

NUMS MDCAT 2025 Past Paper

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Solved Questions

- Note: Errors and omissions expected.

Question 1

- Question: The path of a charged particle in a plane perpendicular to a uniform magnetic field is

- A) Circular
 - B) Helical
 - C) Parabola
 - D) Elliptical
- Correct Answer: To be verified from official key

Question 2

- Question: Magnetic force acting on a charge at rest is

- A) Zero
 - B) Positive
 - C) Negative
 - D) Infinite
- Correct Answer: To be verified from official key

Question 3

- Question: If mass of a charged particle is doubled, cyclotron frequency becomes

- A) Doubled
 - B) Halved
 - C) Quadrupled
 - D) One fourth
- Correct Answer: To be verified from official key

Question 4

- Question: In uniform circular motion, average velocity is equal to same as

- A) Linear velocity
 - B) Average velocity
 - C) Uniform velocity
 - D) Instantaneous velocity
- Correct Answer: To be verified from official key

Question 5

- Question: Electric field intensity of infinite charge sheet

- A) $E = \frac{\sigma}{\epsilon_0}$
 - B) $E = \frac{\sigma}{2\epsilon_0}$
 - C) $E = \frac{\sigma}{\epsilon_0}$
 - D) $E = \frac{\sigma}{2\epsilon_0}$
- Correct Answer: To be verified from official key

Question 6

- Question: Stability of radioactivity element is determined by

- A) Amount of liquid

- B) Surface area
- C) Temperature
- D) Inter-molecular forces
- Correct Answer: To be verified from official key

Question 7

- Question: 1kWh is equal to
- A) 3.6 MW
- B) 3.6 MJ
- C) 3.6 kJ
- D) 3.6 GJ
- Correct Answer: To be verified from official key

Question 8

- Question: Choose the sentence with correct punctuation.
- A) Abstain
- B) Accused
- C) Desirous
- D) Ignorant
- Correct Answer: To be verified from official key

Question 9

- Question: Basic requirement for induce emf is
- A) flux linked to coil.
- B) No flux linked to coil
- C) Coil should be circular
- D) Change in flux links to the coil
- Correct Answer: To be verified from official key

Question 10

- Question: Product of force and time is equal to
- A) Change in displacement
- B) Change in momentum
- C) Change in velocity
- D) Change in acceleration
- Correct Answer: To be verified from official key

Question 11

- Question: Resistivity of copper is
- A) $1.54 \times 10^{-8} \text{ Q}^2\text{m}$
- B) $1.34 \times 10^{-8} \text{ 2m}$
- C) $1.45 \times 10^{-8} \text{ 2m}$
- D) $1.64 \times 10^{-8} \text{ 2}\cdot\text{m}$
- Correct Answer: To be verified from official key

Question 12

- Question: Bursting of tire is an example of which process?
- A) Adiabatic
- B) Isochoric
- C) Isothermal
- D) Isobaric

- Correct Answer: To be verified from official key

Question 13

- Question: Direction of angular velocity can be found by

- A) Right-hand rule
- B) Fleming's left-hand rule
- C) Lenz's law
- D) Faraday's law

- Correct Answer: To be verified from official key

Question 14

- Question: When a star moves towards the earth, its shift is known as? SKN03100121696

- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.

- Correct Answer: To be verified from official key

Question 15

- Question: Angle at which maximum range of projectile is achieved ?

- A) 0°
- B) 45°
- C) 90°
- D) 76°

- Correct Answer: To be verified from official key

Question 16

- Question: Which of the following spectrum is produced when atoms are in the gaseous state?

- A) Continuous spectrum
- B) Band spectrum
- C) Line spectrum
- D) Absorption spectrum

- Correct Answer: To be verified from official key

Question 17

- Question: Conductance is reciprocal of resistance, its unit is

- A) Siemen
- B) Ohm
- C) Ampere
- D) Watt

- Correct Answer: To be verified from official key

Question 18

- Question: During rubbing of hands, internal energy

- A) Increases
- B) Decreases
- C) Zero
- D) Remains same

- Correct Answer: To be verified from official key

Question 19

- Question: If velocity is doubled what happens to kinetic energy

- A) Remains same
- B) Doubles
- C) Quadruples
- D) Halves

- Correct Answer: To be verified from official key

Question 20

- Question: On a clear day at noon, intensity of solar energy is

- A) 1.4 kW/m²
- B) 1.2 kW/m²
- C) 1 kW/m²
- D) 1.3 kW/m²

- Correct Answer: To be verified from official key

Question 21

- Question: Work done is positive if angle is

- A) $0^\circ < \theta < 90^\circ$
- B) $0^\circ < \theta < 180^\circ$
- C) $90^\circ < \theta < 270^\circ$
- D) None of these

- Correct Answer: To be verified from official key

Question 22

- Question: The electric potential at a distance r is given by the formula

- A) $V = kq/r$
- B) $V = \frac{1}{4\pi\epsilon_0} \frac{q}{r}$
- C) $V = Ed$
- D) $V = Ir$

- Correct Answer: To be verified from official key

Question 23

- Question: Which of the following act as a semiconductor?

