

NEW STANDARD ACADEMY

Date : 20-07-2026

CLASS : 11TH NEET

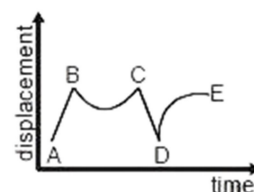
Marks:720

Time: 3 hours

PHYSICS

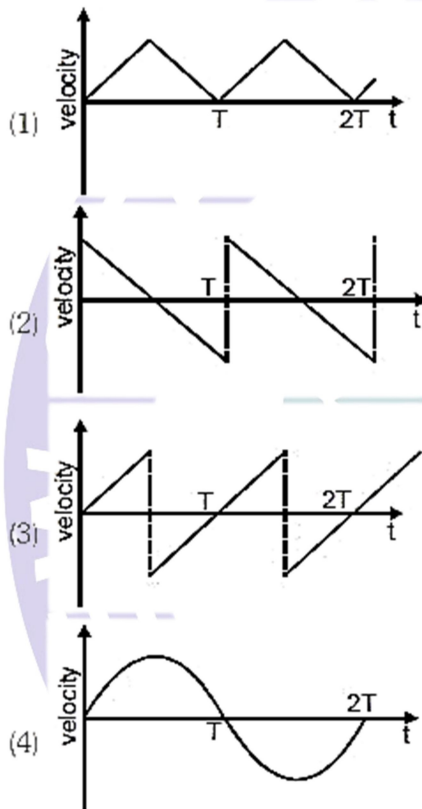
- A man walks 30 m towards north, then 20 m towards east and in the last $30\sqrt{2}$ m towards south - west. The displacement from origin is :
 - 10 m towards west
 - 10 m towards east
 - $60\sqrt{2}$ m towards north west
 - $60\sqrt{2}$ m towards east north
- A body moves along the curved path of a quarter circle. Calculate the ratio of distance to displacement:
 - 11 : 7
 - 7 : 11
 - $11 : \sqrt{2} \times 7$
 - $7 : 11\sqrt{2}$
- If displacement of a particle is zero, the distance covered :
 - must be zero
 - may or may not be zero
 - cannot be zero
 - depends upon the particle
- If the distance covered is zero, the displacement :
 - must be zero
 - may or may not be zero
 - cannot be zero
 - depends upon the particle
- An athlete completes one round of a circular track of radius R in 20 seconds. What will be his displacement at the end of 2 minutes 20 seconds ?
 - Zero
 - 2R
 - $2\pi R$
 - $7\pi R$
- A car runs at constant speed on a circular track of radius 10 m taking 6.28s on each lap (i.e. round). The average speed and average velocity for each complete lap is :
 - Velocity 10 m/s, speed 10 m/s
 - Velocity zero, speed 10 m/s
 - Velocity zero, speed zero
 - Velocity 10 m/s speed zero
- The magnitude of average velocity is equal to the average speed when a particle moves :
 - on a curved path
 - in the same direction
 - with constant acceleration
 - with constant retardation
- A body covers one-third of the distance with a velocity v_1 the second one-third of the distance with a velocity v_2 , and the last one-third of the distance with a velocity v_3 . The average velocity is :
 - $\frac{v_1+v_2+v_3}{3}$
 - $\frac{3v_1v_2v_3}{v_1v_2+v_2v_3+v_1v_3}$
 - $\frac{v_1v_2+v_2v_3+v_1v_3}{3}$
 - $\frac{v_1v_2v_3}{3}$
- A point object traverses half the distance with velocity v_0 . The remaining part of the distance is covered with velocity v_1 for the half time and with velocity v_2 for the rest half. The average velocity of the object for the whole journey is
 - $2v_1(v_0+v_2)/(v_0+2v_1+2v_2)$
 - $2v(v_0+v_1)/(v_0+v_1+v_2)$
 - $2v_0(v_1+v_2)/(v_1+v_2+2v_0)$
 - $2v_2(v_0+v_1)/(v_1+2v_2+v_0)$
- If x denotes displacement in time t and $x = a \cos t$, then acceleration is :
 - a cos t
 - a cos t
 - a sin t
 - a sin t
- The position x of a particle varies with time (t) as $x = at^2 - bt^3$. The acceleration at time t of the particle will be equal to zero, where t is equal to :
 - $\frac{2a}{3b}$
 - $\frac{a}{b}$
 - $\frac{a}{3b}$
 - Zero
- The displacement of a particle starting from rest (at $t = 0$) is given by $s = 6t^2 - t^3$. The time when the particle will attain zero velocity again, is :
 - 4s
 - 8s
 - 12s
 - 16s
- The displacement of a particle is given by $y = a + bt + ct^2 - dt^4$. The initial velocity and acceleration are respectively :
 - b, -4d
 - b, 2c
 - b, 2c
 - 2c, -4d

