# University of Health Sciences, Lahore 

Total MCQs: 220


Max. Marks: 1100
ENTRANCE TEST - 2009
For F.Sc. Students Only
Time Allowed: 150 minutes

## Instructions:

i. Read the instructions on the MCQs Response Form carefully.
ii. Choose the Single Best Answer for each question.
iii. Candidates are strictly prohibited from giving any identification mark except Roll No. \& Signature in the specified columns only.

## COMPULSORY QUESTION FOR IDENTIFICATION

Q-ID. What is the color of your Question Paper?
A) White.
C) Pink.
B) Blue.
D) Green.

Ans: Colour of your Question Paper is Blue. Fill the Circle Corresponding to Letter ' $B$ ' against 'ID' in your MCQ response form
 (Exactly as shown in the diagram).

## PHYSICS

Q. 1 If $R_{1}=10 \mathbf{k} \Omega$ and $R_{\mathbf{2}}=\mathbf{1 0 0} \mathbf{k} \Omega$ then the gain of op-amplifier as inverting amplifier is:

A) -1
B) 10
C) -10
D) 1
Q. 2 If inputs $A=1, B=0$ and output $X=1$, then it corresponds to the operation of a:
A) AND Gate
C) XNOR Gate
B) NAND Gate
D) NOR Gate
Q. 3 The value of Stefan's Boltzmann Constant is:
A) $4.28 \times 10^{-7} \mathrm{Wm}^{-2} \mathrm{~K}^{-4}$
B) $4.28 \times 10^{-4} \mathrm{Wm}^{-2} \mathrm{~K}^{-4}$
C) $3.62 \times 10^{-4} \mathrm{Wm}^{-2} \mathrm{~K}^{-4}$
D) $5.67 \times 10^{-5} \mathrm{Wm}^{-2} \mathrm{~K}^{-4}$
Q. 4 Einstein's photoelectric equation is given by:
A) $\mathrm{hf}=\phi=1 / 2 \mathrm{mv}^{2}$
B) $E=m c^{2}$
C) $E=h c^{2}$
D) $h f=1 / 2 m v^{2}$

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Q. 5 In Compton Effect, the value of $\frac{h}{m_{0} c}$ is given by:
A) $1.43 \times 10^{-11} \mathrm{~m}$
B) $2.56 \times 10^{-12} \mathrm{~m}$
C) $2.43 \times 10^{-12} \mathrm{~m}$
D) $3.46 \times 10^{-6} \mathrm{~m}$
Q. 6 If a particle of mass 5.0 mg moves with the speed of $8.0 \mathrm{~m} / \mathrm{sec}$, then the de-Broglie's wavelength will be:
A) $1.68 \times 10^{-27} \mathrm{~m}$
B) $1.70 \times 10^{-25} \mathrm{~m}$
C) $1.65 \times 10^{-29} \mathrm{~m}$
D) $1.66 \times 10^{-29} \mathrm{~m}$
Q. 7 LASER is a device which can produce:
A) Intense beam of light
C) Coherent beam of light
B) Intense, Coherent, Monochromatic beam of light
D) Monochromatic beam of light
Q. 8 A crack allows greater amount of X-rays to pass, which appears on photographic film as:
A) Blue Area
C) Bright Area
B) Dark Area
D) Red Area
Q. 9 The emission of $\gamma$-radiations from the nucleus is generally represented by the equation:
A) ${ }_{Z}^{A} X \longrightarrow{ }_{Z}^{A} X^{\bullet}+\gamma$-radiations
B) ${ }_{Z}^{A} X^{\bullet} \longrightarrow{ }_{Z}^{A} X+\beta$-particles
C) ${ }_{Z}^{A} X^{\bullet} \longrightarrow \quad{ }_{z-1}^{A} X+\gamma$-radiations
D) ${ }_{Z}^{A} X^{\bullet} \longrightarrow{ }_{Z}^{A} X+\gamma$-radiations
Q. 10 For intermediate energy of radiations, the dormant process is:
A) Compton Effect
C) Photoelectric Effect
B) Nuclear Effect
D) Pair Production
Q. 11 The dimensions of gravitational constant " $G$ " are:
A) $\left[\mathrm{ML}^{-2} \mathrm{~T}^{-1}\right]$
B) $\left[\mathrm{M}^{2} \mathrm{~L}^{-2} \mathrm{~T}^{-1}\right]$
C) $\left[\mathrm{ML}^{-2} \mathrm{~T}^{-2}\right]$
D) $\left[\mathrm{M}^{-1} \mathrm{~L}^{3} \mathrm{~T}^{-1}\right]$
Q. 12 Ultraviolent radiations cause:
A) Severe Crop Damage
C) Decay of Microorganisms
B) Sunburn, blindness, skin cancer
D) All of the above
Q. 13 Unit vector in the direction of vector $2 \hat{\mathbf{i}}-4 \hat{\mathbf{j}}$ will be:
A) $\frac{2 \hat{i}-4 \hat{j}}{\sqrt{6}}$
B) $\frac{4 \hat{i}-2 \hat{j}}{\sqrt{10}}$
C) $\frac{\hat{i}-2 \hat{j}}{\sqrt{5}}$
D) $\frac{\hat{i}-2 \hat{j}}{\sqrt{7}}$
Q. 14 If the force of magnitude 8 N acts on a body in direction making an angle 30, its $X$ and $Y$ components will be:
A) $F_{x}=3 \sqrt{3} \quad F_{y}=4$
B) $F_{x}=4 \sqrt{3} \quad F_{y}=4$
C) $F_{x}=4 \sqrt{3} \quad F_{y}=8$
D) $F_{x}=8 \quad F_{y}=4 \sqrt{3}$
Q. 15 Two waves of slightly different frequencies and travelling in the same direction lead to:
A) Stationary Waves
C) Beats
B) Interference
D) Both B and C
Q. 16 What is it that we use to calculate the speeds of distant stars and galaxies?
A) Doppler Effect
C) Beats
B) Interference
D) All of the above
Q. 17 In Young's Double Slit Experiment, if the distance between slits and screen is doubled, then fringe spacing becomes:
A) Zero
C) Doubles of the original value
B) One
D) Half of the original value
Q. 18 In Michelson's interferometer 792 bright fringes pass across the field of view when its movable mirror is displaced through 0.233 mm using the equation $I=m \frac{\lambda}{2}$ the wavelength of light used is:
A) 588 nm
B) 620 nm
C) 348 nm
D) 400 nm
Q. 19 In Michelson's Experiment, the formula to calculate the speed of light is:
A) $\mathrm{c}=2 \mathrm{fd}$
B) $c=\frac{2 \pi f}{d}$
C) $\mathrm{c}=\frac{16 \mathrm{f}}{\mathrm{d}}$
D) $\mathrm{c}=16 \mathrm{fd}$
Q. 20 The information received at the other end of a fibre can be inaccurate due to $\qquad$ of the light signal.
A) Longer wavelengths
C) Intensity
B) Frequency
D) Dispersion or Spreading
Q. 21 The pressure on the other sides and everywhere inside the vessel will be according to the:
A) Pascal's Law
C) Boyle's Law
B) Hook's Law
D) Charles's Law
Q. 22 The value of universal; Gas Constant ' $R$ ' is;
A) $8.314 \mathrm{Jmol}^{-2} \mathrm{~K}^{-1}$
B) $1.38 \mathrm{Jmol}^{-1} \mathrm{~K}^{-2}$
C) $1.38 \mathrm{Jmol}^{-1} \mathrm{~K}^{-1}$
D) $8.314 \mathrm{Jmol}^{-1} \mathrm{~K}^{-1}$
Q. 23 For adiabatic process, the First Law of Thermodynamics is:
A) $W=\Delta U+Q$
B) $Q=-W$
C) $Q=W$
D) $W=-\Delta U$
Q. 24 The entropy of the universe always:
A) Decreases
C) Remains the same
B) Increases
D) Both A and B
Q. 25 The work done in moving a unit positive charge from one point to another against the electric field is a measure of:
A) Capacitance
C) Intensity of electric field
B) Potential difference between two points
D) Resistance between two points
Q. 26 In Millikan's Method, the radius of droplet can be calculated by:
A) $r=\sqrt{\frac{q v_{t}}{2 \rho g}}$
B) $r^{2}=\frac{9 \eta v_{t}}{\rho g}$
C) $r^{2}=\frac{9 \eta v_{t}}{2 \rho g}$
D) $r=\frac{9 \eta v_{t}}{2 \rho g}$
Q. 27 The scalar product of $\hat{i}$ and $\widehat{k}$ is:
A) Zero
C) 1
B) $90^{\circ}$
D) -1
Q. 28 If the body is rotating with uniform angular velocity, then its torque is:
A) Zero
C) Maximum
B) Clockwise
D) Remains the same
Q. 29 Speed of light, radio waves and microwaves in vacuum is:
A) $3 \times 10^{5} \mathrm{~ms}^{-1}$
B) $3 \times 10^{3} \mathrm{~ms}^{-1}$
C) $3 \times 10^{6} \mathrm{~ms}^{-1}$
D) $3 \times 10^{8} \mathrm{~ms}^{-1}$
Q. 30 A body is moving with an initial velocity of $\mathbf{2} \mathbf{~ k m s}^{\mathbf{- 1}}$. After a time of $\mathbf{5 0}$ secs its velocity becomes $1.5 \mathbf{~ k m s}^{-1}$. Its acceleration will be:
A) $30 \mathrm{~ms}^{-1}$
B) $40 \mathrm{~ms}^{-1}$
C) $20 \mathrm{~ms}^{-1}$
D) $10 \mathrm{~ms}^{-1}$