- A) Iron
- B) Silicon
- C) Zinc
- D) Tungsten

- Correct Answer: To be verified from official key

Question 24

- Question: The fraction change in resistance per kelvin is

- A) coefficient of conductivity
- B) Temperature coefficient of resistance
- C) Coefficient of conductance
- D) Coefficient of resistivity

- Correct Answer: To be verified from official key

Question 25

- Question: Quantized momentum was explained by

- A) Einstein
- B) Bohr

- C) de-Broglie
- D) Rutherford
- Correct Answer: To be verified from official key

Question 26

- Question: Angle between a and r is
- A) 90°
- B) 80°
- C) 45°
- D) 60°
- Correct Answer: To be verified from official key

Question 27

- Question: Emf induced is zero when plane of coil is
- A) Perpendicular to B
- B) Parallel to B
- C) Antiparallel
- D) None of these
- Correct Answer: To be verified from official key

Question 28

- Question: The spectra which is obtained by the absorption or emission of radiation by the atoms of the gas
- A) Atomic spectra
- B) Molecular spectra
- C) Band spectra
- D) Continuous spectra
- Correct Answer: To be verified from official key

Question 29

- Question: Two waves identical traveling in the same medium are super posed: SKN03100121696 Page2112
- A) Interference
- B) Diffraction
- C) Reflection
- D) Refraction
- Correct Answer: To be verified from official key

Question 30

- Question: Most molecular crystals melt below
- A) 200°C
- B) 280°C
- C) 330°C
- D) 480°C
- Correct Answer: To be verified from official key

Question 31

- Question: How much heavier is the H-atom as compared to electron?
- A) 1937
- B) 1737
- C) 1837
- D) 1637
- Correct Answer: To be verified from official key

Question 32

- Question: The value of equilibrium constant for the decomposition of ozone at 25°C
- A) 1035
- B) 106
- C) 1025
- D) 10s0
- Correct Answer: To be verified from official key

Question 33

- Question: A reaction is first order with respect to A and third order with respect to B, the rate equation is
- A) Rate = $K[A][B]$
- B) Rate = $K[A][B]$
- C) Rate = $K[A][B]$
- D) Rate = $K[A]$
- Correct Answer: To be verified from official key

Question 34

- Question: For a reaction A-Product, if concentration of A is doubled, product increases 4 times. The order of reaction will be
- A) Zero
- B) 1n
- C) 2ad
- D) 3d
- Correct Answer: To be verified from official key

Question 35

- Question: Select the spontaneous reaction from the following
- A) Reaction of nitrogen and oxygen
- B) Emission of α -particles from polonium
- C) Thermal decomposition of marble
- D) Burning of paper
- Correct Answer: To be verified from official key

Question 36

- Question: Select the exothermic reaction among the following
- A) Thermal decomposition of P₂O₅
- B) Formation of atmospheric nitric oxide
- C) Burning of methane
- D) Sublimation of dry ice
- Correct Answer: To be verified from official key

Question 37

- Question: The oxidation number of Cl in HClO₄ is: A +1
- A) Option A not clearly readable in source image.
- B) +3
- C) +5
- D) +7
- Correct Answer: To be verified from official key

Question 38

- Question: Bond order is equal to: A Difference between number of bonding electrons and antibonding electrons

- A) Option A not clearly readable in source image.
- B) The sum of number of bonding electrons and antibonding electrons
- C) Half of the difference between number of bonding electrons and antibonding electrons
- D) Quarter of the difference between number of bonding electrons and antibonding electrons
- Correct Answer: To be verified from official key

Question 39

- Question: Which of the following molecule has non-polar covalent bond?
- A) Methyl chloride
- B) Methanol
- C) Carbon dioxide
- D) Tetrachloromethane
- Correct Answer: To be verified from official key

Question 40

- Question: Which of the following alcohols will give oily layer upon heating?
- A) 3-Methyl-2-butanol
- B) 2-Methyl-2-butanol
- C) 2-Butanol
- D) Ethyl alcohol
- Correct Answer: To be verified from official key

