RAVI MATHS TUITION CENTRE , WHATSAPP - 8056206308

Time : 180 Mins **NEET MOCK TEST 7 1** **Marks : 728**

1. If an engine delivers 9.5 x 10^6 J of work per hour and absorbs 6.2 x 10^7 J of heat per hour, then the amount of heat wasted per hour is:
   a) 6.95 x 10^7 J b) 5.25 x 10^7 J c) 8.55 x 10^7 J d) 9.55 x 10^7 J
2. The position of the centre of mass of a cube of uniform mass density will be at
   a) the centre of one face b) the centre of the interaction of diagonals of one face
   c) the geometric centre of the cube d) the edge of a cube
3. Two friends A and B are waiting for another friend for tea. A took the tea in a cup and mixed the cold milk and then waits. B took the tea in the cup and then mixed the cold milk when the friend comes. Then the tea will be hotter in the cup of :
   a) A b) B c) tea will be equally hot in both cups d) friend's cup
4. A magnet can be completely demagnetised by
   a) breaking the magnet into small pieces b) heating it slightly c) dropping it into ice cold water
   d) a reverse field of appropriate strength
5. A force of 5N acts on a body of weight 9.8 N. What is the acceleration produced in m/sec^2.
   a) 49.00 b) 1.46 c) 5.00 d) 0.51
6. Colours of thin soap bubbles are due to _____.
   a) refraction b) dispersion c) interference d) diffraction
7. Five equal forces of 10 N each are applied at one point and all are lying in one plane. If the angles between them are equal, the resultant force will be:
   a) zero b) 10 N c) 20 N d) $10\sqrt{2}$ N
8. Which of the following relations is dimensionally correct?
   a) 1 u = 931.5 MeV b) 1 u = 931.5 MeV/c^2 c) l u = 1.67 x $l0^{-27}$J d) None of these
9. In isothermal process, which of the following is not true?
   a) Internal energy does not change b) No heat enters or leaves the system c) None of the above
   d) Temperature remains constant
10. Two concentric shells have masses M and m and their radii are R and r respectively, where R > r. What is the gravitational potential at their common centre?
    a) $-\frac{GM}{R}$ b) $-\frac{GM}{r}$ c) $-G[\frac{M}{R}-\frac{m}{r}]$ d) $-G[\frac{M}{R}+\frac{m}{r}]$
11. We combine two lenses, one is convex and other is concave having focal lengths f_1 and f_2 and their combined focal length is F. Combination of the lenses will behave like concave lens, if
    a) $f_1 > f_2$ b) $f_1 = f_2$ c) $f_1 < f_2$ d) $f_1 \leq f_2$
12. The extra power required is:
    a) 0.4 watt b) 0.08 watt c) 0.04 watt d) 0.2 watt
13. (A) A hydrogen filled balloon stops rising after it has attained a certain height in the sky.
    (R) The atmosphere pressure decreases with height and becomes zero when maximum height is attained by hydrogen balloon.
    a) If both assertion and reason are true and reason is the correct explanation of assertion
    b) If both assertion and reason are true but reason is not the correct explanation of assertion

c) If assertion is true but reason is false d) If both assertion and reason are false

e) If assertion is false but reason is true

14. The direction of wavefront of a wave with the wave motion is
a) parallel b) perpendicular c) opposite . d) at an angle of θ

15. A weightless thread can bear tension upto 37 N. A stone of mass 500 g is tied to it and revolved in a circular path of radius 4 m in a vertical plane. If g = 10 ms $^{-2}$ then, the maximum angular velocity of the stone will be:
a) 2 rad s^{-1} b) 4 rad s^{-1} c) 8 rad s^{-1} d) 16 rad s^{-1}

16. When an electric dipole p is placed in a uniform electric field E,then at what angle between p and E the value of torque will be maximum?
a) 90º b) 0º c) 180º d) 45º

17. The angular velocity of the body changes from ω_1 to ω_2 without applying torque but by changing moment of inertia. The initial radius of gyration to the final radius of gyration is:
a) $\omega_2 : \omega_1$ b) $\omega_2^2 : \omega_1^2$ c) $\sqrt{\omega_2} : \sqrt{\omega_1}$ d) $\frac{1}{\omega_2} : \frac{1}{\omega_1}$

18. The relative permeability of a substance is 0.9999. The nature of substance will be
a) diamagnetic b) paramagnetic c) magnetic moment d) intensity of magnetic field

19. In a progressive wave along X-direction, at a particular location, the particles of the medium are executing:
a) oscillatory motion b) rectilinear motion c) rotational motion d) none of these

20. C and Si both have same lattice structure, having 4 bonding electrons in each. However, C is insulator whereas Si is intrinsic semiconductor. This is because:
a) In case of C the valence band is not completely filled at absolute zero temperature.
b) In case of C the conduction band is partly filled even at absolute zero temperature.
c)
The four bonding electrons in the case of C lie in the second orbit, whereas in the case of Si they lie in the third.
d) The four bonding electrons in the case of C lie in the third orbit, whereas for Si they lie in the fourth orbit.

21. During an experiment an ideal gas is found to obey an additional law VP^2 = constant. The gas is initially at temperature T and volume V, when it expands to volume 2V, the resulting temperature is
a) T/2 b) 2T c) $\sqrt{2}$T d) T/$\sqrt{2}$

22. A cylinder of radius ris filled with water upto a height h, so that thrust on the walls is equal to that on bottom, then it is equal to
a) $\frac{R}{2}$ b) R c) $\frac{R}{3}$ d) $2R$

23. A blast gives a sound of intensity 0.8 W/m^2 and frequency 1kHz. If the density of air is 1.3 kg/m^3 and speed of sound in air is 330 m/s, the amplitude of the sound wave is approximately:
a) 5 x 10^{-6} m b) 9.7 x 10^{-6} m c) 15 x 10^{-6} m d) 20 x 10^{-6} m

24. If the angles of projection of a projectile with same initial velocity exceed or fall short of 45° by equal amounts a, then the ratio of horizontal ranges is:
a) 1 : 2 b) 1 : 3 c) 1 : 4 d) 1 : 1 e) 1 : $\sqrt{2}$

25. If there are N atoms in a source of Laser light and each atom is emitting light with intensity I, then the total intensity produced by it is
a) NI b) N^{2}I c) N^{3}I d) N^{4}I

26. A trader sells his articles weighing equal quantities from the two pans of a balance having unequal arms. Then he:
a) loses b) gains c) neither loses nor gains d) nothing can be said with certainty

27. A heavy rope is suspended from a rigid sur-port. A wave pulse is set up at the lower end; then:
a) the pulse will travel with uniform speed b) the pulse will travel with increasing speed
c) the pulse will travel with decreasing speed d) the pulse cannot travel through the rope

