NEET (UG)

Sample Question Paper - 6

Full Mock Test | 200 Questions | Time: 3 Hours | Max. Marks: 720

Important Instructions:

1. There are 200 questions. Attempt only 180 questions. Each question carries 4 marks.
2. For each correct response: +4 marks. For each incorrect response: -1 mark. Unattempted: 0 marks.
3. Section A has 35 questions (compulsory). Section B has 15 questions (attempt only 10).
4. Maximum marks: 720. Use Blue/Black ballpoint pen only.

PHYSICS

SECTION A

Q.1. The SI unit of luminous intensity is:

(A) Candela
(B) Lumen
(C) Lux
(D) Watt

Q.2. Which law relates pressure and volume at constant T?

(A) Boyle's law
(B) Charles' law
(C) Gay-Lussac's
(D) Dalton's

Q.3. The velocity of sound in air at 0 degrees C is 332 m/s. At 22 degrees C it will be:

(A) 340 m/s
(B) 344 m/s
(C) 350 m/s
(D) 332 m/s

Q.4. A convex lens of focal length 20 cm produces an image twice the size of the object. Object distance is:

(A) 10 cm
(B) 30 cm
(C) 20 cm
(D) 40 cm

Q.5. The time period of a satellite orbiting Earth near the surface is approximately:

(A) 84 min
(B) 60 min
(C) 24 hr
(D) 90 min

Q.6. In a Wheatstone bridge, if the bridge is balanced then the ratio P/Q equals:

(A) R/S
(B) S/R
(C) P/R
(D) Q/S

Q.7. A wire of resistance R is stretched to double its length. New resistance is:

(A) 4R
(B) R/4
(C) 2R
(D) R/2

Q.8. Work done in moving a charge on an equipotential surface is:

(A) Zero
(B) Maximum
(C) Minimum
(D) Infinite

Q.9. The stopping potential in photoelectric effect depends on:

(A) Frequency of incident light
(B) Intensity of light
(C) Both
(D) Neither

Q.10. A body is projected at 60 degrees to horizontal with 20 m/s. Max height reached is (g=10):

(A) 15 m
(B) 10 m
(C) 20 m
(D) 5 m

Q.11. In Young's double slit experiment, if one slit is closed, the fringe pattern:

(A) Becomes a single slit diffraction pattern
(B) Disappears
(C) Remains same
(D) Becomes brighter

Q.12. A proton and alpha particle enter a uniform magnetic field perpendicularly with same speed. Ratio of radii:

(A) 1:2
(B) 2:1
(C) 1:1
(D) 1:4

Q.13. The energy stored in a capacitor of capacitance C charged to potential V is:

(A) (1/2)CV^2
(B) CV^2
(C) (1/2)CV
(D) 2CV^2

Q.14. The force between two parallel wires carrying currents I1 and I2 separated by distance d is:

(A) mu0*I1*I2/2*pi*d per unit length
(B) mu0*I1*I2*d per unit length
(C) 2*pi*I1*I2/d per unit length
(D) mu0*I1*I2*2*pi*d

Q.15. Lenz's law is a consequence of conservation of:

(A) Charge
(B) Energy
(C) Momentum
(D) Mass

Q.16. The de Broglie wavelength of a particle with momentum p is:

(A) h/p
(B) hp
(C) h*p^2
(D) p/h

Q.17. A thermodynamic process in which no heat exchange occurs is:

(A) Adiabatic
(B) Isothermal
(C) Isobaric
(D) Isochoric

Q.18. The resolving power of a microscope depends on:

(A) Wavelength of light used
(B) Aperture of lens
(C) Both
(D) Neither

Q.19. A body falls freely from rest. Distance covered in nth second is:

(A) g(2n-1)/2
(B) gn^2/2
(C) g(n-1)
(D) 2gn

Q.20. The electric field inside a conductor in electrostatic equilibrium is:

(A) Zero
(B) Maximum at center
(C) Constant
(D) Equal to surface field

Q.21. Bernoulli's theorem is based on conservation of:

(A) Mass
(B) Energy
(C) Momentum
(D) All of these

Q.22. The angle of minimum deviation for a prism depends on:

(A) Material and angle of prism
(B) Angle of incidence only
(C) Size of prism
(D) Color of prism

Q.23. Which phenomenon confirms the transverse nature of light?

(A) Polarization
(B) Diffraction
(C) Interference
(D) Refraction

Q.24. In a series LCR circuit at resonance, the impedance equals:

(A) R
(B) R+L
(C) R+C
(D) Zero

Q.25. A body executes SHM with amplitude A. At what displacement is its PE = KE?