Question 41

- Question: Formalin is a mixture of
- A) 40% HCHO, 8% CHOH, 52% H₂O
- B) 40% CHCHO, 8% CHOH, 50% H₂O
- C) 40% CHCHO, 8% C₂H₅OH, 50% H₂O, 45% HCHO, 8% C₂H₅OH, 50% H₂O
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 42

- Question: Polymerization of HCHO and CH₃CHO occurs in the presence of: SKN03100121696 Page3|12
- A) Conc. H₂SO₄
- B) Dil. H₂SO₄
- C) Conc. HCO,
- D) Dil. HCO,
- Correct Answer: To be verified from official key

Question 43

- Question: The boiling point of carboxylic acids are relatively high due to
- A) Increased molecular mass
- B) Intermolecular carbon bonding
- C) Intermolecular oxygen bonding
- D) Intermolecular hydrogen bonding
- Correct Answer: To be verified from official key

Question 44

- Question: Carboxylic acid reacts with metal carbonate. The colorless gas evolved is: AH2
- A) Option A not clearly readable in source image.
- B) O.
- C) CO₂

- D) CO
- Correct Answer: To be verified from official key

Question 45

- Question: Which of the following compound will react with 2,2-dimethyl propanoic acid to produce ester?
- A) Ethanoic acid
- B) Propane
- C) Ethanol
- D) Propanone
- Correct Answer: To be verified from official key

Question 46

- Question: The most abundant protein in animal kingdom forming 25-35% of body proteins is/are
- A) Derived proteins
- B) Simple proteins
- C) Compound proteins
- D) Conjugated proteins
- Correct Answer: To be verified from official key

Question 47

- Question: Protein presents in connective tissues of human body is
- A) Phosphoprotein
- B) Collagen
- C) Lecithin
- D) Cholesterol
- Correct Answer: To be verified from official key

Question 48

- Question: In human body Ferritin is used to store
- A) P
- B) Ca
- C) Fe
- D) Zn
- Correct Answer: To be verified from official key

Question 49

- Question: In human body Ceruloplasmin acts as a carrier of
- A) O₂
- B) Zn
- C) Cu
- D) Fe
- Correct Answer: To be verified from official key

Question 50

- Question: Predict the element with lowest ionization energy
- A) Mg
- B) Ar
- C) Si
- D) P
- Correct Answer: To be verified from official key

Question 51

- Question: Select the group II elements which has the highest atomic radius?

- A) Be
- B) Ca
- C) Ba
- D) Sr

- Correct Answer: To be verified from official key

Question 52

- Question: Which of the following element has least boiling point?

- A) Li
- B) Na
- C) K
- D) Cs

- Correct Answer: To be verified from official key

Question 53

- Question: Question 53 text extracted with low confidence from source image.

- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.

- Correct Answer: To be verified from official key

Question 54

- Question: Which of the following will show optical isomerism? C, Butanoic acid

- A) 2,2-Dihydroxy propanoic acid
- B) 2-Hydroxy butanedioic acid
- C) Option C not clearly readable in source image.
- D) 2-Hydroxy propanoic acid

- Correct Answer: To be verified from official key

Question 55

- Question: Which of the following is an electrophile in sulphonation?

- A) SO₃H
- B) SO₃
- C) SO₂
- D) SO₃⁺

- Correct Answer: To be verified from official key

Question 56

- Question: Acetylene reacts with hydrogen bromide to form

- A) 2,2-Dibromoethane
- B) 1,1-Dibromoethane
- C) 1,2-Dibromoethane
- D) 1,1,2,2-Tetrabromoethane

- Correct Answer: To be verified from official key

Question 57

- Question: Generally the decreasing order of reactivity is: SKN03100121696 Page4/12

- A) Alkane > Alkynes > Alkene
- B) Alkene < Alkynes < Alkanes

- C) Alkene>Alkynes>Alkanes
- D) Alkynes<Alkanes<Alkene
- Correct Answer: To be verified from official key

Question 58

- Question: Racemic mixture formed in SN1 reaction is due to presence of empty
- A) s-orbital
- B) p-orbital
- C) sp'-orbital
- D) sp'-orbital
- Correct Answer: To be verified from official key

Question 59

- Question: The order of reactivity of alcohol with respect to cleavage of C-O bond: C, Secondary alcohol > Tertiary alcohol > Primary alcohol
- A) Tertiary alcohol > Secondary alcohol > Primary alcohol
- B) Primary alcohol > Tertiary alcohol > Secondary alcohol
- C) Option C not clearly readable in source image.
- D) Tertiary alcohol < Secondary alcohol < Primary alcohol
- Correct Answer: To be verified from official key

