

NEET Part Test-02

PHYSICS

TOPIC COVERED

Physics:	Work, Energy and Power, System of Particles and Rotational Motion, Gravitation
Chemistry:	Chemical Bonding and Molecular Structure, States of Matter, Thermodynamics
Botany:	Morphology of Flowering Plants, Anatomy of Flowering Plants, Cell, The Unit of Life
Zoology:	Digestion and Absorption, Breathing and Exchange of Gases

Duration: 3 hr 20 min

Max Marks: 720

General Instructions:

- The test will contain 200 Questions of Physics, Chemistry, Botany, and Zoology & The test will be objective type. (Attempt only 180).
- Every subject contains two Part A- 35 Questions and Part B-15 Questions (Attempt only 10).
- All 35 Questions of Part-A are Compulsory to attempt
- Time given for test is 200 minutes..
- Marking is +4 for every correct answer, – 1 for every wrong answer.
- You can reattempt the test in case of any technical issue.
- Test will start at 2:00 pm and students can attempt test at any time of their own preferences

SECTION - A

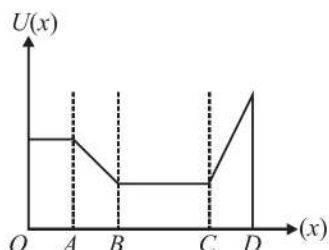
1. Two masses m_1 and m_2 ($m_1 > m_2$) are kept r distance apart. If they experience F_1 and F_2 forces due to mutual gravitational interaction then

- (1) $\frac{F_1}{F_2} > 1$ (2) $\frac{F_1}{F_2} < 1$
 (3) $\frac{F_1}{F_2} = 1$ (4) $\frac{F_1}{F_2} \geq 1$

2. When a satellite revolves in an elliptical orbit, its

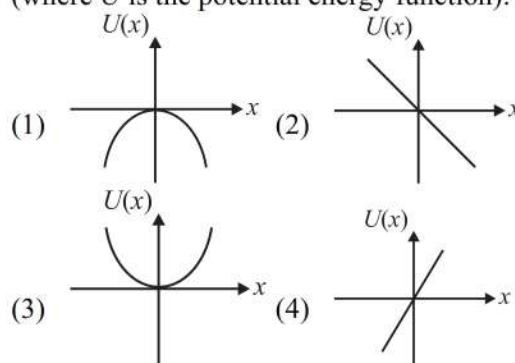
- (1) KE remains constant but PE varies
 (2) KE varies while PE remains constant
 (3) KE as well as PE remain constant
 (4) KE as well as PE vary with position

3. The figure gives the potential energy function $U(x)$ for a system in which a particle is in one-dimensional motion. In which region the magnitude of the force on the particle is greatest:



- (1) OA
 (2) AB
 (3) BC
 (4) CD

4. A particle is placed at the origin and a force $F = kx$ is acting on it (where k is positive constant). If $U(0) = 0$, the graph of $U(x)$ versus x will be (where U is the potential energy function):



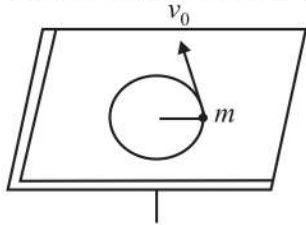
5. A mass of 5 kg is moving along a circular path of radius 1 m. If the mass moves with 300 rev min^{-1} , its kinetic energy would be

- (1) $250 \pi^2$ (2) $100 \pi^2$
 (3) $5 \pi^2$ (4) 0

6. A particle of mass m moving in the x -direction with speed $2v$ is hit by another particle of mass $2m$ moving in the y -direction with speed v . If the collision is perfectly inelastic, the percentage loss in the energy during the collision is close to

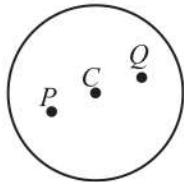
- (1) 56% (2) 62%
 (3) 44% (4) 50%

7. A mass m moves in a circle on a smooth horizontal plane with velocity v_0 at radius R_0 . The mass is attached to string which passes through a smooth hole in the plane as shown.

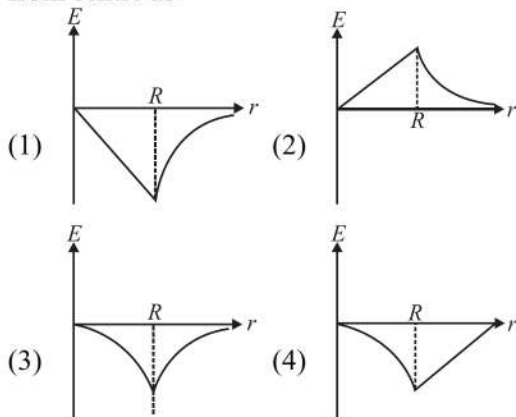


The tension in the string is increased gradually and finally mass m moves in a circle of radius $R_0/2$. The final value of the kinetic energy is

- (1) $\frac{1}{4}mv_0^2$ (2) $2mv_0^2$
 (3) $\frac{1}{2}mv_0^2$ (4) mv_0^2
8. A disc is rolling (without slipping) on a horizontal surface C is its centre and Q and P are two points equidistant from C . Let V_p , V_q and V_c be the magnitude of velocities of point P , Q and C respectively, then



- (1) $V_Q > V_C > V_P$
 (2) $V_Q < V_C < V_P$
 (3) $V_Q = V_P, V_C = \frac{1}{2}V_P$
 (4) $V_Q < V_C > V_P$
9. The gravitational field strength due to a solid sphere (mass M , radius R) varies with distance r from centre as



10. If three equal masses m are placed at the three vertices of an equilateral triangle of side l_m then what force acts on a particle of mass $2m$ placed at the centroid?
- (1) Gm^2 (2) $2Gm^2$
 (3) Zero (4) $-Gm^2$

11. The height at which the acceleration due to gravity becomes $g/9$ (where g = the acceleration due to gravity on the surface of the earth) in terms of R , the radius of the earth, is

- (1) $\frac{g}{9}$ (2) $R/2$
 (3) $\sqrt{2}R$ (4) $2R$

12. If the angular momentum of a particle of mass m rotating along a circular path of radius r with uniform speed is L , the centripetal force acting on the particle is

- (1) $\frac{L^2}{mr^3}$ (2) $\frac{L^2}{mr}$
 (3) $\frac{L}{mr}$ (4) $\frac{L^2 m}{r}$

13. A bob of mass m attached to an inextensible string of length l is suspended from a vertical support. The bob rotates in a horizontal circle with an angular speed ω rad/s about the vertical. About the point of suspension.