28. Which one of the following is not a conservative force?
a) Force of friction b) Magnetic force c) Gravitational force d) Electrostatic force

29. Three particles are projected vertically upward from a point on the surface of earth with velocities $v_1 = \sqrt{\frac{2gR}{3}}; v_2 = \sqrt{gR}; v_3 = \sqrt{\frac{4gR}{3}}$ respectively, where g is acceleration due to gravity on the surface of earth. If the maximum height attained are $h_1 > h_2$ and h_3 respectively, then $h_1 : h_2 : h_3$ is
a) 1:2:3 b) 2:3:4 c) 1:2:4 d) 1:3:5

30. Two mirrors are kept at 60° to each other and a body is placed at the middle. The total number of images formed are
a) six b) four c) five d) three

31. A block slides with a velocity of 10 mls on a rough horizontal surface. It comes to rest after covering a distance of 50 metres. If g is 10 m/sec^2, then the coefficient of dynamic friction between the block and the surface is:
a) 0.1 b) 1 c) 10 d) 5

32. An interference pattern is observed by Young's double slit experiment. If now the separation between coherent sources is halved and the distance of screen from coherent sources is doubled, the new fringe width
a) becomes double b) becomes one-fourth c) remains the same d) becomes four times

33. A luminous object is separated from a screen by distance d. A convex lens is placed between the object and the screen such that it forms a distinct image on the screen. The maximum possible focal length of this convex lens is
a) 4d b) 2d c) $\frac{d}{2}$ d) $\frac{d}{4}$

34. The electric field in a certain region is acting radially outward and is given by E=Ar. A charge contained in a sphere of radius ' a ' centred at the origin of the field, will be given by:
a) $A\varepsilon_0 a_1^2$ b) $4\pi\varepsilon_0 Aa^3$ c) $\varepsilon_0 Aa^3$ d) $4\pi\varepsilon_0 \mathrm{Aa}^2$

35. The electric potential at the surface of an atomic nucleus (Z = 50) of radius 9.0 x 10^{-13} cm is
a) 80 volts b) 8 x 10^6 volts c) 9 volts d) 9 x 10^5 volts

36. A point performs simple harmonic oscillation of period T and the equation of motion is given by x = a sin (ωt + π/6). After the elapse of what fraction of the time period the velocity of the point will be equal to half of its maximum velocity?
a) T/12 b) T/8 c) T/6 d) T/3

37. A stone is dropped into a pond from the top of the tower of height h. If v is the speed of sound in air, then the sound of splash will be heard at the top of the tower after a time:
a) $\sqrt{\frac{2h}{g}} + \frac{h}{v}$ b) $\sqrt{\frac{2h}{g}} - \frac{h}{v}$ c) $\sqrt{\frac{2h}{g}}$ d) $\sqrt{\frac{2h}{g}} + \frac{2h}{v}$

38. If there are no heat losses, the heat released by the condensation of x gram of steam at 100°C into water at 100 °C can be used to convert y gram of ice at 0 °C into water at 100 ^{0}C. Then the ratio y : x is nearly
a) 1 : 1 b) 2 : 1 c) 3 : 1 d) 25 : 1

39. The equation for a wave propagating with a velocity of 330 m/s and having a frequency of 110Hz and amplitude 0.05 m is:
a) $y = 0.05 \sin 2\pi \left[100t + \frac{x}{3}\right]$ b) $y = 0.05 \sin 2\pi \left[100t - \frac{x}{3}\right]$ c) $y = 0.05 \sin 2\pi \left[100t \pm \frac{x}{3}\right]$
d) $y = 0.05 \sin [100t - 330x]$

40. By a change of current from 5 A to 10A in 0.1 s, the self induced emf is 10V. The change in the energy of the magnetic field of a coil will be
a) 5 J b) 6 J c) 7.5 J d) 9 J

41. In the question number 66, the charge on capacitors C_1 and C_4 are:
a) 4 x 10^{-3} C, 12 x 10^{-3} C b) 6 x 10^{-3} C, 12 x 10^{-3} C c) 2 x 10^{-3} C, 4 x 10^{-3} C d) 3 x 10^{-3} C, 2 x 10^{-3} C

42. An explosion blows a rock into three parts. Two parts go off at right angles to each other. These two are, 1 kg fiist part moving with a velocity of 12 ms 1 and 2 kg/second part moving with a velocity of g ms^{-1}. If the third part flies off with a velocity of 4 ms^{-1}, its mass would be _____
a) 7kg b) 17kg c) 3kg d) 5kg

43. The sun light reaches us as white and not as its components because
a) air medium is dispersive b) air medium is non-dispersive c) air medium scatter the sunlight
d) air medium absorbs the sunlight e) speed of light depends on wavelength in vacuum

44. A cylindrical vessel is filled with a liquid of density ρ to a height h such that the force exerted by the liquid on the bottom is equal to the force exerted on the walls of the vessel. Then h should be:
a) equal to the radius b) more than the radius c) less than the radius d) two times the radius

45. If the velocity of wave is 360 m/s and frequency 500 Hz, the path difference corresponding to 60° phase difference is:
a) 10 cm b) 12 cm c) 15 cm d) 72 cm

46. The equation of a wave is represented by $y = 10^{-4}\sin\left(100t - \frac{x}{10}\right)m$, the velocity of wave will be:
a) 100 m/s b) 4 m/s c) 1000 m/s d) zero

47. Reflecting telescope consists of
a) convex mirror of large,aperture b) concave mirror of large aperture c) concave lens of small aperture
d) None of the above

48. Which one of the following represents forward bias diode?
a) 

b) 

c) 

d) 

49. A particle is rotating along a circular path in the X - Y plane. The angular momentum vector of the particle will be directed parallel to:
a) x-axis b) y-axis c) z-axis d) none of these

50. If a unit vectoris represented by $0.5\hat{i} + 0.8\hat{j} + c\hat{k}$ then the value of 'c' is :
a) 1 b) $\sqrt{0.11}$ c) $\sqrt{0.01}$ d) $\sqrt{0.39}$

51. Methanides are
a) Mg_2C_3, Be_2C, Al_4C_3 and CaC_2 b) Mg_2C_3, Be_2C and Al_4C_3 c) Be_2C, Al_4C_3 and CaC_2
d) Be_2C and Al_4C_3

52. The number of atoms in 0.1 mole of a triatomic gas is (N_A= 6.02 X 10^{23} mol^{-1})
a) 6.026 x 10^{22} b) 1.806 x 10^{23} c) 3.6 x 10^{23} d) 1.8 x 10^{22}

53. The number of moles of hydrogen molecules required to produce 20 moles of ammonia through Haber's process is:
a) 20 b) 30 c) 40 d) 10