14. A body is moving according to the equation $x = at + bt^2 + ct^3$. Then its instantaneous speed is given by :
 (1) $a + 2b + 3ct$ (2) $a + 2bt + 3ct^2$
 (3) $2b - 6ct$ (4) None of these
15. The motion of a particle is described by the equation $x = a + bt^2$ where $a = 15 \text{ cm}$ and $b = 3 \text{ cm/sec}^2$. Its instantaneous velocity at time 3 sec will be :-
 (1) 36 cm/sec (2) 18 cm/sec
 (3) 16 cm/sec (4) 32 cm/sec
16. The velocity of a particle moving with constant acceleration at an instant t_0 is 10 m/s. After 5 seconds of that instant the velocity of the particle is 20m/s. The velocity at 3 second before t_0 is :
 (1) 8 m/s (2) 4 m/s
 (3) 6 m/s (4) 7 m/s
17. The velocity acquired by a body moving with uniform acceleration is 30 m/s in 2 seconds and 60 m/s in 4 seconds. The initial velocity is :
 (1) zero (2) 2 m/s
 (2) 4 m/s (4) 10 m/s
18. If a body starts from rest, the time in which it covers a particular displacement with uniform acceleration is :
 (1) inversely proportional to the square root of the displacement
 (2) inversely proportional to the displacement
 (3) directly proportional to the displacement
 (4) directly proportional to the square root of the displacement
19. Initially a body is at rest. If its acceleration is 5ms^{-2} then the distance travelled in the 18th second is :-
 (1) 86.6 m (2) 87.5 m
 (3) 88 m (4) 89 m
20. A stone thrown upwards with a speed 'u' from the top of the tower reaches the ground with a velocity '3u'. The height of the tower is :
 (1) $\frac{3u^2}{g}$ (2) $\frac{4u^2}{g}$
 (2) $\frac{6u^2}{g}$ (4) $\frac{9u^2}{g}$
21. A stone falls from a balloon that is descending at a uniform rate of 12 ms^{-1} .
 The displacement of the stone from the point of release after 10 seconds is :
 ($g = 9.8 \text{ m/s}^2$)
 (1) 490 m (2) 510 m
 (3) 610 m (4) 725 m
22. A body dropped from the top of a tower covers a distance $7x$ in the last second of its journey, where x is the distance covered in first second. How much time does it take to reach the ground ?
 (1) 3s (2) 4s
 (3) 5s (4) 6s
23. Drops of water fall from the roof of a building 18m high at regular intervals of time. When the first drop reaches the ground, at the same instant fourth drop begins to fall. What are the distances of the second and third drops from the roof ?
 (1) 6 m and 2 m (2) 6 m and 3 m
 (3) 8 m and 2 m (4) 4 m and 2 m
24. Which of the following four statements is false?
 (1) A body can have zero velocity and still be accelerated
 (2) A body can have a constant velocity and still have a varying speed
 (3) A body can have a constant speed and still have a varying velocity
 (4) The direction of the velocity of a body can change when its acceleration is constant.
25. A ball is thrown upward with a velocity of 100 m/s. It will reach the ground after :.
 (1) 10 s (2) 20 s
 (3) 5 s (4) 40 s
26. The ratio of the distances traversed, in successive intervals of time by a body falling from rest, are
 (1) 1 : 3 : 5 : 7 : 9 :
 (2) 2 : 4 : 6 : 8 : 10 :
 (3) 1 : 4 : 7 : 10 : 13 :
 (4) None of these
27. Fig. shows the displacement of a particle moving along x-axis as a function of time. The acceleration of the particle is zero in the region :

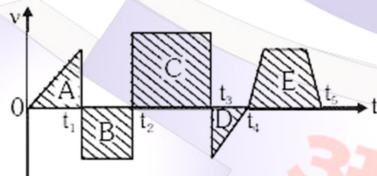


- (a) AB (b) BC
(c) CD (d) DE
(1) a, b (2) a, c
(3) b, d (4) c, d

28. A ball is dropped from the certain height on the surface of glass. It collides elastically and comes back to its initial position. If this process it repeated then the velocity time graph is :
(Take downward direction as positive)



29. The velocity-time graph of an object is shown. The displacement during the interval 0 to t_4 is :-



- (1) Area A + Area B + Area C + Area D + Area E
(2) Area A + Area C . Area B . Area D
(3) Area A + Area B + Area C + Area D
(4) Area A + Area C + Area E . Area B + Area D

30. A shell is fired vertically upwards with a velocity v_1 from the deck of a ship moving with a speed v_2 . A person on the shore observes the motion of the shell as a parabola. Its horizontal range is given

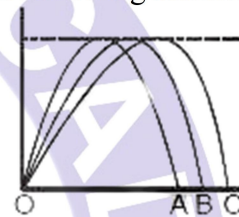
by :

- (1) $\frac{2v_1^2 v_2}{g}$ (2) $\frac{2v_1 v_2^2}{g}$
(3) $\frac{2v_1 v_2}{g}$ (4) $\frac{2v_1^2 v_2^2}{g}$

31. A ball is thrown at an angle θ to the horizontal and the range is maximum. The value of $\tan \theta$ is :

- (1) 1 (2) $\sqrt{3}$
(3) $\frac{1}{\sqrt{3}}$ (4) 2

32. Three projectiles A, B and C are thrown from the same point in the same plane. Their trajectories are shown in the figure. Which of the following statement is true ?



- (1) The time of flight is the same for all the three
(2) The launch speed is largest for particle C
(3) The horizontal velocity component is largest for particle C
(4) All of the above

33. The equation of a projectile is $y = \sqrt{3}x - \frac{gx^2}{2}$. The angle of projection is :

- (1) 30° (2) 60°
(3) 45° (4) none

34. If a projectile is fired at an angle θ to the vertical with velocity u , then maximum height attained is given by :

- (1) $\frac{u^2 \cos \theta}{2g}$ (2) $\frac{u^2 \sin^2 \theta}{2g}$
(3) $\frac{u^2 \sin^2 \theta}{g}$ (4) $\frac{u^2 \cos^2 \theta}{2g}$

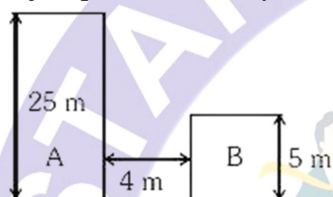
35. A projectile is thrown into space so as to have the maximum possible horizontal range equal to 400m. Taking the point of projection as the origin, the coordinates of the point where the velocity of the projectile is minimum are:

- (1) (400, 100) m (2) (200, 100) m
(3) (400, 200) m (4) (200, 200) m

36. A particle is fired with velocity u making θ angle with the horizontal. What is the change in velocity when it is at the highest point ?

- (1) $u \cos \theta$ (2) u

- (3) $u \sin \theta$ (4) $(u \cos \theta \cdot u)$
37. When a particle is thrown horizontally, the resultant velocity of the projectile at any time t is given by :
- (1) gt (2) $\frac{1}{2}gt^2$
- (3) $\sqrt{u^2 + g^2t^2}$ (4) $\sqrt{u^2 - g^2t^2}$
38. A boy wants to jump from building A to building B. Height of building A is 25 m and that of building B is 5 m. Distance between buildings is 4 m. Assume that the boy jumps horizontally, then calculate minimum velocity with which he has to jump to land safely on building B.