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Q. 31 When a car moves with constant acceleration, the velocity-time graph is a:

A)
C)

D)


B)
Q. 32 In elastic collision, when a massive body collides with light body at conditions $\boldsymbol{m}_{\mathbf{1}} \gg \boldsymbol{m}_{\mathbf{2}}$ and $\mathbf{v}_{\mathbf{2}}$ $=\mathbf{0} \mathbf{~ m s}^{-1}$, then the change in velocity will be written as:
A) $v_{1}^{\prime} \approx-v_{1} ; v_{2}^{\prime} \approx v_{1}$
B) $\mathrm{v}_{1}{ }^{\prime} \approx \mathrm{v}_{1}$; $\mathrm{v}_{2}{ }^{\prime} \approx 0$
C) $\mathrm{v}_{1}{ }^{\prime} \approx \mathrm{v}_{1} ; \mathrm{v}_{2}^{\prime} \approx 2 \mathrm{v}_{1}$
D) $\mathrm{v}_{1}{ }^{\prime} \approx-\mathrm{v}_{1} ; \mathrm{v}_{2}{ }^{\prime} \approx 0$
Q. 33 If a certain force acts on an object and changes its kinetic energy from 65 J to 130 J , then work done by the force will be:
A) 92.5 J
B) 97.5 J
C) 65 J
D) 130 J
Q. 34 A bullet train is lifted above the rails due to magnetic effect, thus friction is reduced to minimum and speed can be enhanced up to:
A) $500 \mathrm{Km} \mathrm{min}^{-1}$
B) $500 \mathrm{Km} \mathrm{sec}^{-1}$
C) $1000 \mathrm{Km} \mathrm{h}^{-1}$
D) $500 \mathrm{Km} \mathrm{h}^{-1}$
Q. 35 In a certain circuit, if the transistor has a collector current of $\mathbf{1 0 ~ m A}$ and base current of $\mathbf{5 0} \boldsymbol{\mu A}$, then the current gain of the transistor is:
A) 250
B) 100
C) 150
D) 200
Q. 36 A signal that is applied at the inverting input terminal of an op-amplifier undergo amplification, at the output terminal with a phase shift of:
A) $0^{\circ}$
B) $270^{\circ}$
C) $360^{\circ}$
D) $180^{\circ}$
Q. 37 Solar energy at normal incidence outside the earth's atmosphere is about:
A) $2.5 \mathrm{kWm}^{-2}$
B) $0.6 \mathrm{kWm}^{-2}$
C) $1.4 \mathrm{kWm}^{-2}$
D) $2.0 \mathrm{kWm}^{-2}$
Q. 38 Linear velocity or tangential velocity of any particle moving in a circular path of radius $\mathbf{2} \mathbf{m}$ with angular velocity 8 rads $^{-1}$ will be:
A) $16 \mathrm{~ms}^{-1}$
B) $4 \mathrm{~ms}^{-1}$
C) $10 \mathrm{~ms}^{-1}$
D) $6 \mathrm{~ms}^{-1}$
Q. 39 What is torque ' $T$ ' in a circular motion?
A) $\mathrm{T}=\mathrm{mr}^{2} \mathrm{~m}$
B) $T=m r^{2} \alpha$
C) $\mathrm{T}=\mathrm{mr} \alpha$
D) $\mathrm{T}=\mathrm{mr}^{2} / \alpha$
Q. 40 If the mass attached with a spring becomes four times, the time period of vibration becomes:
A) One fourth
C) Half
B) $3 / 4$
D) Double
Q. 41 A body of mass $6 \mathbf{g}$ falls under action of gravity. At initial position ' $A^{\prime}$ its P.E. is $\mathbf{4 8 0} \mathbf{J}$ and K.E. is 0 J . During its downward journey at point ' $B$ ' its energies will be ( $\mathbf{g}=\mathbf{1 0} \mathbf{~ m s}^{-\mathbf{2}}$ ):