54. In the reaction $BrO^-_{3(aq)} + 5Br^-_{(aq)} + 6H^+ \longrightarrow 3Br_2 + 3H_2O_{(l)}$ the rate of appearance of bromine (Br_2)is related to rate of disappearance of bromide ions as following:
a) $\frac{d[Br_2]}{dt} = -\frac{3}{5}\frac{d[Br^-]}{dt}$ b) $\frac{d[Br_2]}{dt} = -\frac{5}{3}\frac{d[Br^-]}{dt}$ c) $\frac{d[Br_2]}{dt} = \frac{5}{3}\frac{d[Br^-]}{dt}$ d) $\frac{d[Br_2]}{dt} = \frac{3}{5}\frac{d[Br^-]}{dt}$

55. Which of the following is not a use of graphite?
a) For electrodes in batteries.
b) Crucibles made from graphite are used for its inertness to dilute acids and alkalies
c) For adsorbing poisonous gases. d) Lubricant at high temperature.

56. What is Eo_3 in the following reaction, $2O_3 \rightarrow 3O_2$
a) 16 b) 48 c) 32 d) 8

57. Ethyl chloride is converted into diethyl ether by _____ .
a) Williamson's synthesis b) Wurtz synthesis c) Grignard reaction d) Perkin's reaction

58. Elements of group 14 used in semiconductors are:
a) C, Si, Ge b) Si, Ge, Sn c) Si, Ge d) B, Si, Ge

59. What are the correct steps to convert acetaldehyde to acetone?
a) CH_3MgBr, H_2O, Oxidation b) Oxidation, $Ca(OH)_2$, Heat c) Reduction, KCN, Hydrolysis
d) Oxidation, C_2H_5ONa, Heat

60. In metallurgical process, aluminium acts as
a) an oxidising agent b) a reducing agent c) acidic flux d) basic flux.

61. Which of the following statements is not correct about the characteristics of cathode rays?

a) They start from the cathode and move towards the anode
b) They travel in straight line in the absence of an external electrical or magnetic field
c) Characteristics of cathode rays do not depend upon the material of electrodes in cathode ray tube
d) Characteristics of cathode rays depend upon the nature of gas present in the cathode ray tube

62. Carbon and silicon belong to group 14. What is nature of carbide of silicon?
a) Covalent b) Ionic c) Interstitial d) None of these

63. An open flask has Helium gas at 2 atm and 327° C. The flask is heated to 527°C the same pressure. The fraction of original gas remaining in the flask is:
a) 3/4 b) 1/4 c) 1/2 d) 2/5

64. A hydrogen gas electrode is made by dipping platinum wire in a solution of HCl of pH = 10 and by passing hydrogen gas around the platinum wire at one atm pressure. The oxidation potential of electrode would be?
a) 0.59 V b) 0.118 V c) 1.18 V d) 0.059 V

65. Which of the following conditions favours the existence of a substance in the solid state?
a) High temperature b) Low temperature c) High thermal energy d) Weak cohesive forces

66. If n = 6, the correct sequence for filling of electrons will be:
a) $ns \rightarrow (n-1)f \rightarrow (n-1)d \rightarrow np$ b) $ns \rightarrow (n-1)f \rightarrow (n-2)d \rightarrow np$
c) $ns \rightarrow (n-2)f \rightarrow (n-1)d \rightarrow np$ d) $ns \rightarrow np(n-1)d \rightarrow (n-2)f$

67. White of an egg whipped with water acts as
a) macromolecular colloid b) associated colloid c) molecular colloid d) normal electrolytic solution

68. Why do noble gases have positive electron gain enthalpy?
a) It is difficult to add an electron due to small size
b) It is difficult to add an electron due to high electronegativity
c) It is difficult to add an electron due to stable configuration
d) It is difficult to add an electron due to high electron affinity

69. Pauling's electronegativity values for elements are useful in predicting
a) polarity of the molecules b) position in the emf series c) coordination numbers d) dipole moments

70. The $Cl-C-Cl$ angle in 1, 1, 2, 2-tetra-chloroethene and tetrachloromethane will be about _____.
a) 120° and $109^\circ 28'$ b) 90° and 109.5° c) 109.5° and $90'$ d) 109.5° and 120°

71. Cryolite and fluorspar are mixed with Al_2O_3 during electrolysis for extraction of aluminium to
a) increase the mass of the reaction mixture b) get other products at anode like fluorine
c) lower the melting point and increase the conductivity of the electrolyte
d) reduce aluminium oxide by cryolite

72. Which of the following alkynes can be identified and distinguished from the rest of the alkynes on reaction with ammoniacal silver nitrate to gave a white precipitate?
a) $CH_3C{\equiv}C\text{-}CH_3$ b) $CH_3CH_2C{\equiv}CH$ c) $CH_3CH_2C{\equiv}CCH_3$ d) $CH_3C{\equiv}CCH_2CH_2CH_3$

73. A carbonyl compound reacts with hydrogen cyanide to form cyanohydrin which on hydrolysis form a racemic mixture of a hydroxy acid. The carbonyl compound is _____.
a) Acetone b) Diethyl ketone c) Formaldehyde d) Acetaldehyde

74. The nodal plane in the π-bond of ethene is located in:
a) The molecular plane b) A plane parallel to the molecular plane
c) A plane perpendicular to the molecular plane which bisects the carbon carbon sigma bond at right angle
d) A plane perpendicular to the molecular plane which contains the carbon-carbon J -bond.

75. Which of the following colour changes shown during redox titrations is not correct?
a) $Cr_2O^{2-}_7$ oxidises the indicator diphenylamine to produce blue colour showing end point.
b) Iodine formed by oxidation of I^- ions gives blue colour with starch showing end point.
c) $KMnO_4$ in the form of MnO^-_4 ions gives pink colour showing end point.
d) Thiosulphate ions ($S_2O^{2-}_3$) give blue colour showing end point.