- (1) 6 m/s (2) 8 m/s
- (3) 4 m/s (4) 2 m/s
39. Two trains each 50 m long, are travelling in opposite directions with respective velocities 10 m/s and 15 m/s. The time of crossing is :
- (1) 2 s (2) 4 s
- (3) 2 3 s (4) 4 3 s
40. A stone is thrown upwards and it rises to a height of 200 m. The relative velocity of the stone with respect to the earth will be maximum at :-
- (1) Height of 100 m (2) Height of 150 m
- (3) Highest point (4) The ground
41. A particle is moving with a velocity of 10 m/s towards east. After 10 s its velocity changes to 10 m/s towards north. Its average acceleration is :-
- (1) Zero
- (2) $\sqrt{2}$ m/s² towards N-W
- (3) $\frac{1}{\sqrt{2}}$ m/s² towards N - E
- (4) $\frac{1}{\sqrt{2}}$ m/s² towards N - W
42. A man is walking on a road with a velocity of 3 km/h when suddenly, it starts raining velocity of rain is 10 km/h in vertically downward direction, relative velocity of the rain with respect to man is :
- (a) $\sqrt{13}$ km/hr (2) $\sqrt{7}$ km/hr
- (c) $\sqrt{109}$ km/hr (4) 13 km/h
43. A particle moves in a straight line with a constant acceleration. It changes its

velocity from 10 m/s to 20 m/s while passing through a distance of 135 m in t seconds. The value of t is :-

- (1) 12 (2) 9
- (3) 10 (4) 1.8
44. A particle of mass m is projected with velocity v making an angle of 45° with the horizontal. When the particle lands on the ground level, the magnitude of the change in its momentum will be :-
- (1) $mv\sqrt{2}$ (2) zero
- (3) $2mv$ (4) $mv/\sqrt{2}$
45. A body starting from rest is moving under a constant acceleration up to 20 sec. If it moves S_1 distance in first 10 sec., and S_2 distance in next 10 sec. then S_2 will be equal to :
- (1) S_1 (2) $2S_1$
- (3) $3S_1$ (4) $4S_1$

CHEMISTRY

46. If uncertainty in position and momentum are equal, then uncertainty in velocity is
- (1) $\sqrt{\frac{h}{\pi}}$ (2) $\frac{1}{2m}\sqrt{\frac{h}{\pi}}$
- (3) $\sqrt{\frac{h}{2\pi}}$ (4) $\frac{1}{m}\sqrt{\frac{h}{\pi}}$
47. Which of the following is not permissible arrangement of electrons in an atom?
- (1) $n = 3, l = 2, m = -2, s = -1/2$
- (2) $n = 4, l = 0, m = 0, s = -1/2$
- (3) $n = 5, l = 3, m = 0, s = +1/2$
- (4) $n = 3, l = 2, m = -3, s = -1/2$
48. A 0.66 kg ball is moving with a speed of 100 m/s. The associated wavelength will be ($h = 6.6 \times 10^{-34}$ J s):
- (1) 6.6×10^{-34} m (2) 1×10^{-35} m
- (3) 1×10^{-32} m (4) 6.6×10^{-32} m
49. In $n = 6$ the correct sequence for filling of electrons will be:
- (1) $ns \rightarrow (n-2)f \rightarrow (n-1)d \rightarrow np$
- (2) $ns \rightarrow (n-1)d \rightarrow (n-2)f \rightarrow np$
- (3) $ns \rightarrow (n-2)f \rightarrow np \rightarrow (n-1)d$
- (4) $ns \rightarrow np \rightarrow (n-1)d \rightarrow (n-2)f$
50. The correct set of four quantum number for the valence electron of rubidium atom ($Z = 37$) is
- (1) 5, 0, 0, $+1/2$ (2) 5.1, 0, $+1/2$
- (3) 5.1, 1, $+1/2$ (4) 6.0, 0, $+1/2$
51. The orbital angular momentum of a p-electron is given as
- (1) $\sqrt{6} \cdot \frac{h}{2\pi}$ (2) $\sqrt{3} \cdot \frac{h}{2\pi}$

(3) $\sqrt{\frac{3}{2}} \cdot \frac{h}{\pi}$ (4) $\frac{h}{\sqrt{2}\pi}$

52. In Bohr's orbit, $\frac{nh}{2\pi}$ indicates

- (1) Momentum (2) Kinetic energy
(3) Potential energy
(4) Angular momentum

53. The value of Planck's constant is 6.63×10^{-34} Js. The speed of light 3×10^{17} nm s⁻¹. Which value is closest to the wavelength in nanometer of a quantum of light with frequency of 6×10^{15} S⁻¹?

- (1) 25 (2) 50
(3) 75 (4) 10

54. What is the maximum number of electrons that can be associated with a following set of quantum numbers?

(n = 3 l = 1 and m = -1)

- (1) 2 (2) 4
(3) 6 (4) 10

55. Maximum number of electron in a sub-shell with l = 3 and n = 4 is

- (1) 10 (2) 12
(3) 14 (4) 16

56. What is the maximum number of orbitals that can be identified with the following quantum numbers? n = 3 l = 1, m_l = 0

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

57. Calculate the energy in joule corresponding to light of wavelength 45 nm: (Planck's constant, h = 6.63×10^{-34} Js; speed of light c = 3×10^8 m s⁻¹)

- (1) 6.67×10^{15} (2) 6.67×10^{11}
(3) 4.42×10^{-15} (4) 4.42×10^{-18}

58. The angular momentum of electron in d-orbital is equal to

- (1) $2\sqrt{3}h$ (2) 0h
(3) $\sqrt{6}h$ (4) $\sqrt{2}h$

59. Two electrons occupying the same orbital are distinguished by:

- (1) Spin quantum number
(2) Principal quantum number
(3) Magnetic quantum number
(4) Azimuthal quantum number

60. Which of the following pairs of d-orbitals will have electron density along the axis?

- (1) d_{xy}, d_{x²-y²} (2) d_{y²}, d_{xy}
(3) d_{xz}, d_{yz} (4) d_{z²}, d_{x²-y²}

