

NEET UG

Sample Question Paper - 2024

Country: IN | Duration: 3h 20m | Max Marks: 720 | Language: Hindi

Negative Marking: Yes (-1) | Total Questions: 150 | QuizVerse AI Tutor

General Instructions:

1. This paper contains 150 questions across 3 section(s): Physics, Chemistry, Biology.
2. Duration: 3h 20m. Maximum marks: 720.
3. Negative marking: Yes (-1).
4. Read each question carefully before answering.

Section 1: Physics (50 Questions)

Q1. Two capacitors 10 μF and 6 μF are connected in series. The equivalent capacitance is:

- (A) 2.11 μF
- (B) 3.31 μF
- (C) 2.91 μF
- (D) 4.84 μF

Q2. A force of 11 N acts on a 20 kg body initially at rest. The velocity after 5 s is:

- (A) 47 m/s
- (B) 28 m/s
- (C) 35 m/s
- (D) 38 m/s

Q3. A force of 64 N acts on a 17 kg body initially at rest. The velocity after 4 s is:

- (A) 37 m/s
- (B) 7 m/s
- (C) 49 m/s
- (D) 26 m/s

Q4. The binding energy per nucleon of Fe-56 is approximately:

- (A) 8.8 MeV
- (B) 7.6 MeV
- (C) 6.5 MeV
- (D) 9.2 MeV

Q5. The electric field at 1 m from a point charge of 10 μC is:

- (A) 5784 N/C
- (B) 4338 N/C
- (C) 6300 N/C
- (D) 2935 N/C

Q6. A wire of resistance 11 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

- (A) 2 ohm
- (B) 4 ohm
- (C) 7 ohm
- (D) 3 ohm

Q7. A car of mass 1565 kg moving at 25 m/s brakes to rest in 7 s. The braking force is:

- (A) 15156 N
- (B) 6477 N
- (C) 17916 N
- (D) 6209 N

Q8. A solenoid of 609 turns and length 0.5 m carries current 6 A. The magnetic field inside is:

- (A) 5.04 mT
- (B) 2.76 mT
- (C) 4.52 mT
- (D) 1.36 mT

Q9. Two capacitors 4 uF and 2 uF are connected in series. The equivalent capacitance is:

- (A) 1.09 uF
- (B) 1.73 uF
- (C) 2.80 uF
- (D) 2.79 uF

Q10. Two masses 7 kg and 12 kg are connected by a string over a frictionless pulley. The acceleration of the system is:

- (A) 3.30 m/s²
- (B) 2.75 m/s²
- (C) 4.57 m/s²
- (D) 1.05 m/s²

Q11. The work function of a metal is 3.3 eV. The threshold frequency is:

- (A) 7.25×10^{14} Hz
- (B) 10.83×10^{14} Hz
- (C) 6.65×10^{14} Hz
- (D) 9.88×10^{14} Hz

Q12. Two capacitors 9 uF and 9 uF are connected in series. The equivalent capacitance is:

- (A) 3.34 uF
- (B) 1.37 uF
- (C) 4.96 uF
- (D) 4.38 uF

Q13. An electron moves with velocity 1×10^6 m/s perpendicular to a magnetic field of 0.2 T. The radius of its path is:

- (A) 1.26 cm
- (B) 1.43 cm
- (C) 1.26 cm
- (D) 3.91 cm

Q14. In photoelectric effect, the stopping potential for light of wavelength 285 nm on a metal with work function 3.6 eV is:

- (A) 3.40 V
- (B) 3.94 V
- (C) 3.88 V
- (D) 2.26 V

Q15. An electron moves with velocity 1×10^6 m/s perpendicular to a magnetic field of 0.3 T. The radius of its path is:

- (A) 1.71 cm
- (B) 0.95 cm
- (C) 0.80 cm
- (D) 2.09 cm

Q16. A car of mass 1229 kg moving at 56 m/s brakes to rest in 7 s. The braking force is:

- (A) 14865 N
- (B) 5716 N
- (C) 11583 N
- (D) 10834 N

Q17. A wire of resistance 6 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

- (A) 10 ohm
- (B) 2 ohm
- (C) 8 ohm
- (D) 5 ohm

Q18. The focal length of a concave mirror is 21 cm. An object at 25 cm forms image at:

- (A) 34 cm, real inverted
- (B) 53 cm, real inverted
- (C) 47 cm, real inverted
- (D) 15 cm, real inverted

Q19. The escape velocity from a planet of mass 8×10^{24} kg and radius 6600 km is:

- (A) 10.1 km/s
- (B) 9.9 km/s
- (C) 14.9 km/s
- (D) 14.3 km/s

Q20. A spring with $k = 388$ N/m is compressed by 0.15 m. The stored PE is:

- (A) 15.44 J
- (B) 15.02 J
- (C) 4.98 J
- (D) 20.86 J

Q21. The focal length of a concave mirror is 29 cm. An object at 21 cm forms image at:

- (A) 20 cm, real inverted
- (B) 43 cm, real inverted
- (C) 37 cm, real inverted
- (D) 52 cm, real inverted

Q22. The de Broglie wavelength of an electron accelerated through 50 V is approximately:

- (A) 2.95 Angstrom
- (B) 2.67 Angstrom
- (C) 2.48 Angstrom
- (D) 1.06 Angstrom

Q23. A wire of resistance 19 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

- (A) 8 ohm
- (B) 8 ohm
- (C) 2 ohm
- (D) 6 ohm

Q24. A convex lens of focal length 28 cm forms a real image of an object placed 26 cm away. The image distance is:

- (A) 28 cm
- (B) 48 cm
- (C) 21 cm
- (D) 37 cm

Q25. A Carnot engine operates between 446 K and 314 K. Its efficiency is:

- (A) 23%
- (B) 31%
- (C) 53%
- (D) 30%

Q26. The current through a 26 ohm resistor connected to a 7 V battery is:

- (A) 2.28 A
- (B) 4.78 A
- (C) 3.78 A
- (D) 4.61 A

Q27. An ideal gas at 292 K is heated at constant pressure to 489 K. The ratio of final to initial volume is:

- (A) 2.1
- (B) 2.7
- (C) 2.1
- (D) 2.3

Q28. The de Broglie wavelength of an electron accelerated through 150 V is approximately:

- (A) 1.83 Angstrom
- (B) 0.65 Angstrom
- (C) 2.04 Angstrom
- (D) 2.40 Angstrom

Q29. Two masses 8 kg and 7 kg are connected by a string over a frictionless pulley. The acceleration of the system is:

- (A) 2.54 m/s^2
- (B) 1.16 m/s^2
- (C) 1.73 m/s^2
- (D) 4.13 m/s^2

Q30. A body of mass 3 kg is moving in a circle of radius 4 m at 18 m/s. The centripetal force is:

- (A) 28 N
- (B) 165 N
- (C) 30 N
- (D) 186 N

Q31. A convex lens of focal length 18 cm forms a real image of an object placed 46 cm away. The image distance is:

- (A) 19 cm
- (B) 35 cm
- (C) 34 cm
- (D) 25 cm

Q32. A radioactive substance has half-life 14 days. The fraction remaining after 54 days is:

- (A) $1/4$
- (B) $1/16$
- (C) $1/8$
- (D) $1/4$

Q33. In photoelectric effect, the stopping potential for light of wavelength 260 nm on a metal with work function 2.9 eV is:

- (A) 0.69 V
- (B) 2.94 V
- (C) 3.39 V
- (D) 2.43 V

Q34. The work function of a metal is 1.6 eV. The threshold frequency is:

- (A) 10.62×10^{14} Hz
- (B) 9.14×10^{14} Hz
- (C) 11.96×10^{14} Hz
- (D) 3.11×10^{14} Hz

Q35. A convex lens of focal length 16 cm forms a real image of an object placed 22 cm away. The image distance is:

- (A) 15 cm
- (B) 25 cm
- (C) 45 cm
- (D) 51 cm

Q36. A radioactive substance has half-life 11 days. The fraction remaining after 58 days is:

- (A) $1/16$
- (B) $1/4$
- (C) $1/16$
- (D) $1/8$

Q37. The current through a 11 ohm resistor connected to a 12 V battery is:

- (A) 2.22 A
- (B) 2.50 A
- (C) 2.51 A
- (D) 2.81 A

Q38. A spring with $k = 494 \text{ N/m}$ is compressed by 0.17 m . The stored PE is:

- (A) 16.40 J
- (B) 20.63 J
- (C) 22.76 J
- (D) 18.25 J

Q39. An electron moves with velocity $2 \times 10^6 \text{ m/s}$ perpendicular to a magnetic field of 1.0 T . The radius of its path is:

- (A) 4.32 cm
- (B) 1.88 cm
- (C) 2.08 cm
- (D) 3.93 cm

Q40. The binding energy per nucleon of Fe-56 is approximately:

- (A) 6.5 MeV
- (B) 7.6 MeV
- (C) 8.8 MeV
- (D) 9.2 MeV

Q41. An ideal gas at 295 K is heated at constant pressure to 678 K . The ratio of final to initial volume is:

- (A) 1.5
- (B) 1.5
- (C) 2.3
- (D) 2.4

Q42. A ball is dropped from height 38 m . Its velocity just before hitting the ground is:

- (A) 27.1 m/s
- (B) 24.3 m/s
- (C) 47.5 m/s
- (D) 23.2 m/s

Q43. The de Broglie wavelength of an electron accelerated through 50 V is approximately:

- (A) 2.14 Angstrom
- (B) 2.64 Angstrom
- (C) 1.53 Angstrom
- (D) 1.20 Angstrom

Q44. An electron moves with velocity $3 \times 10^6 \text{ m/s}$ perpendicular to a magnetic field of 0.7 T . The radius of its path is:

- (A) 0.85 cm
- (B) 1.21 cm
- (C) 3.79 cm
- (D) 2.99 cm

Q45. A solenoid of 145 turns and length 0.1 m carries current 4 A . The magnetic field inside is:

- (A) 9.69 mT
- (B) 16.56 mT
- (C) 1.19 mT
- (D) 17.15 mT

Q46. A projectile is launched at 45 degrees with initial velocity 22 m/s. The time of flight is approximately:

- (A) 4.6 s
- (B) 3.9 s
- (C) 2.9 s
- (D) 3.3 s

Q47. The electric field at 3 m from a point charge of 6 μC is:

- (A) 8811 N/C
- (B) 672 N/C
- (C) 1784 N/C
- (D) 7047 N/C

Q48. A car of mass 1593 kg moving at 44 m/s brakes to rest in 9 s. The braking force is:

- (A) 4174 N
- (B) 15289 N
- (C) 16867 N
- (D) 3916 N

Q49. The de Broglie wavelength of an electron accelerated through 50 V is approximately:

- (A) 1.17 Angstrom
- (B) 1.07 Angstrom
- (C) 2.55 Angstrom
- (D) 1.32 Angstrom

Q50. The current through a 15 ohm resistor connected to a 21 V battery is:

- (A) 3.95 A
- (B) 2.87 A
- (C) 0.53 A
- (D) 3.75 A

Section 2: Chemistry (50 Questions)

Q51. d-block elements show variable oxidation states because:

- (A) Low ionization energy
- (B) Large atomic size
- (C) Close energy of (n-1)d and ns orbitals
- (D) Filled d orbitals

Q52. The IUPAC name of neopentane is:

- (A) Pentane
- (B) 2,2-Dimethylpropane
- (C) Cyclopentane
- (D) 2-Methylbutane

Q53. The equilibrium constant K_p and K_c are related by:

- (A) $K_p = K_c/RT$
- (B) $K_p = RT \cdot K_c$
- (C) $K_p = K_c(RT)^{\Delta n}$
- (D) $K_p = K_c$

Q54. Lanthanide contraction is caused by:

- (A) Poor shielding by 4f electrons
- (B) High ionization energy
- (C) Nuclear fusion
- (D) Electron capture

Q55. The cell potential for $Zn|Zn^{2+}||Cu^{2+}|Cu$ cell is:

- (A) 0.34 V
- (B) 0.76 V
- (C) -0.76 V
- (D) 1.10 V

Q56. The major product of SN1 reaction of tert-butyl chloride with ethanol is:

- (A) tert-Butyl ethyl ether
- (B) 2-Methylpropene
- (C) tert-Butanol
- (D) Isobutane

Q57. The crystal field splitting energy in octahedral complex is:

- (A) Δ_{oct}
- (B) $10Dq_{tet}$
- (C) Δ_{tet}
- (D) Δ_{sq}

Q58. Which of the following has the highest lattice energy?

- (A) NaBr
- (B) NaCl
- (C) NaF
- (D) NaI

Q59. Which element has the highest electronegativity?