76. Purification of aluminium by electrolytic refining is known as
a) Hall's process b) Baeyer's process c) Hoope's process d) Serpeck's process

77. Arrange the oxides of manganese according to increasing acidic strength.

a) $MnO < Mn_3O_4 < Mn_2O_3 < MnO_2 < Mn_2O_7$ b) $Mn_2O_7 < MnO_2 < Mn_2O_3 < Mn_3O_4 < MnO$
c) $MnO_2 < Mn_2O_7 < Mn_3O_4 < Mn_2O_3 < MnO$ d) $Mn_3O_4 < Mn_2O_3 < Mn_2O_7 < MnO_2 < MnO$

78. Match the column I and column II and mark the appropriate choice

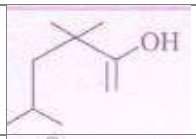
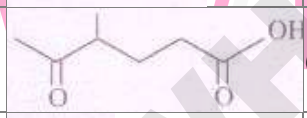
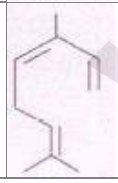
Column I		Column II	
(A)	Diastase	(i)	Proteins⟶ peptones
(B)	Pepsin	(ii)	Glucose ⟶ ethyl alcohol
(C)	Ptyalin	(iii)	Starch ⟶ maltose
(D)	Zymase	(iv)	Starch ⟶ sugar

a) (A) ⟶ (iv), (B) ⟶ (ii), (C) ⟶ (i), (D) ⟶(iii) b) (A) ⟶ (ii), (B) ⟶ (i), (C)⟶ (iv), (D)⟶ (iii)
c) (A) ⟶ (i), (B) ⟶ (ii), (C) ⟶ (iii), (D)⟶ (iv) d) (A) ⟶ (iii), (B) ⟶ (i), (C) ⟶ (iv), (D) ⟶ (ii)

79. Which one of the following statement is wrong for gases?
a) Gases do not have a definite shape and volume
b) Volume of the gas is equal to volume of container confining the gas
c) Confined gas exerts uniform pressure on the walls of its container in all directions
d) Mass of a gas cannot be determined by weighing a container in which it is enclosed.

80. Two gases A and B having the same volume diffuse through a porous partition in 20 and 10 s respectively. The molecular mass of A is 49 U. Molecular mass of B will be :
a) 12.25u b) 6.50u c) 25.00u d) 50.00u

81. Match the compounds given in column I with the IUPAC names given in column II and mark the appropriate choice

Column I		**Column II**	
(A)		(i)	3, 7- Dimethylocta -1, 3, 6- triene
(B)		(ii)	4-Methyl-5- oxohexanoic acid
(C)		(iii)	3, 3, 5-Trimethylhex-1-en-2-ol
(D)		(iv)	4-Hydroxy-4- methylpentan - 2-one

a) (A)⟶ (ii), (B)⟶ (i), (C) ⟶ (iii), (D)⟶ (iv) b) (A)⟶ (iv), (B) ⟶ (ii), (C)⟶(i), (D)⟶ (iii)
c) (A) ⟶ (i), (B)⟶ (iii), (C) ⟶ (ii), (D)⟶(iv) d) (A)⟶ (iii), (B) ⟶ (iv), (C)⟶ (ii), (D)⟶ (i)

82. How many structures are possible for C_5H_8 with one triple bond?
a) 4 b) 3 c) 2 d) 1

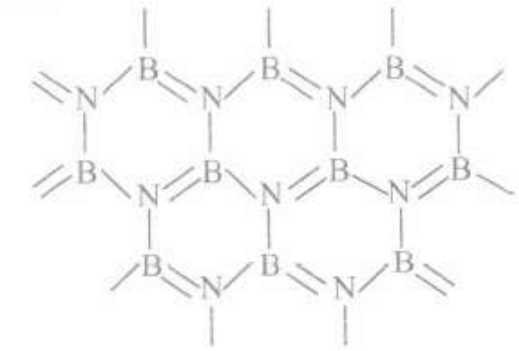
83. Coordination numbers of Cs^+ and Cl^- in CsCl crystal are:
a) 8,8 b) 4,4 c) 6,6 d) 8,4

84. Which of the following reagents are not correctly matched with the reaction?
a) $CH_3CH=CHCHO \longrightarrow CH_3CH=CHCOOH$: Ammoniacal $AgNO_3$
b) $CH_3CH=CHCHO \longrightarrow CH_3CH=CHCH_2OH$: H_2/Pt c) $R\text{-}COOH \longrightarrow R\text{-}CH_2OH$: $NaBH_4$
d) $CH_3CH_2COCl \longrightarrow CH_3CH_2CHO$:$H_2$,Pd/$BaSO_4$

85. By pasing $H_3\ S$ gas in acidified $KMnO_4$ solution, wé get _____ .

a) S b) $K_2\ S$ c) MnO_2 d) K_2SO_3

86. Boron nitride can be represented by the given structure.



The structure of BN is similar to

a) graphite b) diamond c) benzene d) pyridine.

87. In an adiabatic expansion of ideal gas:

a) W=-△U b) W=△ E c) △U=0 d) W=0

88. Oxygen molecule is paramagnetic because

a) no. of bonding electrons > no. of antibonding electrons

b) no. of bonding electrons < no. of antibonding electrons

c) no. of bonding electrons no. of antibonding electrons

d) presence of unpaired electrons in molecular orbitals

89. When vapours of $SiCl_4$ is passed over hot Mg, then the product formed is:

a) $SiCl_2+MgCl_2$ b) $MgSi+Cl_2$ c) $MgSiCl_6$ d) $Si+MgCl_2$

90. The reaction between gaseous NH_3 and HBr produces a white solid NH_4Br. Suppose a small quantity of gaseous NH_3 and gaseous HBr are introduced simultaneously into opposite ends of an open tube which is one metre long. Calculate the distance of white solid formed from the end which was used to introduce NH_3.

a) At a distance of 34.45 cm from NH_3 end b) At a distance of 68.5 cm from NH_3 end

c) At a distance of 44.45 cm from HBr end d) At a distance of 45.45 cm from HBr end

91. What will be △G for the reaction at 25°C when partial pressures of reactants H_2, CO_2, H_2O and CO are 10, 20, 0.02 and 0.01 atm respectively. (Given: $G^o_{H_2O}$ = -228.58 kJ, G^o_{CO} = -137.15 kJ, $G^o_{CO_2}$ = -394.37 kJ.

a) +5.61 kJ b) -5.61 kJ c) 7.09 kJ d) -8.13 kJ

92. Which of the following is the ionic carbide?

a) Fe_3C b) SiC c) CaC_2 d) Cu_2C

93. In the following question, a statement of assertion is followed by a statement of reason. Mark the correct choice as :

Assertion: The name of the hydrocarbon $(CH_3)_2CHCH_2CH_2CH(CH_3)CH_2CH_3$ is 2,5-dimethylheptane and not 3,6-dimethylheptane.