A) P.E. $=300 \mathrm{~J}$ and K.E. $=180 \mathrm{~J}$
C) P.E. $=230 \mathrm{~J}$ and K.E. $=250 \mathrm{~J}$
B) P.E. $=180 \mathrm{~J}$ and K.E. $=300 \mathrm{~J}$
D) P.E. $=250 \mathrm{~J}$ and K.E. $=230 \mathrm{~J}$
Q. 42 A tiny droplet of oil of density ' $\rho$ ' and radius ' $r$ ' falls through air under force of gravity. If viscosity of air is ' $n$ ', the terminal velocity acquired by the oil drop is given by:
A) $v_{t}=\frac{4 g r^{2} \rho}{9 \eta}$
B) $v_{t}=\frac{9 \eta r^{2} \rho}{4 g}$
C) $v_{t}=\frac{2 g r^{2} \rho}{9 \eta}$
D) $\mathrm{v}_{\mathrm{t}}=\frac{9 \eta r^{2} \rho}{2 g}$
Q. 43 Torricelli's theorem be written as:
A) $v_{2}=\sqrt{2 g\left(h_{1}-h_{2}\right)}$
B) $v_{2}=\sqrt{g\left(h_{2}-h_{1}\right)}$
C) $v_{2}=\sqrt{2 g\left(h_{2}-h_{1}\right)}$
D) $v_{2}=\sqrt{g\left(h_{1}-h_{2}\right)}$
Q. 44 When the spaceship rotates with $\qquad$ frequency, the artificial gravity like earth is produced to inhabitants of the ship:
A) $2 \pi \sqrt{\frac{R}{g}}$
B) $2 \pi \sqrt{\frac{\ell}{g}}$
C) $\frac{1}{2 \pi} \sqrt{\frac{R}{g}}$
D) $\frac{1}{2 \pi} \sqrt{\frac{R}{g}}$
Q. 45 In a microwave oven, the wave produced has a wavelength of $\mathbf{1 2} \mathbf{~ c m}$ at a frequency of:
A) 2452 Hz
B) 2456 Hz
C) 2455 Hz
D) 2450 Hz
Q. 46 Speed of the waves is equal to:
A) $f \lambda$
C) Both A and B
B) $\frac{\lambda}{\mathrm{T}}$
D) $\lambda T$
Q.47 A particle carrying charge of $\mathbf{2 e}$ falls through a potential difference of 3.0 V. Calculate the energy required by it:
A) $9.6 \times 10^{-19} \mathrm{~J}$
B) $9.1 \times 10^{-19} \mathrm{~J}$
C) $1.6 \times 10^{-19} \mathrm{~J}$
D) $6.0 \times 10^{-19} \mathrm{~J}$
Q. 48 The deviation of I-V graph from the straight line is due to:
A) Decrease in temperature and decrease in resistance
B) Increase in temperature and increase in resistance
C) Decrease in temperature and increase in resistance
D) Increase in temperature and decrease in resistance

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Q. 49 The fractional change in resistance per Kelvin is known as:
A) Temperature coefficient of resistance
C) Linear coefficient of expansion
B) Thermal coefficient
D) Volumetric coefficient of expansion
Q. 50 The energy supplied by the cell to the charge carriers is derived from the conversion of:
A) Heat energy into Electrical energy
C) Solar energy into Electrical energy
B) Chemical energy into Electrical energy
D) Mechanical energy into Electrical energy
Q. 51 Force experienced by a moving change in a magnetic field is:
A) $\mathbf{F}=\mathbf{B A} \cos \theta$
B) $\mathbf{F}=\mu_{0} \mathbf{N I}$
C) $\mathbf{F}=\mathrm{q}(\mathbf{v \times B})$
D) $\mathbf{F}=\mathrm{I}(\mathbf{L} \times \mathbf{B})$
Q. 52 The value of permeability of free space $\mu_{o}$ is:
A) $4 \pi \times 10^{-7} \mathrm{WbA}^{-1} \mathrm{~m}^{-1}$
B) $4 \pi \times 10^{2} \mathrm{WbA}^{-2} \mathrm{~m}^{-2}$
C) $4 \pi \times 10^{-7} \mathrm{WbA}^{-2} \mathrm{~m}^{-1}$
D) $4 \pi \times 10^{2} \mathrm{WbA}^{-1} \mathrm{~m}^{-2}$
Q. 53 What shunt resistance must be connected across a Galvanometer of $20 \Omega$ resistance which gives full scale deflection with 2.0 A current, so as to convert it into an Ammeter of range 10 A?
A) $5 \Omega$
B) $2 \Omega$
C) $3 \Omega$
D) $4 \Omega$
Q. 54 The current measuring part of the Avometer consists of number of low resistances connected:
A) At an angle of $180^{\circ}$ with the galvanometer
C) At an angle of $45^{\circ}$ with the galvanometer
B) Parallel with the galvanometer
D) Perpendicular to the galvanometer
Q. 55 A charge of two micro coulombs ( $2 \mu \mathrm{C}$ ) moves with velocity of two meter per second ( $2 \mathrm{~m} / \mathrm{sec}$ ) in the direction of two Tesla magnetic field. The force that will act on it will be:
A) 2 N
C) 8 N
B) Zero
D) 4 N
Q. 56 We have two coils placed close to each other. When we switch on the battery connected to primary coil while keeping the sliding contact of rheostat at fixed position, the reading of Galvanometer:
A) First increases and then becomes zero
B) First increases and then becomes constant at some value
C) Increases with the passage of time
D) Remains zero
Q. 57 Power losses in a transformer can be minimized:
A) By increasing turn ratio
B) By decreasing turn ratio
C) By stopping the flow of Eddy currents
D) Using material of the core whose hysteresis area is large
Q. 58 In R-L Series circuit, the phase difference between applied voltage and current is given by the angle $\Theta$ which is:
A) $\theta=\tan ^{-1} \frac{L R}{\omega}$
B) $\theta=\tan ^{-1} \omega L R$
C) $\theta=\tan ^{-1} \frac{\omega}{g}$
D) $\theta=\tan ^{-1} \frac{\omega R}{L}$
Q. 59 Frequency of L-C circuit will resonate under the driving action of the antenna by angular value of:
A) Capacitance
C) Inductance
B) Impedance
D) Resistance
Q. 60 To convert the Si crystal into p-type semi-conductor, which group element will be doped:
A) Trivalent Element
C) Fourth Group Element
B) Second Group Element
D) Pentavalent Element

## CHEMISTRY

Q. 61 Which of the following is an exothermic reaction?
A) $\mathrm{H}^{+}{ }_{(\mathrm{aq})}+\mathrm{OH}^{-}{ }_{(\mathrm{aq})} \longrightarrow \mathrm{H}_{2} \mathrm{O}_{(\mathrm{l})}$
B) $\mathrm{Na}_{(\mathrm{g})} \longrightarrow \mathrm{Na}^{+}{ }_{(\mathrm{g})}+1 \mathrm{e}^{-}$
C) $\frac{1}{2} \mathrm{H}_{2(\mathrm{~g})} \longrightarrow \mathrm{H}_{(\mathrm{g})}$
D) $\frac{1}{2} \mathrm{Cl}_{2(\mathrm{~g})} \longrightarrow \mathrm{Cl}_{(\mathrm{g})}$
Q. 62 The rate equation determined experimentally for this reaction:

$$
\left(\mathrm{CH}_{3}\right)_{3}-\mathrm{C}-\mathrm{Br}+\mathrm{H}_{2} \mathrm{O} \xrightarrow{\left(\mathrm{CH}_{3}\right)_{3}-\mathrm{C}-\mathrm{OH}+\mathrm{HBr}}
$$

