INSTRUCTION : Read questions carefully. Each question contains 4 marks. For every wrong answer 1 mark will be deducted . You can skip 5 questions from PART-I, 5 questions from PART-II, and 10 questions from PART-III

PART-I

1. The potential difference applied to an X-ray tube is 5 KV and the current through it is 3.2 mA. Then the number of electrons striking the target per second is
   (a) 2×10^{16} (b) 5×10^{6}
   (c) 1×10^{17} (d) 4×10^{15}

2. An electron is moving in a circular path of radius 5.1×10^{-11} m at a frequency of 6.8×10^{15} revolution/sec. The equivalent current is approximately
   (a) 5.1×10^{-3} A (b) 6.8×10^{-3} A
   (c) 1.1×10^{-3} A (d) 2.2×10^{-3} A

3. A conducting wire of cross-sectional area 1 cm2 has 3×10^{23} m^{-3} charge carriers. If wire carries a current of 24 mA, the drift speed of the carrier is
   (a) 5×10^{-6} m/s (b) 5×10^{-3} m/s
   (c) 0.5 m/s (d) 5×10^{-2} m/s

4. A current flows in a wire of circular cross-section with the free electrons travelling with a mean drift velocity v. If an equal current flows in a wire of twice the radius new mean drift velocity is
   (a) v (b) $\frac{v}{2}$
   (c) $\frac{v}{4}$ (d) None of these

5. Two wires of resistance R_1 and R_2 have temperature co-efficient of resistance a_1 and a_2 respectively. These are joined in series. The effective temperature co-efficient of resistance is
   (a) $\frac{a_1 + a_2}{2}$ (b) $\sqrt{a_1 + a_2}$
   (c) $\frac{a_1 R_1 + a_2 R_2}{R_1 + R_2}$ (d) $\frac{R_1 R_2 a_1 a_2}{R_1^2 + R_2^2}$

6. From the graph between current i & voltage V shown, identity the portion corresponding to negative resistance

   (a) DE (b) CD
   (c) BC (d) AB

7. A wire of length L and resistance R is streched to get the radius of cross-section halfed. What is new Resistance
   (a) 5 R (b) 8 R
   (c) 4 R (d) 16 R

8. The resistance of a wire at 20°C is 20 Ω and at 500°C is 60 Ω. At which temperature resistance will be 25 Ω
   (a) 50°C (b) 60°C
   (c) 70°C (d) 80°C

9. The specific resistance of manganin is 50×10^{-8} Ω m. The resistance of a manganin cube having length 50 cm is
   (a) 10^{-6} Ω (b) 2.5×10^{-5} Ω
   (c) 10^{-8} Ω (d) 5×10^{-4} Ω

10. An aluminium rod of length 3.14 m is of square cross-section 3.14×3.14 mm^2. What should be the radius of 1 m long another rod of same material to have equal resistance
    (a) 2 mm (b) 4 mm
    (c) 1 mm (d) 6 mm

11. If a copper wire is stretched to make it 0.1% longer, the percentage increase in resistance will be
    (a) 0.2 (b) 2
    (c) 1 (d) 0.1

12. The temperature co-efficient of resistance of a wire is 0.00125/°C. At 300 K. It's resistance is 1 Ω. The resistance of the wire will be 2 Ω at
    (a) 1154 K (b) 1127 K
    (c) 600 K (d) 1400 K

13. Dimensions of a block are 1 cm $\times$ 1 cm $\times$ 100 cm. If specific resistance of its material is 3×10^{-7} ohm-m, then the resistance between it's opposite rectangular faces is
    (a) 3×10^{-9} ohm (b) 3×10^{-7} ohm
    (c) 3×10^{-5} ohm (d) 3×10^{-3} ohm

14. Two rods A and B of same material and length have their electric resistances are in ratio 1 : 2. When both the rods are dipped in water, the correct statement will be
    (a) A has more loss of weight
    (b) B has more loss of weight
    (c) Both have same loss of weight
    (d) Loss of weight will be in the ratio 1

15. What is the resistance of a carbon resistance which has bands of colours brown, black and brown
    (a) 100 Ω. (b) 1000 Ω.
    (c) 10 Ω. (d) 1 Ω.

