University of Health Sciences, Lahore

Total MCQs: 220 **Max. Marks: 1100**

ENTRANCE TEST – 2010

For F.Sc. Students Only

Time Allowed: 150 minutes

Instructions:

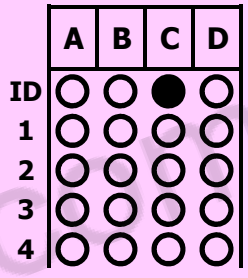
i. Read the instructions on the MCQs Response Form carefully.
ii. Choose the **Single Best Answer** for each question.
iii. Candidates are strictly prohibited from giving any identification mark except Roll No. & Signature in the specified columns only.

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 Pink. Fill the Circle Corresponding to Letter 'C' against 'ID' in your MCQ response form (Exactly as shown in the diagram).



PHYSICS

Q.1 Which one is the highest power multiple?
A) Giga C) Mega
B) Tera D) Deca

Q.2 SI unit of charge is _____.
A) Ampere C) Coulomb
B) Volt D) Calorie

Q.3 The electrical analog of mass is electricity is _____.
A) Capacitance C) Charge
B) Inductance D) Resistance

Q.4 Which one of the following relations is correct?
A) 1 wb m^{-2} = N m^{-1} A^{-1} C) 1 wb m^{-2} = 1 Tesla
B) 1 Tesla = 10^4 Gausses D) All of these

Q.5 Life time of electron in metastable state is about _____.
A) 10^{-5} sec C) 10^{-8} sec
B) 10^{-3} sec D) 10^{-2} sec

Q.6 The torque acting on a current carrying coil is given by _____.
A) τ = NIAB cos α C) τ = NIAB sin α
B) τ = BIL sin α D) τ = BIL cos α

Q.7 The grid in the cathode ray oscilloscope _____.
A) Controls number of waves C) Accelerates electrons
B) Controls the brightness of spot formed D) Has positive potential with respect to cathode

Q.8 The horizontal range of a projectile, at a certain place, is completely determined by

A) The angle of projection
B) The initial velocity of projection
C) The mass of the projectile
D) Speed and mass of the projectile

Q.9 If velocity is double, then.

A) Momentum increase 4 times and K.E increases 2 times
B) Momentum and K.E remain same
C) Momentum increases 2 times and K.E increase constant
D) Momentum increases 2 times and K.E increases 4 times

Q.10 The consumption of energy by 60-watt bulb in 2 seconds is:

A) 20 J
B) 120 J
C) 30 J
D) 0.02 J

Q.11 In transistors, the base region is very thin, of the order of

A) 10^{-5} cm
B) 10^{-6} m
C) 10^{-6} mm
D) 10^{-6} μm

Q.12 The closed loop gain of OP-AMP depends on

A) Internal structure of OP-AMP
B) Externally connected resistances
C) Voltage of power supplies
D) Input resistance

Q.13 The net charge on an N-type substance is

A) 0.7 volts
B) 0.3 volts
C) 0.25 volts
D) 0.07 volts

Q.14 The value of Wien's constant is

A) 2.90×10^{-3} mK
B) 3.34×10^{-4} mK
C) 4.22×10^{-7} mK
D) 3.42×10^{-8} mK

Q.15 The minimum frequency below which no electron is emitted from the metal surface is called

A) High frequency
B) Low frequency
C) Threshold frequency
D) Resonance frequency

Q.16 In pair production, the type of photon used

A) α-particle
B) β-particle
C) X-rays
D) γ-radiations

Q.17 The life time of an electron in an excited state is about 10^{-8} s. What is its uncertainty in energy during this time?

A) 1.05×10^{-41} J
B) 1.05×10^{-26} J
C) 1.15×10^{10} J
D) 2.19×10^{-40} J

Q.18 Velocity of electron moving in first orbit of hydrogen is

A) 2.19×10^{7} m/sec
B) 2.18×10^{7} m/sec
C) 2.2×10^{8} m/sec
D) 2.19×10^{6} m/sec

Q.19 LASER is a potential energy source for inducing which type of reaction?

A) Radioactive
B) Fission
C) Ionization
D) Fusion

Q.20 In the half-life of an element, the equation for the number of decaying atoms is given by

A) $\Delta N \propto -N\Delta t$
B) $\Delta N = KN\Delta t$
C) $\Delta N \propto -n\Delta t$
D) $\Delta N = -\Delta N\Delta t$

Q.21 Decay constant 'λ' is given as

A) $-\frac{\Delta N/N}{\Delta t}$
B) $-\frac{\Delta N}{\Delta t}$
C) $-\frac{N}{\Delta t}$
D) $\frac{\Delta N/N}{\Delta t}$

Q.22 The SI unit of absorbed dose 'D' i.e. radiation effect is Gray and one Gray is equal to

A) kJ / mol
B) J / mol
C) kg / J
D) J / kg

Q.23 The principle of homogeneity of dimensions determines

A) Only variable in the equation
B) Only constant in the equation
C) Correctness of an equation
D) Constant and variable in the equation

Q.24 For a body to be in complete equilibrium

A) Linear acceleration is zero
B) Angular acceleration is zero
C) Linear acceleration is zero but angular acceleration is not zero
D) Linear acceleration and angular acceleration both should be zero

