

NEW STANDARD ACADEMY

Marks: 720

Date : 30-06-2026

CLASS : 11TH NEET

Time: 3 hours

PHYSICS

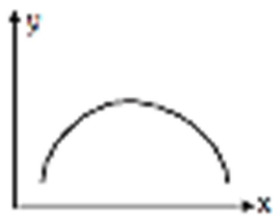
1. Find $1 - \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \infty$.

- (1) ∞ (2) 1
(3) 2 (4) 1.925

2. As θ increases from 0° to 90° , the value of $\cos \theta$:-

- (1) Increases (2) Decreases
(3) Remains constant
(4) First decreases then increases.

3. Magnitude of slope of the shown graph.



- (1) First increases then decreases
(2) First decreases then increases
(3) Increases
(4) Decreases

4. Which of the following statements is false :

- (1) Mass, speed and energy are scalars
(2) Momentum, force and torque are vectors
(3) Distance is a scalar while displacement is a vector
(4) A vector has only magnitude whereas a scalar has both magnitude and direction

5. If $\hat{n}$ is a unit vector in the direction of the vector $\vec{A}$, then :-

- (1) $\hat{n} = \frac{\vec{A}}{|\vec{A}|}$ (2) $\hat{n} = \vec{A}|\vec{A}|$

- (3) $\hat{n} = \frac{|\vec{A}|}{\vec{A}} |\vec{A}|$

(4) None of the above

6. The resultant of $\vec{A}$ and $\vec{B}$ makes an angle α with $\vec{A}$ and β with $\vec{B}$, then :

- (1) $\alpha < \beta$ (2) $\alpha < \beta$ if $A < B$
(3) $\alpha < \beta$ if $A > B$ (4) $\alpha < \beta$ if $A = B$

7. The resultant of $\vec{A}$ & $\vec{B}$ is $\vec{R}_1$. On reversing the vector $\vec{B}$, the resultant becomes $\vec{R}_2$. What is the value of $R_1^2 + R_2^2$?

- (1) $A^2 + B^2$ (2) $A^2 - B^2$

- (3) $2(A^2 + B^2)$ (4) $2(A^2 - B^2)$

8. Given that $\vec{P} + \vec{Q} = \vec{P} - \vec{Q}$. This can be true when :

- (1) $\vec{P} = \vec{Q}$ (2) $\vec{Q} = \vec{0}$
(3) Neither $\vec{P}$ nor $\vec{Q}$ is a null vector
(4) $\vec{P}$ is perpendicular to $\vec{Q}$

9. The unit vector along $\hat{i} + \hat{j}$ is :

- (1) $\hat{k}$ (2) $\hat{i} + \hat{j}$
(3) $\frac{\hat{i} + \hat{j}}{\sqrt{2}}$ (4) $\frac{\hat{i} + \hat{j}}{2}$

10. Given that $A = B$. What is the angle between $(\vec{A} + \vec{B})$ and $(\vec{A} - \vec{B})$?

- (1) 30° (2) 60°
(3) 90° (4) 180°

11. What is the projection of $\vec{A}$ on $\vec{B}$?

- (1) $\vec{A} \cdot \vec{B}$ (2) $\vec{A} \cdot \hat{B}$
(3) $\vec{B} \cdot \vec{A}$ (4) $\hat{A} \cdot \hat{B}$

12. The angle between vectors $(\hat{i} + \hat{j})$ and $(\hat{j} + \hat{k})$ is :

- (1) 90° (2) 180°
(3) 0° (4) 60°

13. The angle between the two vectors

$\vec{A} = 3\hat{i} + 4\hat{j} + 5\hat{k}$ and $\vec{B} = 3\hat{i} + 4\hat{j} - 5\hat{k}$ will be :

- (1) zero (2) 180°
(3) 90° (4) 45°

14. Let $\vec{A} = \hat{i} A \cos \theta + \hat{j} A \sin \theta$ be any vector. Another vector $\vec{B}$ which is normal to $\vec{A}$ is :

- (1) $\hat{i} B \cos \theta \hat{j} B \sin \theta$ (2) $\hat{i} B \sin \theta \hat{j} B \cos \theta$
(3) $\hat{i} B \sin \theta \hat{j} B \cos \theta$ (4) $\hat{i} A \cos \theta - \hat{j} A \sin \theta$

15. The vector $\vec{P} = a\hat{i} + a\hat{j} + 3\hat{k}$ and $\vec{Q} = a\hat{i} - 2\hat{j} + \hat{k}$ are perpendicular to each other. The positive value of a is :

- (1) 3 (2) 2
(3) 1 (4) zero

16. Two vectors $\vec{P}$ and $\vec{Q}$ are inclined to each other at angle θ . Which of the following is the unit vector perpendicular to $\vec{P}$ and $\vec{Q}$?