(A) A/sqrt(2)
(B) A/2
(C) A
(D) A*sqrt(2)

Q.26. The value of g at height h above Earth's surface (R = radius of Earth) is:

(A) g(R/(R+h))^2
(B) g(R+h)/R
(C) g*R^2
(D) g/(R+h)^2

Q.27. Magnetic susceptibility of a paramagnetic material is:

(A) Small positive
(B) Small negative
(C) Large positive
(D) Zero

Q.28. The ratio of intensities at maxima and minima in interference with amplitudes a1 and a2 is:

(A) (a1+a2)^2/(a1-a2)^2
(B) (a1-a2)^2/(a1+a2)^2
(C) a1^2/a2^2
(D) (a1^2+a2^2)/(a1^2-a2^2)

Q.29. If a body moves in a circular path, its angular momentum is:

(A) Constant
(B) Zero
(C) Varies with time
(D) Along the radius

Q.30. Speed of light in a medium with refractive index n is:

(A) c/n

(B) cn

(C) c*n^2

(D) c/n^2

Q.31. The unit of Planck's constant is:

(A) J.s

(B) J/s

(C) J.m

(D) J/m

Q.32. Critical angle for glass-air interface (n=1.5) is:

(A) 41.8 degrees

(B) 30 degrees

(C) 45 degrees

(D) 60 degrees

Q.33. In nuclear fission, the mass defect is converted to energy by:

(A) E=mc^2

(B) E=mv^2

(C) E=mgh

(D) E=mv

Q.34. A galvanometer of resistance G is converted to voltmeter by connecting:

(A) High resistance in series

(B) Low resistance in parallel

(C) High resistance in parallel

(D) Low resistance in series

Q.35. The Doppler effect occurs for:

(A) Both sound and light

(B) Only sound

(C) Only light

(D) Neither

SECTION B

Q.36. Two capacitors of 4 microF and 6 microF are connected in series. Effective capacitance is:

(A) 2.4 microF

(B) 10 microF

(C) 24 microF

(D) 1.2 microF

Q.37. A satellite of mass m orbits Earth of mass M at radius r. Orbital velocity is:

(A) sqrt(GM/r)

(B) sqrt(GMr)

(C) GM/r

(D) sqrt(GM/r^2)

Q.38. A rod of length L and mass M is pivoted at one end. Moment of inertia about pivot is:

(A) ML^2/3
(B) ML^2/12
(C) ML^2
(D) ML^2/2

Q.39. The nuclear radius R is related to mass number A as:

(A) R = R0*A^(1/3)
(B) R = R0*A
(C) R = R0*A^2
(D) R = R0/A

Q.40. An ideal transformer has primary 200 turns and secondary 50 turns. If primary voltage is 240 V, secondary voltage is:

(A) 60 V
(B) 960 V
(C) 120 V
(D) 480 V

Q.41. A photon of wavelength 4000 A has energy: (h=6.6x10^-34, c=3x10^8):

(A) 4.95 x 10^-19 J
(B) 3.3 x 10^-19 J
(C) 6.6 x 10^-19 J
(D) 1.65 x 10^-19 J

Q.42. The electric potential due to a dipole at a point on its equatorial line at distance r is:

(A) Zero
(B) kp/r^2
(C) kp/r^3
(D) 2kp/r^2

Q.43. Escape velocity from Earth's surface is approximately:

(A) 11.2 km/s
(B) 7.9 km/s
(C) 8.0 km/s
(D) 9.8 km/s

Q.44. A uniform rod of length L balance at 1/4 from one end. Ratio of masses added at each end:

(A) 3:1
(B) 1:3
(C) 1:1
(D) 2:1

Q.45. The SI unit of specific heat capacity is:

(A) J/kg.K
(B) J/K
(C) cal/g.K
(D) J.K/kg

Q.46. Which gate gives output 1 only when all inputs are 1?