16. An electric cable contains a single copper wire of radius 9 mm. It's resistance is 5 Ω. This cable is replaced by six insulated copper wires, each of radius 3 mm. The resultant resistance of cable will be
    (a) 7.5 Ω (b) 45 Ω
    (c) 90 Ω (d) 270 Ω

17. Five resistances are combined according to the figure. The equivalent resistance between the point X and Y will be
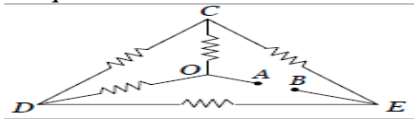
(a) 10 Ω (b) 22 Ω
(c) 20 Ω (d) 50 Ω
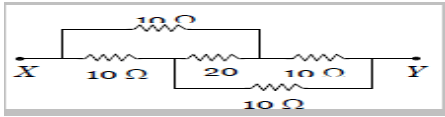
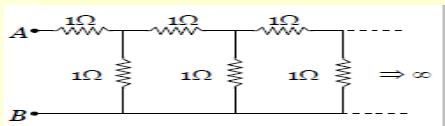18. What will be the equivalent resistance of circuit shown in figure between points A and D

(a) 10 Ω (b) 20 Ω
(c) 30 Ω (d) 40 Ω
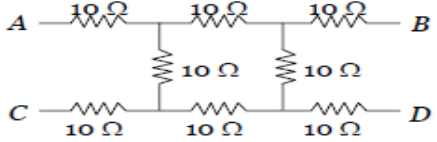
19. In the network shown in the figure each of resistance is equal to 2 Ω The resistance between A and B is

(a) 1 Ω (b) 2 Ω
(c) 3 Ω (d) 4 Ω

20. The equivalent resistance between points A and B of an infinite network of resistance, each of 1 Ω, connected as shown is
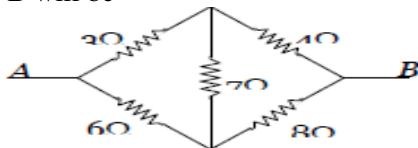

(a) Infinite (b) 2 Ω
(c) $\frac{1+\sqrt{5}}{2}$ Ω (d) Zero

21. BC, CD and DA respectively. Another resistance of 10 Ω is connected across the diagonal AC. The equivalent resistance between A & B is
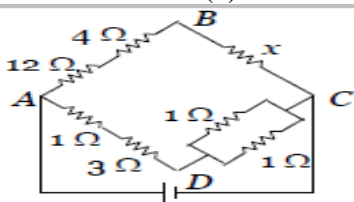(a) 2 Ω (b) 5 Ω
(c) 7 Ω (d) 10 Ω

22. In the given figure, equivalent resistance between A and B will be

(a) $\frac{14}{3}$ Ω (b) $\frac{3}{14}$ Ω
(c) $\frac{9}{14}$ Ω (d) $\frac{14}{9}$ Ω

23. In the combination of resistances shown in the figure the potential difference between B and D is zero, when unknown resistance (x) is

(a) 4 Ω
(b) 2 Ω
(c) 3 Ω
(d) The emf of the cell is required

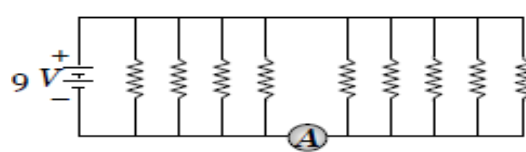24. A current of 2 A flows in a system of conductors as shown. The potential difference ($V_A - V_B$) will be
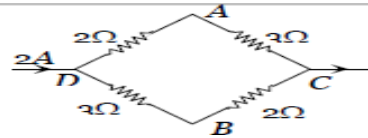
(a) + 2V (b) + 1V
(c) – 1 V (d) – 2 V

25. Three resistances each of 4 Ω are connected in the form of an equilateral triangle. The effective resistance between two corners is
(a) 8 Ω (b) 12 Ω
(c) $\frac{3}{8}$ Ω (d) $\frac{8}{3}$ Ω

26. If each resistance in the figure is of 9 Ω then reading of ammeter is

(a) 5 A (b) 8 A
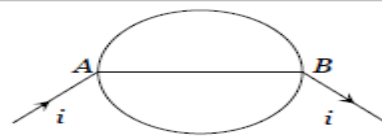(c) 2 A (d) 9 A

27. A wire has resistance 12 Ω. It is bent in the form of a circle. The effective resistance between the two points on any diameter is equal to
(a) 12 Ω (b) 6 Ω
(c) 3 Ω (d) 24 Ω