Question 60

- Question: Consider the following reaction $\text{NaOH} + \text{HSO}_4^- \rightarrow \text{NaSO}_4 + \text{H}_2\text{O}$. When 40g of NaOH reacts with 49g of HSO. The number of water molecules produced are
- A) 6.02×10^{23}
- B) 6.02×10^{24}
- C) 1.2044×10^3
- D) 1.204×10^{24}
- Correct Answer: To be verified from official key

Question 61

- Question: The number of electrons in a subshell can be calculated by the formula
- A) $2l+1$
- B) $2l+2$
- C) $2(2+l)$
- D) $2(2l+1)$
- Correct Answer: To be verified from official key

Question 62

- Question: When 5d orbital is complete, the entering electron goes into: 2RT 3RT AKE= 3NA 2NA 2mNT 2NA 2R 3RT
- A) 6s
- B) K.E=
- C) K.E-
- D) KE-
- Correct Answer: To be verified from official key

Question 63

- Question: Question 63 text extracted with low confidence from source image.
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.

- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 64

- Question: The fourth state of matter is
- A) Solid
- B) Liquid
- C) Gaseous liquid
- D) Plasma
- Correct Answer: To be verified from official key

Question 65

- Question: Question 65 text extracted with low confidence from source image.
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 66

- Question: Which of the following is responsible for the low boiling point of diethyl ether as compared to water?
- A) Weak intermolecular forces
- B) High surface tension
- C) Low vapour pressure
- D) High vapour pressure
- Correct Answer: To be verified from official key

Question 67

- Question: Hydrogen bonding does not exist in
- A) Proteins
- B) Alcohols
- C) Liq HF
- D) SiH₄
- Correct Answer: To be verified from official key

Question 68

- Question: The factor that affects the lattice energy is: A Charge to size ratio
- A) Option A not clearly readable in source image.
- B) Shielding effect
- C) Crystal structure
- D) Atomic radius
- Correct Answer: To be verified from official key

Question 69

- Question: The shape of the crystal lattice depends upon: A, Size of particles SKN03100121696 Page5|12
- A) Option A not clearly readable in source image.
- B) Nature of particles
- C) Arrangement of particles
- D) Size of unit cell
- Correct Answer: To be verified from official key

Question 70

- Question: Identify the sentence with correct punctuations
- A) Ali received a Parker pen, Hamza: a watch.
- B) Ali received a Parker pen; Hamza a watch.
- C) Ali received a Parker pen; Hamza: a watch.
- D) Ali received a Parker pen; Hamza, a watch.
- Correct Answer: To be verified from official key

Question 71

- Question: Fill in the correct articles: female lion is called lioness, She has a mane.
- A) A, the
- B) The, a
- C) The, the
- D) A, a
- Correct Answer: To be verified from official key

Question 72

- Question: Whatever you order for dinner is fine with me. The underlined part is
- A) Noun clause
- B) Adjective clause
- C) Adverb clause
- D) Independent clause
- Correct Answer: To be verified from official key

Question 73

- Question: After midnight, the ghost will come out of the haunted attic to scare the people. The sentence is
- A) Simple
- B) Compound
- C) Complex
- D) Compound-Complex
- Correct Answer: To be verified from official key

Question 74

- Question: I suggest that you visit a doctor.
- A) Must
- B) Should
- C) Ought to
- D) Have to
- Correct Answer: To be verified from official key

Question 75

- Question: Choose the correctly structured sentence,
- A) Had he been there, he would see us.
- B) Had he been there, he would have seen us.
- C) Had he been there, he would have seen us.
- D) Had he had been there, he would have seen us.
- Correct Answer: To be verified from official key

Question 76

- Question: Identify the sentence with correct structure.