- (A) Fluorine
- (B) Chlorine
- (C) Nitrogen
- (D) Oxygen

Q60. Gibbs free energy change for a spontaneous process is:

- (A) Positive
- (B) Undefined
- (C) Zero
- (D) Negative

Q61. According to Raoult's law, the vapour pressure of a solvent in solution is:

- (A) $p = p_0 \cdot x_{solute}$
- (B) $p = RT/V$
- (C) $p = p_0 \cdot x_{solvent}$
- (D) $p = p_0 / x_{solvent}$

Q62. The crystal field splitting energy in octahedral complex is:

- (A) Δ_{sq}
- (B) Δ_{oct}
- (C) $10Dq_{tet}$
- (D) Δ_{tet}

Q63. The product of dehydration of ethanol at 443 K is:

- (A) Ethylene (C₂H₄)
- (B) Diethyl ether
- (C) Acetaldehyde
- (D) Acetic acid

Q64. Which of the following has the highest lattice energy?

- (A) NaCl
- (B) NaF
- (C) NaI
- (D) NaBr

Q65. The shape of XeF₄ is:

- (A) See-saw
- (B) Square planar
- (C) Octahedral
- (D) Tetrahedral

Q66. Colligative properties depend on:

- (A) Nature of solvent
- (B) Number of solute particles
- (C) Molar mass of solute
- (D) Nature of solute

Q67. The crystal field splitting energy in octahedral complex is:

- (A) Δ_{sq}
- (B) Δ_{oct}
- (C) $10Dq_{tet}$
- (D) Δ_{tet}

Q68. The product of dehydration of ethanol at 443 K is:

- (A) Acetaldehyde
- (B) Diethyl ether
- (C) Ethylene (C₂H₄)
- (D) Acetic acid

Q69. The hybridization of C in acetylene is:

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

Q70. The major product of SN1 reaction of tert-butyl chloride with ethanol is:

- (A) Isobutane
- (B) tert-Butyl ethyl ether
- (C) 2-Methylpropene
- (D) tert-Butanol

Q71. The entropy change for an irreversible process is:

- (A) Equal to q/T
- (B) Negative always
- (C) Zero
- (D) Greater than q_{rev}/T

Q72. For an ideal gas, $C_p - C_v$ equals:

- (A) 0
- (B) $R/2$
- (C) R (8.314 J/mol K)
- (D) $2R$

Q73. The cell potential for $\text{Zn}|\text{Zn}^{2+}||\text{Cu}^{2+}|\text{Cu}$ cell is:

- (A) 1.10 V
- (B) -0.76 V
- (C) 0.34 V
- (D) 0.76 V

Q74. VSEPR theory predicts the shape of SF_6 as:

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

Q75. Friedel-Crafts acylation uses which catalyst?

- (A) ZnCl_2
- (B) CuCl_2
- (C) FeCl_3
- (D) AlCl_3

Q76. Hess's law states that:

- (A) Entropy always increases
- (B) Rate depends on concentration
- (C) Enthalpy change is path independent
- (D) Volume is constant

Q77. The colour of KMnO_4 is due to:

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

Q78. The hybridization of Ni in $[\text{Ni}(\text{CN})_4]^{2-}$ is:

- (A) sp^3
- (B) d^2sp^3
- (C) sp^3d
- (D) dsp^2

Q79. Williamson's synthesis is used to prepare:

- (A) Amines
- (B) Esters
- (C) Ethers
- (D) Alcohols

Q80. According to Raoult's law, the vapour pressure of a solvent in solution is:

- (A) $p = RT/V$
- (B) $p = p_0 \cdot x_{\text{solvent}}$
- (C) $p = p_0 \cdot x_{\text{solute}}$
- (D) $p = p_0 / x_{\text{solvent}}$

Q81. For an endothermic reaction, increasing temperature:

- (A) Decreases rate
- (B) Increases equilibrium constant
- (C) No effect
- (D) Decreases equilibrium constant

Q82. The product of dehydration of ethanol at 443 K is:

- (A) Diethyl ether
- (B) Ethylene (C_2H_4)
- (C) Acetaldehyde
- (D) Acetic acid

Q83. The reagent for converting aldehyde to carboxylic acid is:

- (A) LiAlH_4
- (B) $\text{Zn-Hg} / \text{HCl}$
- (C) $\text{KMnO}_4 / \text{K}_2\text{Cr}_2\text{O}_7$
- (D) NaBH_4

Q84. The reagent for converting aldehyde to carboxylic acid is:

- (A) $\text{KMnO}_4 / \text{K}_2\text{Cr}_2\text{O}_7$
- (B) $\text{Zn-Hg} / \text{HCl}$
- (C) NaBH_4
- (D) LiAlH_4

Q85. For an ideal gas, $C_p - C_v$ equals:

- (A) $2R$
- (B) $R/2$
- (C) 0
- (D) R (8.314 J/mol K)

Q86. The colour of KMnO₄ is due to:

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

Q87. The equilibrium constant K_p and K_c are related by:

- (A) $K_p = RT \cdot K_c$
- (B) $K_p = K_c(RT)^{\Delta n}$
- (C) $K_p = K_c$
- (D) $K_p = K_c/RT$

Q88. The coordination number in BCC is:

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

Q89. The entropy change for an irreversible process is:

- (A) Greater than q_{rev}/T
- (B) Equal to q/T
- (C) Negative always
- (D) Zero

Q90. Grignard reagents react with dry CO₂ to give:

- (A) Carboxylic acids
- (B) Esters
- (C) Alcohols
- (D) Ketones

Q91. The IUPAC name of CH₃CH(OH)CH₃ is:

- (A) Propan-2-ol
- (B) 2-Methylethanol
- (C) Propan-1-ol
- (D) Isopropyl ether

Q92. The coordination number in BCC is:

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

Q93. Grignard reagents react with dry CO₂ to give:

- (A) Carboxylic acids
- (B) Ketones
- (C) Alcohols
- (D) Esters

Q94. The magnetic moment of Fe²⁺ (d⁶) in weak field is:

- (A) 2.83 BM
- (B) 0 BM
- (C) 4.9 BM (4 unpaired)
- (D) 5.9 BM

Q95. The van't Hoff factor for NaCl is approximately:

- (A) 2
- (B) 1
- (C) 0.5
- (D) 3

Q96. Markovnikov's rule applies to the addition of HBr to:

- (A) Ethene
- (B) Methane
- (C) Benzene
- (D) Propene

Q97. For a first-order reaction with $k = 0.080 \text{ s}^{-1}$, the half-life is:

- (A) 20.0 s
- (B) 13.9 s
- (C) 15.0 s
- (D) 10.0 s

Q98. Wurtz reaction involves coupling of:

- (A) Acids with SOCl₂
- (B) Aryl halides with Cu
- (C) Aldehydes with NaOH
- (D) Alkyl halides with Na

Q99. The ore of aluminium is:

- (A) Chalcopyrite
- (B) Haematite
- (C) Galena
- (D) Bauxite

Q100. Markovnikov's rule applies to the addition of HBr to:

- (A) Benzene
- (B) Methane
- (C) Propene
- (D) Ethene

Section 3: Biology (50 Questions)

Q101. Antibodies are produced by:

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

Q102. The study of fossils is called:

- (A) Histology
- (B) Paleontology
- (C) Ecology
- (D) Taxonomy

Q103. The site of protein synthesis is:

- (A) Ribosome
- (B) Golgi
- (C) Nucleus
- (D) Lysosome

Q104. Which is a vestigial organ in humans?

- (A) Kidney
- (B) Liver
- (C) Heart
- (D) Appendix

Q105. Mendel's law of segregation states that:

- (A) Alleles separate during gamete formation
- (B) Genes are linked
- (C) Traits blend
- (D) Mutations are random

Q106. Biodiversity hotspots have:

- (A) Cold climate
- (B) High endemism and threat
- (C) No endemic species
- (D) Low species count

Q107. Which is the site of transcription in eukaryotes?