Is, Rate $=\mathbf{k}\left[\left(\mathrm{CH}_{3}\right)_{3} \mathrm{CBr}\right]$
Hence it is which of the follwing?
A) Fractional Order
C) First Order
B) Pseudo First Order
D) Second Order
Q. 63 Equilibrium constant $K_{c}$ for

$$
\mathrm{H}_{2} \mathrm{O} \longrightarrow \mathrm{H}^{+}+\mathrm{OH}^{-}
$$

Can be written as follows:
A) $\mathrm{K}_{\mathrm{c}}=\frac{\left[\mathrm{H}^{+}\right]}{\left[\mathrm{H}_{2} \mathrm{O}\right]\left[\mathrm{OH}^{-}\right]}$
B) $\mathrm{K}_{\mathrm{c}}=\frac{\left[\mathrm{OH}^{-}\right]}{\left[\mathrm{H}^{+}\right]\left[\mathrm{OH}^{-}\right]}$
C) $\mathrm{K}_{\mathrm{c}}=\frac{\left[\mathrm{OH}^{-}\right]\left[\mathrm{H}^{+}\right]}{\left[\mathrm{H}_{2} \mathrm{O}\right]}$
D) $\mathrm{K}_{\mathrm{c}}=\frac{\left[\mathrm{H}_{2} \mathrm{O}\right]}{\left[\mathrm{H}^{+}\right]\left[\mathrm{OH}^{-}\right]}$
Q. 64 The protonation of carboxylic acid is:
A)

C)


B)

D)

Q. 65 Each molecule of haemoglobin is made up of nearly:
A) 11000 atoms
B) 6600 atoms
C) 10000 atoms
D) 6800 atoms
Q. 66 A limiting reactant is the one which:
A) Is mostly a cheaper substance and taken in larger quantity
B) Is consumed earlier and controls the amount of product formed in a chemical reaction
C) Gives greatest number of moles of products
D) Is left behind after the completion of reaction
Q. 67 During isotopic analysis, the pressure of the vapours of the ions maintained in the ionization chamber of mass spectrometer is:
A) Around $10^{-7}$ torr
C) 1 torr
B) Around $10^{-3}$ torr
D) $10^{-7}$ torr
Q. 68 The acid which can be purified by the sublimation is:
A) Acetic Acid
C) Oxalic Acid
B) Benzoic Acid
D) Citric Acid
Q. 69 Paper chromatography is used for:
A) Elemental Analysis
C) Qualitative Analysis
B) Industrial Purification
D) Structural Analysis
Q. 70 In the process of respiration there is application of:
A) Dalton's Law
C) Boyle's Law
C) Charles's Law
D) Graham's Law

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Q. 71 The formula of acrylonitrile is:
A) $\mathrm{CH}_{3}=\mathrm{CH}-\mathrm{CN}$
B) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{CN}$
C) $\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CN}$
D) $\mathrm{CH} 3-\mathrm{CN}$
Q. 72 During nitration of benzene the active nitrating agent is:
A) $\mathrm{NO}_{2}^{-}$
B) $\mathrm{HNO}_{2}$
D) $\mathrm{NO}_{3}$
D) $\mathrm{NO}_{2}{ }^{+}$
Q. 73 Which compound is the most reactive one?
A) Ethyne
C) Benzene
B) Ethane
D) Ethene
Q. 74 Grignard reagents are prepared by the reaction of magnesium metal with alkyl halides in the presence of:
A) Dry Ether
C) Alcohol
B) $\mathrm{CS}_{2}$
D) $\mathrm{CCl}_{4}$
Q. 75 When n-butyl magnesium iodide is treated with water, the product is:
A) n-butane
C) Propane
B) Iso-butane
D) Alcohol
Q. $76 \quad \mathrm{CO}+2 \mathrm{H}_{2} \xrightarrow[Y]{X} \mathrm{CH}_{3} \mathrm{OH}$
$X$ and $Y$ are:
A) $\mathrm{ZnO}+\mathrm{Al}_{2} \mathrm{O}_{3}$ and $450^{\circ} \mathrm{C}: 200 \mathrm{~atm}$
B) $\mathrm{ZnO}+\mathrm{Cr}_{2} \mathrm{O}_{3}$ and $450^{\circ} \mathrm{C}: 200 \mathrm{~atm}$
C) $\mathrm{Al}_{2} \mathrm{O}_{3}+\mathrm{Cr}_{2} \mathrm{O}_{3}$ and $200^{\circ} \mathrm{C}: 200 \mathrm{~atm}$
D) $\mathrm{ZnO}+\mathrm{Cr}_{2} \mathrm{O}_{3}$ and $450^{\circ} \mathrm{C}: 200 \mathrm{~atm}$
Q. 77 Phenol reacts with concentrated $\mathrm{H}_{2} \mathrm{SO}_{4}$ to give:
A) ortho hydroxy benzene sulphonic acid
C) ortho and para hydroxy benzene sulphonic acid
B) meta hydroxy benzene sulphonic acid
D) para hydroxy benzene sulphonic acid
Q. 78 Phenol can be distinguished from alcohol by adding:
A) $\mathrm{Br}_{2} / \mathrm{H} 2 \mathrm{O}$
B) $\mathrm{Cl}_{2} / \mathrm{H}_{2} \mathrm{O}$
C) $\mathrm{FeSO}_{4}$
D) $\mathrm{FeCl}_{3}$
Q. 79 In the conversion of ethylene into acetaldehyde, cupric chloride acts as:
A) Initiator
C) Catalyst
B) Promoter
D) Reactant
Q. 80 When acetone is heated in the presence of $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7} / \mathrm{H}_{2} \mathrm{SO}_{4}$, the products formed are;
A) Maleic Acid and Fumaric Acid
C) Formic Acid and Oxalic Acid
B) Acetic Acid and Formic Acid
D) Oxalic Acid and Acetic Acid
Q. 81 Which acid is used in the manufacture of plastics?
A) Carbolic Acid
C) Carbonic Acid
B) Acetic Acid
D) Oxalic Acid
Q. 82 Which of the following compounds will react with Tollen's Reagent?
A)

C)

B)

D)