Q.25 If length of a spanner is 'I' and a force 'F' is applied on it to tighten a nut such that it passes through the pivot point, then torque is

A) Zero
B) Ff
C) Fl sin θ
D) Fl sin θλ

Q.26 If a force of magnitude 8 N acts on a body in direction making an angle 30, its x and y components will be

A) $F_x = 4\sqrt{3}$ and $F_y = 8$
B) $F_x = 8$ and $F_y = 4\sqrt{3}$
C) $F_x = 4\sqrt{3}$ and $F_y = 4$
D) $F_x = 8\sqrt{3}$ and $F_y = 4$

Q.27 The difference of a vector $\vec{B}$ and its negative vector $-\vec{B}$ is

A) A null vector
B) Equal to magnitude of vector $\vec{B}$
C) Twice the magnitude of vector $\vec{B}$
D) Smaller than magnitude of vector $\vec{B}$

Q.28 Time of projectile's flight is

A) $\frac{v_i^2 \sin^2 \theta}{g}$
B) $\frac{2v_i \sin \theta}{g}$
C) $\frac{v_i^2 \sin \theta}{g}$
D) $\frac{v_i^2}{g} \sin 2\theta$

Q.29 If the velocity of the body changes by equal amount in equal intervals of time, the body is said to have:

A) variable acceleration
B) uniform acceleration
C) uniform velocity
D) negative acceleration

Q.30 In order to determine the maximum height of the projectile, the equation of motion used is

A) $aS = v_f^2 - v_i^2$
B) $2aS = v_f^2 - v_i^2$
C) $2S = a(v_f^2 - v_i^2)$
D) $aS = 2(v_f^2 - v_i^2)$

Q.31 If a force of 12 N acts on a car and changes its momentum from 36 kgm/sec to 60 kgm/sec, the time during which this change occurs will be

A) 24 sec
B) 2 sec
C) 12 sec
D) 8 sec

Q.32 Which one of the following is a non-conservative force?

A) Electric force
B) Elastic spring force
C) Gravitational force
D) Frictional force

Q.33 Value of escape velocity for the surface of the earth is 11 km/sec. Its value for surface of the moon is

A) 11 km/sec
B) 10.4 km/sec
C) 2.4 km/sec
D) 4.3 km/sec

Q.34 On a clear day at noon, the intensity of solar energy reaching the earth's surface is about

A) 1.0 kWm^{-2}
B) 1.4 kWm^{-2}
C) 1.0 Wm^{-2}
D) 1.4 Wm^{-2}

Q.35 When a lift is accelerated upward, the apparent weight of an object in it will be

A) Equal to its real weight
B) Less than its real weight
C) Zero
D) Greater than its real weight

Q.36 The moment of inertial of a thin rod is

A) $\frac{1}{2}$ mL^2
B) $\frac{1}{4}$ m^3L
C) $\frac{1}{12}$ mL
D) $\frac{1}{12}$ mL^2

Q.37 A wheel of radius 1 m covers an angular displacement of 180. Its linear displacement is

A) 3.14 m
B) π rad
C) 6.28 m
D) 0.157 m

Q.38 Conservation of mass of fluid flow leads to

A) Bernoulli's equation
B) Venturi meter
C) Equation of motion
D) Equation of continuity

Q.39 The blood vessels collapse when

A) External pressure applied becomes greater than the systolic pressure
B) External pressure applied is equal to systolic pressure
C) External pressure applied is less than the systolic pressure
D) External pressure applied is zero

Q.40 An oscillating body is at mean position at t = 0. At t = T/4 it will be at

A) Extreme position
B) Mean position
C) Between extreme and mean position
D) Beyond extreme position

Q.41 In a simple pendulum, the tension of the string is

A) g cos θ
B) mg sin θ
C) mg cos θ
D) mg

Q.42 Two sound waves having the same amplitudes are moving in the same direction are out of phase. The amplitude of the resultant wave is

A) Zero amplitude
B) The sum of amplitude of the two waves
C) Difference of the amplitudes of the two waves
D) Double the amplitude of either wave

Q.43 A source 'Y' of unknown frequency produces 4 beats with a source of 240 Hz and 8 beats with a sound of 252 Hz. Frequency of the source 'Y' is

A) 244 Hz
B) 236 Hz
C) 248 Hz
D) 246 Hz

Q.44 An organ pipe closed at one end has a length of 25 cm. Wavelength of the fundamental note is

A) 25 cm
B) 50 cm
C) 100 cm
D) 75 cm

Q.45 In Newton ring apparatus, at the point of contact of the lens and glass plate, the additional path difference introduced is

A) λ/4
B) λ/2
C) λ
D) λ/3

Q.46 The path difference 'BD' for destructive interference is

A) (m + ½) λ
B) mλ
C) d sin θ
D) 3λ

Q.47 In the case of a grafting spectrometer, the resolving power 'R' of the grating is defined as

A) λ / Δλ
B) λ / D
C) λ / λ_1
D) N x m

Q.48 Which one of the following lights travels fastest in optical fibers?

A) Visible light
B) Ultraviolet light
C) Ordinary light
D) Invisible infrared light

Q.49 The value of universal gas constant is

A) 8.314 $Jmol^{-1}K^{-1}$
B) 8.324 $Jmol^{-1}K^{-1}$
C) 7.23 $Jmol^{-1}K^{-1}$
D) 1.00 $Jmol^{-1}K^{-1}$

Q.50 The turbine in a steam power plant takes steam from a boiler at 427 °C and exhausts into a low temperature reservoir at 77 °C. What is the maximum possible efficiency?