28. A wire of resistance 0.5 Ω m–1 is bent into a circle of radius 1 m. The same wire is connected across a diameter AB as shown in fig. The equivalent resistance is

(a) π ohm (b) π (π + 2) ohm
(c) π / (π + 4) ohm (d) (π + 1) ohm

29. If in the given figure i = 0.25 amp, then the value R will be

(a) 48 Ω (b) 12 Ω
(c) 120 Ω (d) 42 Ω
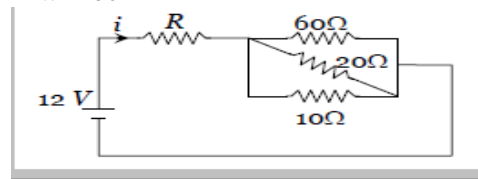
30. Two uniform wires A and B are of the same metal and have equal masses. The radius of wire A is twice that of wire B. The total resistance of A and B when connected in parallel is
(a) 4 Ω when the resistance of wire A is 4.25 Ω
(b) 5 Ω when the resistance of wire A is 4 Ω
(c) 4 Ω when the resistance of wire B is 4.25 Ω
(d) 5 Ω when the resistance of wire B is 4 Ω

31. A new flashlight cell of emf 1.5 volts gives a current of 15 amps, when connected directly to an ammeter of resistance 0.04 Ω. The internal resistance of cell is

(a) 0.04 Ω   (b) 0.06 Ω
(c) 0.10 Ω   (d) 10 Ω

32. For a cell, the terminal potential difference is 2.2 V when the circuit is open and reduces to 1.8 V, when the cell is connected across a resistance, R = 5 Ω. The internal resistance of the cell is

(a) $\frac{10}{9}$ Ω   (b) $\frac{9}{10}$ Ω

(c) $\frac{11}{9}$ Ω   (d) $\frac{5}{9}$ Ω

33. The internal resistance of a cell of emf 2V is 0.1 Ω. It's connected to a resistance of 3.9 Ω. The voltage across the cell will be
(a) 0.5 volt   (b) 1.9 volt
(c) 1.95 volt   (d) 2 volt

34. When the resistance of 2 Ω is connected across the terminal of the cell, the current is 0.5 amp. When the resistance is increased to 5 Ω, the current is 0.25 amp. The emf of the cell is
(a) 1.0 volt   (b) 1.5 volt
(c) 2.0 volt   (d) 2.5 volt

35. A primary cell has an emf of 1.5 volts, when short-circuited it gives a current of 3 amperes. The internal resistance of the cell is
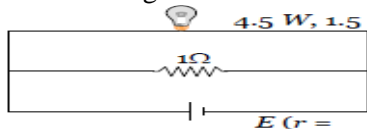(a) 4.5 ohm   (b) 2 ohm
(c) 0.5 ohm   (d) 1/4.5 ohm

36. A battery of internal resistance 4 Ω is connected to the network of resistances as shown. In order to give the maximum power to the network, the value of R (in Ω) should be
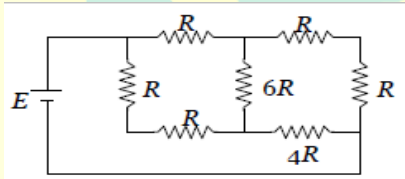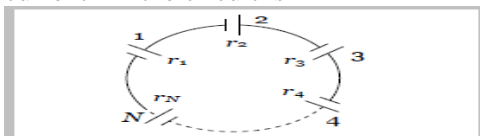

(a) 4/9   (b) 8/9
(c) 2   (d) 18

37. A torch bulb rated as 4.5 W, 1.5 V is connected as shown in the figure. The emf of the cell needed to make the bulb glow at full intensity is


(a) 4.5 V   (b) 1.5 V
(c) 2.67 V   (d) 13.5 V

38. A group of N cells whose emf varies directly with the internal resistance as per the equation EN = 1.5 rN are connected as shown in the following figure. The current i in the circuit is

(a) 0.51 amp   (b) 5.1 amp
(c) 0.15 amp   (d) 1.5 amp

39. Two batteries A and B each of emf 2 volt are connected in series to external resistance R = 1 Ω. Internal resistance of A is 1.9 Ω and that of B is 0.9 Ω, what is the potential difference between the terminals of battery A
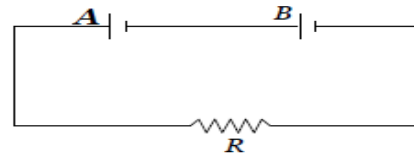
(a) 2 V   (b) 3.8 V
(c) 0   (d) None of these