Reason: Numbering should be done in such a way that sum of the locants on the parent chain is lowest possible number.

a) If both assertion and reason are true and reason is the correct explanation of assertion.

b) If both assertion and reason are true but reason is not the correct explanation of assertion

c) If assertion is true but reason is false d) If both assertion and reason are false

94. Mark the incorrect match.

a) Insulin - Zinc b) Haemoglobin - Iron c) Vitamin B_{12}- Cobalt d) Chlorophyll- Chromium

95. Value of Henry's constant K_H_____.

a) increases with increase in temperature b) decreases with increase in temperature c) remains constant

d) first increases then decreases

96. When a manganous salt is fused with a mixture of KNO_3 and solid NaOH the oxidation number of Mn changes from +2 to ?

a) +4 b) +3 c) +6 d) +7

97. Match the column I with column II and mark the appropriate choice.

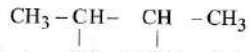
Column I	Column II

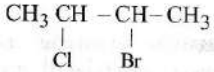
(A)	H_2SO_3	(i)	+6, dibasic
(B)	H_2SO_5	(ii)	+5, dibasic
(C)	$H_2S_2O_6$	(iii)	+6, monobasic
(D)	H_2SO_4	(iv)	+4, dibasic

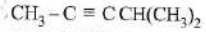
a) (A) → (i); (B) → (ii); (C) → (iii); (D) → (iv) b) (A) → (ii); (B) → (iii); (C) → (i); (D) → (iv)
c) (A) → (iii);(B) → (iv); (C) → (ii); (D) → (i) d) (A) → (iv); (B) → (iii); (C) → (ii); (D) → (i)

98. The incorrect IUPAC name is

a)  2–Methyl–3–butanone

b)  2, 3–Dimethylpentane

c)  2–Bromo–3–chlorobutane

d)  4–Methyl–2–pentyne

99. The number of sigma (σ) and pi (π) bonds in pent-2-en-4- yne is:
a) 8σ bonds and 5 π bonds b) 11σ bonds and 2π bonds c) 13σ bonds and no π bonds
d) 10σ bonds and 3π bonds

100. H_3PO_2 is the molecular formula of an acid of phosphorous. Its name and basicity respectively are _____ .
a) Phosphorous acid and 2 b) Hypophosphorous acid and 2 c) Hypophosphorous acid and one
d) Hypophosphoric acid and two

101. In frog, the surface of attachment of tongue is___
a) sphenoid b) palatine c) pterygoid d) hyoid apparatus

102. The given figures (A - D) show four animals. Select the correct option with respect to a common characteristic of any two of these animals.

a) A and D respire mainly through body wall. b) B and C show radial symmetry.
c) A and B have cnidoblasts for self-defence. d) C and D have a true coelom

103. **Assertion:** In pteridophytes, zygote produces a multicellular sporophyte.
Reason: Sporophyte is the dominant phase in life cycle of pteridophytes.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false.c d) If both assertion and reason are false.

104. The sporophyte is attached to the gametophyte in
a) algae b) fungi c) bryophytes d) pteridophytes.

105. In Flowering plant, archesporium gives rise to
a) Only the wall of the sporangium b) Both wall and the sporogenous cells c) Wall and the tapetum
d) Only tapetum and sporogenous cells

106. Apomixis term was coined by
a) Leeuwenhoek b) Winkler c) Juel & Murbeck d) Nawaschin & guignard

107. Marginal Placentation and diadelphous condition are found in the family
a) Fabaceae b) Brassicaceae c) Liliaceae d) Solanaceae

108. In meiosis crossing over is initiated at :-
a) Pachytene b) Leptotene c) Zygotene d) Dipotene

109. In eukaryotes, RNAPIII catalyses the synthesis of
a) All rRNA and tRNA b) mRNA, HnRNA and SnRNA c) 5S rRNA, tRNA and ScRNA
d) 288,18S and 5S rRNA

110. A person breathing normally at rest, takes in and expels approximately half a litre of air during each respiratory cycle. This is called
a) inspiratory reserve volume b) tidal volume c) expiratory reserve volume d) vital capacity

111. Which of the following factors, besides being one of the reactants in the process of photosynthesis, indirectly affects its rate?
a) Oxygen b) Carbon dioxide c) Water d) Chlorophyll

112. Select the wrong statements _____
a) W.M. Stanley showed that viruses could be crystallised
b) The term contagium vivum fluidum' was coined by M.W. Bejerinek.
c) Mosaic disease in tobacco and AIDS in human being are causcd by viruses.
d) The viroids were dicovered by D.J. Ivanowski

113. Which of the following can fix atmospheric nitrogen?
a) Albugo b) Cystopus c) Saprolegnia d) Anabaena

114. Mitochondria and chloropast are:
(a) Semi-autonomous organelles
(b) Formed by division of pre-existing orgnelles and they contain DNA but lack protein synthesizing machinery
Which one of the following options is correct?
a) Both (a) and (b) are false b) Both (a) and (b) are correct c) (b) is true but (a) is false
d) (a) is true but (b) is false

115. Leydig cells produce a group of hormones called
a) androgens b) estrogens c) aldosterone d) gonadotropins

116. In bacterial chromosomes, the nucleic acid polymers are _____ .
a) Linear DNA molecule b) Circular DNA molecule c) of two types - DNA and RNA
d) Linear RNA molecule

117. Stems modified into flat green organs performing the functions of leaves are known as:
a) Scales b) Cladodes c) Phyllodes d) Phylloclades

118. Which out of the following statements is incorrect?
a)
The breakdown product of glucose which enters into mitochondrion during aerobic respiration is pyruvic acid generated in the cytosol.
b)
When the electrons pass from one carrier to another via complex I to IV in the electron transport chain, they are coupled to ATP synthase (complex V) for the production of ATP from ADP and Pi.
c)
The ratio of volume of O_2 consumed in respiration to the volume of CO_2 evolved is called as the respiratory quotient (RQ).
d)
Compensation point is the point reached in a plant when the rate of photosynthesis is equal to the rate of respiration

119. Which one of the following structures between two adjacent cells is an effective transport pathway?
a) Plasmalemma b) Plasmodesmata c) Plastoquinone d) Endoplasmic reticulum

120. Which of the following is an agranulocyte?
a) Basophil b) Neutrophil c) Lymphocyte d) Eosinophil

121. In the following question, a statement of assertion is followed by a statement of reason.
Mark the correct choice as :
Assertion: The direction of movement of organic solutes in the phloem is bi-directional.
Reason: The transportation depends on variability of source-sink relationship.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false d) If both assertion and reason are false.