A) 50%
B) 40%
C) 60%
D) 70%

Q.51 Which one of the following is a postulate of kinetic theory of gases?

A) Molecules do not exert force on each other
B) The size of molecules is much larger than separation between the molecules
C) A finite volume of gas consists of a very small number of molecules
D) The gas molecules are not in random motion

Q.52 Which one is not an irreversible process?

A) Slow compression of a gas into a cylinder
B) Changes due to friction
C) Explosion
D) Dissipation of energy

Q.53 Electric intensity is a vector quantity and its direction is

A) Perpendicular to the direction of field
B) Opposite to the direction of force
C) At a certain angle
D) Along the direction of force

Q.54 The magnitude of an electric field between two separated plates can be calculated by the relation

A) $\Delta V = Ed$
B) $\Delta V = E/d$
C) $\Delta V = \frac{E}{q_o}$
D) $E = \frac{d}{\Delta V}$

Q.55 SI unit of electric flux is

A) NmC^{-1}
B) $Nm^{-2}C^{-2}$
C) $Nm^{2}C^{-2}$
D) $Nm^{2}C^{-2}$

Q.56 The equivalent current which passes from a point at higher potential to a point at a lower potential as if it represented a movement of positive charges is

A) Electronic current
B) Electric current
C) Magnetic lines
D) Conventional current

Q.57 If 'V' is applied potential difference across a resistance 'R', then loss in potential energy per unit time is

A) VI
B) I^2R
C) $\frac{V^2}{R}$
D) All of the above

Q.58 The substances like germanium and silicon have

A) Negative temperature coefficients
B) Positive temperature coefficients
C) Both A and B
D) None of the above

Q.59 The sensitivity of a galvanometer can be decreased by

A) Increasing magnetic field
B) Increasing number of turns of the coil
C) Increasing $\frac{c}{BAN}$ Ration
D) Decreasing length of couple 'c'

Q.60 Force on a current carrying conductor in a uniform magnetic field is

A) $F = NIA \cos \alpha$
B) $F = \mu nI$
C) $F = ILB \sin \alpha$
D) $F = ILA \cos \alpha$

CHEMISTRY

Q.61 In an electrochemical series, standard electrode potentials are arranged on the basis of:

A) pH scale
B) pOH scale
C) Hydrogen Scale
D) pK_a scale

Q.62 The reaction which is responsible for the production of electricity in the Voltaic cell is:
A) Hydrolysis reaction
B) Oxidation reaction
C) Redox reaction
D) Reduction reaction

Q.63 Glucose is converted into ethanol by the enzyme _____ present in yeast:
A) Urease
B) Invertase
C) Sucrase
D) Zymase

Q.64 The rate of reaction involving ions can be studied by _____ method
A) Dilatometric
B) Refractometric
C) Optical rotation
D) Electrical conductivity

Q.65 When one mole of gaseous hydrogen ions are dissolved in water to form an infinitely dilute solution, the amount of heat liberated is
A) -1891 $kJmol^{-1}$
B) -1075 $kJmol^{-1}$
C) -499 $kJmol^{-1}$
D) -1562 $kJmol^{-1}$

Q.66 Energy required to remove an electron from the outermost shell of its isolated gaseous atom in the ground state is
A) Electron affinity
B) Lattice energy
C) Ionization energy
D) Crystal energy

Q.67 Which of the following carbonates of alkali metals is not stable towards heat and is decomposed on heating to its oxide along with liberation of CO_2?
A) Li_2CO_3
B) Mg_2CO_3
C) K_2CO_3
D) Na_2CO_3

Q.68 The presence of calcium is essential for the normal development of plants. An adequate supply of calcium appears to stimulate the development of which part of the plants?
A) Leaves
B) Fruits
C) Root hairs
D) Branches

Q.69 Which of the following sulphates is not soluble in water?
A) Sodium Sulphate
B) Barium Sulphate
C) Potassium Sulphate
D) Zinc Sulphate

Q.70 The trend in the densities of elements of Group III-A of the Periodic Table is
A) A gradual increase
B) A gradual decrease
C) First decrease then increase
D) First increase then decrease

Q.71 White lead has one of the following properties
A) Acidic
B) Crystalline
C) Amorphous
D) Neutral

Q.72 The strongest acid among the following is
A) HF
B) HI
C) HCl
D) HBr

Q.73 The noble gas which is used in radiotherapy of cancer is
A) Radon
B) Xenon
C) Krypton
D) Argon

Q.74 Paramagnetic behavior of an atom, ion or molecule is due to presence of
A) Unpaired electrons
B) Paired electrons
C) Protons
D) Neutrons

Q.75 The geometry of the complexes depends upon the type of _____ taking place in the valence shell of the central metal atom
A) Hybridization
B) Protonation
C) Deprotonation
D) Dissociation

Q.76 $KMnO_4$ acts as a
A) Reducing agent
B) Excellent precipitating reagent
C) Germicide
D) Oxidizing agent

Q.77 A gasoline of higher octane number can be obtained by
A) Oxidative cleavage
B) Thermal cracking
C) Catalytic cracking
D) Steam cracking