Q. 83 In conjugated protein molecules, the protein is attached or conjugated to some non-protein group which are called:
A) Prosthetic Group
C) Hydrogen Bonding
C) Aldehyde Group
D) Peptide Linkage
Q. 84 Micronutrients are required in quantity ranging from:
A) $6-200 \mathrm{~g}$ per acre
C) 4 - 40 g per acre
B) 6-200 kg per acre
D) 4-40 kg per acre
Q. 85 Potassium fertilizers are especially useful for:
A) Mango
C) Wheat
B) Tobacco
D) Rice
Q. 86 The yellowish colour of photochemical smog is due to the presence of:
A) Nitrogen dioxide
C) Nitrous oxide
B) Dinitrogen trioxide
D) Nitric oxide
Q. 87 The incarnation process can reduce the volume of the water by:
A) One half
C) One third
B) Not affected
D) Two third
Q. 88 \% of the known universe is in the plasma state.
A) 30
B) 99
C) 50
D) 80
Q. 89 Absolute zero is unattainable. Current attempts have resulted in temperature as low as:
A) $10^{-4} \mathrm{~K}$
B) $10^{-2} \mathrm{~K}$
C) $10^{-1} \mathrm{~K}$
D) $10^{-5} \mathrm{~K}$
Q. 90 Electron gas theory was proposed to explain the bonding in $\qquad$ solids:
A) Molecular
C) Covalent
B) Ionic
D) Metallic
Q. 91 In proteins, there are on the average $\qquad$ amino acid units for each turn in helix:
A) 25
B) 27
C) 21
D) 23
Q. 92 In atomic particles:
A) Mass of neutron is almost equal to mass of electron
B) e/m of a proton is almost equal to $\mathrm{e} / \mathrm{m}$ of electron
C) Mass of proton is almost equal to mass of electron
D) Charge of proton is almost equal to charge of electron
Q. 93 The extent of bonding of a light ray after passing through prism depends upon:
A) Wavelength of photons
C) Energy of photons
B) Wave number of photons
D) Frequency of photons
Q. 94 Splitting of spectral lines in closely spaced lines in presence of magnetic field is called:
A) Stark Effect
C) Photoelectric Effect
B) Zeeman Effect
D) Compton Effect
Q. 95 A bond is not formed:
A) When both forces become equal to each other
C) When attraction forces dominate repulsive forces
B) When repulsive forces become equal to zero
D) When repulsive forces dominate attraction forces
Q. 96 If the electronegativity difference between bonded atoms is zero, the bond between the two atoms is:
A) Polar
C) Non-polar
B) Partially Ionic
D) Both B and C
Q. 97 VSEPR theory helps in explaining:
A) Attraction between atoms
C) Nature of bond
B) Size of molecule
D) Shape of molecule
Q. 98 Which of the following formation is an endothermic reaction?
A) $\mathrm{C}_{(\mathrm{g})}+\mathrm{O}_{2(\mathrm{~g})}$
C) $2 \mathrm{H}_{2} \mathrm{O}_{(1)}$
$2 \mathrm{H}_{2(\mathrm{~g})}+\mathrm{O}_{2(\mathrm{~g})}$
B) $\mathrm{N}_{2(\mathrm{~g})}+3 \mathrm{H}_{2(\mathrm{~g})} \longrightarrow 2 \mathrm{NH}_{3(\mathrm{~g})}$
D) None of the above
Q. 99 Solubility of $\mathrm{KClO}_{3}$ can be decreased bin $\mathbf{H 2 O}$ by:
A) Removing $\mathrm{K}^{+}$ions from the solution
C) Adding KCl from outside
B) Removing $\mathrm{ClO}_{3}^{-1}$ ions from the solution
D) Adding $\mathrm{NaNO}_{3}$ from outside

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 the HCl solution will be:
A) $36.5 \mathrm{~g} / \mathrm{mol}$
B) $100 \mathrm{~g} / \mathrm{mol}$
C) $38.0 \mathrm{~g} / \mathrm{mol}$
D) $11.73 \mathrm{~g} / \mathrm{mol}$
Q. 101 The heat of hydration decreases with the increase in:
A) Number of neutrons
C) Size of atomic radii
B) Size of cations
D) Number of electrons
Q. 102 Stronger the oxidizing agent, greater is the:
A) Redox Potential
C) Oxidation Potential
B) emf of the cell
D) Reduction Potential
Q. 103 The emf produced by Galvanic Cell is known as:
A) Redox Potential
C) Cell Potential
B) Oxidation Potential
D) None of the above
Q. 104 In nickel-cadmium battery, the cathode is composed of:
A) Cd
B) $\mathrm{Ni}(\mathrm{OH})_{2}$
C) Ni
D) $\mathrm{NiO}_{2}$
Q. 105 Concentrated sugar solution undergoes hydrolysis into glucose and fructose by enzyme called:
A) Zymase
C) Cellulose
B) Invertase
D) Urease
Q. 106 In Modern Periodic Table, the elements in Group II-B are:
A) $\mathrm{Zn}, \mathrm{Cd}, \mathrm{Pb}$
B) $\mathrm{Zn}, \mathrm{Cd}, \mathrm{Hg}$
C) $\mathrm{Zn}, \mathrm{Cd}, \mathrm{Ba}$
D) $\mathrm{Zn}, \mathrm{Cd}, \mathrm{Bi}$
Q. 107 Hydrogen loses an electron to form:
A) $\mathrm{H}^{+}$
B) $\mathrm{H}_{2}{ }^{-2}$
C) H
D) $\mathrm{H}^{-}$
Q. 108 Which metal occurs as skeletal material in egg shell?
A) Calcium
C) Beryllium
B) Barium
D) Strontium
Q. 109 At which condition are hydrides of alkaline earth metals formed:
A) At high pressure
C) At high temperature
B) At room temperature
D) None of the above
Q. 110 Which metal carbide is formed readily by the direct reaction?
A) Rubidium
C) Sodium
B) Potassium
D) Lithium
Q. 111 Asbestos is hydrated $\qquad$ magnesium silicate.
A) Calcium
C) Barium
B) Aluminium
D) Carbon
Q. 112 Formula of lead suboxide is:
A) $\mathrm{Pb}_{2} \mathrm{O}_{3}$
B) $\mathrm{Pb}_{2} \mathrm{O}$
C) PbO
D) $\mathrm{Pb}_{3} \mathrm{O}_{4}$
Q. 113 Phosphine can be produced by $\qquad$ of phosphorous acid.
A) Hydration
C) Oxidation
B) Hydrolysis
D) Reduction
Q. 114 Which Noble Gas is used in bacterial lamps?
A) Xenon
C) Argon
B) Radon
D) Krypton
Q. 115 The most durable metal plating on iron to protect against corrosion is:
A) Tin plating
C) Nickel plating
D) Zinc plating
D) Copper plating
Q. 116 Colour of the transition metal ions/ compounds is due to the electrons present in:
A) d-orbital
C) p-orbital
B) s-orbital
D) None of the above
Q. 117 Chromyl Chloride Test is performed to confirm:
A) $\mathrm{Cl}^{-}$ions
B) $\mathrm{SO}_{4}^{-2}$ ions
C) $\mathrm{PO}_{4}^{-3}$ ions
D) $\mathrm{Cr}^{+3}$ ions
Q. 118 Linear shape is associated with set of hybrid orbitals?
A) $\mathrm{sp}^{2}$
B) $\mathrm{dsp}^{2}$
C) $\mathrm{sp}^{3}$
D) sp
Q. 119 Which one of the following compounds show cis-trans isomerism?
A) 1-butene
C) 1-bromo-2-chloropropane
B) 1-hexene
D) Propene
Q. 120

A) Propane
C) Methane
B) Butane
D) Ethane

## ENGLISH

Q. 121 The traveler $\qquad$ a long detour to water the camels.
A) Took
C) Sought
B) Saw
D) Made
Q. 122 Shah Jahan $\qquad$ the great mosque at Delhi.
A) Founded
C) Created
B) Raised
D) Established
Q. 123 He was $\qquad$ of theft in the court.
A) Charged
C) Blamed
B) Reported
D) Accused
Q. 124
A) Arrived on a very extraordinary ambition.
C) Came
B) Decided
D) Hit

SPOT THE ERROR: In the following sentences, some segments of each sentence are underlined. Your task is to identify that underlined segment of the sentence, which contains the mistake that needs to be corrected. Fill the Circle corresponding to that letter under the segment in the MCQ Response From.
Q. 125 He is better than all the boys in the class, in studies as well as in sports, and bags big prizes in various field.
A)
B)
C)
D)
Q. 126

One must not depend too much upon one's hard work, as provident also plays its part.
A)
B)
C)
D)
Q. 127 His first adventure was to go round through the world at minimum cost.
A)
B)
C)
D)
Q. 128 He has been working in this department since the last five years without any break.
A)
B)
C)
D)
Q. 129 He reached at Lahore only a few days ago, on last Friday, to be exact, and is going to stay here for some time.
A)
B)
C)
D)
Q. 130 There was a big rally on the Mall, but as the crowd disintegrated, chaos and confusion ruled everywhere.
A)
B)
C)
D)