122. Translation state structure of the substrate formed during an enzymatic reaction is:
a) Permanent and stable b) translate but stable c) Permenant but unstable d) translate and unstable

123. The supportive skeletal structures in the human external ears and in the nose tip are examples of :
a) Ligaments b) Areolar tissue c) Bone d) Cartilage

124. Macula maintains
a) static equilibrium b) dynamic equilibrium c) both (a) and (b) d) none of these.

125. Consider the following statements each with one or two blanks.
(i) The ascending limb of loop of Henle is impermeable to (1) but allows transport of (2).
(ii) (3) and (4) play a significant role in producing a concentrated urine.
(iii) A fall in glomerular blood flow/glomerular blood pressure/GFR can activate the JG cells to release (5).
Which one of the following options correctly fills the blanks in any two of the statements?
a) (1)-water, (2)-electrolytes, (5)-renin b) (3)-Henle's loop, (4)-vasa recta, (5)-angiotensin
c) (1)-electrolytes, (2)-water, (3)-PCT, (4)-DCT d) (3)-Henle's loop, (4)-vasa recta, (5)-angiotensinogen

126. HIV is a retrovirus that attacks
a) helper T-cells b) cytotoxin T-cells c) B-cells d) neutrophils

127. Match column I with column I and select the correct option from the given codes

	Column I		Column II
A.	Pinna	(i)	Collects vibrations in the air which produces sound
B.	Ear canal	(ii)	Passage for sound wave from pinna to ear drum
C.	Tympanic membrane	(iii)	Transfers sound wave to ear ossicles
D.	Ear ossicles	(iv)	Increases the efficiency of transmission of sound waves to the inner ear
E.	Cochlea	(v)	Has hearing receptors
F.	Eustachian tube	(vi)	Equalises the pressure on both sides of ear drum
G.	Auditory nerves	(v)	Impulse transfer from organ of Corti to auditory cortex in temporal lobe of cerebrum

a) A-(i), B-(ii), C-(iii), D-(iv), E-(v), F-(vi), G-(vii) b) A-(vii), B-(vi), C-(v), D-(iv), E-(iii), F-(ii), G-(i)
c) A-(i), B-(ii), C-(iv), D-(iii), E-(v), F-(vi), G-(vii) d) A-(i), B-(ii), C-(iii), D-(iv), E-(v), F-(vii), G-(vi)

128. Nicotine acts as a stimulant, because it nimics the effect of____
a) thyroxine b) acetylcholine c) testosterone d) dopamine

129. Modern biotechnology consist:
a) Genetic enginearing b) tissue culture c) Microbiology d) All the above

130. **Assertion**: Insulin forms hormone receptor complex which regulate gene expression.
Reason: Insulin is a peptide hormone which can easily pass cell membrane to interact with hormone-receptor complex.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.

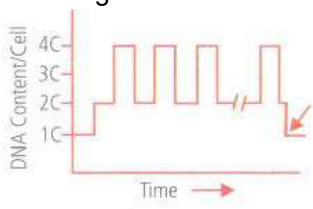
131. If the Neanderthals are not the direct ancestors of humans, is it still possible for humans and Neanderthals to be related?
a) Yes, because we share a common ancestor
b) Yes, but only if humans and Neanderthals could have interbred
c) No, because the human evolutionary tree is strictly linear and without branches.
d)
No, because this means that Neanderthals evolved from an entirely different branch of organisms than humans did.

132. Which of the following are the functions of RNA?
a) It is a carrier of genetic information from DNA to ribosomes synthesising polypeptides.
b) It carries amino acids to ribosomes c) It is a constituent component of ribosomes d) All of the above

133. The main role of bacteria in the carbon cycle involves _____ .

a) Photosynthesis b) Chemosynthesis c) Digestion or break down of organic compounds
d) Assimilation of nitrogenous compounds

134. Given diagram shows variations in the amount of DNA of a developing eukaryote. What the arrow denotes?

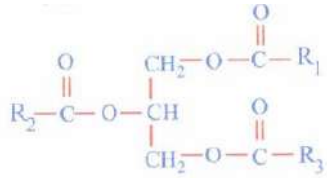


a) First meiotic anaphase b) Second meiotic anaphase c) Mitotic telophase d) Mitotic telophase

135. Messenger RNA is produced in
a) Nucleus b) Golgi apparatus c) Endoplasmic reticulum d) Ribosomes

136. Atlas 66 variety of wheat possess/form
a) High protein content b) Scented grains c) Resistance for grassy stunt virus d) Vitamin C

137. Given molecular formula belongs to which of the following groups of biomolecules?



a) Carbohydrates b) Proteins c) Nucleic acids d) Triglycerides

138. Cytidine is a
a) nitrogenous base b) nucleoside c) nucleotide d) nucleic acid

139. Chromosomes in bacterial cell can be 1-3 in number and _____.
a) can be circular as well as linear within the same cell. b) are always circular. c) are always linear.
d) can be either circular or linear, but never both within the same cell.

140. A fruit fly heterozygous for sex-linked genes, is mated with normal female fruit fly. Male specific chromosome will enter egg cell in the proportion_____.
a) 1: 1 b) 2: 1 c) 3: 1 d) 7: 1

141. Which hormones do stimulate the production of pancreatic juice and bicarbonate?
a) Angiotensin and epinephrine b) Gastrin and insulin c) Cholecystokinin and secretin
d) Insulin and glucagon

142. The trigger for activation of toxin of Bacillus thuringiensis is
a) acidic pH of stomach b) high temperature c) alkaline pH of gut d) mechanical action in the insect gut

143. A CAM help the plants in
a) Reproduction b) Secondary growth c) Conserving water d) Disease resistance

144. Micropyle in seed helps in the entry of
a) Male gamete b) Pollen tube c) Water & air d) All

145. Which of the following is the pair of biofertilizers
a) Azolla and BGA b) Nostoc and legume c) Rhizobium and grasses d) Salmonella % E.Coli

146. The principal nitrogenous excretory compound in humans is synthesised___
a) in kidneys but eliminated mostly through liver b) in kidneys as well as eliminated by kidneys
c) in liver and also eliminated by the same through bile d) in the liver, but eliminated mostly through kidneys

147. Unicellular microscopic organisms were first studied by
a) Robert Hooke b) Priestley c) Pasteur d) Leeuwenhoek.

148. Which of the following features is used to identity a male cockroach from a female cockroach?
a) Forewings with darker tegmina b) Presence of caudal styles
c) Presence of boat shaped sternum on the 9th abdominal of anal cerci d) Presence of anal cerci

149. **Assertion:** Downstream processing is generally considered more difficult and costlier in plants than considered more difficult and costlier in plants than.
Reason : Rhizosecretion is used as a method to facilitate easier recovery of recombinant proteins from plants.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.