61. How many electrons can fit in the orbital which have n = 3 and l = 1?

- (1) 14 (2) 2

(3) 6 (4) 10

62. Which one is the wrong statement?

(1) The uncertainty principle of $\Delta m \times \Delta p > h/4\pi$

(2) Half filled and fully filled orbitals have greater stability due to greater exchange energy, greater symmetry and more balanced arrangement

(3) The energy of 2s orbital is less than the energy of 2p orbital in case of Hydrogen like atoms

(4) de Broglie wavelength is given by

$\lambda = \frac{h}{mv}$, where m = mass of the particle v = group velocity of the particle

63. 4d, 5p, 5f and 6p orbitals are arranged in the order of decreasing energy. The correct option is

(1) 5f > 6p > 5p > 4d

(2) 6p > 5f > 5p > 4d

(3) 6p > 5f > 4d > 5p

(4) 5f > 6p > 4d > 5p

64. Which of the following series of transitions in the spectrum of hydrogen atom falls in visible region?

(1) Lyman series (2) Balmer series

(3) Paschen series (4) Brackett series

65. The number of protons, neutrons and electrons in $^{175}_{71}\text{Lu}$, respectively, are:

(1) 175, 104 and 71 (2) 71, 104 and 71

(3) 104, 71 and 71 (4) 71, 71 and 104

66. If radius of second Bohr orbit of the He⁺ ion is 105.8 pm, what is the radius of third Bohr orbit of Li²⁺ ion?

(1) 1.587 pm (2) 158.7 Å

(3) 158.7 pm (4) 15.87 pm

67. Match List I with List II.

	List I (Quantum number)		List II (Information provided)
A.	m_l	I.	Shape of orbital
B.	m_s	II.	Size of orbital
C.	l	III.	Orientation of orbital
D.	n	IV.	Orientation of spin of electron

Choose the correct answer from the options given below:

(1) A-III, B-IV, C-II, D-I

(2) A-II, B-I, C-IV, D-III

(3) A-I, B-III, C-II, D-IV

(4) A-III, B-IV, C-I, D-II

68. The number of angular nodes and radial nodes in 3s orbital are

- (1) 0 and 1, respectively
- (2) 0 and 2, respectively
- (3) 1 and 0, respectively
- (4) 3 and 0, respectively

69. Match block and general electronic configuration.

List I (Block)	List I (Electronic configuration)
(a) s-block	(i) ns^2np^{1-6}
(b) p-block	(ii) $(n-1)d^{1-10}ns^2$
(c) d-block	(iii) $(n-2)f^{1-14}(n-1)d^{0-1}ns^2$
(d) f-block	(iv) ns^1-2

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

70. Match list I with list II and choose the correct answer from the code given below:

List I	List II
(a) Strongest reductant	(i) Gold
(b) Half-filled d-orbital	(ii) Cerium
(c) Coinage metal	(iii) Chromium
(d) Lanthanide	(iv) Iodide ion

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

71. Match list I with list II and select the correct answer using the codes given below:

List I (Element)	List II (Electronic configuration)
(a) Gallium	(i) $1s^22s^22p^63s^23p^64s^23d^1$
(b) Vanadium	(ii) $1s^22s^22p^63s^23p^64s^23d^{10}$
(c) Zinc	(iii) $1s^22s^22p^63s^23p^64s^23d^{10}4p^1$
(d) Scandium	(iv) $1s^22s^22p^63s^23p^64s^23d^3$

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

72. Match list I with list II

List I	List II
(A) $1s^2$	(p) Positive electron gain enthalpy
(B) $1s^22s^22p^5$	(q) Highest ionization energy
(C) $1s^22s^1$	(r) Lowest ionization energy
(D) $1s^22s^22p^6$	(s) Highest electron gain enthalpy

- (1) A - p, q; B - p, s; C - r; D - p
- (2) A - p, q; B - r; C - s; D - p
- (3) A - p, q; B - s; C - r; D - p
- (4) A - p, q, r; B - r, s; C - r; D - p

73. For electron affinity of halogens which of the following is correct

- (1) Br > F
- (2) F > Cl
- (3) Br > Cl
- (4) F > I

74. Which one of the following arrangement represents the correct order of electron gain enthalpy (with negative sign) of the given atomic species?

- (1) F < Cl < O < S
- (2) S < O < Cl < F
- (3) O < S < F < Cl
- (4) Cl < F < S < O

75. The pair of amphoteric hydroxide is

- (1) Al(OH)₃, LiOH
- (2) Be(OH)₂, Mg(OH)₂
- (3) B(OH)₃, Be(OH)₂
- (4) Be(OH)₂, Zn(OH)₂

76. Which one of the following orders is not in accordance with the property stated against it?

- (1) F₂ > Cl₂ > Br₂ > I₂
- (2) F₂ > Cl₂ > Br₂ > I₂
- (3) HI > HBr > HCl > HF
- (4) F₂ > Cl₂ > Br₂ > I₂

77. Identify the correct order of the size of the following?

- (1) Ca²⁺ < K⁺ < Ar < Cl⁻ < S²⁻
- (2) Ar < Ca²⁺ < K⁺ < Cl⁻ < S²⁻
- (3) Ca²⁺ < Ar < K⁺ < Cl⁻ < S²⁻
- (4) Ca²⁺ < K⁺ < Ar < S²⁻ < Cl⁻

78. In which of the following electronic configuration of an atom has the lowest ionisation enthalpy?

- (1) $1s^2 2s^2 2p^3$
- (2) $1s^2 2s^2 2p^5 3s^1$
- (3) $1s^2 2s^2 2p^6$
- (4) $1s^2 2s^2 2p^5$

79. Which one of the following arrangement does not give the correct picture of the trends indicated against it?

- (1) F₂ > Cl₂ > Br₂ > I₂ Bond dissociation energy
- (2) F₂ > Cl₂ > Br₂ > I₂ Electronegativity
- (3) F₂ > Cl₂ > Br₂ > I₂ Oxidising power