- (1) angular momentum is conserved.
 (2) angular momentum changes in magnitude but not in direction.
 (3) angular momentum changes in direction but not in magnitude
 (4) angular momentum changes both in direction and magnitude

14. A particle moves along x -axis from $x = 0$ to $x = 5$ m, under a variable force $F = 7 - 2x + 3x^2$ N. The work done in the process is

- (1) 70 J (2) 270 J
 (3) 35 J (4) 135 J

15. A man weighting 60 kg lifts a body of 15 kg to the top of a building 10 m high in 3 minutes. His efficiency is

- (1) 10% (2) 20%
 (3) 30% (4) 40%

16. The relation between the displacement x and the time t for a body of mass 2 kg moving under the action of a force is given by $x = \frac{t^3}{3}$, where x is in meter and t in second. The work done by the body in the first 2 second is

- (1) 1600 J (2) 160 J
 (3) 16 J (4) 1.6 J

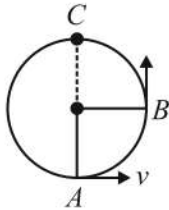
17. A body having a moment of inertia of 1.2 kg m^2 about an axis is at rest. In order to produce in it rotational kinetic energy of 1500 J, an angular acceleration of 25 rad s^{-2} about that axis must be imposed for a duration of

- (1) 4 s (2) 10 s
 (3) 2 s (4) 8 s

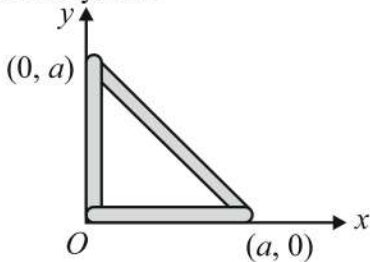
18. A ball is confined to move along a circular path with decreasing speed. Hence
- (1) Its acceleration \vec{a} is towards the centre
 - (2) Its angular momentum \vec{j} about the centre is conserved
 - (3) Only the direction of \vec{j} is conserved
 - (4) It moves in a spiral path with decreasing radius

19. In an inelastic collision of two bodies, the quantities which do not change after the collision are the
- (1) Total mass of the colliding bodies
 - (2) Total linear momentum
 - (3) Total energy of the system of two bodies
 - (4) All of these

20. A bob of mass m is suspended by a light string of length L . It is imparted a horizontal velocity v at the lowest point A . Such that it completes a semicircular trajectory in the vertical plane with the string becoming slack at point C , the ratio of kinetic energies at B and C is



- (1) 2/1
 - (2) 1/3
 - (3) 3/1
 - (4) 1/2
21. Three rods of the same mass are placed as shown in figure. What will be the coordinate of center of mass of the system?

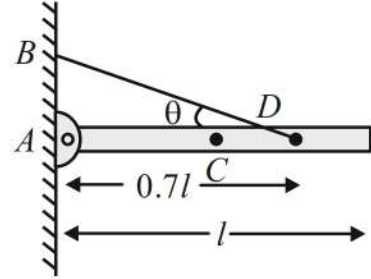


- (1) $(\frac{a}{2}, \frac{a}{2})$
- (2) $(\frac{a}{\sqrt{2}}, \frac{a}{\sqrt{2}})$
- (3) $(\frac{2a}{3}, \frac{a}{3})$
- (4) $(\frac{a}{3}, \frac{a}{3})$

22. A pendulum bob has a speed of 3 m/s at its lowest position, the pendulum is 0.5 m long. The speed of the bob when length makes an angle of 60° to the vertical is ($g = 10 \text{ m/s}^2$)
- (1) 2 m/s
 - (2) $\frac{1}{2}$ m/s
 - (3) $\frac{1}{3}$ m/s
 - (4) 2.5 m/s

23. For a body angular velocity $\vec{\omega} = \hat{i} - 2\hat{j} + 3\hat{k}$ and radius vector is $\vec{r} = \hat{i} + \hat{j} + \hat{k}$, then its linear velocity about the axis through origin is
- (1) $-5\hat{i} + 2\hat{j} + 3\hat{k}$
 - (2) $-5\hat{i} - 2\hat{j} + 3\hat{k}$
 - (3) $-5\hat{i} + 2\hat{j} - 3\hat{k}$
 - (4) $-3\hat{i} + 5\hat{j} + 2\hat{k}$

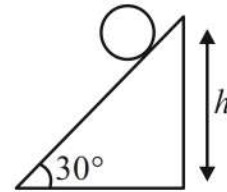
24. A uniform rod of length l and weight W is in equilibrium with the help of hinge A and string BD as shown in figure. The value of tension in the string is



- (1) $T = \frac{W}{\sin \theta}$
- (2) $T = \frac{5W}{7 \sin \theta}$
- (3) $T = \frac{7W}{5 \sin \theta}$
- (4) $T = \frac{W}{2 \sin \theta}$

25. A particle of mass m is moving with velocity $\vec{v} = v_0 \hat{i}$ on a line $y = \beta$. The angular momentum of the particle about origin is
- (1) $mv_0 \beta \hat{j}$
 - (2) $mv_0 \beta (-\hat{j})$
 - (3) $mv_0 \beta (-\hat{k})$
 - (4) $mv_0 \beta (\hat{k})$

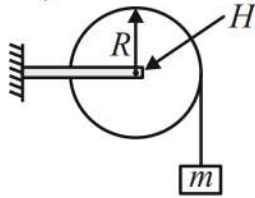
26. Disc releases from height h on smooth surface. Find the acceleration of center of mass of the disc.



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

27. Four particles of masses 2 kg, 3 kg, 4 kg and 5 kg are lying at the points $(0, 0, 0)$, $(3, 0, 0)$, $(0, 4, 0)$ and $(0, 0, 5)$ respectively, moment of inertia of this system about x -axis will be
- (1) 64 kg m^2
 - (2) 125 kg m^2
 - (3) 169 kg m^2
 - (4) 189 kg m^2

28. Calculate the torque acting on the disc in the given arrangement (radius of disc is 1 m and its mass is also m)



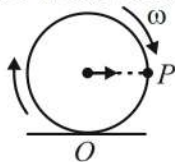
- (1) $\frac{2mg}{3}$ (2) $\frac{mg}{3}$
 (3) mg (4) $\frac{4mg}{3}$
29. A solid cylinder of mass 10 kg and radius 15 cm is rolling perfectly on a plane of inclination 30° , the inclination θ of the plane is increased. The value of θ at which cylinder begins to skid and not roll perfectly ($\mu_s = 0.25$)
- (1) $\tan \theta = 4/3$ (2) $\tan \theta = 3/4$
 (3) $\tan \theta = 4/5$ (4) $\tan \theta = 3/5$

30. A thin circular ring of mass M and radius r is rotating about its axis through centre and normal to plane with an angular speed ω . Two particles having mass m each are now attached at diametrically opposite points. The angular speed of the ring will become
- (1) $\frac{\omega M}{M + m}$ (2) $\frac{\omega M}{M + 2m}$
 (3) $\frac{\omega(M - 2m)}{M + 2m}$ (4) $\frac{\omega(M - 2m)}{M}$

31. If the equation for the displacement of a particle moving on a circular path is given as $\theta = 2t^3 + 0.5$ where θ is in radians and t in second. Then the angular acceleration of the particle after 2 second will be
- (1) 36 rad/s^2 (2) 8 rad/s^2
 (3) 24 rad/s^2 (4) 48 rad/s^2