- (1) $\frac{\vec{P} \times \vec{Q}}{P \cdot Q}$ (2) $\frac{\vec{P} \times \vec{Q}}{\sin \theta}$

- (3) $\frac{\vec{P} \times \vec{Q}}{PQ \sin \theta}$ (4) $\frac{\vec{P} \times \vec{Q}}{PQ \sin \theta}$
17. The magnitude of the vector product of two vectors $\vec{A}$ and $\vec{B}$ may not be :
 (1) Greater than AB (2) Less than AB
 (3) Equal to AB (4) Equal to zero
18. If $\vec{P} \times \vec{Q} = \vec{R}$, then which of the following statements is not true ?
 (1) $\vec{R} \perp \vec{P}$ (2) $\vec{R} \perp \vec{Q}$
 (3) $\vec{R} \perp (\vec{P} + \vec{Q})$ (4) $\vec{R} \perp (\vec{P} \times \vec{Q})$
19. Which of the following vector identities is false ?
 (1) $\vec{P} + \vec{Q} = \vec{Q} + \vec{P}$ (2) $\vec{P} + \vec{Q} = \vec{Q} \times \vec{P}$
 (3) $\vec{P} \cdot \vec{Q} = \vec{Q} \cdot \vec{P}$ (4) $\vec{P} \times \vec{Q} \neq \vec{Q} \times \vec{P}$
20. What is the value of $(\vec{A} + \vec{B}) \cdot (\vec{A} \times \vec{B})$?
 (1) 0 (2) $A^2 - B^2$
 (3) $A^2 + B^2 + 2AB$ (4) none of these
21. If $|\vec{A} \times \vec{B}| = \sqrt{3} \vec{A} \cdot \vec{B}$, then the value of $|\vec{A} + \vec{B}|$ is :
 (1) $(A^2 + B^2 + \frac{AB}{\sqrt{3}})^{1/2}$ (2) $A + B$
 (3) $(A^2 + B^2 + \sqrt{3} AB)^{1/2}$
 (4) $(A^2 + B^2 + AB)^{1/2}$
22. If vectors $\vec{A} \cos \omega t \hat{i} + \sin \omega t \hat{j}$ and $\vec{B} = \cos \frac{\omega t}{2} \hat{i} + \sin \frac{\omega t}{2} \hat{j}$ are functions of time, then the value of t at which they are orthogonal to each other is :
 (1) $t = 0$ (2) $t = \frac{\pi}{4\omega}$
 (3) $t = \frac{\pi}{2\omega}$ (4) $t = \frac{\pi}{\omega}$
23. Which of the following quantity is unitless ?
 (1) Velocity gradient (2) Pressure gradient
 (3) Displacements gradient
 (4) Force gradient
24. Density of wood is 0.5 gm/cc in CGS system of units. The corresponding value in MKS units is
 (1) 500 (2) 5
 (3) 0.5 (4) 5000
25. When a wave travels in a medium, the displacement of a particle located at distance x at time t is given by $y = a \sin (bt - cx)$ where a , b and c are constants of the wave. The dimensions of b/c are same as

that of :

- (1) wave velocity (2) wave length
 (3) wave amplitude (4) wave frequency
26. The method of dimensional analysis can be used to derive which of the following relations?
 (1) $N_0 e^{-\lambda t}$ (2) $A \sin(\omega t + kx)$
 (3) $\frac{1}{2}mv^2 + \frac{1}{2}I\omega^2$
 (4) none of the above
27. Which of the following does not have the dimensions of force ?
 (1) Potential gradient
 (2) Energy gradient
 (3) Weight
 (4) Rate of change of momentum
28. Which of the following is incorrect statement
 (1) A dimensionally correct equation may be correct
 (2) A dimensionally correct equation may be incorrect
 (3) A dimensionally incorrect equation may be correct
 (4) A dimensionally incorrect equation is incorrect
29. A dimensionless quantity
 (1) Never has a unit (2) Always has a unit
 (3) May have a unit (4) Does not exist
30. The equation of a wave is given by $Y = A \sin \omega \left(\frac{x}{v} - k \right)$ where ω is the angular velocity and v is the linear velocity. The dimensions of k is
 (1) $[T]$ (2) $[T]$
 (3) $[T^{-1}]$ (4) $[T^2]$
31. The time dependence of a physical quantity P is given by $P = P_0 \exp(-\alpha t^2)$, where α is a constant and t is time. The constant α
 (1) is dimensionless