- (4) $F_2 > Cl_2 > Br_2 > I_2$ Electron gain enthalpy
80. The correct order of the decreasing ionic radii among the following isoelectronic species is
- (1) $K^+ > Ca^{2+} > Cl^- > S^{2-}$
 - (2) $Ca^{2+} > K^+ > S^{2-} > Cl^-$
 - (3) $Cl^- > S^{2-} > Ca^{2+} > K^+$
 - (4) $S^{2-} > Cl^- > K^+ > Ca^{2+}$
81. Which of the following lanthanoids ions is diamagnetic?
- (At. no: Ce = 58 Sm = 62 Eu = 63, Yb = 70)
- (1) Sm^{2+}
 - (2) Eu^{2+}
 - (3) Ce^{2+}
 - (4) Yb^{2+}
82. Which of the following orders of ionic radii is correctly represented?
- (1) $H^- > H > H^+$
 - (2) $Na^+ > F^- > O^{2-}$
 - (3) $F^- > O^{2-} > Na^+$
 - (4) $Al^{3+} > Mg^{2+} > N^{3-}$
83. The species Ar, K^+ and Ca^{2+} contain the same number of electrons. In which order do their radii increases?
- (1) $Ca^{2+} < K^+ < Ar$
 - (2) $K^+ < Ar < Ca^{2+}$
 - (3) $Ar < K^+ < Ca^{2+}$
 - (4) $Ca^{2+} < Ar < K^+$
84. Among CaH_2 , BeH_2 , BaH_2 , the order of ionic character is
- (1) $BeH_2 < CaH_2 < BaH_2$
 - (2) $CaH_2 < BeH_2 < BaH_2$
 - (3) $BeH_2 < BaH_2 < CaH_2$
 - (4) $BaH_2 < BeH_2 < CaH_2$
85. Identify the incorrect match
- | Name | IUPAC Official Name |
|-----------------|---------------------|
| (a) Unnilunium | (i) Mendelevium |
| (b) Unniltrium | (ii) Lawrencium |
| (c) Unnilhexium | (iii) Seaborgium |
| (d) Unununnium | (iv) Darmstadtium |
- (1) (d), (iv)
 - (2) (a), (i)
 - (3) (b), (ii)
 - (4) (c), (iii)
86. Match the element in column I with that in Column II
- | | |
|--------------|-----------------------|
| (a) Copper | (i) Non-metal |
| (b) Fluorine | (ii) Transition Metal |
| (c) Silicon | (iii) Lanthanoid |
| (d) Cerium | (iv) Metalloid |
- (Identify the correct match:
- (1) (a)-(i) (b)-(ii) (c)-(iii) (d)-(iv)
 - (2) (a)-(ii) (b)-(iv) (c)-(i) (d)-(iii)
 - (3) (a)-(ii) (b)-(i) (c)-(iv) (d)-(iii)
 - (4) (a)-(iv) (b)-(iii) (c)-(i)(d)-(ii)
87. Which of the following oxide is amphoteric in nature?
- (1) CO_2
 - (2) SnO_2

- (3) SiO_2
 - (4) GeO_2
88. Arrange the following elements in increasing order of electronegativity: N, O, F, C, Si
- Choose the correct answer from the options given below:
- (1) $O < F < N < C < Si$
 - (2) $F < O < N < C < Si$
 - (3) $Si < C < N < O < F$
 - (4) $Si < C < O < N < F$
89. Arrange the following elements in increasing order of first ionization enthalpy: Li, Be, B, C, N
- Choose the correct answer from the options given below:
- (1) $Li < Be < C < B < N$
 - (2) $Li < Be < N < B < C$
 - (3) $Li < Be < B < C < N$
 - (4) $Li < B < Be < C < N$
90. Which of the following exhibits only +3 oxidation state?
- (1) U
 - (2) Th
 - (3) Pa
 - (4) Ac
- ### BIOLOGY
91. An infectious agent which are similar in size to the viruses
- (1) Viroids
 - (2) Bacteria
 - (3) Prions
 - (4) Mycoplasma
92. In binomial nomenclature, every organism has:
- (1) Two names, one latin, other Greek
 - (2) Two names, one scientific other common
 - (3) Two names by two scientists.
 - (4) One scientific name with two words, a generic and specific.
93. ICBN stands for:
- (1) International code for botanical nomenclature
 - (2) International code of biological nomenclature
 - (3) International code of biochemical naming
 - (4) International classification of biological nomenclature
94. Which of the following statements with respect to bacteria is incorrect?
- (1) Bacteria reproduce mainly by fission
 - (2) Under unfavourable conditions, they produce spores.

(3) Bacteria reproduce by a sort of sexual reproduction by adopting a primitive type of DNA transfer

(4) All mycoplasma are pathogenic

95. Which among the following is correct:

(1) Higher the taxon (taxonomic category) more the similar characters

(2) Lower the taxon more the diversity

(3) Lower the taxon more the resemblances

(4) Both 1 and 2

96. What is the family of man:

(1) Hominidae

(2) Felidae

(3) Mammalia

(4) Chordata.

97. 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, c, d

(3) c, d

(4) a, b, d

98. In which kingdom cell wall are absent:

(1) Animalia

(2) Fungi

(3) Plantae

(4) Monera

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

a. This organism is prokaryote

b. Nuclear membrane absent

c. They are heterotrophic in nature

d. It is rod shaped

(1) 4

(2) 3

(3) 2

(4) 1

100. Which of the following group show most extensive metabolic diversity:

(1) Fungi

(2) Bacteria

(3) Protista

(4) Animalia

101. The infectious abnormally folded protein are called

(1) Rions

(2) Prions

(3) Trions

(4) Viroids

102. Given below are two statements:

Statement I:

Isogamous type reproduction with motile gamete is present in spirogyra

Statement II:

Genera fern are known as homosporous.

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.

103. Hydrocolloids are obtained by

(1) Brown and green algae

(2) Green and red algae

(3) Brown and red algae

(4) Diatoms and desmid

104. Chlorella is a

(a) Multicellular algae

(b) Unicellular algae

(c) Protein rich algae

(d) Used as food supplement

(1) Only a and d

(2) Only a and c

(3) Only b and d

(4) Only b, c and d

105. In class rhodophyceae sexual reproduction is of which type

(1) Isogamous

(2) Anisogamous

(3) Oogamous

(4) All of these

106. In brown algae how many flagella are present in gamete:

(1) Only 1

(2) 2, Unequal

(3) 2-8, Unequal

(4) 2-8, Equal

107. Which of the following is incorrect:

(1) In Pinus male and female cone/strobili borne on same tree

(2) In Cycas male cone and

megasporophyll born on different tree

(3) Cycas plants are monoecious

(4) Both 1 and 2

108. Given below are two statements:

Statement I:

Fusion between one large, non motile, static female gamete and a smaller motile male gamete is called oogamous.