(A) AND
(B) OR
(C) NAND
(D) NOR

Q.47. The angular velocity of Earth's rotation is approximately:

(A) 7.27 x 10^-5 rad/s
(B) 7.27 x 10^-3 rad/s
(C) 7.27 x 10^-4 rad/s
(D) 7.27 x 10^-2 rad/s

Q.48. A charged particle moves in a circle in a magnetic field B. The time period is:

(A) 2*pi*m/qB
(B) qB/2*pi*m
(C) 2*pi*qB/m
(D) m/qB

Q.49. Thermal resistance of a conductor of length L and cross-section A is:

(A) L/kA
(B) kA/L
(C) kL/A
(D) A/kL

Q.50. If frequency of a source is 500 Hz and observer moves toward it at 20 m/s (v_sound=340), apparent frequency is:

(A) 529 Hz
(B) 500 Hz
(C) 471 Hz
(D) 550 Hz

CHEMISTRY

SECTION A

Q.51. Number of sigma bonds in ethane (C2H6):

(A) 7
(B) 6
(C) 5
(D) 8

Q.52. pH of 0.01 M HCl solution is:

(A) 2
(B) 4
(C) 1
(D) 3

Q.53. Which of the following is a Lewis acid?

(A) BF_3
(B) NH_3
(C) H_2O
(D) OH^-

Q.54. The IUPAC name of CH_3-CH(OH)-CH_2-CH_3 is:

(A) Butan-2-ol
(B) 2-methylpropan-1-ol
(C) Butan-1-ol
(D) 2-butanol

Q.55. Molarity is defined as moles of solute per:

(A) Litre of solution
(B) Kg of solvent
(C) 100 g of solution
(D) Litre of solvent

Q.56. Which of the following has the highest ionization energy?

(A) Ne
(B) Na
(C) Mg
(D) Al

Q.57. The bond angle in water molecule is approximately:

(A) 104.5 degrees
(B) 109.5 degrees
(C) 120 degrees
(D) 90 degrees

Q.58. The oxidation state of Mn in $KMnO_4$ is:

(A) 7+
(B) 2+
(C) 4+
(D) 6+

Q.59. Which process is used to purify noble metals?

(A) Zone refining
(B) Electrolytic refining
(C) Cupellation
(D) Distillation

Q.60. Coordination number of Na^+ in NaCl crystal is:

(A) 6
(B) 4
(C) 8
(D) 12

Q.61. An element with atomic number 17 belongs to group:

(A) 17 (VIIA)
(B) 16 (VIA)
(C) 18 (0)
(D) 15 (VA)

Q.62. The enthalpy of neutralization of strong acid with strong base is approximately:

(A) 57.1 kJ/mol
(B) 100 kJ/mol
(C) 40 kJ/mol
(D) 25 kJ/mol

Q.63. Which functional group is present in carboxylic acids?

(A) -COOH
(B) -CHO
(C) -OH
(D) -CO-

Q.64. Rate of a reaction doubles when temperature increases by 10 K. Temperature coefficient is:

(A) 2
(B) 0.5
(C) 10
(D) 1

Q.65. The number of unpaired electrons in Fe3+ (Z=26) is:

(A) 5
(B) 3
(C) 1
(D) 0

Q.66. Glycerol is an example of:

(A) Triol
(B) Diol
(C) Monol
(D) Tetraol

Q.67. Which of the following is NOT a colligative property?

(A) Optical activity
(B) Elevation of boiling point
(C) Osmotic pressure
(D) Depression of freezing point

Q.68. The first noble gas compound synthesized was:

(A) XePtF6
(B) XeF2
(C) XeF4
(D) XeF6

Q.69. Phenol reacts with sodium hydroxide to give:

(A) Sodium phenoxide + water
(B) Sodium benzoate + water
(C) Sodium carbonate
(D) No reaction

Q.70. The Raoult's law for an ideal solution states that:

(A) Partial pressure = mole fraction x vapour pressure of pure component
(B) Total pressure = sum of all pressures
(C) Vapour pressure is constant
(D) None of these

Q.71. An sp3 hybridised carbon has bond angle of:

(A) 109.5 degrees
(B) 120 degrees
(C) 180 degrees
(D) 90 degrees

Q.72. Which is the strongest oxidizing agent among halogens?

(A) F2
(B) Cl2
(C) Br2
(D) I2

Q.73. The process of converting raw ore to metal is called:

(A) Smelting
(B) Mining
(C) Refining
(D) Leaching

Q.74. Ester is formed by reaction between:

(A) Carboxylic acid and alcohol
(B) Two alcohols
(C) Alcohol and aldehyde
(D) Two acids

Q.75. The hybridisation of nitrogen in NH3 is:

(A) sp3
(B) sp2
(C) sp
(D) sp3d

Q.76. Which solution conducts electricity?

(A) NaCl (aq)
(B) Glucose (aq)
(C) Urea (aq)
(D) Ethanol (aq)

Q.77. The equivalent weight of H2SO4 in neutralization is:

(A) 49
(B) 98
(C) 196
(D) 32

Q.78. Lanthanide contraction results in:

(A) Similar atomic radii of 5th and 6th period transition metals
(B) Larger atomic radii of 6th period
(C) Smaller atomic radii of 5th period
(D) No effect

Q.79. Which gas is produced when Na reacts with water?