32. A body rolling on inclined plane. If its kinetic energy of rotational motion is 40% of translatory kinetic energy, then the body is
- (1) Solid sphere (2) Spherical shell
 (3) Cylinder (4) Ring

33. A circular disc of radius r is rolling on a horizontal surface without slipping. For a particle at position P , the linear velocity will be



- (1) $r\omega$ directed vertically downward
 (2) $\sqrt{2}r\omega$ directed vertically downward
 (3) $r\omega$ directed towards the centre of disc
 (4) $\sqrt{2}r\omega$ at 45° with vertical downward

34. Two springs have force constants k_1 and k_2 . Both are stretched till their elastic energies are equal. If the stretching forces are F_1 and F_2 then $F_1 : F_2$ is
- (1) $k_1 : k_2$ (2) $k_2 : k_1$
 (3) $\sqrt{k_1} : \sqrt{k_2}$ (4) $k_1^2 : k_2^2$
35. Mr. Bansal (50 kg) and Mr. Kumar (60 kg) are sitting at the two extremes of a 4 m long boat (40 kg) standing still in water. To discuss a physics problem, they come to the middle of the boat. Neglect friction with water, how far does the center of mass of system move on the water during the process?
- (1) 13 cm (2) 11 cm
 (3) Zero (4) 15 cm

SECTION - B (ATTEMPT ANY 10 QUESTIONS)

36. A shell is fired from ground with a velocity v at an angle θ with the horizontal direction. At the highest point in its path, it explodes into two pieces of equal masses. One of the pieces retraces its path. The speed of the other piece immediately after the explosion is
- (1) $3v \cos \theta$ (2) $2v \cos \theta$
 (3) $3/2 v \cos \theta$ (4) $v \cos \theta$

37. Consider a system of two fixed point masses, each of mass m , separated by a distance a . If a particle of mass m' is to be projected from mid-point of the line joining the two masses, such that it escapes gravitational field of the masses. Minimum speed to be imparted to the particle (of mass m') is
- (1) $\sqrt{\frac{Gm}{a}}$ (2) $\sqrt{\frac{2Gm}{a}}$
 (3) $\sqrt{\frac{4Gm}{a}}$ (4) $\sqrt{\frac{8Gm}{a}}$

38. A particle on earth's surface is given a velocity equal to its escape velocity, its total mechanical energy will be
- (1) Negative
 (2) Positive
 (3) Zero
 (4) Infinite

39. Two point masses M and $2M$ are initially at distance very very large compared to their sizes. Considering gravitational interaction between the two masses, velocity of approach of the masses when they are at a distance d from each other is (Here G is universal gravitational constant)
- (1) $\sqrt{\frac{3GM}{d}}$ (2) $\sqrt{\frac{4GM}{d}}$
 (3) $\sqrt{\frac{6GM}{d}}$ (4) $\sqrt{\frac{8GM}{d}}$

40. A uniform solid cylindrical roller of mass 'm' is being pulled on a horizontal surface with force F parallel to the surface and applied at its centre. If the acceleration of the cylinder is 'a' and it is rolling without slipping then the value of 'F' is
- (1) ma (2) $5/3 ma$
 (3) $3/2 ma$ (4) $2 ma$

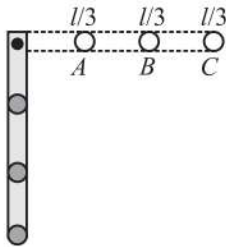
41. Consider a thin uniform square sheet made of a rigid material. If its side is 'a' mass m and moment of inertia I about one of its diagonals, then

(1) $I > \frac{ma^2}{12}$ (2) $\frac{ma^2}{24} < I < \frac{ma^2}{12}$
 (3) $I = \frac{ma^2}{24}$ (4) $I = \frac{ma^2}{12}$

42. The instantaneous angular position of a point on a rotating wheel is given by the equation $\theta(t) = 2t^3 - 6t^2$. The torque on the wheel becomes zero at

(1) $t = 1$ s (2) $t = 0.5$ s
 (3) $t = 0.25$ s (4) $t = 2$ s

43. A light rod carries three equal masses A , B and C as shown in the figure. What will be the velocity of B in the vertical position of the rod, if it is released from horizontal position as shown in the figure?



(1) $\sqrt{\frac{8g\ell}{7}}$ (2) $\sqrt{\frac{4g\ell}{7}}$
 (3) $\sqrt{\frac{2g\ell}{7}}$ (4) $\sqrt{\frac{10g\ell}{7}}$

44. A body of mass 0.5 kg travels in a straight line with velocity $v = ax^{3/2}$ where $a = 5 \text{ m}^{-1/2} \text{ s}^{-1}$. The work done by the net force during its displacement from $x = 0$ to $x = 2$ m is

(1) 1.5 J (2) 50 J
 (3) 50 J (4) 100 J

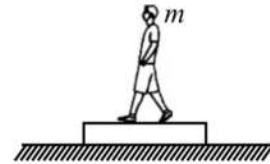
45. Radius of the curved road on national highway is R . Width of the road is b . The outer edge of the road is raised by h with respect to inner edge so that a car with velocity v can pass safely over it. The value of h is

(1) $\frac{v^2 b}{Rg}$ (2) $\frac{v}{Rg b}$
 (3) $\frac{v^2 R}{bg}$ (4) $\frac{v^2 b}{R}$

46. A body of mass 1 kg is moving in a vertical circular path of radius 1 m. The difference between the kinetic energies at its highest and lowest positions is

(1) 20 J (2) 10 J
 (3) $4\sqrt{5} \text{ J}$ (4) $10(\sqrt{5} - 1) \text{ J}$

47. A man of mass m is standing on a plank of equal mass m resting on a smooth horizontal surface. The man starts moving on the plank with speed u relative to the plank. The speed of the man relative to the ground is



(1) $2u$ (2) $u/2$
 (3) zero (4) $u/4$

48. A train of mass M is moving on a circular track of radius R with constant speed v . The length of the train is half of the perimeter of the track. The linear momentum of the train will be

(1) πMv (2) $2Mv/\pi$
 (3) $\pi Mv/2$ (4) Mv

49. Gravitational potential difference between a point on the surface of a planet and point 10 m above is 4 J/kg. Considering the gravitational field to be uniform, how much work is done in moving a mass of 2 kg from the surface to a point 5 m above the surface?

(1) 4 J (2) 5 J
 (3) 6 J (4) 7 J

50. A tube of length L is filled completely with an incompressible liquid of mass M and closed at both ends. The tube is then rotated in a horizontal plane about one of its ends with uniform angular speed ω . What is the force exerted by the liquid at the other end?