Statement II:

Flordean starch is very similar to amylopectin and glycogen in structure. 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

109. Given below are two statements:

Statement I:

Isogamous type reproduction present in Eudorina

Statement II:

In Bryophyte antheridium produce multiflagellated antherozoids.

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.

110. Filamentous form of algae is

- (1) Spirogyra
- (2) Volvox
- (3) Chlamydomonas
- (4) Spirulina

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

Assertion (A): Genera Selaginella and Salvinia are known as heterosporous.

Reason (R): They produce two kinds of spores, macro (large) and micro (small).

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)

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

Assertion (A):

Bryophyte and pteridophyte have haplontic life cycle.

Reason (R):

Volvox, Spirogyra, Fucus and Chlamydomonas have Haplontic life cycle.

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)

113. In Algae algin and carrageen are obtained from which type of algae respectively

- (1) Marine brown and red algae
- (2) Marine red algae and brown algae
- (3) Fresh water brown algae and marine red algae
- (4) Fresh water red algae and brown algae

114. Zygotic and sporic meiosis takes place in:

- (1) Spirogyra and moss respectively
- (2) Bryophytes and Dryopteris respectively
- (3) Cycas and Pinus respectively
- (4) Chlamydomonas and spirogyra respectively

115. Recognise the given figure and find out correct statement for it.:



- (i) It is a member of Rhodophyceae
 - (ii) Oogamous type reproduction occur.
 - (iii) Diplontic life cycle present
 - (iv) It posses chlorophyll a and c as major pigment.
- (1) (i), (ii) are correct
 - (2) (ii), (iii), (iv) are correct
 - (3) (i), (iii), (iv) are correct
 - (4) (1).(i), (iii), (iv) are correct

116. Read the following statement and choose correct option

- (i) In chlorophyceae stored food is starch
- (ii) Anisogamous type reproduction Eudorina
- (iii) Volvox is filamentous algae
- (iv) In Bryophyte biflagellated antherozoids.

- (1) Only i, ii correct
- (2) Only iii, iv correct
- (3) Only i, ii, iv correct
- (4) i, ii, iii, iv correct

117. Given below are two statements:

Statement 1:

In mosses gametophyte consist of protonema stage and leafy stage.

Statement II:

Sporophyte of moss is differentiated into foot, seta, capsule.

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

118. Agar a type of chemical are obtained from which algae and their uses respectively

- (1) Gelidium, For grow microbes
- (2) Gracilaria, Preparation of Ice-cream
- (3) Gelidium, preparation of jellies
- (4) All of these

119. Read the following statement and choose correct option

- (i) Evolutionary pteridophyte are the first terrestrial plants to posses vascular tissue.
- (ii) The main plant body of pteridophytes is gametophytic
- (iii) In gymnosperms the male and female gametophyte have an independent free living existance
- (iv) In coniferes niddle like leaves reduce the surface area.

- (1) i, ii correct and iii, iv incorrect
- (2) ii, iii correct and i, iv incorrect
- (3) 1, iv correct and ii, iil incorrect
- (4) i, iii, iv correct and ii incorrect

120. Read the following statement and choose correct option

- (1) Gymnosperms are heterosporous
- (ii) Prothallus is a gametophyte, free living photosynthetic structure form in pteridophyte
- (iii) Mosses posses vascular tissue xylem and phloem
- (iv) Mosses are of great ecological Importance.

- (1) i, ii correct and iii, iv incorrect
- (2) i, ii, iv correct and iii incorrect
- (3) i, ii, iii correct and iv incorrect
- (4) i, ii, iii, iv correct

121. Given below are two statements:

Statement I:

In Rhodophyceae food is stored as complex carbohydrate in the form of manitol.

Statement II:

Manitol starch is very similar to amylopectin and glycogen in structure.

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

122. The tallest tree species of the gymnosperms is

- (1) Eucalyptus
- (2) Pinus
- (3) Cedrus
- (4) Sequoia

123. Which of the following is considered an important step in evolution as it is a precursor to the seed habit:

- (1) Haplontic life cycle
- (2) Free-living gametophyte
- (3) Dependent sporophyte
- (4) Development of embryo inside the female gametophyte

124. Given are a few statements

- (a) Important soil binders
 - (b) They are the first terrestrial land plant with vascular tissues
 - (c) Cones are present
- Choose the option for which all three statements hold true

- (1) Ulothrix
- (2) Pinus
- (3) Cycas
- (4) Equisetum

125. Characteristic of angiosperms which distinguish them from gymnosperms
 (1) Seeds covered by ovary
 (2) Zygote and triploid endosperm formed after double fertilization
 (3) The pollen grains and ovules are developed in specialised structures called flower
 (4) All of the above

126. Given below are two statements:

Statement I:

Fusion between one large, non motile, static female gamete and a smaller motile male gamete is called cogamous.

Statement II:

Atleast half of total carbondioxide fixation on Earth is carried out by algae through photosynthesis.