(A) H2
(B) O2
(C) CO2
(D) N2

Q.80. The boiling point of ethanol is lower than water because:

(A) Ethanol has fewer H-bonds
(B) Water is heavier
(C) Ethanol has higher MW
(D) Ethanol is non-polar

Q.81. Number of atoms in 1 mole of He gas is:

(A) 6.022 x 10^23
(B) 12.044 x 10^23
(C) 3.011 x 10^23
(D) 1.0

Q.82. Cannizzaro reaction is given by aldehydes:

(A) Without alpha-H
(B) With alpha-H
(C) With alpha-OH
(D) With beta-H

Q.83. The Faraday's first law of electrolysis states that:

(A) Mass of substance deposited is proportional to charge passed
(B) Mass is proportional to current only
(C) Mass is proportional to time only
(D) Mass is constant

Q.84. In Friedel-Crafts alkylation, catalyst used is:

(A) Anhydrous AlCl3
(B) FeCl3
(C) Conc H2SO4
(D) NaOH

Q.85. The VSEPR theory predicts bond angle in ClF3 is:

(A) < 120 degrees
(B) = 120 degrees
(C) = 90 degrees
(D) = 109.5 degrees

SECTION B

Q.86. The molar conductance of a strong electrolyte:

(A) Increases with dilution
(B) Decreases with dilution
(C) Remains constant
(D) First increases then decreases

Q.87. Tollen's reagent is used to detect:

(A) Aldehyde
(B) Ketone
(C) Ether
(D) Amine

Q.88. Which polymer is used in bullet-proof glass?

(A) Polycarbonate
(B) Polythene
(C) PVC
(D) Nylon

Q.89. The van't Hoff factor for Na_2SO_4 (fully dissociated) is:

(A) 3
(B) 2
(C) 4
(D) 1

Q.90. Which reaction converts benzene diazonium chloride to fluorobenzene?

(A) Balz-Schiemann reaction
(B) Sandmeyer reaction
(C) Gattermann reaction
(D) Wurtz reaction

Q.91. The complex $[Co(NH_3)_5Cl]SO_4$ has geometry:

(A) Octahedral
(B) Tetrahedral
(C) Square planar
(D) Trigonal bipyramidal

Q.92. Ascorbic acid is also known as:

(A) Vitamin C
(B) Vitamin B
(C) Vitamin A
(D) Vitamin D

Q.93. Henry's law is related to:

(A) Solubility of gas in liquid
(B) Vapour pressure of liquid
(C) Rate of evaporation
(D) Boiling point elevation

Q.94. Baeyer's reagent is:

(A) Alkaline $KMnO_4$
(B) Acidic $KMnO_4$
(C) $K_2Cr_2O_7$
(D) CrO_3

Q.95. The chelate ring in EDTA complexes normally has:

(A) 5 member ring
(B) 4 member ring
(C) 6 member ring
(D) 3 member ring

Q.96. Which vitamin is synthesized in skin by sunlight?

(A) Vitamin D
(B) Vitamin C
(C) Vitamin A
(D) Vitamin K

Q.97. Nucleophilic addition reaction is characteristic of:

(A) Carbonyl compounds
(B) Benzene
(C) Alkanes
(D) Alkenes

Q.98. The inert pair effect is prominent in:

(A) Post-transition metals (Tl, Pb, Bi)
(B) Transition metals
(C) Alkali metals
(D) Noble gases

Q.99. Wacker process converts ethylene to:

(A) Acetaldehyde
(B) Ethanol
(C) Acetic acid
(D) Ethylene oxide

Q.100. The colour of $KMnO_4$ is due to:

(A) Charge transfer transition
(B) d-d transition
(C) f-f transition
(D) s-p transition

BOTANY

SECTION A

Q.101. Who proposed the theory of natural selection?

(A) Charles Darwin
(B) Lamarck
(C) Mendel
(D) de Vries

Q.102. Which plant has CAM type photosynthesis?