- A) We noticed the boy, walking down the street.
- B) We noticed, the boy walk down the, street.
- C) We noticed, that the boy was walking down the street.
- D) We noticed the boy, who was walking down the street.
- Correct Answer: To be verified from official key

Question 77

- Question: He circled the whole world on his ship and on an island he encountered a fierce giant.
- A) the, an, the
- B) the, a, a
- C) the, an, a
- D) the, an, an
- Correct Answer: To be verified from official key

Question 78

- Question: Choose the sentence with correct order of adjectives
- A) I met, young two, beautiful, British girls at the airport.
- B) I met two beautiful, young, British girls at the airport.
- C) I met two, British, young, beautiful girls at the airport.
- D) I met two young, beautiful British girls at the airport.
- Correct Answer: To be verified from official key

Question 79

- Question: Identify the underlined part of the sentence: I know you have already read this book. SKN03100121696
- Page 6 | 12
- A) Independent clause
- B) Adjective clause
- C) Adverb clause
- D) Noun clause
- Correct Answer: To be verified from official key

Question 80

- Question: Question 80 text extracted with low confidence from source image.
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 81

- Question: Question 81 text extracted with low confidence from source image.
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 82

- Question: According to the scientists, the sun is and we can find the early discoveries made by scientists in black and white on . Choose correctly spell homophones to complete the sentence
- A) Stationery, Stationary

- B) Stationary, Stationery
- C) Stationary.Stationary
- D) Stationery,Stationary
- Correct Answer: To be verified from official key

Question 83

- Question: Choose the correctpreposition. Onehour glorious lifeis worth anagewithoutaname. Aln
- A) Option A not clearly readable in source image.
- B) of
- C) To
- D) With
- Correct Answer: To be verified from official key

Question 84

- Question: Clive had been only a few months in the army when announced that peace had been concluded between great britain and france. The sentence contains errors of: C,Comma andcapitalization SKN03100121696 Page7/12
- A) Comma
- B) Comma and full stop
- C) Option C not clearly readable in source image.
- D) Capitalization
- Correct Answer: To be verified from official key

Question 85

- Question: Induced fit model of enzymeactivity suggests that an enzyme
- A) Cannotmodifyits activesites
- B) Can bind to a single substrate
- C) Cancatalyzerelated specificreaction
- D) Usually belongs to non-regulatory enzyme
- Correct Answer: To be verified from official key

Question 86

- Question: Select the one which is used by the hexokinase as an activator
- A) Cu
- B) Zn
- C) Mg*
- D) Fett
- Correct Answer: To be verified from official key

Question 87

- Question: The linkagebetween substrate moleculeand active site is
- A) Ionic bonding
- B) Disulfide bonding
- C) Hydrogen bonding
- D) Covalent bonding
- Correct Answer: To be verified from official key

Question 88

- Question: Activated pepsin in which polypeptide fragment is removed is an example of
- A) Apo-enzyme
- B) Holoenzyme
- C) Regulatoryenzyme

- D) Non-regulatory enzyme
- Correct Answer: To be verified from official key

Question 89

- Question: Reversible inhibitors affects the enzyme catalyzed reaction by
- A) Forming covalent bonds with active site B.Destroying theglobular structure
- B) Option B not clearly readable in source image.
- C) Formingweaklinkageswithenzym es
- D) Activating the catalytic sites
- Correct Answer: To be verified from official key

Question 90

- Question: What is the required medium for the maximum activity of the given enzymes? Option Lipase Pepsin Acidic Basic Acidic Acidic Basic Acidic Basic Basic
- A)
- B)
- C)
- D)
- Correct Answer: To be verified from official key

Question 91

- Question: What distinguishes the concept of special creation from concept of evolution?
- A) Lifeis nottheproductof suddencreativeact
- B) Unicellularprokaryotesmightb ethelifeancestors
- C) Relyoninspirationandmeditati onfor lifeorigin
- D) Liferesults from innumerablechanges
- Correct Answer: To be verified from official key

Question 92

- Question: Which of the following idea is a part of Lamarckism?
- A) Useanddisuseof organs
- B) Survival of the fittest
- C) Originofspecies
- D) Variation
- Correct Answer: To be verified from official key

Question 93

- Question: Choose the correct pair for homology?
- A) Wings of birds and wings of butterfly
- B) Forelimbs of birds and fins of whales
- C) Leaves of pinesand cactus
- D) Gills of fish and lungs of humans
- Correct Answer: To be verified from official key

Question 94

- Question: Which chronological sequence is correct among the classes of vertebrates as evidence of evolution?
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Fish-amphibians-reptiles-birdsD.Amphibians?reptiles?birds-fish
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 95

- Question: The reduction of population carrying a specific allele and genotype due to natural disaster is called
- A) Mutation
- B) Bottle neck effect
- C) Founder effect
- D) Speciation
- Correct Answer: To be verified from official key

Question 96

- Question: Which of the following increases variation within a gene pool?
- A) Adaptation
- B) Genetic drift
- C) Gene mutation
- D) Neutral selection
- Correct Answer: To be verified from official key