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

127. Match the following

- | | |
|----------------|-----------------|
| a. Lycopsidea | i) Dryopteris |
| b. Pteropsida | ii) Selaginella |
| c. Sphenopsida | iii) Psilotum |
| d. Psilopsida | iv) Equisetum |
- (1) a(ii), b(iv), c(i), d(iii)
 (2) a(i), b(iv), c(ii), d(iii)
 (3) a(ii), b(i), c(iv), d(iii)
 (4) a(ii), b(iii), c(iv), d(i)

128. In Gymnosperms leaves are

- (1) Simple (2) Compound
 (3) Needle like (4) All of these

129. In cycas

- (1) Male cones and megasporophylls are borne on same trees
 (2) Male cones and magasporophylls are borne on different trees
 (3) May be on same or different trees
 (4) Both 1 and 2

130. In Angiosperms when pollen tube enters the embryo sac how many male gametes take parts in double fertilization

- (1) One (2) Two
 (3) Three (4) Multiple

131. Diplontic life cycle is present in

- | | |
|--------------|----------------|
| (a) Cycas | (b) Eucalyptus |
| (c) Funaria | (d) Dictyota |
| (e) Adiantum | |
- (1) b,c,d (2) c,d
 (3) c,e (4) a, b

132. Funaria plant body is attached to the substratum by

- (1) Rhizoids (2) Stripe
 (3) Holdfast (4) Root

133. Sporophyte in bryophyte nourish by

- (1) Rhizoids (2) Root
 (3) Gametophytes (4) Spores

134. Bryophytes include

- | | |
|---------------|--------------|
| a. Mosses | b. Horsetail |
| c. Liverworts | d. Ferns |
- (1) a, b (2) a, c
 (3) a,d (4) b,d

135. Volvox, Ulothrix, Spirogyra, Chara, Dictyota, Ectocarpus, Laminaria, Sargassum, Porphyra and Polysiphonia, etc., are the examples of green plants. Number of organism which having chlorophyll a and chlorophyll c are

(1) Three (2) Four
 (3) Seven (4) Five

136. In liverworts asexual reproduction takes place by the formation of specialized structures called

- (1) Gemmae (2) Sporangia
 (3) Zoospores (4) Both 1 and 2

137. Given below are two statements:

Statement I:

Oogenesis is initiated during the embryonic development stage.

Statement-II-

A large number Grafian follicle degenerate during the phase from birth to puberty.

Choose the correct answer from the option 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

138. Given below are two statements:

Statement 1:

Placenta release estrogen, progesterone, hCG, hPL, ADH and relaxin during pregnancy.

Statement-II:

hCG, hPL and relaxin produced in woman only during pregnancy.

Choose the correct answer from the option 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

139. Find out the correct match from the following table:

Column-I	Column-II	Column-III
i. Perimetrium	External thin layer	Blastocyst implant in this layer
ii. Myometrium	Middle thick layer of smooth muscle	Exhibits strong contraction during delivery of the body
iii. Endometrium	Inner glandular layer	Undergoes cyclical changes during menstrual cycle

- (1) i only
- (2) i and ii
- (3) ii and iii
- (4) iii only

140. What is the correct sequence of sperm formation:

- (1) Spermatogonia → Spermatocytes → Spermatozoa → Spermatids
- (2) Spermatogonia → Spermatids → Spermatocytes → Spermatozoa
- (3) Spermatogonia → Spermatocytes → Spermatids → Spermatozoa
- (4) Spermatocytes → Spermatozoa → Spermatids → Spermatogonia

141. Order Carnivora includes family:

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

142. Which is the longest phase of menstrual cycle:

- (1) Follicular phase
- (2) Luteal phase
- (3) Ovulatory phase
- (4) All

143. In the given below example how many animals are poikilothermous:

Carcharodon, Exocoetus, Ichthyophis, Pterophyllum, Testudo, Calotes, Pavo, Neophron, Struthio

- (1) 6
- (2) 7
- (3) 5
- (4) 8

144. The radial symmetry occurs in which phylum

- a. Coelenterata
- b. Ctenophora
- c. Adult antedon
- d. Chordata

- (1) a, b, c
- (2) b, c, d
- (3) a, b, c, d
- (4) Only a, b

145. Given below are two statements:

Statement I:

A typical angiosperm anther is bilobed, dithecous and bisporangiate

Statement II:

Microsporangia develop further and become pollen sacs

Choose the correct answer from the option below

- (1) Both Statement I and Statement II are correct
- (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

146. In the given below example how many are dioecious animals:

Leech, Earthworm, Hookworm, Fasciola, Tapeworm, Nereis

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

147. Following features belong to

- A. Complete lacking of cell wall
- B. Anaerobic
- C. Smallest living cell
- D. Many of them are pathogenic to plants and animals

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

148. Karyogamy and meiosis occur in basidium produces _____ basidiospores

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

149. Given below are two statements:

Statement I:

Bioluminescence is well marked in ctenophores

Statement II:

Feather like gills are present in molluscs which help in respiration and excretion.

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

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

150. The phylum which exhibit organ-system level of body organisation and bilateral symmetry, triploblastic, metamerically segmented and coelomate animals:
- (1) Aschelminthes (2) Annelida
 - (3) Coelenterata (4) Mollusca
151. To which classes do the following animals belong:
- a-Petromyzon, b-Scoliodon, c-Pristis
- (1) a-Cyclostomata. b-Chondrichthyes, c-Chondrichthyes
 - (2) a-Osteichthyes, b-Chondrichthyes, c-Chondrichthyes
 - (3) a-Osteichthyes, b-Chondrichthyes. c- Osteichthyes
 - (4) a-Osteichthyes, b-Chondrichthyes. c-Cyclostomata
152. Which is the correct matching set:
- | Column-I | Column-II |
|--------------|-------------------|
| a. Pinctada | i. Tusk shell |
| b. Sepia | ii. Devil fish |
| c. Dentallum | iii. Pearl oyster |
| d. Octopus | iv. Cuttle fish |
- (1) a-iii, b-iv, c-i, d-ii
 - (2) a-i, b-ii, c-ii, d-iv
 - (3) ai, biii, c-ii, d-iv
 - (4) a-iv, b-ii, c-iii, d-i
153. Which subphylum is exclusively marine:
- (1) Echinodermata (2) Ctenophora
 - (3) Cephalochordata (4) All of these
154. In subphylum vertebrata notochord is replaced by a structure in the adults. This structure are
- (1) Cartilaginous vertebral column
 - (2) Bony vertebral column.
 - (3) Chitinous vertebral column
 - (4) Two of the above correct
155. Which one of the following pair of animal are jawless

- (1) Hagfish, petromyzon
- (2) Lamprey, myxine
- (3) Hagfish, Fighting fish
- (4) Two of the above are correct