Q.78 Ethyne molecule is formed when two carbon atoms joined together to form a sigma bond by
A) sp-s overlap
B) sp^3-sp^3 overlap
C) $2p_y$-$2p_y$ overlap
D) sp-sp overlap

Q.79 Symmetrical alkanes can be produced by
A) Sabatier Sender's Reaction
B) Hydrogenolysis Reaction
C) Reduction Reaction
D) Kolbe's Electrolytic Reaction

Q.80 The catalyst used for the preparation of acrylonitrile is
A) Cu_2Cl_2 and NH_4Cl
B) Al_2O_3 and NH_4Cl
C) Cu_2Cl_2 and NH_4OH
D) Cu_2Cl_2 and Al_2O_3

Q.81 When a hydrogen atom is removed from benzene, the group left behind is called
A) Alkyl group
B) Phenyl group
C) Benzyl group
D) Methyl group

Q.82 The introduction of NO_2 group in benzene ring is called 'Nitration'. The nitration of benzene takes place when it is heated with a 1:1 mixture of _____ at 50 °C-55 °C.
A) Conc. HNO_3 and conc. HCl
B) Conc. HNO_3 and conc. Acetic acid
C) Conc. HNO_3 and H_3PO_4
D) Conc. HNO_3 and conc. H_2SO_4

Q.83 During S_N2 reactions, configuration of the alkyl halide molecule:
A) Gets inverted
B) Remains same
C) Depends upon the carbon atom
D) Depends upon the electronegativity of halide

Q.84 Grignard reagents are prepared by the reaction of magnesium metal with alkyl halides in the presence of
A) Dry Ether
B) Sodium Lead Alloy
C) Alcohol
D) Water

Q.85 Methanol is prepared from carbon monoxide and hydrogen. The catalyst used for this reaction is
A) ZnO + CoO_2
B) ZnO + CuO
C) ZnO + Ag_2O
D) Cr_2O_3 + ZnO

Q.86 Ethanol reacts with Ammonia to produce ethyl amine, the catalyst is
A) $ZnCl_2$
B) ThO_2
C) C_6H_5N
D) Cr_2O_3

Q.87 Dissociation constant of phenol is
A) 1.2×10^{-10}
B) 1.2×10^{10}
C) 1.3×10^{10}
D) 1.3×10^{-10}

Q.88 Dry distillation of a mixture of calcium salts of formic acid and acetic acid results into the formation of
A) Formaldehyde
B) Acetaldehyde
C) Calcium acetate
D) Sodium acetate

Q.89 Hydrolysis of cyano group by an aqueous acid results into
A) Carboxylic Acid
B) Acid Amide
C) Cyanohydride
D) Formaldehyde

Q.90 Brick red precipitates are formed when aldehydes react with
A) Sodium borohydride
B) Sodium bisulphite
C) Sodium nitroprusside
D) Fehling's solution

Q.91 The nature of the amino acid 'lysine' is
A) Neutral
B) Acidic
C) Amphoteric
D) Basic

Q.92 Which of the following compounds, in the form of aqueous solution, on reaction with sodium carbonate will produce carbon dioxide gas?

A) $H_3C\text{-}COO\text{-}C_2H_5$
B) $H_3C_2\text{-}COO\text{-}CH_3$
C) $H_3C_2\text{-}CO\text{-}OH$
D) $H_3C_2\text{-}COO\text{-}C_2H_5$

Q.93 Collagen and albumin are

A) Simple proteins
B) Derived proteins
C) Polyamides
D) Polysaccharides

Q.94 Urea is produced by the reaction of liquid ammonia with

A) CO_2
B) CO
C) CaO
D) C

Q.95 The calcium sulpho-aluminate is

A) $Co.Al_2O_3.3CaSO_4.6H_2O$
B) $3Ca.Al_2O_3.CaSO_4.2H_2O$
C) $3Ca.Al_2O_3.3CaSO_4.2H_2O$
D) $3Ca.Al_2O_3.3CaSO_4.6H_2O$

Q.96 The coagulant used in raw water to precipitate suspended impurities is

A) Caustic soda
B) Lime water
C) Alum
D) Soda ash

Q.97 The whiteness of the recycled newspaper is improved by treating it with:

A) Sodium hydroxide
B) Per oxides
C) Super oxides
D) Normal oxides

Q.98 One mole of any gas at standard temperature and pressure (STP) occupies a volume of

A) 20.414 dm^3
B) 22.414 dm^3
C) 22.414 cm^3
D) 23.414 dm^3

Q.99 The relative abundance of the isotopes of the elements can be determined by:

A) Mass Spectrometry
B) X-rays
C) Chromatography
D) Solvent Extraction

Q.100 If we are given the mass of one substance, we can calculate volume of other substances and vice a versa with the help of balanced chemical equation. This is called

A) Mass-mass relationship
B) Mass-mole relationship
C) Mole-volume relationship
D) Mass-volume relationship

Q.101 Sublimation is used to purify

A) Ammonium sulphate
B) Sodium chloride
C) Benzoic acid
D) Lead carbonate

Q.102 The purity of a substance can be identified by

A) Sublimation
B) Filtration
C) Chromatography
D) Solvent extraction

Q.103 Which one of the following mathematical expressions represents the Avogadro's law?