150. The phase of menstrual cycle in humans that last for 7-8 days, is
a) follicular phase b) ovulatory phase c) luteal phase d) menstruation

151. The proteins are synthesised at _____ .
a) Ribosomes b) Mitochondria c) Centrosomes d) Golgi bodies

152. Which of the following is called adaptar molecule-
a) DNA b) m-RNA c) t-RNA d) RNA

153. Match column I with column II and select the correct option from the codes given below.

Column I	Column II
A. Fats made of three fatty acid chains attached to glycerol	(i) Glycogen
B. Glycolysis metabolite made from glycerol	(ii) Glyceraldehyde
C. Storage form of glucose	(iii) Triglycerides
D. Common respiratory substrate of glycolysis	(iv) Glucose

a) A-(iv), B-(ii), C-(i), D-(iii) b) A-(iii), B-(ii), C-(i), D-(iv) c) A-(iv), B-(iii), C-(i), D-(ii)
d) A-(i), B-(ii), C-(iii), D-(iv)

154. In lithosere, foliose lichens make the conditions favourable for the growth of
a) crustose lichens b) mosses c) annual grasses d) perennial grasses

155. Flagellated cells are ansent in:-
a) Red algae b) Blue green algae c) Higher seed plants d) All the above

156. After pollination viability of pollen grains of when rice is about
a) 30 min b) 60 min c) 70 min d) 90 min

157. Select the correct option to fill up the blanks.
(i) _____ are used in detergent formulations and are helpful in removing oily stains from the laundry.
(ii) _____ are ripened by growing Penicillium roqueforti on them.
(iii) _____ are produced without distillation whereas, _____are produced by distillation of the fermented broth.
(iv) _____ antibiotic was used to treat American soldiers wounded in world war II.
(v) _____ is also called as kusht rog.
a) (i) Lipases, (ii) Camembert cheese, (iii) Whisky and rum, wine and beer, (iv) Penicillin, (v) Leprosy
b) (i) Lipases, (ii) Roquefort cheese, (iii) Wine and beer, whisky and rum, (iv) Penicillin, (v) Leprosy
c)
(i) Streptokinases, (ii) Roquefort cheese, (iii) Wine and beer, whisky and rum, (iv) Streptomycin, (v) Whooping cough
d) (i) Amylases, (ii) Swiss cheese, (iii) Whisky and rum, wine and beer, (iv) Penicillin, (v) Diphtheria

158. The two pollpeptides of human insulin are linked together by _____ .
a) Hydrogen bonds b) Phosphodiester bond c) Covalent bond d) Disulphide bridges

159. The Golgi complex plays a major role _____ .
a) In digesting proteins and carbohydrates. b) As eneigy transferring organelles.
c) In post translational modification of proteins and glycosidation of lipids.
d) In trapping the light and transforming it into chemical energy.

160. During N_2 fixation, reduction of one molecule of nitrogen into 2 molecules of NH_3 consumes _____molecules of ATP.
a) 4 b) 16 c) 56 d) 38

161. The incorrect statement with regard to Haemophilia is
a) A single protein involved in the clotting of blood is affected b) It is a sex-linked disease
c) It is a recessive disease d) It is a dominant disease

162. Which one of the following is categorised as a parasite in true sense ?
a) The female Anopheles bites and sucks blood from humans
b) Human foetus developing inside the uterus draws nourishment from the mother
c) Head louse living on the human scalp as well as laying eggs on human hair
d) The cuckoo (koel) lays its cggs in crow's nest

163. Consider the following four statements (i) - (iv) and select the correct option.
(i) Fish heart contains only oxygenated blood.
(ii) Closure of A-V valves produces the second heart sound
(iii) The vascular connection between the digestive tract and kidney is called hepatic portal system.
(iv) Purkinje fibres are nerve fibres present in the heart wall.

a)

(i)	(ii)	(iii)	(iv)
F	F	T	F

b)

(i)	(ii)	(iii)	(iv)
F	F	F	T

c)

(i)	(ii)	(iii)	(iv)
T	T	F	T

d)

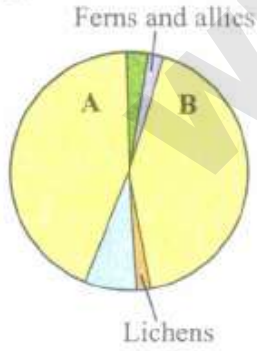
(i)	(ii)	(iii)	(iv)
T	F	T	F

164. Assertion: Synthesis of daughter or new strand occurs continuously along the parent 3'⟶5' strand.
Reason: DNA polymerase can polymerise nucleotides in 3'⟶5' direction on 5'⟶3' strand.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reasonare true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reasonare false

165. Which of the following is an occupational respiratory disorder?
a) Botulism b) Silicosis c) Anthracis d) Emphysema

166. Which group of organisms is responsible for the production of biogas from the dung of cows and buffaloes?
a) Methanomonas b) Methanogens c) Cyanobacteria d) Mycoplasma

167. The given pie diagram represents the proportionate number of species of major taxa of plants. Select the incorrect statements regarding A and B.



(i) A represents the achloro-phyllous, heterotrophic, eukaryotic organisms with chitinous cell walls.
(ii) B represents the members of Kingdom Monera, e.g., bacteria and cyanobacteria.
(iii) B represents those seed plants in which seeds are enclosed inside fruits.
(iv) A and B represent gymnosperms and angiosperms respectively.
a) (i) and (iv) b) (ii) and (iv) c) (i) and (iii) d) (ii), (iii) and (iv)

168. Which of the following statements regarding glucagon is false?
a) It is secreted by α-cells of Langerhans b) It acts antagonistically to insulin.
c) It decreases blood sugar level d) The gland responsible for its secretion is a heterocrine gland.

169. Satiety centres of brain are present in
a) cerebral hemisphere b) hypothalamus c) cerebellum d) medulla oblongata.

170. **Assertion:** On stimulation, a muscle cell releases calcium ions (Ca^{2+}) from sarcoplasmic reticulum.
Reason: By reacting with a protein complex, Ca^{2+} uncover active sites on the actin filaments.
a) If both assertion and reason are true and reason is the correct explanation of assertion
b) If both assertion and reason are true but reason is not the correct explanation of assertion.

c) If assertion is true but reason is false. d) If both assertion and reason are false.

171. A pair of contrasting characters in keys is called
a) Doublet b) Duplet c) Couplet d) Triplet

172. Which of the following steps should be performed by a person in order to visualise the bands of DNA fragments obtained from gel electrophoresis?
a) Exposure of DNA fragments to UV radiations.
b) Staining with bromophenol blue followed by exposure to UV radiations.
c) Staining with ethidium bromide followed by exposure to UV radiations.
d) Person can see the bands without staining.

