

NEET UG

Sample Question Paper - 2022

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

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

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

Q2. The work function of a metal is 3.3 eV. The threshold frequency is:

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

Q3. A block of mass 8 kg slides down a frictionless incline of angle 45 degrees. The acceleration is:

- (A) 3.1 m/s^2
- (B) 4.3 m/s^2
- (C) 5.1 m/s^2
- (D) 3.8 m/s^2

Q4. A wire of resistance 9 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

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

Q5. A wire of resistance 15 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

- (A) 5 ohm
- (B) 7 ohm
- (C) 5 ohm
- (D) 5 ohm

Q6. A block of mass 6 kg slides down a frictionless incline of angle 37 degrees. The acceleration is:

- (A) 6.6 m/s^2
- (B) 4.1 m/s^2
- (C) 5.2 m/s^2
- (D) 6.8 m/s^2

Q7. 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) 1.88 cm
- (B) 4.32 cm
- (C) 3.93 cm
- (D) 2.08 cm

Q8. The escape velocity from a planet of mass $4 \times 10^{24} \text{ kg}$ and radius 7718 km is:

- (A) 13.2 km/s
- (B) 9.0 km/s
- (C) 14.0 km/s
- (D) 8.9 km/s

Q9. The current through a 15 ohm resistor connected to a 21 V battery is:

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

Q10. A projectile is launched at 60 degrees with initial velocity 36 m/s. The time of flight is approximately:

- (A) 1.7 s
- (B) 2.9 s
- (C) 2.7 s
- (D) 3.2 s

Q11. A body of mass 4 kg is moving in a circle of radius 8 m at 19 m/s. The centripetal force is:

- (A) 65 N
- (B) 124 N
- (C) 146 N
- (D) 176 N

Q12. A radioactive substance has half-life 11 days. The fraction remaining after 58 days is:

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

Q13. A force of 38 N acts on a 19 kg body initially at rest. The velocity after 3 s is:

- (A) 8 m/s
- (B) 13 m/s
- (C) 14 m/s
- (D) 48 m/s

Q14. A wire of resistance 11 ohm is bent into a circle. Effective resistance between diametrically opposite points is:

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

Q15. The current through a 26 ohm resistor connected to a 15 V battery is:

- (A) 0.50 A
- (B) 2.36 A
- (C) 2.83 A
- (D) 1.89 A

Q16. A convex lens of focal length 28 cm forms a real image of an object placed 26 cm away. The image distance is:

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

Q17. A solenoid of 268 turns and length 0.2 m carries current 10 A. The magnetic field inside is:

- (A) 15.17 mT
- (B) 13.54 mT
- (C) 2.75 mT
- (D) 17.10 mT

Q18. A solenoid of 409 turns and length 0.2 m carries current 5 A. The magnetic field inside is:

- (A) 3.92 mT
- (B) 1.81 mT
- (C) 19.86 mT
- (D) 5.94 mT

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

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

Q20. A body of mass 3 kg is moving in a circle of radius 4 m at 18 m/s. The centripetal force is:

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

Q21. A spring with $k = 494$ N/m is compressed by 0.17 m. The stored PE is:

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

Q22. In photoelectric effect, the stopping potential for light of wavelength 324 nm on a metal with work function 3.1 eV is:

- (A) 2.24 V
- (B) 0.94 V
- (C) 2.36 V
- (D) 3.23 V

Q23. 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

Q24. The escape velocity from a planet of mass 3×10^{24} kg and radius 6004 km is:

- (A) 14.0 km/s
- (B) 9.1 km/s
- (C) 9.6 km/s
- (D) 12.6 km/s

Q25. 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/s²
- (B) 1.73 m/s²
- (C) 1.16 m/s²
- (D) 4.13 m/s²

Q26. 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) 6209 N
- (C) 6477 N
- (D) 17916 N

Q27. The de Broglie wavelength of an electron accelerated through 50 V is approximately:

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

Q28. Light passes from glass ($n=1.6$) to air. The critical angle is:

- (A) 39 degrees
- (B) 43 degrees
- (C) 43 degrees
- (D) 38 degrees

Q29. The escape velocity from a planet of mass 8×10^{24} kg and radius 7545 km is:

- (A) 14.3 km/s
- (B) 13.2 km/s
- (C) 10.2 km/s
- (D) 13.0 km/s

Q30. 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

Q31. The binding energy per nucleon of Fe-56 is approximately:

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

Q32. Light passes from glass ($n=1.7$) to air. The critical angle is:

- (A) 37 degrees
- (B) 36 degrees
- (C) 44 degrees
- (D) 50 degrees

Q33. The de Broglie wavelength of an electron accelerated through 150 V is approximately:

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

Q34. 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

Q35. The work function of a metal is 4.9 eV. The threshold frequency is:

- (A) 10.76×10^{14} Hz
- (B) 9.53×10^{14} Hz
- (C) 4.48×10^{14} Hz
- (D) 9.74×10^{14} Hz

Q36. A spring with $k = 388$ N/m is compressed by 0.15 m. The stored PE is:

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

Q37. Two capacitors 9 μ F and 9 μ F are connected in series. The equivalent capacitance is:

- (A) 3.34 μ F
- (B) 4.38 μ F
- (C) 4.96 μ F
- (D) 1.37 μ F

Q38. The electric field at 3 m from a point charge of 6 μC is:

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

Q39. An ideal gas at 292 K is heated at constant pressure to 489 K. The ratio of final to initial volume is:

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

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

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

Q41. A radioactive substance has half-life 20 days. The fraction remaining after 14 days is:

- (A) 1/4
- (B) 1/32
- (C) 1/16
- (D) 1/16

Q42. An electron moves with velocity 3×10^6 m/s perpendicular to a magnetic field of 0.7 T. The radius of its path is:

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

Q43. A radioactive substance has half-life 30 days. The fraction remaining after 33 days is:

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

Q44. A projectile is launched at 30 degrees with initial velocity 24 m/s. The time of flight is approximately:

- (A) 4.8 s
- (B) 2.0 s
- (C) 2.6 s
- (D) 4.6 s

Q45. 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) 35 m/s
- (C) 28 m/s
- (D) 38 m/s

Q46. An ideal gas at 304 K is heated at constant pressure to 757 K. The ratio of final to initial volume is:

- (A) 2.0
- (B) 2.3
- (C) 1.6
- (D) 2.7

Q47. A car of mass 1593 kg moving at 44 m/s brakes to rest in 9 s. The braking force is:

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

Q48. The work function of a metal is 1.6 eV. The threshold frequency is:

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

Q49. Two capacitors 9 μ F and 8 μ F are connected in series. The equivalent capacitance is:

- (A) 3.56 μ F
- (B) 4.24 μ F
- (C) 2.11 μ F
- (D) 2.76 μ F

Q50. A convex lens of focal length 18 cm forms a real image of an object placed 46 cm away. The image distance is:

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

Section 2: Chemistry (50 Questions)

Q51. The magnetic moment of Fe^{2+} (d^6) in weak field is:

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

Q52. Which element has the highest electronegativity?

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

Q53. The IUPAC name of $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$ is:

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

Q54. Grignard reagents react with dry CO_2 to give:

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

Q55. d-block elements show variable oxidation states because:

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

Q56. The lightest noble gas is:

- (A) Argon
- (B) Neon
- (C) Helium
- (D) Krypton

Q57. For a first-order reaction with $k = 0.080 \text{ s}^{-1}$, the half-life is:

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

Q58. Which test distinguishes aldehydes from ketones?