## In each of the following question, four alternative sentences are given.

 Choose the CORRECT one and fill the Circle corresponding to that letter in the MCQ Response Form.
## Q. 131

A) E-mail is a relatively new mean of communication.
C) E-mail is a relatively new means of communication.
B) E-mail is a relatively new mean to communication.
D) E-mail is a relatively new means to communication.
Q. 132
A) As she said the computer was programmed by Mona.
B) Just like she said the computer was programmed by Mona.
C) As like she said the computer was programmed by Mona.
D) Just like she had she said the computer was programmed by Mona.
Q. 133
A) The remains of the body were thrown into the sea.
C) The remains of the body were thrown to the sea.
B) The remain of the body was thrown into the sea.
D) The remains of the body was thrown into the sea.
Q. 134
A) We will discuss your problem as soon as the committee will leave.
B) We will discuss your problem as soon as the committee left.
C) We will discuss your problem as soon as the committee may leave.
D) We will discuss your problem as soon as the committee leaves.
Q. 135
A) Reaching for the book, the ladder slipped out from under him.
B) Reaching for the book, the ladder slipped out from him.
C) When he reached for the book, the ladder was slipped out from under him.
D) When he was trying to reach for the book, the ladder slipped from under him.
Q. 136
A) After the sun has set behind the mountain, a cool breeze sprang up and brought relief from the heat.
B) After the sun had been set behind the mountain, a cool breeze sprang up and brought relief from the heat.
C) After the sun would set behind the mountain, a cool breeze would sprang up and brought relief from the heat.
D) After the sun set behind the mountain, a cool breeze sprang up and brought relief from the heat.
Q. 137
A) Masood told me that he would hire more salesman if he is in my position.
B) Masood told me that he would hire more salesman if he has been in my position.
C) Masood told me that he would hire more salesman if he has my position.
D) Masood told me that he would hire more salesman if he had been in my position.
Q. 138
A) He consumed his heart on this and washed away before the very eyes of the people.
B) He consumed his heart at this and washed away before the very eyes of the people
C) He consumed his heart for this and washed away before the very eyes of the people.
D) He consumed his heart over this and washed away before the very eyes of the people.
Q. 139
A) They felt bad while leaving their friends.
C) They felt very badly about leaving their friends.
B) They felt badly about leaving their friends.
D) They felt badly while leaving their friends.
Q. 140
A) He then struck the man himself a similar bow, which felled him on the earth like a log.
B) He then struck the man himself a similar bow, which felled him over the earth like a log.
C) He then struck the man himself a similar bow, which felled him to the earth like a log.
D) He then struck the man himself a similar bow, which felled him in the earth like a log.
$\longmapsto$ In each of the following question, four alternative meanings of a word are given. You have to select the NEAREST CORRECT MEANING of the given word and fill the appropriate Circle on the MCQ Response Form.
Q. 141 AGHAST
A) Critical
C) Happy
B) Reluctant
D) Horrified
Q. 142 INVIDIOUS
A) Unbreakable
C) Unpleasant
B) Interesting
D) Fair
Q. 143 IMPROMPTU
A) Arriving at the right time
C) Done without preparation
B) Showing signs of being good
D) Wretched

## Q. 144 DISCERNMENT

A) A system of controlling a country
C) The act of encouraging somebody
B) The ability to show good judgement
D) The ability to show no concern
Q. 145 NEOLOGISM
A) A new word
C) Brief summary
B) Pleasant remark
D) Archaic expression
Q. 146 FURTIVE
A) Furious
C) Secretive
B) Familiar
D) Easy
Q. 147 BOURGEOIS
A) Belonging to the bureaucratic class
C) Belonging to the upper class
B) Belonging to the middle class
D) Belonging to the lower class
Q. 148 RUMINATE
A) Eat greedily
C) Work lazily
B) Think deeply
D) Run fast
Q. 149 EMBELLISH
A) Beautify
C) Finish
B) Nominate
D) Weaken
Q. 150 PARABLE
A) Impossible
C) Allegory
B) Sociable
D) Suitable

## BIOLOGY

Q. 151 If DNA strand is

## GCTATGG

mRNA strand synthesized from it would be:
A) CGAUACC
C) CGATACC
B) CGTATGC
D) CGUTCC

Page 14 of 18
Q. 152 Which one of the following conditions best describes active membrane potential:
++++++++++ Outside

-     -         -             -                 -                     -                         -                             -                                 -                                     -                                         - 