- (2) has dimensions $[T^{-2}]$
 (3) has dimensions of P
 (4) has dimensions $[T^2]$
32. The dimensional formula of angular velocity is
 (1) $[M^0 I^0 T^{-1}]$ (2) $[M I T^{-1}]$
 (3) $[M^0 I^0 T^1]$ (4) $[M I^0 T^{-2}]$
33. A unitless quantity
 (1) Does not exist
 (2) Always has a nonzero dimension
 (3) Never has a nonzero dimension
 (4) May have a nonzero dimension
34. The dimensions of universal gravitational constant are :-
 (1) $[M^2 T^{-1}]$ (2) $[M^{-2} I^3 T^{-2}]$
 (3) $[M^{-2} I^2 T^{-1}]$ (4) $[M^{-1} I^3 T^{-2}]$
35. If dimensions of A and B are different, then which of the following operation is valid ?
 (1) $\frac{A}{B}$ (2) $e^{-A/B}$
 (3) $A-B$ (4) $A+B$
36. If error in measuring diameter of a circle is 4 %, the error in circumference of the circle would be :-
 (1) 2% (2) 8%
 (3) 4% (4) 1%
37. The external and internal radius of a hollow cylinder are measured to be (4.23 ± 0.01) cm and (3.89 ± 0.01) cm. The thickness of the wall of the cylinder is :-
 (1) (0.34 ± 0.02) cm (2) (0.17 ± 0.02) cm
 (3) (0.17 ± 0.01) cm (4) (0.34 ± 0.01) cm
38. A physical quantity Z is given by $Z = \frac{2k^3 l^2}{m\sqrt{n}}$. The percentage error in the measurements of k, l, m and n are 1%, 2%, 3% and 4% respectively. The value of Z is uncertain by
 (1) 8 % (2) 10 %
 (3) 12 % (4) None
39. In a vernier callipers, N divisions of vernier scale coincide with (N - 1) divisions of main scale (in which 1 division represents 1mm). The least count of the instrument in cm should be
 (1) N (2) $N - 1$
 (3) $\frac{1}{10N}$ (4) $\frac{1}{N-1}$
40. One centimeter on the main scale of vernier callipers is divided into ten equal parts. If 10 divisions of vernier scale coincide with 8 small divisions of the main scale, the least count of the callipers is
 (1) 0.01 cm (2) 0.02 cm
 (3) 0.05 cm (4) 0.005 cm
41. A student measured the diameter of a wire using a screw gauge with least count 0.001 cm and listed the measurements. The correct measurement is
 (1) 5.3 cm (2) 5.32 cm
 (3) 5.320 cm (4) 5.3200 cm
42. The velocity V of particle at time t is given by $V = at + \frac{b}{t+c}$, where a, b and c are constants. The dimensions of a, b and c are respectively
 (1) LT^{-2} , l and T (2) L^2 , T and lT^2
 (3) LT^3 , LT and l (4) L, LT and T^2
43. If force (F), velocity (V) and time (T) are taken as fundamental units, then the dimensions of mass are:
 (1) $[F V T^{-1}]$ (2) $[F V T^{-2}]$
 (3) $[F V^{-1} T^{-1}]$ (4) $[F V^{-1} T]$
44. A physical quantity of the dimensions of length that can be formed out of c, G and $\frac{e^2}{4\pi\epsilon_0}$ is [c is velocity of light G is universal constant of gravitation and e is charge]:-
 (1) $c^2 \left[G \frac{e^2}{4\pi\epsilon_0} \right]^{1/2}$ (2) $\frac{1}{c^2} \left[\frac{e^2}{4\pi\epsilon_0} \right]^{1/2}$
 (3) $\frac{1}{c} G \frac{e^2}{4\pi\epsilon_0}$ (4) $\frac{1}{c^2} \left[G \frac{e^2}{4\pi\epsilon_0} \right]^{1/2}$
45. The main scale of a vernier calliper has n divisions/cm. n divisions of the vernier scale coincide with (n - 1) divisions of main scale.

The least count of the vernier calliper is,

- (1) $\frac{1}{(n+1)(n-1)cm}$ (2) $\frac{1}{n} cm$
(3) $\frac{1}{n^2} cm$ (4) $\frac{1}{n(n+1)} cm$

CHEMISTRY

Directions: Two statements are given - one labelled as "Assertion" (A) and the other labelled as "Reason" (R). Select the correct answer to the following questions from the codes (a), (b), (c) and (d) given below:

- (1) Both assertion (A) and reason (R) are true and reason (R) is correct explanation of assertion (A).
(2) Both assertion (A) and reason (R) are true but reason (R) is not correct explanation of assertion (A).
(3) Assertion (A) is true but reason (R) is false.
(4) Assertion (A) is false but reason (R) is true.
46. **Assertion (A):** A moving dust particle does not have the wave character.
Reason (R): Dust particle has small mass.
47. **Assertion (A):** H-atom emits radiations of different but discrete frequencies or wavelengths.
Reason (R): Each radiation has definite frequency and energy.
48. **Assertion (A):** The energy of a moving electron in a given orbit remains unchanged.
Reason (R): Each orbit is associated with definite energy.
49. **Assertion (A):** The line spectrum of an element has lines of definite wavelengths.
Reason (R): Energies of an electron of an element in different orbits are quantised.
50. **Assertion (A):** The velocity of an electron in an atom is doubled.
Reason (R) Wavelength associated with the moving electron is doubled.
51. **Assertion (A):** The free gaseous Cr-atom has six unpaired electrons.

Reason (R): Half-filled s-orbital has greater stability.

52. Charge on cathode rays, canal rays and gamma rays is respectively:
(1) +, -, 0 (2) +, +, 0
(3) -, +, 0 (4) +, -, +
53. Bohr's atomic model explains the behaviour of :
(1) only H-atom
(2) all the atoms and ions having one electron
(3) all the cations (4) all the atoms
54. According to Planck's quantum theory:
(1) $E_n = nh\nu$ (2) $E_2 - E_1 = \Delta E$
(3) $v = c/\lambda$ (4) $E_2 - E_1 = h/2\pi$
55. In canal rays, positively charged particles may be :
(1) Proton (2) M^+
(3) M^{2+} (4) All are possible
56. Rutherford's α -ray scattering experiment is related to :
(1) atom (2) electron
(3) nucleus (4) neutron
57. Mass of one mole electron is about :
(1) 0.55 mg (2) 2.0 mg
(3) 1.0 mg (4) 0.18 mg
58. Nucleus of helium contains
(1) $4p + 4e$ (2) $2p + 2n$
(3) $4p + 2n$ (4) $2p + 4n$
59. Moseley equation is:
(1) $\sqrt{v} = a(Z - b)$ (2) $v = a(Z - b)$
(3) $\sqrt{v} = a(Z + b)$ (4) $v = \sqrt{a(Z - b)}$
60. Energy of an electron of an atom is highest in:
(1) first orbit (2) second orbit
(3) highest orbit (4) all have equal energy
61. Angular momentum of an electron in 2s orbital is:
(1) $1h/2 \times 2\pi$ (2) zero
(3) $h/2\pi$ (4) $\sqrt{2}h/2\pi$
62. Which sub-shell is not possible?
(1) 1p (2) 2d
(3) 3f (4) All
63. For the sub-shell $l = 3$ total number of magnetic quantum numbers is:

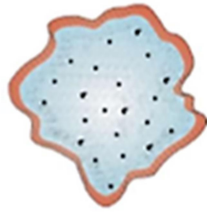
- (1) 3 (2) 5
(3) 7 (4) 9
64. Which cation is diamagnetic?
(1) Fe^{2+} (2) Cu^+
(3) Fe^{3+} (4) Cr^{3+}
65. Which ion has only one unpaired electron?
(1) Cl^- (2) F^-
(3) Fe^{2+} (4) Cu^{2+}
66. Number of maximum electrons in a sub-shell is calculated from the formula:
(1) $4l + 2$ (2) $4l - 2$
(3) $2l + 1$ (4) $2l + 2$
67. Value of Planck's constant in Js is :
(1) 6.6×10^{23} (2) 6.6×10^{-27}
(3) 6.6×10^{34} (4) 6.6×10^{-34}
68. Sub-shell having $n = 4$, $l = 3$, $m = 2$ and $s = 1/2$
(1) 4s (2) 4f
(3) 4p (4) 4d
69. According to which principle, N-atom has 3 unpaired electrons?
(1) Aufbau principle (2) Hund's rule
(3) Pauli exclusion principle
(4) Heisenberg uncertainty principle
70. Number of unpaired electron in carbon atom is:
(a) 1 (b) 2
(c) 3 (d) 4
71. Maximum number of electrons in a sub-shell is equal to:
(1) $2(2l + 1)$ (2) $2(2l)$
(3) $2l + 1$ (4) $2l + 2$
72. Magnetic quantum number describes :
(1) size (2) shape
(3) orientation (4) spin
73. Aufbau principle does not apply to :
(1) Cu & Ar (2) Cu & Cr
(3) Cr & Ar (4) Fe & Ag
74. Quantum numbers for the last electron of Ti ($Z = 22$) are:
(1) 3, 2, 1, $+\frac{1}{2}$ (2) 4, 2, 0, $+\frac{1}{2}$
(3) 4, 0, 0, $+\frac{1}{2}$ (4) 3, 1, 2, $-\frac{1}{2}$
75. According to de-Broglie principle:
(1) $E = mc^2$ (2) $\lambda = h/p$
- (3) $\Delta E = h\nu$ (4) $\Delta x \times \Delta p \geq \frac{h}{4\pi}$
76. Number of unpaired electrons in the dipositive cation of element ($Z = 28$) :
(1) 4 (2) 3
(3) 2 (4) 0
77. Which set of quantum numbers is not possible?
(1) 2, 1, 0, $-\frac{1}{2}$ (2) 2, 2, 0, $+\frac{1}{2}$
(3) 3, 2, 0, $+\frac{1}{2}$ (4) 3, 2, 1, $-\frac{1}{2}$
78. Ratio of the energy of radiations having wavelength 2000 Å and 4000 Å.
(1) 1/4 (2) 4
(3) 1/3 (4) 2
79. Isotone of ${}^{76}_{32}\text{Ge}$:
(1) ${}^{77}_{32}\text{Ge}$ (2) ${}^{77}_{33}\text{As}$
(3) ${}^{77}_{34}\text{Se}$ (4) ${}^{78}_{34}\text{Se}$
80. When a thin gold foil is bombarded with α -particles, most of the α -particles pass through the gold foil. It is because:
(1) α -particles are heavier than electrons
(2) α -particles are +vely charged
(3) most of the part of atom is empty
(4) α -particles move with high speed
81. How many orbitals have quantum numbers $n = 3$
(1) 1 (2) 2
(3) 3 (4) 4
82. Which quantum number describes the orientation of an orbital ?
(1) Principal quantum number
(2) Azimuthal quantum number
(3) Spin quantum number
(4) Magnetic quantum number
83. Uncertainty in the momentum of an electron is $1 \times 10^{-18} \text{ cm}^{-1}$. What will be the uncertainty in its speed?
(1) $1 \times 10^8 \text{ cm/sec}$ (2) $1 \times 10^{11} \text{ cm/sec}$
(3) $1 \times 10^9 \text{ cm/sec}$ (4) $1 \times 10^6 \text{ cm/sec}$
84. Visible light is related to which spectrum series?
(1) Lyman (2) Balmer
(3) Paschen (4) Bracket
85. The spectrum of He is expected to be similar to that of

