hz.The quality factor of the circuit will be**
Option A	1/6
Option B	1/3
Option C	3
Option D	6
Correct Option	**D**

Q. No. 39 0052039	**The brilliance of diamond is mainly due to**
Option A	Total internal reflection of light
Option B	Refraction of light
Option C	Reflection of light
Option D	Diffraction of light
Correct Option	**A**

Q. No. 40 0052040	**Two slits in Young's double slit experiment are 1mm apart and screen is placed 1m away. The fringe separation observed with a wavelength of 5000 Å is**
Option A	0.5mm
Option B	1mm
Option C	2mm
Option D	Zero
Correct Option	**A**

Q. No. 41 0052041	**Two coherent sources whose intensity ratio is 9:1 produce interference fringes. The ratio of maximum intensity to minimum intensity in fringe system is**
Option A	10:8
Option B	9:1
Option C	4:1
Option D	2:1
Correct Option	**C**

Q. No. 42	**Which of the following phenomenon is not observed in sound waves?**

0052042	
Option A	Diffraction
Option B	Reflection
Option C	Refraction
Option D	Polarization
Correct Option	**D**

Q. No. 43 0052043	**The radius of first Bohr orbit in hydrogen atom is 0.528 Å. The radius of second Bohr orbit in hydrogen atom will be**
Option A	2.112 Å
Option B	1.056 Å
Option C	0.264 Å
Option D	0.142 Å
Correct Option	**A**

Q. No. 44 0052044	**An electron, an α-particle and a proton has same kinetic energy. Which of these particles has the smallest de Broglie wavelength?**
Option A	Proton
Option B	α-particle
Option C	Electron
Option D	All will have the same wavelength
Correct Option	**B**

Q. No. 45 0052045	**If the wavelength of a spectral line observed in hydrogen atom spectra lies in the visible region, it belongs to**
Option A	Balmer series
Option B	Lyman series
Option C	Paschen series
Option D	Pfund series
Correct Option	**A**

Q. No. 46 0052046	**In photoelectric effect, the photoelectric current**
Option A	Increases with increase in frequency of incident photon
Option B	Decreases with increase in frequency of incident photon
Option C	Depends on intensity and is independent of frequency of incident photon
Option D	Depends both on intensity and frequency of incident photon
Correct Option	**C**

Q. No. 47 0052047	**If p1, p2 and p3 are penetration power of α, β , γ rays respectively, then which of the following relation is correct?**
Option A	p1 > p2 > p3
Option B	p1 < p2 < p3

Option C	p1 < p2 > p3
Option D	p1 > p2 < p3
Correct Option	**B**

Q. No. 48 0052048	Consider the reaction $_0n^1 \rightarrow {}_1p^1 + {}_{-1}e^0 + x$, what does 'x' denote?
Option A	Neutrino
Option B	Photon
Option C	Anti-neutrino
Option D	γ- ray
Correct Option	**C**

Q. No. 49 0052049	**If antimony (Sb) is added to germanium (Ge), the majority current carriers in the semiconductors are**
Option A	Holes
Option B	Electrons
Option C	Positive ions
Option D	Protons
Correct Option	**B**

Q. No. 50 0052050	**In n-p-n transistor, the current gain for common emitter configuration is 94. If the emitter current be 9.5mA, then the base current is**
Option A	0.1mA
Option B	0.01mA
Option C	1mA
Option D	0.001mA
Correct Option	**A**

Q. No. 51 0082051	**The percentage of calcium in calcium nitrate is:**
Option A	22.4
Option B	23.4
Option C	24.4
Option D	25.4
Correct Option	**C**

Q. No. 52 0082052	**Complete burning of 280 g of hexane will require:**
Option A	~990 g O_2
Option B	~1050 g O_2
Option C	~990 g CO_2
Option D	~1050 g CO_2
Correct Option	**A**

Q. No. 53 0082053	**Which of the following electronic configurations is incorrect:**
Option A	$1s^2$, $2s^2 2p_x^2 2p_y^2 2p_z^2$, $3s^2$
Option B	$1s^2$, $2s^2 2p_y^2 2p_z^1$
Option C	$1s^2$, $2s^2 2p^6$, $3s^2 3p^6 3d^3$, $4s^2$
Option D	$1s^2$, $2s^2 2p^6$, $3s^2 3p^6 3d^5$, $4s^1$
Correct Option	**B**

Q. No. 54 0082054	**Which of the following statements is correct:**
Option A	All the atomic orbitals are directional in nature.
Option B	An orbital can have maximum of two electrons with same spin in any direction.
Option C	The energies of various subshells in the same shell are in the order of s>p>d>f.
Option D	Chromium has six unpaired electrons.
Correct Option	**D**