Question 97

- Question: Identify the location of mitral valve in human heart: SKN03100121696 Page8|12
- A) Between right ventricle and pulmonary trunk
- B) Between left ventricle and aorta
- C) Between right atrium and right ventricle
- D) Between left atrium and left ventricle
- Correct Answer: To be verified from official key

Question 98

- Question: Which of the following components are present both in blood and lymph?
- A) O₂, water, large proteins
- B) RBCs, electrolytes, amino acids
- C) CO₂, RBCs and water
- D) CO₂, glucose and water
- Correct Answer: To be verified from official key

Question 99

- Question: Blood flow in vessels least depends on
- A) Total cross sectional area of vessels
- B) Blood pressure
- C) Skeletal muscle contraction
- D) Heart beat
- Correct Answer: To be verified from official key

Question 100

- Question: Which T-lymphocytes do not directly attack invading microbes?
- A) Natural killer cell
- B) Macrophages
- C) B-lymphocytes
- D) Neutrophils
- Correct Answer: To be verified from official key

Question 101

- Question: A woman cuts her finger while working in kitchen. Which chemical substance will cause inflammation around wound?

- A) Interleukin-I
- B) Histamine
- C) Interleukin -II
- D) Heparin
- Correct Answer: To be verified from official key

Question 102

- Question: Choosethemismatched
- A) Acetylcholine-gastrin
- B) Enterokinase-lipase
- C) Emulsification-fatdroplets
- D) Chylomicrons-cholesterol+carbohydrates
- Correct Answer: To be verified from official key

Question 103

- Question: Which proteinis present in thewalls of alveoli?
- A) Collagen
- B) Hemoglobin
- C) Myoglobin
- D) Myosin
- Correct Answer: To be verified from official key

Question 104

- Question: Which of the following acts as an enzyme activator in human digestive system?
- A) Erepsin
- B) Enterokinase
- C) Pepsinogen
- D) Trypsinogen
- Correct Answer: To be verified from official key

Question 105

- Question: How would you classifya bacterium having a group of2ormore flagella at one pole?
- A) Lophotrichous
- B) Amphitrichous
- C) Monotrichous
- D) Peritrichous
- Correct Answer: To be verified from official key

Question 106

- Question: Which of the following bacteria is used for developing vaccine against tuberculosis? If a bacteria can grow in the presence or absence of oxygen it would be a(n)
- A) Mycobacteriumtuberculosis
- B) E.coli
- C) Salmonella typhi
- D) Mycobacterium bovis
- Correct Answer: To be verified from official key

Question 107

- Question: Question 107 text extracted with low confidence from source image.
- A) Aerobic
- B) Anaerobic

- C) Facultative anaerobic
- D) Microaerophilic
- Correct Answer: To be verified from official key

Question 108

- Question: Which testicular cells in a human male with high testosterone level will start the endocrine activity?
- A) Interstitial cell
- B) Sertoli cells
- C) Spermatogonial cells
- D) Leydig cells
- Correct Answer: To be verified from official key

Question 109

- Question: Which layer of uterus is composed of contractile muscles?
- A) Endometrium
- B) Perimetrium
- C) Myometrium
- D) Both endo and myometrium
- Correct Answer: To be verified from official key

Question 110

- Question: One of the endocrine glands responsible for failure in ovulation is: Q?111 Identify the exact function of ATP hydrolysis during muscle contraction
- A) Formation of cross bridges
- B) Breaking of cross bridges
- C) Displacement of tropomyosin
- D) Release of Ca ions from sarcoplasmic reticulum
- Correct Answer: To be verified from official key

Question 111

- Question: Question 111 text extracted with low confidence from source image.
- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key

Question 112

- Question: The reason behind the slow healing of cartilage is: SKN03100121696 Page9|12
- A) Absence of minerals in matrix
- B) Absence of nervous supply
- C) Absence of blood supply
- D) Loose arrangement of cells
- Correct Answer: To be verified from official key

Question 113

- Question: H zone of sarcomere consists of
- A) Proteins supporting myosin filaments
- B) Myosin overlapped by actin
- C) Only actin filament
- D) Only myosin filament

- Correct Answer: To be verified from official key

Question 114

- Question: Which cell is most important to cause bone resorption?

- A) Osteoblast
- B) Osteoclast
- C) Osteocyte
- D) Fibroblast

- Correct Answer: To be verified from official key

Question 115

- Question: Activity of which organ would be compromised with impaired function of smooth muscles?