A) $V = R\frac{nT}{P}$ (when 'T' and 'n' are constant)
B) $V = R\frac{nT}{P}$ (when 'P', 'T' and 'n' are constant)
C) $V = R\frac{P}{nT}$ (when 'P' and 'n' are constant)
D) $V = R\frac{nT}{P}$ (when 'P' and 'T' are constant)

Q.104 The root mean square velocity of gases is inversely proportional to the square root of their:

A) Molar mass
B) Temperature
C) Pressure
D) Volume

Q.105 Plasma is the ionized gas mixture which consists of

A) Ions and electrons
B) Electrons and neutral atoms
C) Electrons, ions and neutral atoms
D) Ions and neutral atoms

Q.106 Which type of force is present in gasoline?

A) Dipole-dipole forces
B) Dipole-induced dipole forces
C) London dispersion forces
D) hydrogen bonding

Q.107 In the structure of NaCl, each Na^+ is surrounded by _____ Cl^- ions.
A) Four
B) Eight
C) Five
D) Six

Q.108 The charge of one gram of electron is
A) 1.7588×10^{-11}
B) 1.7588×10^{11}
C) 1.602×10^{-19}
D) 1.7588×10^{8}

Q.109 The ionization energy of hydrogen atom is
A) Zero
B) 13.13 $kJmol^{-1}$
C) 1313.31 $kJmol^{-1}$
D) 1313.31 k^2Jmol

Q.110 Which quantum number helps to study the orientation of an orbital in space?
A) Principal Quantum Number
B) Spin Quantum Number
C) Magnetic Quantum Number
D) Azimuthal Quantum Number

Q.111 The inter-ionic distance in a crystal lattice of KCl is
A) 314 pm
B) 181 pm
C) 95 pm
D) 300 pm

Q.112 The number of bonds in nitrogen molecule is
A) One σ and two π
C) One σ and one π
C) Three σ only
D) Two σ and one π

Q.113 Which one of the following molecules has zero dipole moment?
A) NH_3
B) $CHCl_3$
C) BF_3
D) H_2O

Q.114 A spontaneous process is
A) Unidirectional and irreversible
B) Irreversible and a real process
C) Unidirectional and a real process
D) All of the above

Q.115 The standard enthalpy of solution of NH_4Cl is _____ $kJmol^{-1}$.
A) +16.2
B) -25.0
C) +4.98
D) +26.0

Q.116 The K_c has following units for the reaction $H_{2(g)} + I_{2(g)} \leftrightharpoons 2HI_{(g)}$
A) mol^3dm^{-6}
B) $moldm^{-3}$
C) $mol^{-3}dm^6$
D) No unit

Q.117 0.1 mole of acetic acid has been dissolved per dm^3 of the solution, the percentage ionization of acetic acid will be
A) 13
B) 15
C) 1.3
D) 0.1

Q.118 Solubility of $Ce_2(SO_4)_3$
A) Increases with temperature
B) Decreases with temperature
C) Shows exceptional behavior
D) Remains constant

Q.119 Seawater has 5.65×10^{-3} g of dissolved oxygen in one kilogram of water. Concentration of O_2 in parts per million is
A) 5.65
B) 7.69
C) 5.20
D) 4.11

Q.120 Metallic conduction involves the relatively free movement of their _____ throughout the metallic lattice
A) Atoms
B) Molecules
C) Electrons
D) Ions

ENGLISH

Q.121 My advice had no _____ on him.
A) Effect
B) Affect
C) Influence
D) Impression

Q.122 **Do not lose heart, it is just a _____ in the tea cup**

A) Wind
B) Cyclone
C) Blast
D) Storm

Q.123 **Pakistan _____ from voting against Iran in the United Nations**

A) Prevented
B) Detained
C) Abstained
D) Refused

Q.124 **Please _____ the door after you.**

A) Close
B) Shut
C) Leave
D) Knock

⟹ **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 Suddenly he stopped (A) at the edge of the meadow, taking his pocket knife (B) from his pocket (C), and cut a wisp of alfalfa (D).

Q.126 The study (A) of population growth (B) indicates one of the (C) greatest paradox (D) of our time.

Q.127 Among the Western nations (A), the decline in the death rate is followed (B) after an interval by the reduction in the birth (C) rate, so that the population is not now growing (D) so fast.

Q.128 In view of increasing hazards with (A) our national security it is (B) the duty of every citizen to keep (C) a watch on his surroundings (D).

Q.129 Thrifty housewives preserved their homegrown vegetables and fruits in (A) canning, pickling or (B) drying them for (C) use during the (D) cold weather.

Q.130 When a low-wage (A) category worker finds (B) he has to maintain a large family (C), his expenses may exceeds his income (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) This is different to what had been expected.
B) This is different what had been expected.
C) This is different from what had been expected.
D) This is different to what would be expected.

Q.132

A) He suddenly remembered that he has left his house unlocked.
B) He suddenly remembered that he may have left his house unlocked.
C) He suddenly remembered that he had left his house unlocked.
D) He suddenly remembered that he will have left his house unlocked.

Q.133

A) He asked us would we care to go.
B) He asked us if we would care to go.
C) He asked us we would care to go.
D) He asked us we will care to go.

Q.134

A) When this war is over, no nation will either be isolated in war or peace.
B) When this war is over, no nation will be either isolated in war or peace.
C) When this war is over, no nation will neither be isolated in war nor peace.
D) When this war is over, no nation will be isolated either in war or in peace.