- (A) Cytoplasm
- (B) ER
- (C) Nucleus
- (D) Ribosome

Q108. Monohybrid cross ratio is:

- (A) 3:1
- (B) 9:3:3:1
- (C) 1:2:1
- (D) 1:1

Q109. Blood group O is the universal:

- (A) Donor
- (B) Recipient
- (C) Both
- (D) Neither

Q110. The enzyme that joins Okazaki fragments is:

- (A) Helicase
- (B) Primase
- (C) DNA ligase
- (D) Topoisomerase

Q111. Insulin promotes:

- (A) Lipolysis
- (B) Glycogenesis
- (C) Glycogenolysis
- (D) Gluconeogenesis

Q112. The sex of a child is determined by:

- (A) Random
- (B) Both equally
- (C) Father's chromosome
- (D) Mother's chromosome

Q113. The powerhouse of the cell is:

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

Q114. PCR is used to:

- (A) Culture cells
- (B) Sequence proteins
- (C) Stain tissues
- (D) Amplify DNA

Q115. Crossing over occurs during:

- (A) Anaphase II
- (B) Telophase I
- (C) Metaphase I
- (D) Pachytene

Q116. Which phylum includes starfish?

- (A) Arthropoda
- (B) Chordata
- (C) Mollusca
- (D) Echinodermata

Q117. Biogeochemical cycling of nitrogen includes:

- (A) Nitrification
- (B) Glycolysis
- (C) Photolysis
- (D) Krebs cycle

Q118. Ecological pyramid of energy is always:

- (A) Spindle-shaped
- (B) Upright
- (C) Inverted
- (D) Both possible

Q119. Peristalsis occurs in:

- (A) Alimentary canal
- (B) Brain
- (C) Lungs
- (D) Bones

Q120. Which hormone triggers ovulation?

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

Q121. Which muscle type is involuntary and striated?

- (A) Smooth
- (B) Skeletal
- (C) Cardiac
- (D) None of these

Q122. The greenhouse effect is primarily caused by:

- (A) Argon
- (B) O₂ and N₂
- (C) Ozone only
- (D) CO₂ and methane

Q123. Xylem transports:

- (A) Amino acids
- (B) Water and minerals
- (C) Sugars
- (D) Hormones

Q124. The pacemaker of the heart is:

- (A) SA node
- (B) AV node
- (C) Purkinje fibers
- (D) Bundle of His

Q125. Primary succession occurs on:

- (A) Clear-cut area
- (B) Burned forest
- (C) Bare rock
- (D) Abandoned farmland

Q126. Ecological pyramid of energy is always:

- (A) Inverted
- (B) Both possible
- (C) Spindle-shaped
- (D) Upright

Q127. Which enzyme unwinds DNA during replication?

- (A) DNA polymerase
- (B) Ligase
- (C) Primase
- (D) Helicase

Q128. Stomata open when guard cells:

- (A) Become turgid
- (B) Die
- (C) Divide
- (D) Lose water

Q129. The lock-and-key model explains:

- (A) Cell division
- (B) DNA replication
- (C) Enzyme specificity
- (D) Protein folding

Q130. Restriction enzymes cut DNA at:

- (A) Telomeres
- (B) Any sequence
- (C) Palindromic sequences
- (D) Centromeres

Q131. Insulin promotes:

- (A) Glycogenesis
- (B) Lipolysis
- (C) Gluconeogenesis
- (D) Glycogenolysis

Q132. Which phylum includes starfish?

- (A) Mollusca
- (B) Echinodermata
- (C) Arthropoda
- (D) Chordata

Q133. The largest organ in the human body is:

- (A) Brain
- (B) Liver
- (C) Lungs
- (D) Skin

Q134. The lock-and-key model explains:

- (A) Protein folding
- (B) Enzyme specificity
- (C) DNA replication
- (D) Cell division

Q135. The oxygen-carrying pigment in blood is:

- (A) Chlorophyll
- (B) Hemoglobin
- (C) Cytochrome
- (D) Myoglobin

Q136. Biogeochemical cycling of nitrogen includes:

- (A) Glycolysis
- (B) Krebs cycle
- (C) Photolysis
- (D) Nitrification

Q137. Which organelle is involved in lipid synthesis?

- (A) Smooth ER
- (B) Lysosome
- (C) Golgi
- (D) Rough ER

Q138. The Krebs cycle occurs in:

- (A) ER
- (B) Nucleus
- (C) Mitochondrial matrix
- (D) Cytoplasm

Q139. Mitosis results in:

- (A) 2 identical daughter cells
- (B) 1 large cell
- (C) 3 cells
- (D) 4 haploid cells

Q140. Primary succession occurs on:

- (A) Clear-cut area
- (B) Abandoned farmland
- (C) Bare rock
- (D) Burned forest

Q141. Which vitamin deficiency causes scurvy?