- A) Heart
- B) Lungs
- C) Stomach
- D) Tongue

- Correct Answer: To be verified from official key

Question 116

- Question: The phenomena of gene linkage rejects the concept of

- A) Law of segregation
- B) Polygenic traits
- C) Epistasis
- D) Law of independent assortment

- Correct Answer: To be verified from official key

Question 117

- Question: Which of the following is used to determine linkage between two gene pairs?

- A) Test cross
- B) Back cross
- C) Monohybrid cross
- D) Dihybrid cross

- Correct Answer: To be verified from official key

Question 118

- Question: The process by which unwanted structures are engulfed and digested within the lysosome is termed as

- A) Autophagy
- B) Autolysis
- C) Endocytosis
- D) Exocytosis

- Correct Answer: To be verified from official key

Question 119

- Question: Fluidity of biological membranes is maintained by

- A) Glycoprotein
- B) Saturated fatty acid
- C) Fatty acids
- D) Phospholipids

- Correct Answer: To be verified from official key

Question 120

- Question: Which of the following independently reproduces in the cell?

- A) Golgi complex
- B) Nucleus
- C) Chloroplast
- D) Endoplasmic reticulum

- Correct Answer: To be verified from official key

Question 121

- Question: Which statement best describes difference of prokaryotic cell from eukaryotic cell? Option Prokaryotic Cell Membranebound organelle is present Membranebound organelle is absent Ribosomal subunits are 50s & 30s Ribosomal subunits are 60s & 40s DNA is double stranded DNA is circular Multicellular and unicellular

- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D)

- Correct Answer: To be verified from official key

Question 122

- Question: Skeletal muscle cells are having

- A) Less SER & more RER
- B) More SER & less RER
- C) Equal amount of SER & RER
- D) No SER & RER

- Correct Answer: To be verified from official key

Question 123

- Question: Which one is the correct direction of action potential along the neuron?

- A) Axon post synaptic terminal
- B) Schwann cells ? pre synaptic terminal
- C) Cell body-pre synaptic terminal
- D) Dendrite post synaptic terminal

- Correct Answer: To be verified from official key

Question 124

- Question: Concentration of Na and K ions during resting membrane potential is: Option Inside Neuron Outside Neuron $K^+ 30 \text{ times}$ $Na^+ 10 \text{ times}$ $K^+ 10 \text{ times}$ $Na^+ 30 \text{ times}$ $Na^+ 10 \text{ times}$ $K^+ 30 \text{ times}$ $Na^+ 30 \text{ times}$ $K^+ 10 \text{ times}$ SKN03100121696

- A)
- B)
- C) Option C not clearly readable in source image.
- D)

- Correct Answer: To be verified from official key

Question 125

- Question: Question 125 text extracted with low confidence from source image.

- A) Option A not clearly readable in source image.
- B) Option B not clearly readable in source image.
- C) Option C not clearly readable in source image.
- D) Option D not clearly readable in source image.

- Correct Answer: To be verified from official key

Question 126

- Question: Parts of brain that comprise the limbic system: A Thalamus, amygdala, hippocampus
- A) Option A not clearly readable in source image.
- B) Hypothalamus, amygdala, hippocampus
- C) Hypothalamus, corpus callosum, hippocampus
- D) Thalamus, hypothalamus, pons
- Correct Answer: To be verified from official key

Question 127

- Question: Ions involved in synaptic transmission of nerve impulse
- A) K^+ , Ca^{2+} , Na
- B) Na, K
- C) Na, Ca^{2+}
- D) K^+ , Ca^{2+}
- Correct Answer: To be verified from official key

Question 128

- Question: Correct sequence of the four elements of a neural pathway in simple reflex circuit
- A) Sensory neuron - associative neuron - motor neuron - muscles
- B) Muscles - sensory neuron - associative neuron - motor neuron
- C) Motor neuron - associative neuron - sensory neuron - muscles
- D) Associate neuron - sensory neuron - motor neuron - muscles
- Correct Answer: To be verified from official key

Question 129

- Question: In humans memory storage for behavior and coordination is well developed in the;
- A) Amygdala
- B) Cerebrum
- C) Medulla
- D) Cerebellum
- Correct Answer: To be verified from official key

Question 130

- Question: Choose the correct pairing: Option Chemical Nature Hormones Glands Proteins Insulin Pancreas Steroid Cortisone Thymus Catecholamine Estrogen Adrenal medulla Amino acid derivative Thyroxine Parathyroid
- A) Option A not clearly readable in source image.
- B)
- C) Option C not clearly readable in source image.
- D)
- Correct Answer: To be verified from official key

Question 131

- Question: Which phyla exhibit first true coelom?
- A) Cnidaria
- B) Annelida
- C) Mollusca
- D) Platyhelminthes
- Correct Answer: To be verified from official key

Question 132

- Question: Which invertebrate has exceptionally large and complex brain with highly developed capabilities to learn

and remember?