(A) Cactus
(B) Wheat
(C) Maize
(D) Sunflower

Q.103. Ribosome is made up of:

(A) rRNA and proteins
(B) DNA and proteins
(C) mRNA only
(D) Proteins only

Q.104. The main function of stomata is:

(A) Gaseous exchange and transpiration
(B) Photosynthesis
(C) Absorption of water
(D) Support

Q.105. Phloem tissue is responsible for transport of:

(A) Organic solutes (food)
(B) Water and minerals
(C) Gases
(D) Waste products

Q.106. The hormone responsible for dormancy in seeds is:

(A) ABA (Abscisic acid)
(B) Gibberellin
(C) Auxin
(D) Cytokinin

Q.107. Apical meristem is found at:

(A) Shoot and root tips
(B) Lateral sides of stem
(C) Intercalary region
(D) Leaf surface

Q.108. The process of conversion of glucose to pyruvate is called:

(A) Glycolysis
(B) Krebs cycle

(C) Calvin cycle
(D) Fermentation

Q.109. The male gametes in angiosperms are produced by:

(A) Pollen grains
(B) Antipodal cells
(C) Synergids
(D) Ovule

Q.110. Xylem tissue mainly transports:

(A) Water and minerals
(B) Food
(C) Hormones
(D) Gases

Q.111. The outermost layer of a dicot stem is:

(A) Epidermis
(B) Cortex
(C) Endodermis
(D) Pericycle

Q.112. Bt toxin produced by Bacillus thuringiensis is a/an:

(A) Protein
(B) Lipid
(C) Carbohydrate
(D) Nucleic acid

Q.113. Double fertilization is a characteristic of:

(A) Angiosperms
(B) Gymnosperms
(C) Bryophytes
(D) Pteridophytes

Q.114. The photosynthetic pigment that absorbs red and blue light is:

(A) Chlorophyll a
(B) Carotenoid
(C) Phycoerythrin
(D) Phycocyanin

Q.115. Which plant hormone promotes cell division?

(A) Cytokinin
(B) Auxin
(C) Gibberellin
(D) Ethylene

Q.116. The embryo sac in angiosperms has how many cells?

(A) 7
(B) 8

(C) 4
(D) 6

Q.117. Secondary growth in dicot stem is due to:

(A) Vascular cambium
(B) Apical meristem
(C) Intercalary meristem
(D) Lateral meristem

Q.118. The product of glycolysis that enters Krebs cycle is:

(A) Acetyl-CoA (via pyruvate)
(B) Glucose
(C) ATP
(D) NADH

Q.119. Chloroplast is surrounded by:

(A) Double membrane
(B) Single membrane
(C) Triple membrane
(D) No membrane

Q.120. Pollination by insects is called:

(A) Entomophily
(B) Zoophily
(C) Anemophily
(D) Hydrophily

Q.121. The main function of vacuole in plant cells is:

(A) Maintain turgor pressure
(B) Energy production
(C) Protein synthesis
(D) Lipid storage

Q.122. Vernalization refers to promotion of flowering by:

(A) Low temperature
(B) High temperature
(C) Long days
(D) Short days

Q.123. Somatic hybridization involves fusion of:

(A) Protoplasts
(B) Gametes
(C) Pollen grains
(D) Seeds

Q.124. Which type of placentation is found in mustard?

(A) Parietal
(B) Axile

(C) Free central
(D) Basal

Q.125. C4 plants have:

(A) Kranz anatomy with bundle sheath cells
(B) Mesophyll cells only
(C) No bundle sheath
(D) Simple leaf anatomy

Q.126. The oxygen in photosynthesis is released from:

(A) Water
(B) CO_2
(C) Glucose
(D) Chlorophyll

Q.127. Stamen consists of:

(A) Anther and filament
(B) Anther only
(C) Petal and sepal
(D) Pistil and filament

Q.128. Polyploidy is induced artificially by:

(A) Colchicine
(B) Auxin
(C) Gibberellin
(D) Cytokinin

Q.129. The Calvin cycle operates in which part of chloroplast?

(A) Stroma
(B) Thylakoid
(C) Grana
(D) Matrix

Q.130. Botulism is caused by:

(A) Clostridium botulinum
(B) Salmonella typhi
(C) E.coli
(D) Vibrio cholerae

Q.131. Pollen germination is tested by:

(A) Hanging drop method
(B) Blood agar method
(C) Dilution plating
(D) None

Q.132. The process of reduction of NO_3^- to NH_4^+ by bacteria is:

(A) Nitrate reduction
(B) Nitrification

(C) Denitrification
(D) Ammonification

Q.133. Which plant hormone is involved in fruit ripening?