- (1) H (2) Li^+
 (3) Na (3) Be
86. The electronic configuration of the element which is just above the element with atomic number 43 in the same periodic group is:
 (1) $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5 4s^2$
 (2) $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^5$
 (3) $1s^2 2s^2 2p^6 3s^2 3p^6 3d^6 4s^2$
 (4) $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^3$
87. According to Bohr's atomic model which is quantised for an electron:
 (1) Its linear velocity
 (2) Its angular momentum
 (3) Its angular velocity
 (4) Its linear momentum
88. Which of the following statements is wrong? The probability of finding the electron in p,-orbitals is:
 (1) Maximum on two opposite sides of the nucleus along X-axis
 (2) Zero at the nucleus
 (3) Same on all the sides around the nucleus
 (4) Zero on the Z-axis.
89. The mass and charge of an electron is m and e respectively. Electron is accelerated from rest through a potential difference of V volts. The KE of the electron in joules will be :
 (1) e/V (2) V/e
 (3) eV (4) e^2/V^2
90. A metal ejects electrons when hit by blue light but not when hit by yellow light. Will electrons be ejected if the metal is hit by red light?
 (1) No (2) Yes
 (3) Yes, if red light is allowed to fall for a long time
 (4) Yes, if the intensity of red light is high.

BIOLOGY

91. How many matching are correct according cell wall:
 (a) Monera- Present

- (b) Protista- Present in all member
 (c) Fungi- Present with chitin
 (d) Animalia- Absent
 (1) Two (2) Three
 (3) One (4) Four
92. On the basis of nuclear membrane which of the following matching is incorrect:
 (1) Monera- Absent
 (2) Protista- Absent
 (3) Fungi- Present
 (4) Animalia- Present
93. Which of the following statements is correct?
 (1) Lichens do not grow in polluted areas
 (2) Algal component of lichens is called mycobiont
 (3) Fungal component of lichens is called phycobiont
 (4) Lichen are not good pollution indicators.
94. Which of the following statements is incorrect:
 (1) Viruses are obligate parasites
 (2) Infective constituent in viruses is the protein coat
 (3) Prions consist of abnormally folded proteins
 (4) Viroids lack a protein coat
95. Which of the following is incorrectly matched : Common name Class
 (1) Housefly Insecta
 (2) Mango Dicotyledonae
 (3) Gorilla Primata
 (4) Tiger Mammalia
96. Select the incorrect statement :
 (1) Alsatians belong to family canidae
 (2) Cats belong to family Felidae
 (3) Lion belong to genus lio
 (4) All of these
97. Which of the following option correct for families:
 (1) Families are charaterised on basis of vegetative characteristics
 (2) Families are charaterised on basis of reproductive characteristics
 (3) Families are group of related genera
 (4) All of these
98. Homo, Mangifera and Triticum are
 (1) Species (2) Genus
 (3) Family (4) Order
99. Find correct option regarding this diagram:



- (a) Colour of this organism appear as yellow, brown blue and red but not green.
 (b) Releases toxins that kills fishes and other marine animal
 (c) Spores posses true wall
 (d) It is autotrophic protist
 (1) a, b (2) c
 (3) a, b and c (4) d

100. Given below are two statements :

Statement I : The boundaries of the kingdom protista are not welldefined
 Statement II : Most protozoans are saprophytic and absorb organic matter from dead substance.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are incorrect
 (2) Statement I is correct but Statement II is incorrect
 (3) Statement I is incorrect but Statement II is correct
 (4) Both Statement I and Statement II are correct.

101. Given below are two statements one is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion (A) Kingdom Protista forms a link with the other kingdoms.

Reason (R) It is believed that Protista evolved from the kingdom Monera and is the ancestor of multicellular eukaryotes. **In the light of the above statements, choose the correct answer from the options given below :**

- (1) Both (A) and (R) are correct but (R) is not the correct explanation of (A)
 (2) (A) is correct but (R) is not correct
 (3) (A) is not correct but (R) is correct
 (4) Both (A) and (R) are correct and (R) is the correct explanation of (A)

102. Number of statement which are correct for given both organism:

- (a) Both belongs to kingdom protista
 (b) Both belongs to kingdom monera
 (c) Both are unicellular organism
 (d) Both have motile structure cilia
 (1) 1 (2) 2
 (3) 4 (4) 3

103. Which of the followings are a type of Archaeobacteria :

- (1) Halophiles
 (2) Thermoacidophiles
 (3) Methanogens
 (4) All of these

104. The two kingdom classification was given by : (1) Carolus Linnaeus (2) Copeland
 (3) Whittaker (4) Haeckel

105. In five kingdom classification system. The five kingdom are :

- (1) Monera, Protista, Fungi, Plantae, Animalia
 (2) Monera, Protozoa, Fungi, Plantae, Animalia
 (3) Cyanobacteria, Protista, Fungi, Plantae, Animalia
 (4) Monera, Protista, Fungi, Angiosperm, Animalia

106. The main criteria for five Kingdom of classification Includes:

- (1) Mode of nutrition, reproduction
 (2) Cell structure and body organisation
 (3) Phylogenetic relationship
 (4) All of these

107. Bacteria which play a great role in recycling nutrient like nitrogen, phosphorous, iron and sulphur are:

- (1) Anoxygenic photosyntheter
 (2) Blue green algae
 (3) Chemosynthetic autotrophic
 (4) Photosynthetic autotrophic

108. Which of the following is incorrect about chrysophytes:

- (1) Chrysophytes includes diatoms and golden Algae
 (2) Chrysophytes are found in freshwater as well as in marine water
 (3) They are microscopic and float passively in water current