40. In a mixed grouping of identical cells 5 rows are connected in parallel by each row contains 10 cell. This combination send a current i through an external resistance of 20 Ω. If the emf and internal resistance of each cell is 1.5 volt and 1 Ω respectively then the value of i is
(a) 0.14   (b) 0.25
(c) 0.75   (d) 0.68

41. In the adjoining circuit, the battery E1 has as of 12 volt and zero internal resistance, while the battery E has an emf of 2 volt. If the galvanometer reads zero, then the value of resistance X ohm is
(a) 10   (b) 100
(c) 500 emf   (d) 200

42. The magnitude and direction of the current in the circuit shown will be
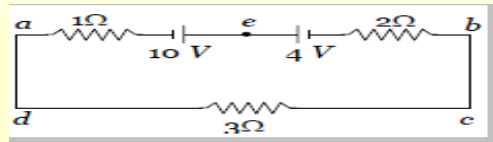
(a) $\frac{7}{3}$ A from a to b through e

(b) $\frac{7}{3}$ A from b and a through e

(c) 1.0 A from b to a through e

(d) 1.0 A from a to b through e

43. Figure represents a part of the closed circuit. The potential difference between points A and B ($V_A - V_B$) is
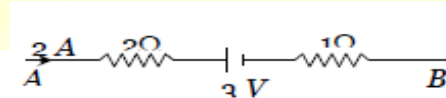
(a) + 9 V   (b) – 9 V
(c) + 3 V   (d) + 6 V

44. In the circuit shown below the cells E_1 and E_2 have emf's 4 V and 8 V and internal resistance 0.5 ohm and 1 ohm respectively. Then the potential difference across cell E_1 and E_2 will be
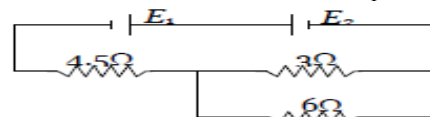
(a) 3.75 V, 7.5 V   (b) 4.25 V, 7.5 V
(c) 3.75 V, 3.5 V   (d) 4.25 V, 4.25 V

45. A wire of length L and 3 identical cells of negligible internal resistances are connected in series. Due to this current, the temperature of the wire is raised by ΔT in time t. A number N of similar cells is now connected in series with a wire of the same material and cross-section but of length 2L. The temperature of wire is raised by same amountΔT in the same time t. The value of N is

(a) 4   (b) 6
(c) 8   (d) 9

46. In the following circuit $E_1 = 4V$, $R_1 = 2\ \Omega$
$E_2 = 6V$, $R_2 = 2\ \Omega$ and $R_3 = 4\ \Omega$ The current i_1 is
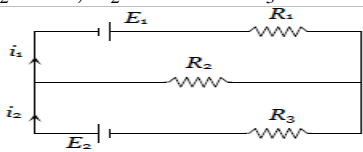
(a) 1.6 A   (b) 1.8 A
(c) 2.25 A   (d) 1 A

47. Determine the current in the following circuit
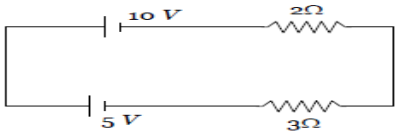
(a) 1 A   (b) 2.5 A
(c) 0.4 A   (d) 3 A

48. In the circuit shown in figure, find the current through the branch BD
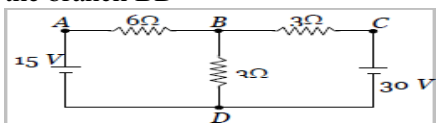
(a) 5 A   (b) 0 A
(c) 3 A   (d) 4 A

49. The figure shows a network of currents. The magnitude of current is shown here. The current i will be
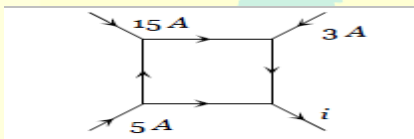
(a) 3 A   (b) 13 A
(c) 23 A   (d) – 3 A

50. Consider the circuit shown in the figure. The current i_3 is equal to
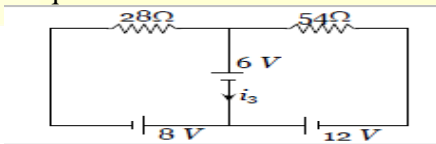
(a) 5 amp   (b) 3 amp
(c) – 3 amp   (d) – 5/6 amp

PART-II.