(1) $\frac{ML\omega^2}{2}$
 (2) $ML\omega^2$
 (3) $\frac{ML\omega^2}{4}$
 (4) $\frac{ML\omega^2}{8}$

CHEMISTRY

SECTION - A

51. The linear structure is assumed by
 (1) SnCl_2 (2) NCO^-
 (3) CS_2 (4) (2) and (3) both
52. Amongst NaCl , MgCl_2 , AlCl_3 , in which compound the percentage ionic character in the bonds is lowest.
 (1) AlCl_3 (2) MgCl_2
 (3) NaCl (4) (a, b) both
53. Which of the following compounds has the maximum s-character in its central atom?
 (1) CH_4 (2) XeO_3
 (3) $\text{Ni}(\text{CO})_4$ (4) all the above
54. Which of the following is correct about the dipole moment (μ) of NH_3 and NF_3 ?
 (1) $\mu(\text{NH}_3) < \mu(\text{NF}_3)$
 (2) $\mu(\text{NF}_3) < \mu(\text{NH}_3)$
 (3) $\mu(\text{NF}_3) = \mu(\text{NH}_3)$
 (4) $\mu(\text{NF}_3) = 2(\mu(\text{NH}_3))$
55. Which of the following species is paramagnetic?
 (1) NO^- (2) O_2^{2-}
 (3) CN^- (4) CO
56. PCl_3 and PCl_5 both exist but only PH_3 exists while PH_5 does not exist. This is because
 (1) H is less electronegative than P
 (2) the activation energy for the formation of PH_5 is very high
 (3) PH_5 immediately decomposes to PH_3 and H_2 because its equilibrium constant for the decomposition is very high
 (4) Cl is more electronegative than P while it is not so for H and P
57. Which of the following is not the right match?
 (1) CO_2 , irregular geometry
 (2) BF_3 , regular geometry
 (3) NH_3 , irregular geometry
 (4) SO_2 , irregular geometry
58. The molecule with the least dipole moment is
 (1) CHCl_3 (2) H_2O
 (3) NH_3 (4) CO_2
59. It is thought that atoms combine with each other such that the outermost orbit acquires a stable configuration of 8 electrons. If stability were attained with 6 electrons rather than with 8, what would be the formula of the stable fluoride ions?
 (1) F^{3+} (2) F^+
 (3) F^- (4) F^{2-}
60. The total number of π -electrons in the given compound $\text{OHC}-\text{C}\equiv\text{C}-\underset{\text{H}}{\underset{|}{\text{C}}}-\underset{\text{H}}{\underset{|}{\text{C}}}-\text{CHO}$ are
 (1) 6 (2) 8
 (3) 10 (4) 12
61. A diatomic molecule have a dipole moment of 1.92 D and a bond length of 2.0 Å. What is the percentage ionic character in the molecule if $e = 4.8 \times 10^{-10}$ esu?
 (1) 33% (2) 25%
 (3) 20% (4) 50%
62. There is more deviation in the behaviour of a gas from the ideal gas equation ($PV = nRT$) at
 (1) high temperature and low pressure
 (2) low temperature and high pressure
 (3) high temperature and low pressure
 (4) low temperature and low pressure
63. For three different gases, values of vander Waal's constant 'a' and 'b' are given. What is the correct order of liquefaction of gases:
- | Gases | 'a' | 'b' |
|--------------|-----|-------|
| X_2 | 1.3 | 0.090 |
| Y_2 | 4.1 | 0.023 |
| Z_2 | 2.2 | 0.075 |
- (1) $\text{X}_2 > \text{Y}_2 > \text{Z}_2$ (2) $\text{Y}_2 > \text{Z}_2 > \text{X}_2$
 (3) $\text{Z}_2 > \text{Y}_2 > \text{X}_2$ (4) $\text{X}_2 > \text{Z}_2 > \text{Y}_2$
64. A perfect gas of a given mass is heated first in a small vessel and then in a large vessel, such that their volume remains unchanged. The P-T curves are
 (1) Parabolic with same curvature
 (2) Parabolic with different curvature
 (3) Linear with same slope
 (4) Linear with different slope
65. At what temperature will be total kinetic energy of 0.3 mole of He be the same as the total kinetic energy of 0.40 mole of Ar at 400 K?
 (1) 400 K (2) 373 K
 (3) 533 K (4) 300 K
66. X mL of H_2 gas effuses through a hole in a container in 5 seconds. The time taken for the effusion of the same volume of the gas specified below under identical conditions is
 (1) 10 seconds : He
 (2) 20 seconds : O_2
 (3) 25 seconds : CO
 (4) 55 seconds : CO_2

67. A mixture of gases contains 55% nitrogen, 25% oxygen and 20% carbon dioxide by mole. The partial pressure of oxygen is 200 Torr. The partial pressure of carbon dioxide would be
 (1) 760 Torr (2) 800 Torr
 (3) 200 Torr (4) 160 Torr
68. At a constant temperature, what should be the percentage increase in pressure for a 5% decrease in the volume of gas?
 (1) 5% (2) 10%
 (3) 5.26% (4) 4.26%
69. At which of the following four conditions, the density of nitrogen will be largest?
 (1) STP
 (2) 273 K and 2 atm
 (3) 546 K and 1 atm
 (4) 546 K and 2 atm
70. The values of the Vander Waal's constant 'a' for N₂, O₂, C₂H₄ and NH₃ are 1.39, 1.32, 4.47 and 4.17 L² atm mole⁻² respectively. The gas which can most easily be liquified is
 (1) O₂ (2) N₂
 (3) NH₃ (4) C₂H₄
71. 0.5 mole of each of H₂, SO₂ and CH₄ are kept in a container. A hole was made in the container. After 3 hours, the order of partial pressures in the container will be
 (1) P_{SO₂} > P_{CH₄} > P_{H₂}
 (2) P_{H₂} > P_{SO₂} > P_{CH₄}
 (3) P_{CH₄} > P_{SO₂} > P_{H₂}
 (4) P_{CH₄} > P_{H₂} > P_{SO₂}
72. The enthalpies of combustion of C_(graphite) and C_(diamond) are -393.5 and -395.4 kJ/mol respectively. The enthalpy of conversion of C_(graphite) to C_(diamond) in kJ/mol is
 (1) -1.9 (2) -788.9
 (3) 1.9 (4) 788.9
73. Which one of the following statement is false?
 (1) work is a state function.
 (2) temperature is a state function.
 (3) work appears at the boundary of the system.
 (4) change in the state is completely defined when the initial and final states are specified.
74. The difference between heats of reaction at constant pressure and constant volume of the following reaction would be
 $2C_6H_6(l) + 15O_2(g) \longrightarrow 12CO_2(g) + 6H_2O(l)$ at 25°C in kJ mol⁻¹ is
 (1) -7.43 (2) +3.72
 (3) -3.72 (4) +7.43
75. The ΔH_f° for CO₂(g), CO(g) and H₂O(g) are -393.5, -110.5 and -241.8 kJ. mole⁻¹ respectively. The standard enthalpy change in kJ for the reaction, CO₂(g) + H₂(g) \longrightarrow CO(g) + H₂O(g) is
 (1) +524.1 (2) +41.2
 (3) -262.5 (4) -41.2
76. Using G_f^o(HI) = 1.3 kJ/mole, calculate the standard free energy change for the following reaction, H₂(g) + I₂(g) \longrightarrow 2HI(g).
 (1) 2.6 kJ/mole (2) 3.0 kJ/mole
 (3) 4.0 kJ/mole (4) 1.3 kJ/mole
77. Bond energies of (H-H), (O=O) and (O-H) are 105, 120 and 220 kcal/mol, respectively then ΔH of the reaction,
 $2H_2(g) + O_2(g) \longrightarrow 2H_2O(g)$
 (1) -115 kcal (2) -130 kcal
 (3) -118 kcal (4) -550 kcal
78. The heat of combustion of methane is -880 kJ mol⁻¹. If 3.2 g of methane is burnt
 (1) -176 kJ of heat is evolved
 (2) 176 kJ of heat is absorbed
 (3) 88 kJ of heat is evolved
 (4) None of the above
79. S(s) + 3/2 O₂(g) \longrightarrow SO₃(g) ; xKcals
 SO₂(g) + 1/2 O₂(g) \longrightarrow SO₃(g) ; yKcals
 What is the heat of formation of SO₂ (Kcals).
 (1) x - y (2) 2x + y
 (3) x + y (4) 2x/y
80. One mole of an ideal gas at 300 K is expanded isothermally from an initial volume of one litre to 10 litres. The ΔE for this process is
 (1) 16.7 cal (2) 1381.1 cal
 (3) 9 lit atm (4) Zero
81. A chemical reaction can not occur at all if its
 (1) ΔH value is positive and ΔS value is negative
 (2) ΔH value is negative and ΔS value is positive
 (3) ΔH and ΔS value are negative but $\Delta H > T\Delta S$
 (4) ΔH and ΔS value are positive but $\Delta H > T\Delta S$
82. The standard heat of combustion of solid boron is equal to
 (1) $\Delta H_f^\circ(B_2O_3)$ (2) $\frac{1}{2}\Delta H_f^\circ(B_2O_3)$
 (3) $2\Delta H_f^\circ(B_2O_3)$ (4) $-\frac{1}{2}\Delta H_f^\circ(B_2O_3)$
83. A system absorbs 500 kJ heat and performs 250 kJ work on the surroundings. The increase in internal energy of the system is
 (1) 750 kJ (2) 250 kJ
 (3) 500 kJ (4) 1000 kJ