(4) Most of them heterotrophic
109. Euglenoids have protein rich layer instead of cell wall this layer is called:

- (1) Pellicle (2) Chitin
(3) Cellulose (4) Pectin

110. Which of the following is correct about slime moulds:

- (1) During unfavourable condition slimemoulds form aggregation called plasmodium
(2) During favourable condition the plasmodium differentiate and form fruiting bodies bearing spore at their tip
(3) Spores are dispersed by air current
(4) All of these

111. **Assertion: Mangifera indica and Triticum aestivum belongs to same division.**

Reason: Homo sapiens and Musca domestica belongs to same phylum

- (1) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(2) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

112. Match column I with column II and select the correct option :

Column I	Column II
a. Panthera	i. Mango
b. Solanum	ii. Wheat
c. Triticum	iii. Makoi
d. Mangifera	iv. Leopard

- (1) a-iv, b-ii, c-iii, d-i
(2) a-ii, b-i, c-iv, d-iii
(3) a-ii, b-i, c-iii, d-iv
(4) a-iv, b-iii, c-ii, d-i

113. What is correct :

- (a) Genera is aggregate of closely related species. (b) Potato and Brinjal belong to same genus.
(c) Mango and wheat belong to different division. (d) Each genus may have one or more than one specific epithets.
(1) b, d (2) a, b
(3) c, d (4) a, b, d

114. Select the correct statement in the following universal rules of Nomenclature :

- a. Biological names are generally in Latin and written in italics. They are Latinised or derived from Latin irrespective of their origin.
b. The first word in a biological name represents the genus while the second component denotes the specific epithet.
c. Both the words in a biological name, when handwritten, are separately underlined, or printed in italics to indicate their Latin origin.
d. The first word denoting the genus starts with a capital letter while the specific epithet starts with a small letter.
(1) a, b are correct (2) a, c and d are correct
(3) a, b, c and d all are correct
(4) a, b and c are correct

115. There are many species of Panthera genus, which of the following is not the species of Panthera genus:

- (1) leo (2) nigram
(3) tigris (4) pardus

116. Which of the following process is/are basics to taxonomy:

- (1) Identification (2) Classification
(3) Nomenclature (4) All of these

117. Order Carnivora includes family:

- (1) Felidae (2) Canidae
(3) 1 and 2 both (4) None

118. Which of the following not correctly match for Mangifera indica

- (1) Biological Name – Mangifera indica
(2) Family – Anacardiaceae
(3) Division – Angiospermae
(4) Order – Poales

119. Founder of binomial nomenclature was:

- (1) Linnaeus (2) Mendel
(3) Darwin (4) Lamarck

120. Select the correctly written zoological name:

- (1) Solanumnigrum (2) Pantheratigris
(3) Solanummelongena (4) All of these

121. Most names in the biological nomenclature of living organisms are taken from which language?

- (1) Hindi (2) Latin

- (3) German (4) Greek
122. Branch of biology dealing with classification of living organism and their relationship is :
(1) Systematics (2) Taxa
- (3) Ecology (4) Genetics
123. The plants of wheat are belongs to :
(1) Family poaceae (2) Order poales
(3) Both 1 and 2 (4) Class dicotyledonae
124. Which of the following is/are correct: A. Bacteria are most abundant microorganism
B. Bacteria are individually show most extensive metabolic diversity
C. Bacteria are very simple in structure but complex in behaviour
D. Bacteria may be photosynthetic autotrophic or chemosynthetic autotrophic
(1) A,B only (2) A, C and D only
(3) A,D only (4) A,B,C and D
125. Earlier classification systems included bacteria, blue green algae, fungi, mosses, ferns, gymnosperm and the angiosperms under plants. Which character are taken for this classification :
(1) Cell membrane (2) Cell wall
(3) Mode of nutrition (4) Type of reproduction
126. In five kingdom classification system which kingdom are unicellular eukaryotes :
(1) Protista (2) Fungi
(3) Protozoa (4) Monera
127. In which kingdom autotrophic mode of nutrition are never occur :
(1) Monera (2) Protista
(3) Fungi (4) Plantae
128. How many matching are correct :
a. Spherical – Coccus
b. Rod shaped – Bacillus
c. Comma shaped – Vibrium
d. Spiral – Vibrio
(1) 3 (2) 2
(3) 4 (4) 5
129. Which taxonomic category are real basic unit of classifications :
(1) Family (2) Genus

- (3) Species (4) Order
130. Which of the followings are not specific epithets : (1) indica (2) tuberosum
(3) Solanum (4) leo
131. Cats are included in which genus :
(1) Panthera (2) Felis
(3) Homo (4) All of these
132. The three different genera Solanum, Petunia and Datura are placed in which family :
(1) Solanaceae (2) Brassicaceae
(3) Convolvulaceae (4) All of these
133. The plants of wheat are belongs to :
(1) Family poaceae (2) Order Sapindales
(3) Class Dicotyledonae (4) All of these
134. How many matching are correct according to different organisms and their genus :
a. Man – Homo
b. Housefly – Musca
c. Mango – Mangifera
d. Wheat – Triticum
(1) 3 (2) 4
(3) 1 (4) 2
135. Arrange the following in ascending order of similar characteristic
I. Family II. Genus
III. Class IV. Species
V. Order
(1) Class < Family < Genus < Species
(2) Family < Class < Genus < Species
(3) Species < Order < Family < Class
(4) Class < Genus < Species < Family
136. Asexual spore are produced exogenously inA..... and endogenously inB.....:
(1) A – Ascomycetes, B – Phycomycetes
(2) A – Basidiomycetes, B – Ascomycetes
(3) A – Ascomycetes, B – Basidiomycetes
(4) A – Basidiomycetes, B – Phycomycetes
137. Many drawbacks was in two kingdom classifications system, because this system did not distinguish between which :
(1) Eukaryotes and Prokaryotes