Q. No. 55 0082055	**Which of the following pairs do not show diagonal relationship:**
Option A	Li-Mg
Option B	Be-B
Option C	Be-Al
Option D	B-Si
Correct Option	**B**

Q. No. 56 0082056	**What is the correct order of sizes of F^-, Na^+, Li^+ and Cl^-?**
Option A	$Li^+ < Na^+ < F^- < Cl^-$
Option B	$Na^+ < Li^+ < F^- < Cl^-$
Option C	$Na^+ < Li^+ < Cl^- < F^-$
Option D	$Li^+ < Na^+ < Cl^- < F^-$
Correct Option	**A**

Q. No. 57 0082057	**The shape of $[CH_3]^+$ is:**
Option A	Tetrahedral
Option B	Linear
Option C	Trigonal planar
Option D	Square planar
Correct Option	**C**

Q. No. 58 0082058	**Orthonitrophenol involves ..... hydrogen bonding:**

Option A	Intermolecular
Option B	Intramolecular
Option C	Diamagnetic
Option D	Paramagnetic
Correct Option	**B**

Q. No. 59 0082059	**The volume occupied by 8g of nitrogen gas at 27^oC and 750mm pressure will be:**
Option A	8.2L
Option B	10.5L
Option C	7.12L
Option D	6.24L
Correct Option	**C**

Q. No. 60 0082060	**On dissolving soap in water:**
Option A	Viscosity will increase.
Option B	Viscosity will decrease.
Option C	Surface tension will increase.
Option D	Surface tension will decrease.
Correct Option	**D**

Q. No. 61 0082061	**Two moles of ethane produce 3200KJ of energy on complete burning. Calculate its heat of formation, given ΔH_f for CO_2 and H_2O is -395 and -286KJ respectively.**
Option A	-48KJ
Option B	+48KJ
Option C	-58KJ
Option D	+58KJ
Correct Option	**A**

Q. No. 62 0082062	**Hess's law of constant heat summation is an application of:**
Option A	First law of thermodynamics
Option B	Second law of thermodynamics
Option C	Third law of thermodynamics
Option D	Fourth law of thermodynamics
Correct Option	**A**

Q. No. 63 0082063	**S_8 on heating at 900K and 1atm initial pressure, converts to S_2 and falls by 30% at equilibrium. The equilibrium constant for this reaction will be:**
Option A	$1.96atm^2$
Option B	$2.96atm^2$
Option C	$1.96atm^3$

Option D	$2.96atm^3$
Correct Option	**D**

Q. No. 64 0082064	**The solubility product of silver chloride is $2.5625x10^{-10}$ at 25°C. Its solubility will be:**
Option A	$3.79x10^{-3}g/l$
Option B	$1.79x10^{-3}g/l$
Option C	$2.29x10^{-3}g/l$
Option D	$0.79x10^{-3}g/l$
Correct Option	**C**

Q. No. 65 0082065	**Choose the correct statement:**
Option A	The oxidation state of Fe in $K_4Fe(CN)_6$ is +3.
Option B	The oxidation state of Fe in $K_4Fe(CN)_6$ is +2.
Option C	The oxidation state of Cr in $K_2Cr_2O_7$ is +3.
Option D	The oxidation state of Cr in $K_2Cr_2O_7$ is +4.
Correct Option	**B**

Q. No. 66 0082066	**Which of the following is not an example of redox reaction:**
Option A	$Na_2SO_4 + BaCl_2 \rightarrow BaSO4 + 2NaCl$
Option B	$2CuSO_4 + 4KI \rightarrow Cu_2I_2 + 2K_2SO_4 + I_2$
Option C	$Cu + 4HNO_3 \rightarrow Cu(NO_3)_2 + 2NO_2 + 2H_2O$
Option D	$3I_2 + 6NaOH \rightarrow NaIO_3 + 5NaI + 3H_2O$
Correct Option	**A**

Q. No. 67 0082067	**What happens when an alkaline solution of potassium ferricyanide is treated with hydrogen peroxide?**
Option A	Potassium ferricyanide is oxidized to potassium ferrocyanide.
Option B	Potassium ferricyanide is reduced to potassium ferrocyanide.
Option C	Hydrogen peroxide is reduced to oxygen.
Option D	Hydrogen peroxide evaporated out.
Correct Option	**B**

Q. No. 68 0082068	**Hydrogen gas is liberated by the action of aluminium with concentrated solution of:**
Option A	Sulphuric acid
Option B	Nitric acid
Option C	Sodium hydroxide
Option D	Copper sulfate
Correct Option	**C**