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

Q142. Which blood cells are involved in clotting?

- (A) Platelets
- (B) WBCs
- (C) Plasma
- (D) RBCs

Q143. The pacemaker of the heart is:

- (A) SA node
- (B) Purkinje fibers
- (C) Bundle of His
- (D) AV node

Q144. Ozone layer is found in:

- (A) Troposphere
- (B) Mesosphere
- (C) Thermosphere
- (D) Stratosphere

Q145. Blood group O is the universal:

- (A) Neither
- (B) Both
- (C) Donor
- (D) Recipient

Q146. Crossing over occurs during:

- (A) Telophase I
- (B) Metaphase I
- (C) Anaphase II
- (D) Pachytene

Q147. The number of chromosomes in human gametes is:

- (A) 44
- (B) 23
- (C) 22
- (D) 46

Q148. The first life originated in:

- (A) Volcanoes
- (B) Air
- (C) Water
- (D) Land

Q149. The fluid mosaic model describes:

- (A) DNA structure
- (B) Cell wall
- (C) Protein folding
- (D) Cell membrane structure

Q150. Hardy-Weinberg equilibrium assumes:

- (A) Small population
- (B) High mutation rate
- (C) No mutation
- (D) Selection pressure

Answer Key

Q1: (A)	Q2: (C)	Q3: (D)	Q4: (A)	Q5: (D)
Q6: (A)	Q7: (C)	Q8: (C)	Q9: (C)	Q10: (D)
Q11: (D)	Q12: (D)	Q13: (A)	Q14: (C)	Q15: (C)
Q16: (D)	Q17: (D)	Q18: (C)	Q19: (A)	Q20: (B)
Q21: (B)	Q22: (D)	Q23: (A)	Q24: (C)	Q25: (B)
Q26: (A)	Q27: (B)	Q28: (B)	Q29: (C)	Q30: (D)
Q31: (D)	Q32: (C)	Q33: (C)	Q34: (C)	Q35: (A)
Q36: (D)	Q37: (D)	Q38: (A)	Q39: (A)	Q40: (C)
Q41: (A)	Q42: (B)	Q43: (C)	Q44: (A)	Q45: (D)
Q46: (A)	Q47: (B)	Q48: (A)	Q49: (B)	Q50: (A)
Q51: (C)	Q52: (B)	Q53: (C)	Q54: (A)	Q55: (D)
Q56: (A)	Q57: (A)	Q58: (C)	Q59: (A)	Q60: (D)
Q61: (C)	Q62: (B)	Q63: (A)	Q64: (B)	Q65: (B)
Q66: (B)	Q67: (B)	Q68: (C)	Q69: (D)	Q70: (B)
Q71: (D)	Q72: (C)	Q73: (A)	Q74: (A)	Q75: (D)
Q76: (C)	Q77: (D)	Q78: (D)	Q79: (C)	Q80: (B)
Q81: (B)	Q82: (B)	Q83: (C)	Q84: (A)	Q85: (D)
Q86: (D)	Q87: (B)	Q88: (C)	Q89: (A)	Q90: (A)
Q91: (A)	Q92: (C)	Q93: (A)	Q94: (C)	Q95: (A)
Q96: (D)	Q97: (B)	Q98: (D)	Q99: (D)	Q100: (C)
Q101: (A)	Q102: (B)	Q103: (A)	Q104: (D)	Q105: (A)
Q106: (B)	Q107: (C)	Q108: (A)	Q109: (A)	Q110: (C)
Q111: (B)	Q112: (C)	Q113: (A)	Q114: (D)	Q115: (D)
Q116: (D)	Q117: (A)	Q118: (B)	Q119: (A)	Q120: (C)
Q121: (C)	Q122: (D)	Q123: (B)	Q124: (A)	Q125: (C)
Q126: (D)	Q127: (D)	Q128: (A)	Q129: (C)	Q130: (C)
Q131: (A)	Q132: (B)	Q133: (D)	Q134: (B)	Q135: (B)
Q136: (D)	Q137: (A)	Q138: (C)	Q139: (A)	Q140: (C)
Q141: (A)	Q142: (A)	Q143: (A)	Q144: (D)	Q145: (C)
Q146: (D)	Q147: (B)	Q148: (C)	Q149: (D)	Q150: (C)