51. The standard electrode potential (E°) values of Al^{3+} / Al; Ag^+ /Ag; K^+ /K and Cr^{3+} /Cr are – 1.66 V;+0.80 V: - 2.93V and -0.74V. respectively. The correct decreasing order of reducing power of the metal is:
(a)Ag > Cr > Al >K   (b) K > Al > Cr >Ag
(c) K > Al > Ag > Cr   (d) Al > K > Ag > Cr

52. A solution contains Fe^{2+} ; Fe^{3+} and I^- ions. This solution was treated with iodine at 35°C . E° for fe^{3+} / fe^{2+} is + 0.77V and E° for $I_2/2I^-$ is +0.536V. The favourable redor reaction will be
(a) I_2 will be reduced to I^-
(b) There will be no redox reaction
(c) I^- will oxidise to I_2
(d) Fe^{2+} will be oxidised to Fe^{3+}

53. for the all reaction
$$2Fe^{3+}_{aq} + 2I^-_{aq} \rightarrow 2Fe^{2+}_{aq} + I_{2(aq)}$$
$E^{\circ}_{aq} = 0.24V.$ at 298 K. The standard Gibbs energy (ΔG°_r) of the cell reaction is:
(a) 23.16 k J mol^{-1} (b) 46.32 K J mol^{-1}
(c) -23-16 K J mol^{-1} (d) -46.32 K J mol^{-1}
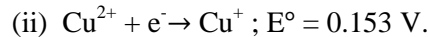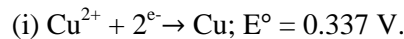
54. Given
(i) $Cu^{2+} + 2e^- \rightarrow Cu$; E° = 0.337 V.
(ii) $Cu^{2+} + e^- \rightarrow Cu^+$; E° = 0.153 V.
Electrode potential ; E° for the reaction
$Cu^+ + e^- \rightarrow Cu^+$; will be
(a) 0.90   (b) 0.30 V
(c) 0.38 V   (d) 0.52 V.
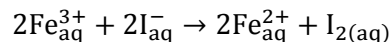
55. Following limiting molar conductivities are given as:
λ°_m (H_2SO_4) = x S cm^2 mol^{-1}
λ°_m (K_2SO_4) = y S cm^2 mol^{-1}
λ°_m (CH_3COOK) = z S cm^2 mol^{-1}
Then
λ°_m (in S cm^2 mol^{-1}) for CH_3COOH will be:
(a) $x - y + 2z$ (b) $x + y - z$
(c) $x - y + z$ (d) $\frac{(x-y)}{2} + z$

56. Which of the following expressions correctly represent the equivalent conductance at infinite delution of $Al_2 (SO_4)_3$?
(a) $2\overset{\circ}{\Lambda}_{Al^{3+}} + 3\overset{\circ}{\Lambda}_{SO_4^{2-}}$ (b) $\overset{\circ}{\Lambda}_{Al^{3+}} + \overset{\circ}{\Lambda}_{SO_4^{2-}}$
(c) $\overset{\circ}{\Lambda}_{Al^{3+}} + \overset{\circ}{\Lambda}_{SO_4^{2-}}$ (d) $\left(\overset{\circ}{\Lambda}_{Al^{3+}} + \overset{\circ}{\Lambda}_{SO_4^{2-}}\right) \times 6$

57. On electrolysis of dil. H2SO4 using pt electrode; the product obtained at anode will be
(a) H_2 gas   (b) O_2 gas.
(c) H_2S gas   (d) SO_2 gas

58. In electrolysis of N_aCl when pt electrode is taken then H_2 is liberated at cathode while with Hg cathode it forms Na-Hg (Sodium – amalgam) the reason for this is
(a) He is more inert than pt
(b) More voltage is required to reduce H+ at Hg than at Pt
(c) Na is dissolved in Hg while it does not dissolve in pt
(d) Concetation of H+ ions is large when Pt electrode is taken.