- (A) Lucas test
- (B) Lassaigne test
- (C) Beilstein test
- (D) Tollens' test (silver mirror)

Q59. The rate of reaction doubles when temperature increases by:

- (A) 20 K
- (B) 50 K
- (C) 10 K
- (D) 5 K

Q60. The cell potential for $\text{Zn}|\text{Zn}^{2+}||\text{Cu}^{2+}|\text{Cu}$ cell is:

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

Q61. Williamson's synthesis is used to prepare:

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

Q62. The lightest noble gas is:

- (A) Helium
- (B) Argon
- (C) Neon
- (D) Krypton

Q63. Hess's law states that:

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

Q64. Colligative properties depend on:

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

Q65. For an ideal gas, $C_p - C_v$ equals:

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

Q66. The reagent for converting aldehyde to carboxylic acid is:

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

Q67. Which reagent is used for Baeyer-Villiger oxidation?

- (A) mCPBA / peracid
- (B) LiAlH_4
- (C) KMnO_4
- (D) NaBH_4

Q68. The hybridization of C in acetylene is:

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

Q69. For a first-order reaction with $k = 0.080 \text{ s}^{-1}$, the half-life is:

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

Q70. The shape of XeF_4 is:

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

Q71. The major product of $\text{S}_\text{N}1$ reaction of tert-butyl chloride with ethanol is:

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

Q72. The reagent for converting aldehyde to carboxylic acid is:

- (A) Zn-Hg / HCl
- (B) LiAlH_4
- (C) KMnO_4 / $\text{K}_2\text{Cr}_2\text{O}_7$
- (D) NaBH_4

Q73. Wurtz reaction involves coupling of:

- (A) Aldehydes with NaOH
- (B) Acids with SOCl_2
- (C) Aryl halides with Cu
- (D) Alkyl halides with Na

Q74. Friedel-Crafts acylation uses which catalyst?

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

Q75. The colour of KMnO_4 is due to:

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

Q76. The product of dehydration of ethanol at 443 K is:

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

Q77. The cell potential for $\text{Zn}|\text{Zn}^{2+}||\text{Cu}^{2+}|\text{Cu}$ cell is:

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

Q78. The product of dehydration of ethanol at 443 K is:

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

Q79. The van't Hoff factor for NaCl is approximately:

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

Q80. The coordination number in BCC is:

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

Q81. The van't Hoff factor for NaCl is approximately:

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

Q82. VSEPR theory predicts the shape of SF_6 as:

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

Q83. Markovnikov's rule applies to the addition of HBr to:

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

Q84. The osmotic pressure of a solution is given by:

- (A) $\pi = PV$
- (B) $\pi = mRT$
- (C) $\pi = iMRT$
- (D) $\pi = nRT/V$

Q85. Lanthanide contraction is caused by:

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

Q86. The hybridization of Ni in $[\text{Ni}(\text{CN})_4]^{2-}$ is:

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

Q87. Perkin reaction produces:

- (A) Ethers
- (B) Amines
- (C) Alpha,beta-unsaturated acids
- (D) Alcohols

Q88. Grignard reagents react with dry CO_2 to give:

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

Q89. For an ideal gas, $C_p - C_v$ equals:

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

Q90. The ore of aluminium is:

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

Q91. The IUPAC name of neopentane is:

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

Q92. The IUPAC name of $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$ is:

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

Q93. Which reagent is used for Baeyer-Villiger oxidation?

- (A) NaBH₄
- (B) KMnO₄
- (C) LiAlH₄
- (D) mCPBA / peracid

Q94. The major product of SN1 reaction of tert-butyl chloride with ethanol is:

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

Q95. According to Raoult's law, the vapour pressure of a solvent in solution is:

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

Q96. Perkin reaction produces:

- (A) Alpha,beta-unsaturated acids
- (B) Alcohols
- (C) Amines
- (D) Ethers

Q97. Colligative properties depend on:

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

Q98. Wurtz reaction involves coupling of:

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

Q99. Which reagent is used for Baeyer-Villiger oxidation?