Q. No. 69 0082069	**The reaction of alkyl halides proceeds faster with potassium fluoride as compared to sodium fluoride because:**
Option A	Potassium fluoride is less ionic than sodium fluoride.
Option B	Potassium fluoride is more ionic than sodium fluoride.
Option C	Potassium fluoride has more covalent character than sodium fluoride.
Option D	Potassium fluoride has less covalent character than sodium fluoride.
Correct Option	**B**

Q. No. 70 0082070	**It is dangerous to drop sodium in:**
Option A	Alcohol
Option B	Acetone
Option C	Alkali
Option D	Water
Correct Option	**D**

Q. No. 71 0082071	**Ammonium nitrite on heating releases:**
Option A	Oxygen
Option B	Nitrogen
Option C	Hydrogen
Option D	Aluminium
Correct Option	**B**

Q. No. 72 0082072	**An aqueous solution of a gas 'X' turns red litmus blue. It also produces deep blue color on addition to copper sulfate solution. And, on addition to ferric chloride solution, it produces a brownish precipitate, soluble in nitric acid. Identify 'X':**
Option A	Ammonia
Option B	Nitrogen
Option C	Oxygen
Option D	Hydrogen
Correct Option	**A**

Q. No. 73 0082073	**IUPAC name for CH_3-CH_2-CH(C_2H_5)-CH_2-CH(CH_3)-CH_2-CH_3 is:**
Option A	3-methyl-5-methylheptane
Option B	5-methyl-3-methylheptane
Option C	3-methyl-5-ethylheptane
Option D	3-ethyl-5-methylheptane
Correct Option	**D**

Q. No. 74 0082074	**Heterolytic fission occurs when carbon is linked with an atom of different:**

Option A	Electropositivity
Option B	Electronegativity
Option C	Molecular weight
Option D	Atomic weight
Correct Option	**B**

Q. No. 75 0082075	**An organic compound (C_6H_{10}; A) on reduction gives 'B' (C_6H_{12}), which is further converted to 'C' (C_6H_{14}). 'A' on ozonolysis followed by hydrolysis gives two aldehydes 'D' (C_2H_4O) and 'E' ($C_2H_2O_2$). 'B' on oxidation with acidic potassium permanganate gives 'F' ($C_4H_8O_2$). What are A-F?**
Option A	A: 2-hexyne; B: 2-hexene; C: hexane; D: acetaldehyde; E: glyoxal; F: butanoic acid
Option B	A: 4-hexyne; B: 2-hexene; C: hexane; D: acetaldehyde; E: glyoxal; F: butanoic acid
Option C	A: 2,4-hexadiene; B: 2-hexene; C: hexane; D: acetaldehyde; E: glyoxal; F: butanoic acid
Option D	A: 2,4-hexadiene; B: 3-hexene; C: hexane; D: acetaldehyde; E: glyoxal; F: butanoic acid
Correct Option	**C**

Q. No. 76 0082076	**Nitro group in benzene nucleus is …… directing. It ……. the activity of benzene ring.**
Option A	m-, decreases
Option B	m-, increases
Option C	o/p-, decreases
Option D	o/p-, increases
Correct Option	**A**

Q. No. 77 0082077	**Pure dry air, on average contains 78% …… and …… oxygen by volume.**
Option A	Ammonia, 23%
Option B	Nitrogen, 21%
Option C	Ammonia, 25%
Option D	Nitrogen, 23%
Correct Option	**B**

Q. No. 78 0082078	**Ozone is …… pollutant.**
Option A	Primary air
Option B	Primary water
Option C	Secondary water
Option D	Secondary air
Correct Option	**D**

Q. No. 79 0082079	**The percentage of void volume in body-centred cubic metallic crystal is:**
Option A	30
Option B	31

Option C	32
Option D	33
Correct Option	**C**

Q. No. 80 0082080	**A solution is prepared from 30g of an unknown compound and 120g of acetone at 313K. the vapour pressure of pure acetone at this temperature is 0.826atm and that of acetone above the solution is 0.801atm. The molar mass of the unknown compound is:**
Option A	~580g/mol
Option B	~480g/mol
Option C	~290g/mol
Option D	~180g/mol
Correct Option	**B**

Q. No. 81 0082081	**The density of a 2.4% by mass solution of glucose ($C_6H_{12}O_6$) is 0.045g/cc at 293K. What will be the osmotic pressure of the solution?**
Option A	0.1439atm
Option B	0.2487atm
Option C	0.6672atm
Option D	0.9878atm
Correct Option	**A**