Inside Neuron
A)
+-+-+-+-+-+ Outside
$+-+-+-+-+-+$
Inside Neuron
C)
++++++++++ Outside
$+++++++++++$
Inside Neuron
B)
----------- Outside
++++++++++++
Inside Neuron
D)
Q. 153 Tissue rejection is executed by:
A) Both B and T lymphocytes
C) B-lymphocytes
B) Monocytes
D) T-lymphocytes
Q. 154 Which of the following statement best describes the function of sinoatrial node?
A) It sends out electrical impulses to ventricles to contract.
B) It is present at upper end of the left atrium
C) It consists of small number of diffusely oriented cardiac fibers.
D) It sends out electrical impulses to atrial muscles causing both atria to contract.
Q. 155 A central cavity of the kidney where urine is collected after filtration is known as:
A) Ureter
C) Urethra
B) Pelvis
D) Urinary Bladder
Q. 156 Aldosterone plays role in:
A) Transport of water
C) Uptake of sodium in loop of Henle
B) Transport of $\mathrm{K}^{+}$ions into kidney
D) Reabsorption of water
Q. 157 Technique used for non-surgical removal of kidney stone is called:
A) Ultrasound
C) Dialysis
B) Lithotripsy
D) X-ray
Q. 158 Microcephaly, the small sized skull is due to:
A) Nutritional Cause
C) Hormonal Causes
B) Skeleton Damage
D) Genetic Defect
Q. 159 The joints that allow movements in several directions are:
A) Hinge Joints
C) Fibrous Joints
B) Ball and Socket Joints
D) Cartilaginous Joints
Q. 160 The collagen fibers of bone are hardened by deposit of:
A) Calcium phosphate
C) Calcium carbonate
B) Calcium oxalate
D) Calcium bicarbonate
Q. 161 Which of the following neurotransmitters lies outside the central nervous system?
A) Serotonin
C) Acetylcholine
B) Dopamine
D) Adrenaline
Q. 162 Which hormonal pair shares a common hypothalamic releasing factor?
A) STH and LH
C) FSH and STH
B) ACTH and LH
D) FSH and LH
Q. 163 Which of the following will happen if fertilization does not occur?
A) Menopause starts
C) FSH secretion is increased
B) Corpus luteum degenerates
D) Progesterone secretion is increased
Q. 164 Newborn infant may acquire serious eye infections, if his/her mother has:
A) Genital herpes
C) Gonorrhea
B) AIDS
D) Syphilis
Q. 165 At the cephalic end of primitive streak, closely packed cells form a local thickening known as:
A) Henson's Node
C) Primitive Ridge
B) Gastrocoele
D) Primitive Gut
Q. 166 In plants, the red light favours:
A) Enhancement of cell differentiation
C) Maturation of the cells
B) Elongation of cells
D) Enhancement of cell division
Q. 167 The reaction between the phosphate group of one nucleotide and hydroxyl group of another is a $\qquad$ synthesis in DNA molecule.
A) Dehydration
C) Oxidation
B) Rehydration
D) Reduction
Q. 168 Enzyme which attaches the Okazaki fragments in lagging strand is called:
A) Restriction endonuclease
C) DNA helicase
B) Primase
D) DNA ligase
Q. 169 In phenylketonuria, phenylalanine is not degraded because of defective enzyme:
A) Phenylalanine hydrogenase
B) Phenylalanine oxidase
B) Phenylalanine phosphate
D) None of these
Q. 170 Males with XXY chromosomes suffer from:
A) Klinefelter's Syndrome
C) Down's Syndrome
B) Jacob's Syndrome
D) Edward's Syndrome
Q. 171 Internal program of events and sequences of morphological changes by which cell commit a suicide is collectively called:
A) Necrosis
C) Metastasis
B) Epistasis
D) Apoptosis
Q. 172 Phragmoplast is formed from vesicle which originates from:
A) Smooth Endoplasmic Reticulum
C) Ribosome
B) Golgi Complex
D) Rough Endoplasmic Reticulum
Q. 173 When phenotype of a heterozygote is in between the phenotypes of both the homozygote parents, it is called:
A) Incomplete dominance
C) Pleiotropy
B) Epistasis
D) Codominance
Q. 174 Which one of correct about ' $\mathbf{R h}^{+\prime}$ blood?
A) Will produce anti-Rh antibodies if given $\mathrm{Rh}^{+}$blood
C) $\mathrm{Rh}^{+}$antigens are present on RBCs
B) Cannot produce anti-Rh antibodies in any case
D) $\mathrm{Rh}^{+}$antibodies are present in blood
Q. 175 Temperature-insensitive (thermostable) enzyme used in PCR is:
A) DNA polymerase I
C) DNA ligase
B) DNA polymerase III
D) Taq polymerase
Q. 176 Cloning is a form of:
A) Parthenogenesis
C) Sexual Reproduction
B) Apomixis
D) Asexual Reproduction
Q. 177 Antigens to treat Non-Hodgkin's lymphoma are produced by:
A) Wheat Plant
C) Tobacco Plant
B) Rice Plant
D) Corn Plant
Q. 178 The survival of an organism during the struggle for existence is not random, but depends on:
A) Its genetic constitution
C) Its ability to over-produce
B) Its ability to acquire characters
D) Its ability to over-eat
Q. 179 Evolutionary relationships amongst species are reflected in their:
A) DNA and proteins
C) DNA and gene
B) RNAs and proteins
D) DNA and RNAs

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Q. 180 If all the members of a population are homozygous for the same allele, that allele is said to be:
A) Random in population's pool
C) Random in a species
B) Fixed in population's pool
D) Fixed in the gene pool
Q. 181 Diseases in living organisms which are caused by parasites are called:
A) Disinfestations
C) Infections
B) Antisepsis
D) Infestations
Q. 182 The nutrient cycles are also called:
A) Biogeochemical cycles
C) Bio element cycles
B) Biochemical cycles
D) Geochemical cycles
Q. 183 The productivity of aquatic ecosystem is determined by:
A) Water
C) Light
B) Light and nutrients
D) Nutrients
Q. 184 What is the drawback of nuclear energy?
A) It causes radiation pollution
C) It is very expensive
B) It is not long lasting
D) It pollutes the air
Q. 185 Arteriosclerosis is:
A) A metabolic disorder
C) An infectious disorder
B) A degenerative Disorder
D) A nutritional deficiency disorder
Q. 186 Antibiotics act against:
A) Bacterial Diseases
C) Bacterial and Viral Diseases
B) Allergies
D) Viral Diseases
Q. 187 Immediate source of energy for cellular metabolism is:
A) Lipids
C) Carbohydrates
B) ATP
D) Proteins
Q. 188 Haemoglobin exhibits:
A) Secondary Structure
C) Quaternary Structure
B) Primary Structure
D) Tertiary Structure
Q. 189 Pepsin enzyme is produced in an inactive form and is activated in situation when it is required because:
A) Not produced in complete form
C) It does not work efficiently at that time
B) Quite capable of destroying cells internal structure
D) None of the above
Q. 190 Enzyme after catalysis detaches itself from the product:
A) Completely
C) Changed
B) Incompletely
D) Unchanged
Q. 191 A group of ribosomes attached to messenger RNA is known as:
A) Ribosome
C) Nucleosome
B) Lysosome
D) Polysome
Q. 192 Detoxification of harmful drugs within the cell is done by:
A) Nucleolus
C) Ribosomes
B) Smooth Surface Endoplasmic Reticulum
D) Food Vacuoles
Q. 193 Tay-Sach's disease is due to the presence of an enzyme that is inverted in the catabolism of:
A) Proteins
C) Ascorbic Acid
B) Carbohydrates
D) Lipids
Q. 194 What is true about pattern baldness?
A) It is autosomal recessive disease in males
C) It is X-linked disease
B) It is autosomal dominant disease in males
D) It is $Y$-linked disease
Q. 195 Symptoms of Herpes Simplex is:
A) Abdominal Pain
C) Vesicular lesions in the epithelial layer
B) Fever
D) Failure of immune system
Q. 196 The major cell infected by the HIV is:
A) Leucocyte
C) Helper T-lymphocyte
B) Monocyte
D) B-lymphocyte
Q. 197 are used as important vectors in genetic engineering.
A) Ribosomes
C) Nucleoids
B) Plasmids
D) Mesosomes
Q. 198 Which of the following is aerobic bacterium?
A) Spirochete
C) E. coli
B) Cyanobacteria
D) Pseudosomanas
Q. 199 The giant amoebas inhabit mud at the bottom of fresh water ponds and obtain energy from:
A) Microscopic bacteria
C) Anaerobic bacteria
B) Aerobic bacteria
D) Methanogenic bacteria
Q. 200 A large group of parasitic protozoa, some of which causes various diseases such as malaria to humans, are:
A) Aschelminthes
C) Annelida
B) Platyhelminthes
D) Arthropods
Q. 201 Penicillin is obtained from:
A) Penicillium notatum
C) Aspergillus fumigatus
B) Aspergillus flavus
D) Penicillium chrysogenum
Q. 202 Which of the following components is less resistant to decay?
A) Lignin
C) Chitin
B) Starch
D) Cellulose
Q. 203 are bioindicators of air pollution.
A) Cyanobacteria
C) Mycorrhiza
B) Fungi
D) Lichens
Q. 204 The gymnosperms are called 'Naked Seeded' plants because they bear naked:
A) Antheridia
C) Fruits
B) Ovules
D) Archegonia
Q. 205 The integumented indehiscent mega sporangium is called:
A) Seed
C) Archegonium
B) Megagametophyte
D) Ovule
Q. 206 Pulses are present in the family:
A) Caesalpinlaceae
C) Gramineae
B) Fabaceae
D) Mimosaceae
Q. 207 It is an endoparasite of humans, cattle and pig that completes its life cycle in two hosts:
A) Tapeworm
C) Liver fluke
B) Aurelia
D) Planaria
Q. 208 Tse-tse fly causes the sleeping sickness and skin diseases by transmitting:
A) Plasmodium
C) Anopheles
B) Trypanosoma
D) Insects
Q. 209 Coelem is a cavity lined by:
A) Mesoderm
C) Epiderm
B) Endoderm
D) Ectoderm