Q.135

A) When the fact failed him, he questions his senses.
B) When the fact failed him, he questioned from his senses.
C) When the fact fails him, he questions his senses.
D) He will question his senses, when the fact will fail him.

Q.136

A) He said there has been no need to do it.
B) He said there wasn't no need to do it.
C) He said there had been not any need doing it.
D) He said there was no need to do it.

Q.137

A) I could barely make of the traffic sings through the rain.
B) I could barely make out the traffic signs because of the rain.
C) I could barely make up the traffic sings through the rain.
D) I could barely make with the traffic signs through the rain.

Q.138

A) He walked as though he is lame.
B) He walked as though he was lame.
C) He walked as though he were lame.
D) He walked as though he may have been lame.

Q.139

A) E-mail is a relatively new means of communication.
B) E-mail is a relatively new mean of communication.
C) E-mail is a relatively new mean to communication.
D) E-mail is a relatively new means to communication.

Q.140

A) The remain of the body was thrown into the sea.
B) The remains of the body were thrown into the sea.
C) The remains of the body were thrown to the sea.
D) The remains of the body was thrown into the sea.

⟹ **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 WALLOW

A) Roll about
B) Mock
C) Protest
D) Borrow

Q.142 CONNOISSEUR

A) Guide
B) Artist
C) Expert critic of art
D) Teacher

Q.143 ECCENTRIC

A) Lunatic
B) Stern
C) Upset
D) Odd

Q.144 BOULDER

A) Rounded stone / hill
B) Builder
C) Magnanimity
D) Magnitude

Q.145 SLUMBER

A) Heap
B) Humble
C) Knee
D) Sleep

Q.146 EXCREMENT

A) Increment
B) Waste matter expelled from body
C) Excitement
D) Disagreement

Q.147 VISAGE

A) Vision
B) Illusion
C) Trunk less
D) A person's face

Q.148 FELICITY

A) Intense Happiness
B) Respite
C) Inspire
D) Sensational

Q.149 ENMESHED

A) Sojourn
B) Entangled
C) Gallows
D) Cascade

Q.150 CAPTIVATE

A) Hesitate
B) Concentrate
C) Hate
D) Fascinate

BIOLOGY

Q.151 Book lungs are present in arthropods for exchange of gases in class:

A) Crustacea
B) Insecta
C) Myriapoda
D) Arachnida

Q.152 Larvae of which group are similar to chordates?

A) Echinodermata
B) Annelida
C) Arthropoda
D) Nematoda

Q.153 Type of respiration which involves step by step breakdown of carbon chain molecules in the cell is called:

A) External respiration
B) Cellular respiration
C) Pulmonary respiration
D) Cutaneous respiration

Q.154 Instrument which is used to measure relative abilities of different pigments to absorb different wavelengths of light is called:

A) Spectrometer
B) Photometer
C) Barometer
D) Spectrophotometer

Q.155 End products of yeast fermentation, bacterial fermentation and anaerobic respiration are

A) Citric acid, lactic acid, carbon dioxide and water
B) Ethyl alcohol, citric acid and carbon dioxide
C) Ethyl alcohol, lactic acid, carbon dioxide and water
D) Methanol, lactic acid and citric acid

Q.156 In human beings, what is the function of amylase in digestion?

A) Digestion of triglycerides
B) Digestion of lipids
C) Digestion of all types of food
D) Digestion of carbohydrates

Q.157 Where is the ileocolic sphincter located in your body?

A) At the junction of esophagus and stomach
B) At the junction of stomach and small intestine
C) At the junction of ileum and large intestine
D) At the junction of small intestine and large intestine

Q.158 The term which is employed to the loss of appetite due to fear of becoming obese is

A) Obesity
B) Anorexia nervosa
C) Dyspepsia
D) Bulimia nervosa

Q.159 Which one of the following acts as functional unit of lungs in man?

A) Air sac
B) Larynx
C) Trachea
D) Bronchioles

Q.160 Which one of following factors is directly proportional to oxygen carrying capacity of haemoglobin?

A) Carbon dioxide
B) Temperature
C) pH
D) Light

Q.161 Expiration in human beings is carried out by
A) Contraction of lungs
B) Contraction of intercostal membrane
C) Relaxation of intercostal and diaphragm muscles
D) Contraction of diaphragm muscles

Q.162 Which one of the following is a precursor of steroid hormones?
A) Glycerol
B) Sterol
C) Amino acids
D) Cholesterol

Q.163 Granulocytes or white blood cells are produced in
A) Lymph nodes
B) Red bone marrow
C) Tonsils
D) Spleen

Q.164 Which one of the following statements best describes the function of sinoatrial node?
A) It sends out electrical impulses to atrial muscles causing both atria to contract.
B) It consists of small number of diffusely oriented cardiac fibres
C) It sends out electrical impulses to ventricular muscles causing both ventricles to contract
D) It is present at upper end of left atrium.