- (A) KMnO₄
- (B) mCPBA / peracid
- (C) NaBH₄
- (D) LiAlH₄

Q100. The cell potential for Zn|Zn²⁺||Cu²⁺|Cu cell is:

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

Section 3: Biology (50 Questions)

Q101. Primary succession occurs on:

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

Q102. Mitosis results in:

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

Q103. Peristalsis occurs in:

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

Q104. Stomata open when guard cells:

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

Q105. Crossing over occurs during:

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

Q106. The number of chromosomes in human gametes is:

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

Q107. The lock-and-key model explains:

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

Q108. Mendel's law of segregation states that:

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

Q109. Which vitamin deficiency causes scurvy?

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

Q110. The process of RBC formation is called:

- (A) Thrombopoiesis
- (B) Leukopoiesis
- (C) Hematopoiesis
- (D) Erythropoiesis

Q111. Chlorophyll absorbs mostly:

- (A) Red and blue light
- (B) Green light
- (C) UV light
- (D) Infrared light

Q112. The functional unit of kidney is:

- (A) Nephron
- (B) Alveolus
- (C) Neuron
- (D) Villus

Q113. Ozone layer is found in:

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

Q114. Biogeochemical cycling of nitrogen includes:

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

Q115. Monohybrid cross ratio is:

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

Q116. Which hormone triggers ovulation?

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

Q117. Insulin promotes:

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

Q118. The powerhouse of the cell is:

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

Q119. The largest organ in the human body is:

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

Q120. Which is the largest cell in the human body?

- (A) RBC
- (B) WBC
- (C) Neuron
- (D) Ovum

Q121. Sickle cell anemia is caused by:

- (A) Insertion
- (B) Translocation
- (C) Deletion
- (D) Point mutation in hemoglobin gene

Q122. Which hormone controls blood calcium level?

- (A) Thyroxine
- (B) Insulin
- (C) Glucagon
- (D) Parathormone

Q123. Which is a vestigial organ in humans?

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

Q124. The functional unit of kidney is:

- (A) Villus
- (B) Alveolus
- (C) Nephron
- (D) Neuron

Q125. Which blood cells are involved in clotting?

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

Q126. Primary succession occurs on:

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

Q127. The powerhouse of the cell is:

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

Q128. Dihybrid cross ratio is:

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

Q129. Ozone layer is found in:

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

Q130. The oxygen-carrying pigment in blood is:

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

Q131. The sex of a child is determined by:

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

Q132. The nitrogenous base not found in RNA is:

- (A) Uracil
- (B) Thymine
- (C) Adenine
- (D) Guanine

Q133. Which phylum includes starfish?

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

Q134. Blood group O is the universal:

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

Q135. The greenhouse effect is primarily caused by:

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

Q136. Which is the site of transcription in eukaryotes?

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

Q137. The pacemaker of the heart is:

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

Q138. Photosystem II is located in:

- (A) Inner membrane
- (B) Cytoplasm
- (C) Thylakoid membrane
- (D) Stroma

Q139. Calvin cycle occurs in:

- (A) Thylakoid
- (B) Stroma
- (C) Cytoplasm
- (D) Nucleus

Q140. Which phylum includes starfish?

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

Q141. Which organelle is involved in lipid synthesis?

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

Q142. PCR is used to:

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

Q143. The anticodon is found on:

- (A) rRNA
- (B) tRNA
- (C) DNA
- (D) mRNA

Q144. Which enzyme unwinds DNA during replication?

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

Q145. The number of chromosomes in human gametes is:

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

Q146. The first life originated in:

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

Q147. Calvin cycle occurs in:

- (A) Cytoplasm
- (B) Nucleus
- (C) Stroma
- (D) Thylakoid

Q148. The enzyme that joins Okazaki fragments is:

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

Q149. The nitrogenous base not found in RNA is:

- (A) Guanine
- (B) Thymine
- (C) Uracil
- (D) Adenine

Q150. Antibodies are produced by:

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

Answer Key

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