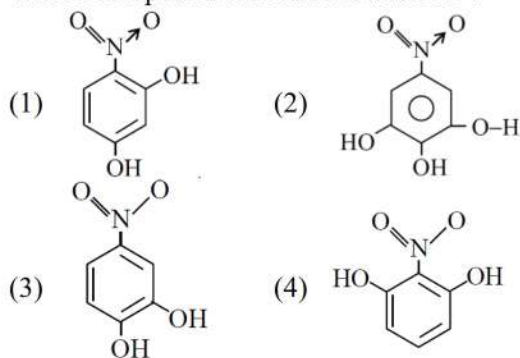
84. Temperature of 1 mole of a gas is increased by 1° at constant pressure. The work done is
 (1) R (2) 2R
 (3) R/2 (4) 3R
85. The enthalpy of neutralisation of four acids A, B, C, D with sodium hydroxide are -13.1 , -9.8 , -7.9 , and -10.3 kcal respectively. The weakest acid is
 (1) A (2) B
 (3) C (4) D

SECTION - B (ATTEMPT ANY 10 QUESTIONS)

86. The bond length in O_2^+ , O_2 , O_2^- and O_2^{2-} follows the order
 (1) $O_2^{2-} > O_2^- > O_2 > O_2^+$
 (2) $O_2^+ > O_2 > O_2^- > O_2^{2-}$
 (3) $O_2 > O_2^- > O_2^{2-} > O_2^+$
 (4) $O_2^- > O_2^{2-} > O_2^+ > O_2$

87. Which of the following is least ionic
 (1) AgCl (2) KCl
 (3) BaCl₂ (4) NaCl
88. Which of the following cannot be explained by V.B.T?
 (1) Existence of H_2^+
 (2) Paramagnetic behaviour of B_2
 (3) Stability of O_2^+
 (4) All of those

89. Which compound will have lowest B.P?



90. How many unpaired electrons are present in N_2^+ ?
 (1) 1 (2) 2
 (3) 3 (4) 4
91. Equal weights of ethane and hydrogen are mixed in an empty container at $25^\circ C$. The fraction of total pressure exerted by hydrogen is?
 (1) 1 : 2 (2) 1 : 1
 (3) 1 : 16 (4) 15 : 16

92. Two flasks A and B of one litre capacity each contain SO_2 and Br_2 gases respectively at 340 K and 1.5 atm. If number of Br_2 molecules in flask B is N, the total number of atoms in flask A will be
 (1) N (2) 2N
 (3) N/2 (4) 3N

93. The behaviour of a real gas is usually depicted by plotting compressibility factor Z versus P at a constant temperature. At high temperature and high pressure, Z is usually more than one. This fact can be explained by vander Waal's equation when:
 (1) The constant a is negligible and not b
 (2) The constant b is negligible and not a
 (3) Both the constants a and b are negligible
 (4) Both the constant a and b are not negligible

94. If b is the excluded volume then available volume for N molecules in VL container is

- (1) $(V - b)$ (2) $\left(V - \frac{No}{N}b\right)$
 (3) $\left(V - \frac{N}{No}b\right)$ (4) none of these
 (No = Avagadro's no.)

95. Which one of the following statement is correct ?
 (1) work is a extensive properties
 (2) temperature is a extensive properties.
 (3) 1 and 2 both are incorrect.
 (4) density is extensive properties

96. When 10 ml of a strong acid is added to 10 ml of an alkali, the temperature rises by $5^\circ C$. If 100 ml of each liquid is mixed, the temperature rise would be
 (1) $5^\circ C$ (2) $10^\circ C$
 (3) $2.5^\circ C$ (4) $0.5^\circ C$

97. In thermodynamics, a process is called reversible when
 (1) surroundings and system change into each other
 (2) there is no boundary between system and surroundings
 (3) the surroundings are always in equilibrium with the system
 (4) the system changes into the surroundings spontaneously

98. 16 g oxygen gas expands at STP to occupy double of its original volume. The work done during the process is
 (1) 260 kcal (2) 180 kcal
 (3) 130 kcal (4) 272 kcal

99. Which one is a state function –
 (1) Heat supplied at constant pressure
 (2) Heat supplied at constant volume
 (3) Enthalpy
 (4) All of the above

100. $q = -w$ is true for –
 (1) Isothermal process
 (2) Adiabatic process
 (3) Cyclic process
 (4) (1) and (3) both