173. Mineral nutrients absorbed by roots, move to leaves through
a) xylem b) phloem c) sleve tube d) companion cell

174. The hereditary material present in the bacterium Escherichia coli is _____ .
a) Single stranded DNA b) Deoxyribose sugar c) Double stranded DNA d) Single stranded RNA

175. The genotype of a plant showing the dominant phenotype and can be determined by
a) Pedigree analysis b) Back Cross c) Test cross d) Dihybrid cross

176. Which of the following is an example of intergeneric hybridlization?
a) Triticale b) Raphanobrassica c) Gossypium d) More than one options are correct

177. Among the following characters, which one was not considered by Mendel in his experiments of pea?
a) Stem - Tall or Dwarf b) Trichomes - Glandular or non-glandur c) Seed - Green or Yellow
d) Pod - Inflated or constricted

178. An English naturalist, who wrote the book '**Historia Generalis Plantarum**' and introduced the word 'species' was
a) Theophrastus b) John Ray c) Cuvier d) Lamarck

179. Besides Annelida and Arthropoda, the metamerism is exhibited by _____ .
a) Cestoda b) Chordata c) Mollusca d) Acanthocephala

180. Read the given statements and select the correct option.
Statement 1: Transfer of an ovum collected from a donor into the Fallopian tube of another female who cannot produce an ovum, is called as GIFT.
Statement 2: Transfer of early embryos with up to 8 blastomeres into the Fallopian tube of the female, is called ZIFT.
a) Both statements 1 and 2 are correct. b) Statement 1 is correct but statement 2 is incorrect.
c) Statement 1 is incorrect but statement 2 is correct d) Both statements 1 and 2 are incorrect

181. Natural system of classification differs from artificial system in
a) employing only one floral trait b) employing only one vegetative trait
c) bringing out similarities and dissimilarities d) developing evolutionary trends.

182. The epithelial tissue present on the inner surface of bronchioles and fallopian tube is:
a) Glandular b) Ciliated c) Squamous d) Cuboidal

183. Chemical knives of molecular biology are
a) Restriction endonucleases b) Exonuclease c) Reverse transcriptase d) Ligase

184. The water potential and osmotic potential of pure water are_____
a) 100 and zero b) zero and zero c) 100 and 200 d) zero and 100

185. Given below are some of the stages of the hydrarch.
A. Marsh - meadow stage
B. Reed-swam stage
C. Submerged plant stage
D. Phytoplankton stage
E. Free floating plant stage
Select the option that represents the correct sequence of these stages.

a) $D \rightarrow C \rightarrow E \rightarrow B \rightarrow A$ b) $C \rightarrow E \rightarrow A \rightarrow B \rightarrow D$ c) $B \rightarrow D \rightarrow C \rightarrow A \rightarrow E$
d) $D \rightarrow E \rightarrow C \rightarrow B \rightarrow A$

186. Sertoli cells are found in_____
a) ovaries and secrete progesterone. b) adrenal cortex and secrete adrenaline.
c) seminiferous tubules and provide nutrition to germ cells. d) pancreas and secrete cholecystokinin

187. **Assertion:** Virus is an obligate parasite.
Reason: Virus is host specific.
a) If both assertion and reason are true and reason is the correct explanation of assertion.
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false. d) If both assertion and reason are false.

188. Which of the following is an aquatic fern?
a) Adiantum b) Dryopteris c) Salvinia d) Equisetum

189. Read the given statements and select the correct option.
Statement 1: CuT, Cu7 and multiload 375 are the hormone releasing IUDs.
Statement 2: Cu ions released by some IUDs affect the ability of uterine wall to support embryo thus cause contraception.
a) Both statements 1 and 2 are correct. b) Statement 1 is correct but statement 2 is incorrect
c) Statement 1 is incorrect but statement 2 is correct d) Both statements 1 and 2 are incorrect

190. What is true about ribosomes?
a) The prokaryotic ribosomes are 80S, where "S" stands for sedimentation coefficient.
b) These are composed of ribonucleic acid and proteins. c) These are found only in eukaryotic cells.
d) These are self-splicing introns of some RNAs.

191. **Assertion**: Adrenal medullary hormones help in combating the stress condition.
Reason: Both adrenaline and noradrenaline act on same organs and produce similar effects.
a) If both assertion and reason are true and reason is the correct explanation of assertion
b) If both assertion and reason are true but reason is not the correct explanation of assertion.
c) If assertion is true but reason is false d) If both assertion and reason are false.

192. Which one of the following is wrong in relation to photorespiration ?
a) It is a characteristic of C_3 plants. b) It occurs in chloroplasts. c) It occurs in daytime only
d) It is a characteristic of C_4 plants

193. Which of the following is considered a hot-spot of biodiversity in India?
a) Indo-GangeticPlain b) Eastern Ghats c) Aravalli Hills d) Western Ghats

194. The helical structure of protein is stabilized by
a) dipeptide bonds b) hydrogen bonds c) ether bonds d) peptide bonds

195. Sucrose is composed of-
a) Glucose & Fructose b) Glucose & Glycogen c) Two molecules of Glucose d) Glycogen & Fructose

196. Which of these following methods is the most suitable for disposal of nuclear waste?
a) Bury the waste under Antarctic ice-cover. b) Dump the waste within rocks under deep ocean.
c) Bury the waste within rocks deep below the Earth's surface. d) Shoot the waste into space.

197. Match column I with column II and select the correct option from the codes given below

	Column I		Column II
A.	Auxin	(i)	Fruit ripening
B.	Cytokinins	(ii)	Phototropism
C.	Abscisic acid	(iii)	Antagonist to GAs
D.	Ethylene	(iv)	Growth of lateral buds

a) A-(iv), B-(ii), C-(iii), D-(i) b) A-(ii), B-(iv), C-(iii), D-(i) c) A-(ii), B-(iii), C-(iv)/ D-(i)
d) A-(iii), B-(iv), C-(ii)/ D-(i)

198. Megasporophyll of gymnosperms is homologous to_____of angiosperms.

a) stamen b) carpel c) sepal d) petal

199. Read the given statements and select the correct option.

(i) Darwin and Darwin (1880) found that sensation of unilateral illumination was perceived by the coleoptile tip of canary grass.

(ii) IAA is universal natural auxin, discovered by Kogi et al.

(iii) IBA is both natural and synthetic auxin.

(iv) Auxins promote the growth of lateral shoots.

a) Statements (i) and (ii) are correct. b) Statements (ii) and (iii) are correct.

c) Statements (i), (ii) and (iii) are correct. d) Statements (i), (ii), (iii) and (iv) are correct.

200. The signal transduction of steroid hormone across cell is through

a)

binding of hormone to the cytoplasmic receptor and the complex binds to hormone response element on DNA within promoter DNA

b)

binding of hormone to the transmembrane receptor which initiates the production of second messenger that activates enzymes which further activates transcription factors

c)

binding of hormone to the transmembrane receptor which diffuse inside the cell cytoplasm and then activates the enzyme necessary for the activation of transcription factors

d)

binding of hormone to the cytoplasmic receptor that initiates the production of second messenger which activates enzymes that further activates transcription factors.