Q.165 The flow of lymph in lymphatic vessels is maintained by:
A) Heart, activity of smooth muscles and valves
B) Activity of skeletal muscles, heart and breathing movements
C) Breathing movements, activity of skeletal muscles and valves
D) Exercise, breathing movements and heart

Q.166 Metabolic waste from metabolism of nucleic acid is
A) Uric acid
B) Creatine
C) Urea
D) Creatinine

Q.167 The central metabolic station and clearing house of a body is
A) Liver
B) Kidney
C) Nephron
D) Glomerulus

Q.168 The muscles that control urine in bladder are known as
A) Striated muscles
B) Smooth muscles
C) Sphincter muscles
D) Circular muscles

Q.169 The living cells of cartilage are called
A) Chrondrocytes
B) Osteoblasts
C) Ostecytes
D) Osteoclasts

Q.170 The disease which causes immobility and fusion of vertebral joints is
A) Osteomalacia (soft bones)
B) Disc slip
C) Arthritis
D) Spondylosis

Q.171 During muscle contraction
A) I-band shortens
B) Myosin filaments shorten
C) Actin filaments shorten
D) Z-line disappears

Q.172 Hormones are the organic compounds of varying structural complexity. Which of the following is not a function or property of these compounds?
A) They initiate new biochemical reactions
B) They are poured directly into blood
C) They may be proteins
D) They affect target cells

Q.173 Reflexes and instincts type of behaviours respond to which combination /s?
A) Biological rhythms, territorial, courtship and development
B) The responses that do produce same result in different conditions
C) Aggression, mating and altruism
D) The responses that are predetermined like differentiation.

Q.174 A typical neuron at rest
A) Is more positive outside than inside
B) Is more negative outside than inside
C) Has no charge on either side
D) has an equal charge on either side

Q.175 The first cells produced by the repeated cell division of germinal epithelium of testis are
A) Interstitial cells
B) Spermatogonia
C) Secondary spermatocytes
D) Spermatids

Q.176 Which of the following sequence is correct?
A) LH → FSH → Estrogen → Progesterone
B) FSH → LH → Progesterone → Estrogen
C) FSH → Estrogen → Progesterone → LH
D) FSH → Estrogen → LH → Progesterone

Q.177 Which chromosomal abnormality in humans causes aggressive and antisocial behavior?
A) XO
B) XXY
C) XYY
D) XXX

Q.178 Grey equatorial cytoplasm produces
A) Muscle cells
B) Gut
C) Notochord and neural tube
D) Larval epidermis

Q.179 Sickle cell Anaemia is an example of which type of chromosomal defect?
A) Chromosomal rearrangement
B) Transposition of gene
C) Chromosomal aberration
D) Point mutation

Q.180 The karyotype of an individual is _____ of chromosomes.
A) Number
B) Types
C) Number, types and chemical composition
D) Number and types

Q.181 The process of replication of DNA begins at
A) One place only without any specific sequence of DNA
B) One or more places without any specific sequence of DNA
C) Any place with the uncoiling of two strands of DNA
D) One or more places where there is a specific sequence of nucleotides

Q.182 Amino acid attaches at which site of RNA
A) Anticodon site
B) Ribosomes recognition site
C) 3'-site with terminal OH
D) Activation enzyme recognition site

Q.183 Microtubules of spindle fibres are composed of a protein called
A) Tubulin
B) Actin
C) Myosin
D) Troponin

Q.184 The kinetochore fibres contract and spindle or pole fibres elongate during
A) Prophase I
B) Metaphase I
C) Telophase I
D) Anaphase I

Q.185 Cell death due to tissue damage is called
A) Necrosis
B) Metastasis
C) Apoptosis
D) Epistasis

Q.186 When a disease is transmitted directly from an affected father to his son, it is called:
A) X-linked
B) Autosomal
C) Y-linked
D) X and Y-linked

Q.187 Epistasis is a relationship between:
A) Alleles of a gene
B) Two different genes at the same locus
C) Two contrasting traits
D) Two different genes at different loci

Q.188 Gene for albinism in man is present on chromosome number:
A) 11
B) 22
C) 21
D) 12

Q.189 Gene can be synthesized in laboratory from messenger RNA by using:
A) Restriction enzymes
B) cDNA (complementary DNA)
C) Vector
D) Reverse transcriptase

Q.190 Antibiotic resistance gene for tetracycline and ampicillin are present in the plasmid
A) pSC 101
B) pCR 101
C) pBR 322
D) pBR 233

Q.191 Cloning is a form of
A) Sexual Reproduction
B) Asexual Reproduction
C) Vegetative Propagation
D) Genetic Recombination

Q.192 Group of interbreeding individuals of particular species, sharing common geographical area is called:
A) Population
B) Community ecology
C) Community
D) Autecology

Q.193 Which of the following proteins is common in man and aerobic bacteria?
A) Haemoglobin
B) Myoglobin
C) Cytochrome c
D) Pilin

Q.194 Ozone filters ultraviolet radiations from the sun in the upper
A) Biosphere
B) Atmosphere
C) Lithosphere
D) Hydrosphere

Q.195 A parasite living inside body of the host is called
A) Ectoparasite
B) Obligate parasite
C) Facultative parasite
D) Endoparasite

Q.196 An association between two organisms benefiting both is called
A) Commensalism
B) Parasitism
C) Predation
D) Symbiosis

Q.197 In aquatic ecosystem, human activities may accelerate the process of
A) Eutrophication
B) Photosynthesis
C) Decomposition
D) Recycling

Q.198 Beri Beri is due to
A) Metabolic disorder
B) Chemical causes
C) Nutritional deficiency
D) Mental Illness