BOTANY

SECTION - A

- 101.** Flower with radial symmetry is present in:
(1) Mustard and Pea
(2) Brinjal and Bean
(3) Cassia and China rose
(4) Mustard and chilli
- 102.** Modification of root for storage is:
(1) Sweet potato (2) Rhizophora
(3) Pumpkin (4) Papaya
- 103.** Mark the incorrect statement:
(1) Pea have diadelphous androecium
(2) Axile placentation present in tomato
(3) Unequal stamen present in bean
(4) Parietal placentation present in Mustard
- 104.** Consider the following statement, mark the correct:
(A) When lamina of leaf not show any incision, it is simple leaf
(B) Monocarpellary superior ovary is present in mango
Which is correct:
(1) only A (2) only B
(3) both A and B (4) both A and B wrong
- 105.** From given examples- sesbania, turnip, lily, mustard, sunhemp, plum, rose -
How many are Hypogynous:
(1) Three (2) Four
(3) Six (4) Five
- 106.** Solanum and chilli both are:
(1) Monadelphous (2) epipetalous
(3) zygomorphic (4) perigynous
- 107.** Seeds are non -endospermous in:
(1) Bean (2) Brinjal
(3) Lily (4) Maize
- 108.** Mark the incorrectly matched:
(1) Offset – Pistia
(2) Rhizome – Ginger
(3) Sucker – Water hyacinth
(4) Stolon – Mint
- 109.** Stem tendril and thorns both are modification of:
(1) Apical bud (2) Leaf
(3) Axillary bud (4) Root
- 110.** Free central placentation is present in:
(1) Primrose
(2) Mustard
(3) Tomato
(4) Pea
- 111.** Structure like tendrils in pea plants develop from modification of:
(1) Leaf (2) Stem
(3) Root (4) Branch
- 112.** In type of inflorescence floral axis shows indefinite or unlimited growth and also borne flower in acropetal manner:
(1) Racemose (2) Cymose
(3) Basipetal (4) Solitary
- 113.** Mark the correctly matched:
(1) Rhizome – Grass
(2) Prop root – Maize
(3) Respiratory root – Rhizophora
(4) Runner – Onion
- 114.** Meristem occur in grasses and regenerate parts removed by the grazing herbivores:
(1) Apical Meristem
(2) Secondary meristem
(3) Lateral Meristem
(4) Intercalary Meristem
- 115.** Simple permanent tissue which may either be closely packed or have small intercellular spaces:
(1) Collenchyma (2) Parenchyma
(3) Sclerenchyma (4) Meristem
- 116.** Which of the following is not feature of Sclerenchyma?
(1) Long, narrow cells with thick and lignified cell walls
(2) Having a few or numerous pits
(3) Living and abundant protoplast
(4) Usually dead and without protoplasts.
- 117.** Cell present in Xylem which have lignin:
(1) Fibre
(2) Tracheids, Fibre and vessels
(3) Fibre and vessels only
(4) Xylem parenchyma and Tracheids only
- 118.** Xylem in gymnosperms lacks:
(1) Tracheids and Vessels
(2) Vessels
(3) Xylem parenchyma
(4) Xylem fibre and Xylem parenchyma
- 119.** Starch grain occur in Endodermis of:
(1) Dicot stem (2) Dicot root
(3) Monocot leaf (4) Monocot stem

- 120.** Plants having Possibility of secondary growth are:
 (1) Grasses
 (2) All Angiosperms
 (3) Gymnosperm and Dicots
 (4) Bryophytes
- 121.** Which of the following is made up of dead cells after secondary growth?
 (1) Xylem parenchyma
 (2) Collenchyma
 (3) Cork
 (4) Cork cambium
- 122.** The vascular cambium not normally gives rise to:
 (1) Secondary Xylem
 (2) Secondary medullary rays
 (3) Secondary Phloem
 (4) Metaxylem
- 123.** Pericycle in root is the region found:
 (1) Between Endodermis and epidermis
 (2) Inside stele
 (3) Inside Pith
 (4) Inside vascular bundle
- 124.** Ground tissue not include:
 (1) Epidermis and pith
 (2) Epidermis and vascular bundle
 (3) Endodermis and Vascular bundle
 (4) Cortex and Secondary vascular bundle
- 125.** Identify the wrong statement in context of Springwood:
 (1) Appear when vascular cambium is more active
 (2) light in colour
 (3) Appear in both temperate and tropical region
 (4) Spring wood is secondary Xylem
- 126.** Inclusion bodies are structures with feature:
 (1) Double membrane
 (2) Having single lipid layer
 (3) Involve in protein synthesis
 (4) Storage role
- 127.** Which of the following pair of organelles does not contain membrane?
 (1) Mitochondria and Lysosomes
 (2) Chloroplast and Vacuoles
 (3) Ribosome and Nucleolus
 (4) Nuclear envelope and Mitochondria
- 128.** Which is the important site of formation of lipids and steroids in eukaryotic cells?
 (1) Peroxisomes
 (2) Golgi bodies
 (3) SER
 (4) RER
- 129.** Mesosome is structure in bacteria take part in:
 (1) Storage
 (2) Movement
 (3) Respiration
 (4) Photosynthesis
- 130.** Cytoskeletal elements involve in:
 (1) Motility and structural support
 (2) Storage and Sorting
 (3) Endocytosis
 (4) Transport of ions
- 131.** Mark the incorrectly matched:
 (1) Elaioplast – store oil or fat
 (2) Mitochondria – Cristae
 (3) Chloroplast – Granum
 (4) Amyloplast – Store protein
- 132.** The work on triple helical structure of collagen is done by:
 (1) Rudolf Virchow
 (2) Theodor Schwann
 (3) Schleiden
 (4) G.N Ramachandran
- 133.** Select the wrong statement:
 (1) Cyanobacteria lack chromatophore
 (2) Mycoplasma is a pathogenic to both plants and animals
 (3) Bacterial cell wall is made up of peptidoglycan.
 (4) Flagella are mainly involved in motility of bacterial cells
- 134.** Kinetochore is structure present on:
 (1) Mitochondria
 (2) Plasma membrane
 (3) Chromosome
 (4) Endoplasmic reticulum
- 135.** Location of ribosomes are:
 (1) Cytoplasm and Mitochondria matrix
 (2) Cytoplasm and ER lumen
 (3) Stroma of chloroplast and inside lysosome
 (4) Mitochondria cristae and grana of chloroplast
- SECTION - B (ATTEMPT ANY 10 QUESTIONS)**
- 136.** Polypeptide chain synthesis inside a cell takes place in:
 (1) Ribosomes (2) Peroxisome
 (3) SER (4) Chromoplast
- 137.** Leaves become modified into spines in:
 (1) Bougainvillea (2) Citrus
 (3) *Cactus* (4) Bean
- 138.** Standard, wings and keel petal are the characteristic feature of flower of:
 (1) Aloe (2) Tomato
 (3) Tulip (4) *Sesbania*