(A) Ethylene
(B) ABA
(C) Cytokinin
(D) Gibberellin

Q.134. Stomata are generally found on:

(A) Lower surface of leaf
(B) Upper surface
(C) Both surfaces
(D) Stem only

Q.135. The first plant to colonize bare rock is:

(A) Lichen
(B) Moss
(C) Fern
(D) Grass

SECTION B

Q.136. Auxin is synthesized in:

(A) Shoot apex
(B) Root apex
(C) Leaves
(D) Stem

Q.137. Endosperm is formed from:

(A) Triple fusion
(B) Syngamy
(C) Meiosis
(D) Mitosis only

Q.138. Photoperiodism refers to:

(A) Response of plants to light duration
(B) Growth due to light
(C) Photosynthesis rate
(D) Stomatal opening

Q.139. The term 'ecosystem' was coined by:

(A) A.G.Tansley
(B) Odum
(C) Darwin
(D) Linnaeus

Q.140. DNA fingerprinting technique was developed by:

(A) Alec Jeffreys

(B) James Watson
(C) Francis Crick
(D) Hershey

Q.141. Restriction enzymes cut DNA at:

(A) Palindromic sequences
(B) Random sites
(C) AT-rich regions
(D) GC-rich regions

Q.142. The first transgenic animal was:

(A) Mouse
(B) Sheep
(C) Cow
(D) Goat

Q.143. In PCR, denaturation occurs at:

(A) 94-95 degrees C
(B) 50-60 degrees C
(C) 72 degrees C
(D) 37 degrees C

Q.144. The term 'biodiversity' was popularized by:

(A) E.O.Wilson
(B) Darwin
(C) Lamarck
(D) Mendel

Q.145. Bioremediation is used for:

(A) Cleaning polluted environments using microbes
(B) Breeding better crops
(C) Gene therapy
(D) Vaccine production

Q.146. Which is NOT a method of vegetative propagation?

(A) Seed germination
(B) Cutting
(C) Grafting
(D) Layering

Q.147. Sugarcane is an example of which type of stem modification?

(A) Rhizome
(B) Tuber
(C) Corm
(D) Bulb

Q.148. Root pressure is responsible for:

(A) Guttation

(B) Transpiration
(C) Wilting
(D) Photosynthesis

Q.149. The pollen tube enters ovule through:

(A) Micropyle
(B) Chalaza
(C) Funicle
(D) Hilum

Q.150. Biogas mainly contains:

(A) Methane
(B) CO_2
(C) H_2
(D) N_2

ZOOLOGY

SECTION A

Q.151. Which vitamin deficiency causes rickets?

(A) Vitamin D
(B) Vitamin C
(C) Vitamin A
(D) Vitamin B12

Q.152. Insulin is secreted by:

(A) Beta cells of islets of Langerhans
(B) Alpha cells
(C) Delta cells
(D) Liver

Q.153. The antibodies are produced by:

(A) B-lymphocytes
(B) T-lymphocytes
(C) Neutrophils
(D) Macrophages

Q.154. Which blood group is universal donor?

(A) O negative
(B) AB positive
(C) A positive
(D) B negative

Q.155. The conducting system of heart originates at:

(A) SA node
(B) AV node
(C) Bundle of His

(D) Purkinje fibers

Q.156. Meiosis occurs in:

(A) Gonads (testis and ovary)
(B) Liver
(C) Bone marrow
(D) Skin

Q.157. The hormone ADH acts on:

(A) Kidney tubules
(B) Liver
(C) Thyroid
(D) Adrenal cortex

Q.158. Morphology of virus is studied by:

(A) Electron microscope
(B) Light microscope
(C) Compound microscope
(D) Fluorescence microscope

Q.159. The enzyme that breaks down starch in mouth is:

(A) Salivary amylase
(B) Pepsin
(C) Lipase
(D) Trypsin

Q.160. Corpus luteum produces:

(A) Progesterone
(B) Estrogen
(C) LH
(D) FSH

Q.161. The yellow colour of urine is due to:

(A) Urochrome
(B) Uric acid
(C) Urobilin
(D) Urea

Q.162. Spermatogenesis occurs in:

(A) Seminiferous tubules
(B) Epididymis
(C) Vas deferens
(D) Prostate

Q.163. Which part of brain controls body temperature?