Q. No. 82 0082082	**In a galvanic cell, anode is _____ terminal whereas cathode is _____ terminal.**
Option A	Negative, positive
Option B	Positive, negative
Option C	Negative, neutral
Option D	Positive, neutral
Correct Option	**A**

Q. No. 83 0082083	**The hydrolysis of ethyl ethanoate in _____ medium is a _____ order reaction.**
Option A	Acidic, second
Option B	Acidic, third
Option C	Acidic, first
Option D	Acidic, zero
Correct Option	**C**

Q. No. 84 0082084	**_____ reaction is catalysed by one of the reactants.**
Option A	Reversible
Option B	Autocatalytic
Option C	Catalytic
Option D	Forward

Correct Option	**B**

Q. No. 85 0082085	**Which of the following statements is true about chemisorption:**
Option A	It involves chemical forces between adsorbate-adsorbate molecules.
Option B	It involves chemical forces between adsorbent-adsorbent molecules.
Option C	It involves low activation energy.
Option D	It involves high heat of adsorption.
Correct Option	**D**

Q. No. 86 0082086	**Which of the following is a common ore of iron:**
Option A	Carnallite
Option B	Haematite
Option C	Bauxite
Option D	Millerite
Correct Option	**B**

Q. No. 87 0082087	**ClF_3 exists but FCl_3 does not because:**
Option A	Fluorine does not have d-orbitals.
Option B	Fluorine exists in gaseous state.
Option C	Fluorine is non-metal.
Option D	Fluorine belongs to VII group of periodic table.
Correct Option	**A**

Q. No. 88 0082088	**Noble gases are inert because:**
Option A	They have half-filled d-orbitals with stable configuration.
Option B	They have half-filled f-orbitals with stable configuration.
Option C	They have completely filled p-orbitals with stable configuration.
Option D	They have completely filled d-orbitals with stable configuration.
Correct Option	**C**

Q. No. 89 0082089	**Color of anhydrous copper sulfate is:**
Option A	Blue
Option B	Green
Option C	White
Option D	Pink
Correct Option	**C**

Q. No. 90 0082090	**f-block elements are also known as:**

Option A	Coordination compounds
Option B	Complexometric compounds
Option C	Transition elements
Option D	Inner-transition elements
Correct Option	**D**

Q. No. 91 0082091	**Triethylenetetramine is an example of:**
Option A	Bidentate ligand
Option B	Tridentate ligand
Option C	Tetradentate ligand
Option D	Pentadentate ligand
Correct Option	**C**

Q. No. 92 0082092	**Systematic name of $[PtCl_2(NH_3)_4]^{+2}$ will be:**
Option A	Tetraminochloroplatinum (IV) ion
Option B	Tetraamminechloroplatinum (II) ion
Option C	Tetraamminechloroplatinum (IV) ion
Option D	Tetraamminedichloroplatinum (IV) ion
Correct Option	**D**

Q. No. 93 0082093	**_____ is obtained on heating acetone with bleaching powder:**
Option A	Chloroform
Option B	DDT
Option C	Iodoform
Option D	Freon
Correct Option	**A**

Q. No. 94 0082094	**Toluene reacts with chlorine in the presence of $FeCl_3$ to form:**
Option A	m-chlorotoluene
Option B	o-chloro toluene
Option C	p-chlorotoluene
Option D	Mixture of o- and p-chlorotoluenes
Correct Option	**D**

Q. No. 95 0082095	**Phenol is acidic because of formation of:**
Option A	Phenic acid
Option B	Phenoxide ion
Option C	Phenyl ion
Option D	Phenoxamine

Correct Option	**B**

Q. No. 96 0082096	**The most reactive derivatives of carboxylic acids are:**
Option A	Acid halides
Option B	Acid amides
Option C	Esters
Option D	Acid anhydrides
Correct Option	**A**

Q. No. 97 0082097	**Which of the following are the examples of polysaccharides:**
Option A	Starch and fructose
Option B	Starch and glucose
Option C	Cellulose and starch
Option D	Cellulose and sucrose
Correct Option	**C**

Q. No. 98 0082098	**Amino acids exist as:**
Option A	Anions
Option B	Cations
Option C	Neutral zwitter ions
Option D	Doubly-charged zwitter ions
Correct Option	**D**

Q. No. 99 0082099	**Which of the following is an example of natural polymer:**
Option A	Nylon
Option B	Orlon
Option C	Cellulose
Option D	Bakelite
Correct Option	**C**

Q. No. 100 0082100	**Artificial sweeteners are used in:**
Option A	Food preservation
Option B	Cleaning utensils
Option C	Reducing pain
Option D	Reducing fever
Correct Option	**A**