156. In the given below example, How many animals. in which two chambered heart occurs:

Dog fish, Saw fish, Flying fish, Hyla, Bufo, Salamander, Clarias

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

157. How many statements are correct with reference. to class mammalia

- (A) Some of them have adapted to fly or live in water.
- (B) Respiration is by book gills
- (C) Sexes are separate and fertilisation is external
- (D) Different types of teeth are present in the jaw
- (E) Heart is a two chambered
- (F) They are cold blooded

- (1) A, B, C (2) A. B. C. E
- (3) A. D (4) All of these

158. How many statements. incorrect with respect to class reptilia

- (A) Creeping or crawling mode of locomotion
 - (B) They are mostly terrestrial animal
 - (C) They have external ear opening
 - (D) Snakes and lizard shed their scales cast skin
 - (E) Limbs when present are two pairs
 - (F) Heart is usually four chambered but three chambered in crocodile
 - (G) They are Homoiotherms
- (1) A, B, C, D, G (2) A, B, D, E
 - (3) A, C, E, F (4) Only C, F and G

159. Given below are two statements:

Statement 1:

Chondrichthyes are marine water but migrate for spawning to fresh water.

Statement II:

Chondrichthyes have 6-15 pairs of gill slits for respiration which are covered by an operculum

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.

160. Match the following:

Column-I	Column-II
A. Hippocampus	i. Fighting fish
B. Beta	ii. Sea horse
C. Clarias	iii. Rohu
D. Labeo	iv. Magur

- (1) A-ii; B-i; C-iv; D-iii
 (2) A-iii; B-i; C-iv; D-ii
 (3) A-i; B-ii; C-iv; D-iii
 (4) A-i; B-iv; C-ii; D-iii

161. Malpighian tubules are:

- (1) Excretory organ of arthropoda
 (2) Excretory organ of annelids
 (3) Respiratory organ of insects
 (4) Respiratory organ of annelids

162. Identify diagram and select correct option for diagram:



- (1) Nereis-Dioecious, Parapodia
 (2) Nereis-Monoecious, Nephridia
 (3) Hirudinaria-Monoecious, Nephridia
 (4) Hirudinaria-dioecious, Parapodia

163. Select the correct statements with reference to sponge:

- a. These are primitive multicellular animals and have cellular level of organization
 b. Sponges have a water canal system
 c. Sponges reproduce sexually by fragmentation and asexually by formation of gametes
 d. Choanocytes or collar cells line the spongocoel and the canals.

- (1) a, b & c (2) a & b

- (3) a, b & d (4) only c

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

Column – I	Column-
A. Wings	i. Reptiles
B. Operculum	ii. Chondrichthyes
C. Scutes	iii. Birds
D. Cartilaginous	iv. Osteichthyes

- (1) A-iii, B-iv, C-4, D-ii
 (2) A-i, B-ii, C-iv, D-iii
 (3) A-iv, B-, C-, D-ii
 (4) A-iii, B-ii, C-iv, D-i

165. Which of the following is correctly matched:

- (1) Bilateral symmetry-Coelenterates
 (2) Coelomates-Mollusca
 (3) Metamerism- Aschelminthes
 (4) Triploblastic-Sponges

166. Which one of the following is not a characteristics of phylum annelida

- (1) Ventral nerve cord
 (2) Pseudocoelomate
 (3) Closed circulatory system
 (4) Segmentation

167. Which one of the following kinds of animals. triploblastic:

- (1) Ascaris (2) Ctenophores
 (3) Pennatula (4) Sponges

168. How many animal show the homolothermous Canis, Felis, Alligator, Chelone, corvus, Rana, Salamandar, Panthera leo, macropus calotes, crocodile etc.

- (1) 3 (2) 5
 (3) 11 (4)

169. Which one of the following organism is kne sea cucumber

- (1) Echinus (2) Cucumaria
 (3) Antedon (4) Ophiura

170. Select the correct statements for amphibia:

- (1) They have eyelids
 (2) Tympanum represent the ear
 (3) They are viviparous
 (4) 1 and 2 both

171. Choose the economically important insects:

- (1) Honey bee (2) Silkworm
 (3) Lac insect (4) All of these

172. In phylum porifera, water transport is helpful in

- (1) Food gathering

- (2) Respiratory exchange
- (3) Removal of waste
- (4) All of these

173. Which of the following statement is incorrece regarding to phylum porifera:

- (1) The body is supported by a skelet spicules or spongin fibres
- (2) Sponges have a water transport or canal system
- (3) Choanocytes or collar cells line the spongocoel and the canals
- (4) None of these

174. Match the following columns

- | Column-A | Column-B |
|----------------------------|-------------|
| (a) Columba | i. Vulture |
| (b) Psittacula | ii. Penguin |
| (c) Aptenodytes | iii. Parrot |
| (d) Neophron | iv. Pigeon |
| (1) a-i, b-ii, c-iii, d-iv | |
| (2) a-iii, b-iv, c-i, di | |
| (3) a-iv, b-ii, c-ii, d-i | |
| (4) a-ii, bi, c-iv, d-ii | |

175. Mammary glands are found in:

- (1) Pteropus
- (2) Balaenoptera
- (3) Ornithorhynchus
- (4) All the above

176. Pneumatic bone is present:

- (1) Naja
- (2) Pteropus
- (3) Psittacula
- (4) Salamander

177. Match the following column:

- | Column-I | Column-II |
|----------------|-----------------------|
| A. Bufo | i. Frog |
| B. Hyla | ii. Tree frog |
| C. Ichthyophis | iii. Toad |
| D. Rana | iv. Limbless amphibia |

- (1) A-i, B-ii, Ciii, D-iv
- (2) A-, B-, C-ii, D-iv
- (3) A-iii, B-ii, C-iv, D-i
- (4) A-iv, B-iii, C-ii, D- i

178. Jawless vertebrate

- (1) Petromyzon
- (2) Lamprey
- (3) Myxine
- (4) All of these

179. In phylum porifera, water transport is helpful in

- (1) Food gathering
- (2) Respiratory exchange
- (3) Removal of waste
- (4) All of these

180. Which of the following statement is incorrece regarding to phylum porifera:

- (1) The body is supported by a skelet spicules or spongin fibres

- (2) Sponges have a water transport or canal system
- (3) Choanocytes or collar cells line the spongocoel and the canals
- (4) None of these