(A) Hypothalamus
(B) Cerebrum
(C) Cerebellum

(D) Medulla

Q.164. Lymph differs from blood in:

(A) Absence of RBCs
(B) Absence of WBCs
(C) Absence of platelets
(D) Presence of RBCs

Q.165. Number of chromosomes in human somatic cells:

(A) 46
(B) 23
(C) 48
(D) 44

Q.166. Bile is secreted by:

(A) Liver
(B) Pancreas
(C) Small intestine
(D) Stomach

Q.167. Myelin sheath is produced by:

(A) Schwann cells
(B) Neurons
(C) Astrocytes
(D) Oligodendrocytes

Q.168. The site of protein synthesis in cell is:

(A) Ribosome
(B) Nucleus
(C) Golgi body
(D) Mitochondria

Q.169. Haemoglobin is a:

(A) Conjugated protein
(B) Simple protein
(C) Structural protein
(D) Transport lipid

Q.170. Inflammation is mediated by:

(A) Histamine
(B) Insulin
(C) Thyroxin
(D) Adrenaline

Q.171. The knee-jerk reflex involves:

(A) L2-L4 spinal segments
(B) Brain
(C) Cerebellum

(D) Hypothalamus

Q.172. A gene that masks the expression of another is called:

(A) Epistatic gene
(B) Hypostatic gene
(C) Recessive gene
(D) Dominant gene

Q.173. Which WBC is most numerous in blood?

(A) Neutrophil
(B) Eosinophil
(C) Basophil
(D) Monocyte

Q.174. The cortex of kidney is:

(A) Outer portion containing glomeruli
(B) Inner portion
(C) Renal pelvis
(D) Medulla

Q.175. Which hormone controls metamorphosis in insects?

(A) Ecdysone
(B) Insulin
(C) Thyroxin
(D) ADH

Q.176. Turner syndrome has karyotype:

(A) 45, XO
(B) 47, XXY
(C) 46, XX
(D) 47, XYY

Q.177. Antigen-antibody reaction is the basis of:

(A) Immunology
(B) Genetics
(C) Ecology
(D) Evolution

Q.178. The organ of Corti is located in:

(A) Cochlea
(B) Semicircular canal
(C) Utricle
(D) Saccule

Q.179. The number of bones in human skull is:

(A) 22
(B) 14
(C) 8

(D) 30

Q.180. Calcitonin is secreted by:

(A) Thyroid gland
(B) Parathyroid
(C) Adrenal
(D) Pituitary

Q.181. Passive immunity is obtained through:

(A) Injection of antibodies
(B) Vaccination
(C) Natural infection
(D) None

Q.182. Restriction fragment length polymorphism (RFLP) is used in:

(A) DNA fingerprinting
(B) Protein synthesis
(C) Cloning
(D) Transcription

Q.183. Mitral valve is located between:

(A) Left atrium and left ventricle
(B) Right atrium and right ventricle
(C) Left and right atrium
(D) Left ventricle and aorta

Q.184. The human Y chromosome carries:

(A) SRY gene (sex determining region)
(B) ABO blood group gene
(C) Colour blindness gene
(D) Haemophilia gene

Q.185. Opsins are protein components of:

(A) Photoreceptors (rods and cones)
(B) Taste buds
(C) Olfactory cells
(D) Hair cells

SECTION B

Q.186. Down syndrome is due to trisomy of chromosome:

(A) 21
(B) 18
(C) 13
(D) 23

Q.187. The process by which neutrophils engulf bacteria is:

(A) Phagocytosis
(B) Pinocytosis

(C) Endocytosis
(D) Exocytosis

Q.188. Atrial natriuretic peptide (ANP) is secreted by:

(A) Atria of heart
(B) Ventricles
(C) Kidneys
(D) Adrenal gland

Q.189. The axon hillock is the site of:

(A) Action potential initiation
(B) Synapse formation
(C) Myelin synthesis
(D) Transmitter storage

Q.190. ACTH is secreted by:

(A) Anterior pituitary
(B) Posterior pituitary
(C) Hypothalamus
(D) Adrenal cortex

Q.191. Crossing over occurs during:

(A) Pachytene stage of meiosis I
(B) Leptotene
(C) Diplotene
(D) Mitosis

Q.192. Which structure stores sperm until ejaculation?

(A) Epididymis
(B) Seminal vesicle
(C) Prostate
(D) Vas deferens

Q.193. The main excretory product of spiders and insects is:

(A) Uric acid
(B) Urea
(C) Ammonia
(D) Trimethylamine

Q.194. Pheromones are:

(A) Chemical signals for communication
(B) Neural signals
(C) Hormones
(D) Enzymes

Q.195. Which blood cell has the longest lifespan?