- 139.** Epigynous flowers are found in:
 (1) China rose (2) Rose
 (3) Guava (4) Mustard
- 140.** Ovary is half inferior in:
 (1) Cucumber (2) Rose
 (3) China rose (4) Coconut
- 141.** Flowers are unisexual in:
 (1) Pea (2) China rose
 (3) Tomato (4) Maize
- 142.** Centromere slightly away from the middle of the chromosome resulting into one shorter arm and one longer arm in chromosome:
 (1) telocentric (2) acrocentric
 (3) submetacentric (4) metacentric
- 143.** Which of the following is not role of golgi apparatus?
 (1) cell plate formation
 (2) sorting vesicles
 (3) lipid synthesis
 (4) lysosome formation
- 144.** Material of nucleus given name chromatin by:
 (1) Flemming (2) Porter
 (3) Robert brown (4) Mendel
- 145.** 9+0 arrangement of is present in centriole:
 (1) microfilaments (2) microtubule
 (3) tubulin (4) actin filament
- 146.** Identify the wrong statement:
 (1) Periderm include phellogen, phelloderm and phellem
 (2) Bulliform cell present in monocot leaf
 (3) Water filled cavity present in dicot stem
 (4) Monocot stem vascular bundle is conjoint
- 147.** If a transverse section of plant organ shows vascular bundle in ring and endarch:
 (1) Dicot stem (2) Monocot leaf
 (3) Dicot root (4) Monocot stem
- 148.** Which is absent in Primary Phloem:
 (1) Protophloem (2) Metaphloem
 (3) Phloem Fibre (4) Sieve tube
- 149.** Cork cambium and vascular cambium are examples of:
 (1) Intercalary meristem
 (2) Lateral meristem
 (3) Primary meristem
 (4) Apical meristem
- 150.** Bark includes all tissue except:
 (1) Pericycle (2) Secondary phloem
 (3) Cortex (4) Primary xylem

ZOOLOGY

SECTION - A

- 151.** What percentage of CO₂ flows in blood in form of bicarbonates?
(1) 7% (2) 23%
(3) 97% (4) 70%
- 152.** Oxygen dissociation curve of haemoglobin is
(1) Sigmoid (2) Hyperbolic
(3) Linear (4) Hypobolic
- 153.** 100 ml of blood can deliver _____ CO₂ to the alveoli-
(1) 20 ml (2) 4 ml
(3) 5 ml (4) 6.3 ml
- 154.** A molecule of haemoglobin can carry _____ oxygen molecule-
(1) 2 (2) 4
(3) 6 (4) 8
- 155.** Which of the following does not shift oxyhaemoglobin dissociation curve to towards right side?
(1) Low CO₂
(2) High CO₂
(3) High body temperature
(4) Low pH
- 156.** Match the column-A with Column-B
- | Column A | Column B |
|----------|------------|
| i. IRV | a. 1200 ml |
| ii. ERV | b. 1000 ml |
| iii. TV | c. 2500 ml |
| iv. RV | d. 500 ml |
- (1) i-c, ii-b, iii-d, iv-a
(2) i-a, ii-c, iii-d, iv-b
(3) i-b, ii-c, iii-a, iv-d
(4) i-d, ii-b, iii-d, iv-a
- 157.** The total volume of air accommodated in the lungs is
(1) IRV + TV + ERV
(2) ERV + TV + IRV + RV
(3) TV + IRV
(4) IRV + TV + RV
- 158.** The partial pressure of oxygen in alveolar air and oxygenated blood respectively:
(1) 40 mm Hg, 45 mm Hg
(2) 104 mm Hg, 95 mm Hg
(3) 159 mm Hg, 104 mm Hg
(4) 104 mm Hg, 40 mm Hg
- 159.** The conducting part of respiratory system extends upto-
(1) Terminal Bronchioles
(2) Respiratory Bronchioles
(3) Teritary Bronchi
(4) Alveoli
- 160.** The function of conducting part of respiratory system is/are-
(1) Clears air from foreign particles
(2) Humidifies air
(3) Brings air to body temperature
(4) All of the above
- 161.** The dorsal component of thoracic chamber is-
(1) Sternum
(2) Scapula
(3) Vertebral column
(4) Diaphragm
- 162.** Air that remains in lung even after most powerful expiration is
(1) Inspiratory reserve air
(2) Dead space air
(3) Tidal air
(4) Residual air
- 163.** Which factor is favourable for the formation of oxyhaemoglobin in the alveoli?
(1) High H⁺ concentration
(2) High pCO₂
(3) Lower temperature
(4) Low pO₂
- 164.** Enzyme trypsinogen is changed to trypsin by
(1) Gastrin
(2) Enterogastrone
(3) Enterokinase
(4) Secretin
- 165.** Lactose is composed of
(1) Glucose + galactose
(2) Glucose + fructose
(3) Glucose + glucose
(4) Glucose + mannose

- 166.** Which is correct about the bile of human?
- (1) It is synthesized by gall bladder & also stored there
 - (2) It is an enzyme which emulsify the fats
 - (3) It contain bile salts & bile pigments
 - (4) Bilirubin present in it decompose fats

- 167.** Trypsin differs from pepsin in that it digest:
- (1) Protein in alkaline medium in stomach
 - (2) Starch in acidic medium in duodenum
 - (3) Protein in alkaline medium in duodenum
 - (4) Protein in acidic medium in stomach

- 168.** Rennin is found in
- (1) Succus entericus
 - (2) Kidney
 - (3) Pancreatic juice
 - (4) Gastric juice in stomach

- 169.** Trypsin is secreted by
- | | |
|--------------|--------------------|
| (1) Pancreas | (2) Stomach |
| (3) Liver | (4) Gastric glands |

- 170.** Ptyalin is secreted by
- (1) Stomach
 - (2) Salivary gland
 - (3) Pancreas
 - (4) Gastric gland

- 171.** Functional unit of liver
- (1) Hepatocyte
 - (2) Hepatic lobe
 - (3) Hepatic lobule
 - (4) Hepatic sinusoid

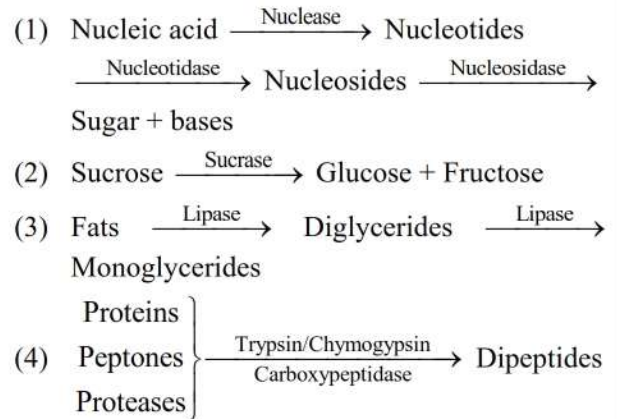
- 172.** Chylomicrons are concerned with:
- (1) Absorption of carbohydrates
 - (2) Absorption of proteins
 - (3) Digestion of protein
 - (4) Absorption of fats

- 173.** How many of the given structures in the box below are surrounded by incomplete cartilaginous rings?