- (2) Unicellular and multicellular organisms
(3) Photosynthetic and non photosynthetic
(4) All of these
138. In six kingdom classifications which kingdom is divided into two domains :
(1) Protista (2) Monera
(3) Fungi (4) Plantae
139. Red tide is caused by
(1) Anabaena (2) Euglena
(3) Gonyaulax (4) Amoeba
140. Bacteriophages (viruses that infect bacteria) are usually :
(1) Circular RNA virus
(2) Single stranded RNA virus
(3) Single stranded DNA virus
(4) Double stranded DNA viruses.
141. Which of the following is true about basidiomycetes:
(a) Also called sac fungi
(b) Sex organs absent, but plasmogamy is brought about by fusion of two vegetative cells of different genotypes
(c) Karyogamy and meiosis takes place outside the basidium
(d) Basidiospores are produced exogenously
(1) a and b are correct
(2) b and d are correct
(3) a, b, c and d all are correct
(4) a, b and d are correct
142. Match the different types of spores listed under column-I with the names of the organisms given under column-II
- | Column-I | Column-II |
|------------------|----------------|
| Spores | Organisms |
| a. Ascospores | f. Ustilago |
| b. Basidiospores | g. Aspergillus |
| c. Zygosporangia | h. Rhizopus |
| d. Conidia | i. Penicillium |
- (1) a-g, b-f, c-h, d-i
(2) a-g, b-h, c-f, d-i
(3) a-h, b-i, c-g, d-f
(4) a-f, b-h, c-g, d-i
143. Fungi reproduce by only asexual and vegetative methods in
(1) Phycomycetes (2) Ascomycetes
(3) Basidiomycetes (4) Deuteromycetes
144. How many matchings are correct :
a. Extreme salty areas – Methanogens
b. Hot springs – Thermoacidophiles
c. Marshy areas – Halophiles
d. Methanogens – Ruminant animals
(1) 3 (2) 4
(3) 2 (4) 1
145. Which of the following statements are incorrect about cyanobacteria :
(1) They have chlorophyll 'a'
(2) They often form blooms in polluted water bodies
(3) They are called chemosynthetic autotrophs
(4) None of these
146. The group of organisms which are helpful in making curd from milk, production of antibiotics, fixing nitrogen in legume roots. This group of organisms are :
(1) Heterotrophic bacteria
(2) Archaeobacteria
(3) Cyanobacteria
(4) Chemosynthetic autotrophic bacteria
147. Which of the following are bacterial diseases :
(1) Small pox (2) Cholera
(3) Mumps (4) All of these
148. Viroids are made up of
(1) Low molecular weights of DNA
(2) High molecular weights of RNA
(3) Low molecular weights of RNA
(4) High molecular weights of DNA
149. Fungal cell wall is composed of :
(1) Chitin and polysaccharides
(2) Cellulose and polysaccharides
(3) Lignin
(4) Both 1 and 3
150. Mycorrhiza is :
(1) Symbiotic association of a soil fungus and roots of higher plants
(2) Parasitic association between a fungus and roots of seed plants
(3) Saprophytic association between a fungus and root of seed plants
(4) Symbiotic association between an alga and root of seed plants.
151. Plant families like Convolvulaceae, Solanaceae are included in which order :
(1) Poales (2) Poaceae
(3) Polymoniales (4) Sapindales

152. Select the correct sequence of various taxonomic categories from lower to higher rank :

- (1) Species → Genus → Family → Order → Class → Phylum
- (2) Species → Genus → Family → Order → Division → Class
- (3) Division → Class → Order → Family → Genus → Species
- (4) Phylum → Order → Class → Family → Genus → Species

153. Assertion: Most fungi are saprophytic.

Reason: They absorb organic matter from dead substance.

- (1) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (2) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (3) If Assertion is true but Reason is false.
- (4) If both Assertion and Reason are false.

154. In class Ascomycetes the mycelium is:

- (1) Coenocytic and aseptate
- (2) Septate
- (3) Multinucleated and aseptate
- (4) 1 and 3 both

155. Which component of lichen prepared/ synthesised food:

- (1) Mycobiont
- (2) Phycobiont
- (3) Fungi
- (4) All of these

156. According to given figure which of the following option is correct :



- (1) A – Anabaena, B – Mucilagenous Sheath
- (2) A – Nostoc, B – Heterocyst
- (3) A – Oscillatoria, B – Heterocyst
- (4) A – Colonial algae, B – Mucilagenous Sheath

157. On the basis of body organisation. How many matching is incorrect :

- | | |
|-------------------------|-----------------------|
| (a) Fungi Only cellular | (b) Protista Cellular |
| (c) Plantae Only tissue | (d) Monera Tissue |
| (1) One | (2) Two |
| (3) Three | (4) Four |

158. According to five kingdom classification.

Which of the matching is correct:

- (1) Chlorella - Unicellular protist without cell wall
- (2) Paramecium - Unicellular protist with cell wall
- (3) Chlamydomonas - Unicellular protist with cell wall
- (4) All of these

159. Select the wrong statements :

- (1) Cell wall is present in members of fungi and plantae
- (2) Mushroom belong to basidiomycetes
- (3) Pseudopodia are locomotory and feeding structures in sporozoans.
- (4) None of these

160. Select the wrong statements :

- (1) Diatoms are chief producers in the ocean
- (2) Diatoms are microscopic and float passively in water
- (3) The walls of diatoms are easily destructible
- (4) 'Diatomaceous earth' is formed by the cell wall of diatoms.