Q.199 The natural heat energy trapped underground is
A) Geothermal energy
B) Thermal energy
C) Electric energy
D) Solar energy

Q.200 Which of the following is the lowest level of biological organization with respect to others?
A) Multicellular organisms
B) Biosphere
C) Species
D) Population

Q.201 When an electron pair is shared between two atoms
A) Two covalent bonds are formed
B) Hydrogen bond is formed
C) Single covalent bond is formed
D) Ionic bond is formed

Q.202 The first microbe to have the genome completely sequenced and was published on July 28th, 1995 was
A) Hyphomicrobium
B) Haemophilus aquaticus
C) Haemophillus malariae
D) Haemophillus infulenzae

Q.203 An activated enzyme consisting of polypeptide and a cofactor is known as
A) Amylase
B) Apoenzyme
C) Haloenzyme
D) Coenzyme

Q.204 _____ forms weak linkages with enzymes and their effect can be neutralized completely or partly by an increase in the concentration of the substrate.
A) Only competitive Inhibitors
B) Reversible inhibitors
C) Irreversible inhibitors
D) Both reversible and irreversible inhibitors

Q.205 In prokaryotic cell, wall strengthening material is
A) Cellulose
B) Silica
C) Chitin
D) Peptidoglycan

Q.206 The entire cell wall of bacteria is often regarded as a single huge molecule or molecular complex called
A) Capsule
B) Secondary wall
C) Slime capsule
D) Sacculus

Q.207 Krebs's cycle takes place in
A) Ribosomes
B) Golgi apparatus
C) Mitochondria
D) Endoplasmic Reticulum

Q.208 Chemically, viruses are made up of
A) Nucleic acid only
B) Protein only
C) Nucleic acid and protein
D) Core and coat

Q.209 Widespread epidemic disease, influenza is caused by
A) DNA virus
B) RNA enveloped virus
C) DNA enveloped virus
D) RNA virus

Q.210 When the division of cells is in three planes, the arrangement is known as
A) Diplococcus
B) Sarcina
C) Streptococcus
D) Staphylococcus

Q.211 Bacterial 'death rate' is equal to 'birth rate; in
A) Lag phase
B) Log phase
C) Death phase
D) Stationary phase

Q.212 Trypanosoma is a human parasite causing
A) African sleeping sickness
B) European sleeping sickness
C) Indonesian sleeping sickness
D) American sleeping sickness

Q.213 The feeding stage of slime mold is a
A) Gastrozoid
B) Sporozoite
C) Plasmodium
D) Merozote

Q.214 Drug obtained from fungus used for lowing blood cholesterol is
A) Lovastatin
B) Cyclosporin
C) Ergotin
D) Griseofulvin

Q.215 Fungi store surplus food in the form of
A) Cellulose
B) Glycogen
C) Starch
D) Both B and C

Q.216 The ecological role of fungi as decomposers is paralleled only by
A) Prions
B) Algae
C) Bacteria
D) Viruses

Q.217 "Vascular System absent; gametophyte dominant, sporophyte attached to gametophyte; homosporous" are distinguishing characters of
A) Psiolpsida
B) Pteropsida
C) Angiosperms
D) Bryophyta

Q.218 Which of the following features differentiate angiosperms from gymnosperms?

A) Pollens disperse by air
B) Haploid microspores
C) Ovaries
D) Pollen tubes

Q.219 In Pakistan, the furniture wood is mainly obtained from the members of family:

A) Rosaceae
B) Solanaceae
C) Minosaceae
D) Fabaceae

Q.220 Which of the following is exclusive character of mammals?

A) Homeothermic
B) Hair
C) Poikliothermic
D) Four chambered heart

UNIVERSITY OF HEALTH SCIENCES, LAHORE

Entrance Test – 2010

For admission to Medical / Dental Institutions of the Punjab

ANSWER KEY

The answer key to the questions of Entrance Test 2010 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	C
1	B
2	A
3	C
4	D
5	C
6	A
7	B
8	A
9	D
10	B
11	B
12	B
13	A
14	A
15	C
16	D
17	B
18	D
19	D
20	A
21	A
22	D
23	C
24	D
25	A
26	C
27	C
28	B
29	B
30	B
31	B
32	D
33	C
34	A
35	D
36	D
37	A
38	D
39	A
40	A
41	C
42	A
43	A
44	C
45	B

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

Q.No.	Ans
92	C
93	A
94	A
95	C
96	C
97	B
98	B
99	A
100	D
101	C
102	C
103	D
104	A
105	C
106	C
107	D
108	D
109	C
110	C
111	A
112	A
113	C
114	D
115	A
116	D
117	C
118	C
119	A
120	C
121	A
122	D
123	C
124	B
125	B
126	D
127	C
128	A
129	A
130	D
131	C
132	C
133	B
134	D
135	C
136	D
137	B

Q.No.	Ans
138	B
139	A
140	B
141	A
142	C
143	D
144	A
145	D
146	B
147	D
148	A
149	B
150	D
151	D
152	A
153	D
154	B
155	C
156	D
157	C
158	B
159	A
160	C
161	C
162	D
163	B
164	A
165	C
166	A
167	A
168	C
169	A
170	D
171	A
172	A
173	C
174	A
175	B
176	D
177	C
178	C
179	D
180	D
181	D
182	C
183	A

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