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Q. 210 Which of the following molecules is reduced by accepting hydrogen in Calvin Cycle?
A) Glyceraldehyde-3-phosphate
C) 3-Phosphoglycerate
B) Ribulose bisphosphate
D) 1,3-Bisphosphoglycerate
Q. 211 The molecule formed after first phosphorylation during glycolysis is:
A) Fructose-6-phosphate
C) Glucose-1-phosphate
B) Fructose-1, 6-bisphosphate
D) Glucose-6-phosphate
Q. 212 Krebs Cycle in mitochondria takes place in:
A) Cytosol
C) Outer Membrane
B) Matrix
D) Inner Membrane
Q. 213 At the junction between esophagus and the stomach there is a special ring of muscles called:
A) Cardiac Sphincter
C) Esophageal Sphincter
B) Ileocolic Sphincter
D) Pyloric Sphincter
Q. 214 Hepatic and pancreatic secretions are also stimulated by a hormone called:
A) Gastrin
C) Insulin
B) Secretin
D) Glucagon
Q. 215 Like pepsin, trypsin is also secreted as inactive trypsinogen, which is activated by:
A) Enterokinase
C) Chyme
B) Lipase
D) Erypsin
Q. 216 During photorespiration, the glycolate is converted into glycine in a structure of cell called:
A) Golgi Bodies
C) Mitochondria
B) Glyoxisome
D) Peroxisome
Q. 217 The respiratory pigment, which has much higher affinity to combine with oxygen, is:
A) Myoglobin
C) Haemoglobin
B) Globin
D) Hemocyanin
Q. 218 Most of the carbon dioxide is carried in the blood in the form of:
A) Bicarbonate
C) $\mathrm{CO}_{2}$
B) Carboxyhemoglobin
D) Blood plasma protein
Q. 219 Antibiotics are actually:
A) Globular proteins
C) Fibrous proteins
B) Glycoproteins
D) Glycolipids
Q. 220 Heparin prevents blood clots and is released by:
A) Eosinophils
C) Neutrophils
B) Monocytes
D) Basophils

# University of Health Sciences, Lahore <br> Entrance Test - 2009 

## For admission to Medical / Dental Institutions of the Punjab ANSWER KEY

The answer key to the questions of Entrance Test 2009 is being released.
Candidates can calculate their scores with the help of carbon copy of their response forms. Each correct answer carries 05 marks whereas one mark will be deducted from the total score for each wrong answer. Unattempted question carries zero marks. Complaints/ queries will be dealt only after the declaration of official result of the Entrance Test by the University. No request in this regard will be entertained before that.

| Q.No. | Ans |
| :---: | :---: |
| ID | B |
| 1 | C |
| 2 | B |
| 3 | D |
| 4 | A |
| 5 | C |
| 6 | D |
| 7 | B |
| 8 | B |
| 9 | D |
| 10 | A |
| 11 | D |
| 12 | D |
| 13 | C |
| 14 | B |
| 15 | C |
| 16 | A |
| 17 | C |
| 18 | A |
| 19 | D |
| 20 | D |
| 21 | A |
| 22 | D |
| 23 | D |
| 24 | B |
| 25 | B |
| 26 | C |
| 27 | A |
| 28 | A |
| 29 | D |
| 30 | D |
| 31 | A |
| 32 | C |
| 33 | C |
| 34 | D |
| 35 | D |
| 36 | D |
| 37 | C |
| 38 | A |
| 39 | A |
| 40 | D |
| 41 | B |
| 42 | C |
| 43 | A |
| 44 | D |
| 45 | D |


| Q.No. | Ans |
| :---: | :---: |
| 46 | C |
| 47 | A |
| 48 | B |
| 49 | A |
| 50 | B |
| 51 | C |
| 52 | A |
| 53 | A |
| 54 | B |
| 55 | B |
| 56 | A |
| 57 | C |
| 58 | C |
| 59 | A |
| 60 | A |
| 61 | A |
| 62 | B |
| 63 | C |
| 64 | A |
| 65 | C |
| 66 | B |
| 67 | A |
| 68 | B |
| 69 | C |
| 70 | A |
| 71 | A |
| 72 | D |
| 73 | D |
| 74 | A |
| 75 | A |
| 76 | X |
| 77 | C |
| 78 | A |
| 79 | B |
| 80 | B |
| 81 | C |
| 82 | B |
| 83 | A |
| 84 | A |
| 85 | B |
| 86 | A |
| 87 | D |
| 88 | B |
| 89 | D |
| 90 | D |
| 91 | B |


| Q.No. | Ans | Q.No. | Ans |
| :---: | :---: | :---: | :---: |
| 92 | D | 138 | D |
| 93 | A | 139 | A |
| 94 | B | 140 | C |
| 95 | D | 141 | D |
| 96 | C | 142 | C |
| 97 | D | 143 | C |
| 98 | C | 144 | B |
| 99 | C | 145 | A |
| 100 | A | 146 | C |
| 101 | B | 147 | B |
| 102 | D | 148 | B |
| 103 | C | 149 | A |
| 104 | D | 150 | D |
| 105 | B | 151 | C |
| 106 | B | 152 | A |
| 107 | A | 153 | D |
| 108 | A | 154 | D |
| 109 | A | 155 | B |
| 110 | D | 156 | C |
| 111 | A | 157 | B |
| 112 | B | 158 | D |
| 113 | D | 159 | B |
| 114 | A | 160 | A |
| 115 | B | 161 | C |
| 116 | A | 162 | D |
| 117 | A | 163 | B |
| 118 | D | 164 | C |
| 119 | C | 165 | A |
| 120 | D | 166 | B |
| 121 | D | 167 | A |
| 122 | A | 168 | D |
| 123 | D | 169 | C |
| 124 | D | 170 | B |
| 125 | A | 171 | D |
| 126 | C | 172 | B |
| 127 | C | 173 | A |
| 128 | B | 174 | A |
| 129 | A | 175 | D |
| 130 | B | 176 | D |
| 131 | C | 177 | C |
| 132 | A | 178 | A |
| 133 | A | 179 | A |
| 134 | D | 180 | D |
| 135 | D | 181 | D |
| 136 | D | 182 | A |
| 137 | D | 183 | B |


| Q.No. | Ans |
| :---: | :---: |
| 184 | A |
| 185 | B |
| 186 | A |
| 187 | B |
| 188 | C |
| 189 | B |
| 190 | D |
| 191 | D |
| 192 | B |
| 193 | D |
| 194 | B |
| 195 | C |
| 196 | C |
| 197 | B |
| 198 | D |
| 199 | D |
| 200 | A |
| 201 | A |
| 202 | C |
| 203 | D |
| 204 | B |
| 205 | D |
| 206 | B |
| 207 | A |
| 208 | B |
| 209 | A |
| 210 | D |
| 211 | D |
| 212 | B |
| 213 | A |
| 214 | B |
| 215 | A |
| 216 | D |
| 217 | A |
| 218 | A |
| 219 | A |
| 220 | D |