Trachea, Pharynx, 2° Bronchi,
1° Bronchi, Alveoli

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

- 174.** Which of the following processes is added by the bile salts:-



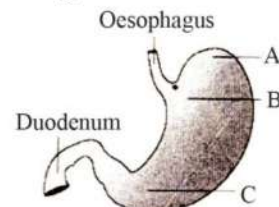
- 175.** Normal inspiration involves contraction of which of the given muscles?

- a. Diaphragm
 - b. External intercostals
 - c. Internal intercostals
 - d. Abdominals
- | | |
|----------|----------|
| (1) a, c | (2) a, d |
| (3) b, d | (4) a, b |

- 176.** About 30% of dietary starch is digested in:-

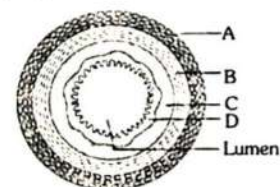
- | | |
|---------------------|-------------|
| (1) Buccal cavity | (2) Stomach |
| (3) Small intestine | (4) Colon |

- 177.** Anatomical regions of human stomach are:



- (1) A-Fundus; B-Pyloric; C-Cardia
- (2) A-Cardia; B-Fundus; C-Pyloric
- (3) A-Fundus; B-Cardia; C-Pyloric
- (4) A-Pyloric; B-Fundus; C-Cardia

- 178.** The below diagram represents the TS of gut. Identify A, B, C and D:



- (1) A-Serosa; B-Muscularis; C-Submucosa; D-Mucosa
- (2) A-Muscularis; B-Serosa; C-Submucosa; D-Mucosa
- (3) A-Serosa; B-Muscularis; C-Mucosa; D-Submucosa
- (4) A-Serosa; B-Submucosa; C-Muscularis; D-Mucosa

179. Enzyme maltase in human gut acts on food at a pH of-
- (1) More than seven to change starch into glucose
 - (2) Less than 7 to change starch into maltose
 - (3) More than 7 to change maltose into glucose
 - (4) Less than 7 to change maltose into glucose
180. Which one is not an enzyme of digestive system?
- (1) Enterokinase
 - (2) Dipeptidase
 - (3) Trypsin
 - (4) Enterogasterone
181. In the basic histology of human gut, muscularis layer of stomach is having an additional layer of which muscle fibres?
- (1) Circular muscle fibres
 - (2) Longitudinal muscle fibres
 - (3) Oblique muscle fibres
 - (4) Skeletal muscle fibres
182. Most of the digestive glands are present in the mucosa **except**
- (1) Globlet cells
 - (2) Crypts of Lieberkuhn
 - (3) Brunner's Gland
 - (4) Gastric gland
183. How much amount of oxygen is delivered by 100 ml of oxygenated blood to the body tissues under normal physiological conditions?
- (1) 20 ml
 - (2) 5 ml
 - (3) 15 ml
 - (4) 10 ml
184. At what pO_2 , does 50% of haemoglobin get saturated under normal condition in humans?
- (1) 10-15 mm Hg
 - (2) 27-30 mm Hg
 - (3) 37-40 mm Hg
 - (4) 45 – 50 mm Hg
185. Choose the symptom which occurs in kwashiorkor but absent in marasmus
- (1) Growth inhibition
 - (2) Wasting of muscles
 - (3) Oedema of limbs
 - (4) Depletion of subcutaneous layer of fat
187. Nucleases like DNase and RNase are found
- (1) Gastric juice
 - (2) Intestinal juice
 - (3) Pancreatic juice
 - (4) Saliva
188. Factor essential for absorption of vitamin B_{12} is produced by
- (1) Mucus neck cells
 - (2) Peptic cells
 - (3) Parietal cells
 - (4) Chief cells
189. The secretion of the brush border cells along with secretions of goblet cells present in the mucosa of small intestine constitutes:-
- (1) Chyme
 - (2) Chyle
 - (3) Succus entericus
 - (4) interstitial fluid
190. Optimum pH of saliva is:-
- (1) 6.8
 - (2) 8.6
 - (3) 8.0
 - (4) 7.6
191. Diffusion membrane involves all of the following layers **except**
- (1) Squamous epithelium of alveoli
 - (2) Endothelium of pulmonary capillaries
 - (3) Endothelium of systemic capillaries
 - (4) Basement substance
192. Vital capacity is represented by all **except**
- (1) $TV+ERV + IRV$
 - (2) $EC + IRV$
 - (3) $IC + ERV$
 - (4) $RV + TLC$
193. Following are some structures associated with alimentary canal of man
- (a) Rugae
 - (b) Microvilli in epithelium of villi
 - (c) Pyloric sphincter
 - (d) Villi
- Which of the given structures increases absorptive surface area?
- (1) (d) only
 - (2) (a), (b) and (d)
 - (3) (a), (b) and (c)
 - (4) (c) and (d)
194. Find the **incorrect** statement
- (1) Diphyodont is a type of dentition where milk teeth are replaced by permanent teeth
 - (2) Some of the papillae on tongue bear taste buds
 - (3) Cardiac sphincter regulates the opening of stomach into duodenum
 - (4) Caecum hosts some symbiotic micro-organisms

SECTION - B (ATTEMPT ANY 10 QUESTIONS)

186. Gross calorific value of protein is
- (1) 5.65 k cal/g
 - (2) 4.0 k cal/g
 - (3) 4.1 k cal/g
 - (4) 9.1 k cal/g

195. Which of the following is a common passage for air and food?
(1) Larynx
(2) Trachea
(3) Pharynx
(4) Nostrils
196. Which of the given factor favours the dissociation of CO₂ from carbamino haemoglobin?
(1) High pCO₂, low pO₂ – In tissue
(2) Low pCO₂, high pO₂ – In alveoli
(3) Low pO₂, high pCO₂ – In alveoli
(4) High pO₂, high pCO₂ – In alveoli
197. The enzyme carbonic anhydrase facilitates which of the given reactions?
(a) $\text{CO}_2 + \text{H}_2\text{O} \longrightarrow \text{H}_2\text{CO}_3$
(b) $\text{H}_2\text{CO}_3 \longrightarrow \text{HCO}_3^- + \text{H}^+$
(c) $\text{H}_2\text{CO}_3 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$
(d) $\text{HCO}_3^- + \text{H}^+ \longrightarrow \text{H}_2\text{CO}_3$
(1) (a), (d) only (2) (b), (c) only
(3) (a), (c) only (4) (a), (b), (c), (d)
198. Which of the following disease is characterised by proliferation of fibrous connective tissue in upper part of lungs?
(1) Asthma
(2) Emphysema
(3) Bronchitis
(4) Occupational respiratory disease
199. Select the **incorrect** statement
(1) Concentration of CO₂ in veins and oxygen in arteries regulate the respiratory rhythms in humans
(2) In emphysema, there is damage to the alveolar walls and decrease in total respiratory surface area
(3) Carbamino-haemoglobin result from association of CO₂ with haemoglobin
(4) Human beings have a significant ability to maintain and moderate the respiratory rhythms
200. Food thoroughly mixed with acidic gastric juice of the stomach is called
(1) Chyle (2) Bolus
(3) Chyme (4) Faeces