161. Which one of the following is not a criterion for classification of fungi?

- (1) Mode of spore formation
- (2) Fruiting body
- (3) Morphology of mycelium
- (4) Mode of nutrition

162. Which of the following statements is correct?

- (1) Some of the organisms can fix atmospheric nitrogen in specialized cells called sheath cells
- (2) Fusion of two cells is called karyogamy
- (3) Fusion of protoplasts between two motile or nonmotile gametes is called plasmogamy
- (4) Organism that depend on living plants are called saprophytes.

163. Which kingdom forms a link with the others dealing with plants, animals and fungi :

- (1) Monera (2) Plantae
(3) Protista (4) Animalia

164. In which organisms the cell walls form two thin overlapping shells, which fit together as in a soap box:

- (1) Slime moulds (2) Protozoans
(3) Diatoms (4) Euglenoids

165. How many statements are correct with reference to sporozoans

- (a) All are parasite
(b) Locomotory structure present
(c) Malaria causing agent belongs to sporozoans
(d) Nuclear membrane are present

- (1) 1 (2) 4
(3) 3 (4) 2

166. Bladderwort and venus fly trap are examples of

- (1) Partially heterotrophic plants
(2) Parasitic plants
(3) Totally heterotrophic plants
(4) More than one options are correct

167. How many statements are correct according to kingdom Animalia

- a. They directly or indirectly depend on plants for food.
b. They digest their food in an internal cavity
c. They store food reserves as glycogen or fat
d. Some of them are capable of locomotion
e. Their mode of nutrition is holozoic

- (1) 4 (2) 3
(3) 2 (4) 5

168. Viruses could be crystallised and crystals are made up of

- (1) Largely of nucleic acids
(2) Largely of protein
(3) Largely of carbohydrates
(4) Largely of carbohydrates and protein both

169. In the given below examples. How many are viral diseases in animals : Common cold, mumps, typhoid, cholera, influenza, herpes, tetanus, AIDS

- (1) 6 (2) 5
(3) 4 (4) 3

170. The viruses contains

- (1) Only RNA (2) Only DNA
(3) Either RNA or DNA (4) Both RNA and DNA

171. Which of the following organism are insectivorous:

- (1) Cuscuta and Albugo
(2) Bladderwort and Albugo
(3) Bladderwort and venus fly trap
(4) All of these

172. Which of the following is incorrect about basidiomycetes:

- (1) Sexual reproduction take place by fusion of two vegetative or somatic cell of different strain or genotype
(2) Plasmogamy, Karyogamy and meiosis takes place in basidium
(3) Four haploid basidiospore are exogenously produced on basidium
(4) Asexual spore generally not found

173. Correct sequence of sexual cycle in fungi is:

- (1) Karyogamy Plasmogamy meiosis
(2) Plasmogamy Karyogamy meiosis
(3) Plasmogamy meiosis Karyogamy
(4) meiosis Plasmogamy Karyogamy

174. How many of the following statements are correct with reference to given diagram of organism :



- a. This organism is prokaryote
b. Nuclear membrane present
c. They are heterotrophic in nature
d. It is comma shaped

- (1) 4 (2) 3
(3) 2 (4) 1

175. An infectious agent which are similar in size to the viruses

- (1) Viroids (2) Bacteria
(3) Prions (4) Mycoplasma

176. Given below are two statements : one is labelled as Assertion(A) and the other is labelled as Reason (R)

Assertion: Deuteromycetes commonly known as imperfect fungi.

Reason: In deuteromycetes only the Asexual or vegetative phase are known

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (2) (A) is true but (R) is false
- (3) (A) is false but (R) is true
- (4) Both (A) and (R) are true and (R) is the correct explanation of (A)

177. Given below are two statements : one is labelled as Assertion (A) and the other is labelled as Reason (R)

Assertion: Cynobacteria have chlorophyll 'a' similar to green plant and are photosynthetic autotrophs.

Reason: Some cynobacteria can fix atmospheric nitrogen in specialised cell called heterocyst.

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (2) (A) is true but (R) is false
- (3) (A) is false but (R) is true
- (4) Both (A) and (R) are true and (R) is the correct explanation of (A)

178. Mad cow disease in cattle caused by an agent which has:

- (1) Polyhedral arranged protein
- (2) Smaller size than bacteria
- (3) Abnormally folded protein
- (4) 2 and 3

179. Which of the following is a member of ascomycetes

- (1) Trichoderma (2) Morels
- (3) Rust and smut (4) Both 1 and 3

180. Mycelium of Neurospora are

- (1) Branched and septate
- (2) Coenocytic
- (3) Aseptate
- (4) Septate and coenocytic