(A) Monocyte (memory cells)
(B) Neutrophil

(C) RBC
(D) Platelet

Q.196. Hypothyroidism in adults causes:

(A) Myxoedema
(B) Cretinism
(C) Graves' disease
(D) Goitre only

Q.197. The enzyme responsible for DNA repair is:

(A) DNA repair endonuclease
(B) DNA polymerase III
(C) Ligase only
(D) Helicase

Q.198. The term 'homeostasis' was coined by:

(A) Walter Cannon
(B) Claude Bernard
(C) Charles Darwin
(D) Pavlov

Q.199. Haversian system is found in:

(A) Compact bone
(B) Spongy bone
(C) Cartilage
(D) Ligament

Q.200. The second messenger in hormone action is often:

(A) cAMP
(B) ATP
(C) GTP
(D) ADP

ANSWER KEY — SQP-6

Physics

1. (a)	**2.** (a)	**3.** (b)	**4.** (b)	**5.** (a)	**6.** (a)	**7.** (a)	**8.** (a)
9. (a)	**10.** (a)	**11.** (a)	**12.** (a)	**13.** (a)	**14.** (a)	**15.** (b)	**16.** (a)
17. (a)	**18.** (c)	**19.** (a)	**20.** (a)	**21.** (b)	**22.** (a)	**23.** (a)	**24.** (a)
25. (a)	**26.** (a)	**27.** (a)	**28.** (a)	**29.** (a)	**30.** (a)	**31.** (a)	**32.** (a)
33. (a)	**34.** (a)	**35.** (a)	**36.** (a)	**37.** (a)	**38.** (a)	**39.** (a)	**40.** (a)
41. (a)	**42.** (a)	**43.** (a)	**44.** (a)	**45.** (a)	**46.** (a)	**47.** (a)	**48.** (a)
49. (a)	**50.** (a)						

Chemistry

51. (a)	**52.** (a)	**53.** (a)	**54.** (a)	**55.** (a)	**56.** (a)	**57.** (a)	**58.** (a)
59. (c)	**60.** (a)	**61.** (a)	**62.** (a)	**63.** (a)	**64.** (a)	**65.** (a)	**66.** (a)
67. (a)	**68.** (a)	**69.** (a)	**70.** (a)	**71.** (a)	**72.** (a)	**73.** (a)	**74.** (a)
75. (a)	**76.** (a)	**77.** (a)	**78.** (a)	**79.** (a)	**80.** (a)	**81.** (a)	**82.** (a)
83. (a)	**84.** (a)	**85.** (a)	**86.** (a)	**87.** (a)	**88.** (a)	**89.** (a)	**90.** (a)
91. (a)	**92.** (a)	**93.** (a)	**94.** (a)	**95.** (a)	**96.** (a)	**97.** (a)	**98.** (a)
99. (a)	**100.** (a)						

Botany

101. (a)	**102.** (a)	**103.** (a)	**104.** (a)	**105.** (a)	**106.** (a)	**107.** (a)	**108.** (a)
109. (a)	**110.** (a)	**111.** (a)	**112.** (a)	**113.** (a)	**114.** (a)	**115.** (a)	**116.** (a)
117. (a)	**118.** (a)	**119.** (a)	**120.** (a)	**121.** (a)	**122.** (a)	**123.** (a)	**124.** (a)
125. (a)	**126.** (a)	**127.** (a)	**128.** (a)	**129.** (a)	**130.** (a)	**131.** (a)	**132.** (a)
133. (a)	**134.** (a)	**135.** (a)	**136.** (a)	**137.** (a)	**138.** (a)	**139.** (a)	**140.** (a)
141. (a)	**142.** (a)	**143.** (a)	**144.** (a)	**145.** (a)	**146.** (a)	**147.** (a)	**148.** (a)
149. (a)	**150.** (a)						

Zoology

151. (a)	**152.** (a)	**153.** (a)	**154.** (a)	**155.** (a)	**156.** (a)	**157.** (a)	**158.** (a)
159. (a)	**160.** (a)	**161.** (a)	**162.** (a)	**163.** (a)	**164.** (a)	**165.** (a)	**166.** (a)
167. (a)	**168.** (a)	**169.** (a)	**170.** (a)	**171.** (a)	**172.** (a)	**173.** (a)	**174.** (a)
175. (a)	**176.** (a)	**177.** (a)	**178.** (a)	**179.** (a)	**180.** (a)	**181.** (a)	**182.** (a)
183. (a)	**184.** (a)	**185.** (a)	**186.** (a)	**187.** (a)	**188.** (a)	**189.** (a)	**190.** (a)
191. (a)	**192.** (a)	**193.** (a)	**194.** (a)	**195.** (a)	**196.** (a)	**197.** (a)	**198.** (a)
199. (a)	**200.** (a)						