- A) Snail
- B) Cattle fish
- C) Octopus
- D) Giant squid
- Correct Answer: To be verified from official key

Question 133

- Question: Arthropods constitute 54% of kingdom Animalia. What is the reason of their Success?
- A) Diversity and articulation of exoskeleton
- B) Existence of haemocoel
- B) Option B not clearly readable in source image.
- C) Well-developed reproductive system
- D) Bilateral symmetry
- Correct Answer: To be verified from official key

Question 134

- Question: Which of the following virus is having double stranded RNA in its core?
- A) Small pox
- B) Mild rash virus
- C) Diarrhea virus
- D) Rubella virus
- Correct Answer: To be verified from official key

Question 135

- Question: Pore size of porcelain filter ranges between
- A) 10-100nm
- B) 100-1000nm
- C) 10-10²µm
- D) 100-1000²µm
- Correct Answer: To be verified from official key

Question 136

- Question: Reverse transcriptase converts: SKN03100121696 Page 112
- A) ds RNA to ss RNA
- B) ss RNA to ds RNA
- C) ss RNA to ds DNA
- D) ss DNA to ds DNA
- Correct Answer: To be verified from official key

Question 137

- Question: Which symptoms disappear after few months in an asymptomatic carrier of HIV?
- A) Loss of memory
- B) Swollen lymph gland
- C) Weight loss
- D) Night sweats
- Correct Answer: To be verified from official key

Question 138

- Question: The primary purpose of photosystem-I in thylakoid membrane is
- A) Synthesis of ATP
- B) Oxidation of water

- C) Reduction of NADP to NADPH
- D) Oxidation of cytochrome
- Correct Answer: To be verified from official key

Question 139

- Question: In glycolysis glucose is
- A) Oxidized into pyruvic acid
- B) Reduced into pyruvate
- C) Broken down to G3P
- D) Reduced to NADPH
- Correct Answer: To be verified from official key

Question 140

- Question: The final electron acceptor in respiratory electron transport chain in mitochondria is
- A) FAD*
- B) NADP+
- C) CO₂
- D) O₂
- Correct Answer: To be verified from official key

Question 141

- Question: Water is present in all living systems as universal solvent because of
- A) Its cohesive force
- B) Its polar nature
- C) High specific heat
- D) High evaporation rate
- Correct Answer: To be verified from official key

Question 142

- Question: Which of the following sugar molecules are condensed to produce sucrose?
- A) Glucose & galactose
- B) Glucose & fructose
- C) Glucose & glucose
- D) Glucose & fructose 6-phosphate
- Correct Answer: To be verified from official key

Question 143

- Question: The integral property of lipid bilayer in a cell membrane is due to
- A) Reduction of contact area between water and lipids
- B) Increase of contact area between water and lipids
- C) Polar interaction of lipids
- D) Ionization of lipids
- Correct Answer: To be verified from official key

Question 144

- Question: About 170 types of amino acids are found to occur in a cell. How many are involved in making proteins?
- A) 170 amino acids
- B) 20 amino acids
- C) 25 amino acids
- D) 150 amino acids
- Correct Answer: To be verified from official key

Question 145

- Question: The anticodon loop of the tRNA that complements mRNAs: A0loop
- A) Option A not clearly readable in source image.
- B) D loop
- C) Middle loop
- D) Alpha loop
- Correct Answer: To be verified from official key

Question 146

- Question: The individual chemical property of an amino acid is determined by which of the following groups?
- A) Alphacarbon
- B) Amino group
- C) Carboxylgroup
- D) Variablegroup
- Correct Answer: To be verified from official key

Question 147

- Question: Identify the organic compound that combines with phosphatidic acid to form lecithin
- A) Glycerin
- B) Choline
- C) Cholesterol
- D) Fructose
- Correct Answer: To be verified from official key

Question 148

- Question: The biopolymer that makes fungal cell wall is
- A) Peptidoglycan
- B) Chitin
- C) Lignin
- D) Pectin
- Correct Answer: To be verified from official key

Question 149

- Question: The main function of Golgi complex is: SKN03100121696 Page12/12
- A) Lipogenesis
- B) Protein synthesis
- C) Packing and processing of cell secretions D. Detoxification
- D) Option D not clearly readable in source image.
- Correct Answer: To be verified from official key