59. The efficiency of full all is given by
(a) $\Delta G/\Delta S$ (b) $\Delta G/\Delta H$
(c) $\Delta S/\Delta G$ (d) $\Delta H/\Delta G$

60. The most convenient method to protect the bottom of ship made of iron is:
(a) Coating it with red lead oxide
(b) White in plating
(c) Connecting it with Mg block
(d) Connecting it with Pb block

61. What is the mole fraction of the solute in a 1.00 m aqueous solution
    (a) 10770   (b) 0.0354
    (c) 0.0177   (d) 0.17

62. P_A and P_B are the vapour pressures of pure liquid components A and B, respectively of and ideal binary solution If x_A represents the mole fraction of component A; the4 total pressure of the solution will be
    (a) $p_A + x_A (p_B - p_A)$ (b) $p_A + x_A (p_A - p_B)$
    (c) $p_B + x_A (p_B - p_A)$ (d) $p_B + x_A (p_A - p_B)$

63. A solution has a 1:4 ration of pentance to herane. The vapour pressures of the pure hydrocarbons at 20°C are 440 mm. Hg for pentace and 120 mm. Hg for Hexane. The mole fraction of pentane in the vapours phase would be
    (a) 0.200   (b) 0.549
    (c) 0.786   (d) 0.478

64. For an ideal solution the correct option is:
    (a) $\Delta G_{mix} = 0$ at constant T and P
    (b) $\Delta S_{mix} = 0$ at constant T and P
    (c) $\Delta V_{mix} \neq 0$ at constant T and P
    (d) $\Delta H_{mix} = 0$ at constant T and P

65. Which one of the following correct for ideal solution/
    (a) $\Delta H_{mix} = 0$
    (b) $\Delta U_{mix} = 0$
    (c) $\Delta P = P_{obs} \ P_{calculated\ by\ raoult's\ law}$
    (d) $\Delta G_{mix} = 0$

66. Which condition is not satisfied by on ideal solution
    (a) $\Delta V_{mix} \neq 0$
    (b) $\Delta S_{mix} = 0$
    (c) obeyance of Rault's law
    (d) $\Delta H_{mix} = 0$

67. The freezing point depression constant (K_f) of Benzene is 5.12 k kg mol^{-1}. The freezing pint depression for the solution of molality 0.078 m containing a non-electrolyte solute in benzene is:
    (a) 0.20K   (b) 0.80K
    (c) 0.40K   (d) 0.60K.

68. A solution contains nom-volatile solute of molecular mass M_2 Which of the following can be used to calculate the molecular mass of solutie in terms of osmotic pressure?
    (a) $M_2 = \left(\frac{m_2}{\pi}\right) v RT$ (b) $M_2 = \left(\frac{m_2}{V}\right) \frac{RT}{\pi}$
    (c) $M_2 = \left(\frac{m_2}{V}\right) \pi RT$ (d) $M_2 = \left(\frac{m_2}{V}\right) \frac{\pi}{RT}$

69. The relationship between osmotic pressure at 273 K when 10g glucose (P_1) 10g. Urea (P_2) and 10g. sucrose (P_3) are dissolved in 250 ml of water is:
    (a) $P_2 > P_1 > P_3$ (b) $P_2 > P_3 > P_1$
    (c) $P_1 > P_2 > P_3$ (d) $P_3 > P_1 > P_2$

70. A 0.0020m. aqueous solution of on ionic compound $[CO(NH_3)_5(NO_2)]$ Cl freeze at -0.00732°C. Number of moles of ions Which 1 mole o ionic compound produces on being dissolved in water will be: [kf= 1.86 °C/m]
    (a) 3   (b) 4
    (c) 1   (d) 2

71. Cation and anion combine in a crystal to form following type of compound
    (a) Ionic   (b) Metallic
    (c) Covalent   (d) Dipole-dipole

72. The number of carbon atoms per unit cell of diamond unit cell is:
    (a) 6   (b) 1
    (c) 4   (d) 8

73. A compound is formed by cotion C and anion A. The anions form hexagonal close packed (HCP) lattice and the cations occupy 75% of the octahedral voids The formula of the compound is:
    (a) $C4 \ A_3$ (b) $C_2 A_3$
    (c) $C_3 A_2$ (d) $C_3 A_4$

74. The number of octahedral void (s) per atom present in a cubic closed pack structure is:
    (a) 1   (b) 3
    (c) 2   (d) 4

75. A metal has an FCC lattice strution The edge length of the unit cell is 404 pm. The density of the metal is 272 g cm^{-3} The malor mass of the metal is:
    (a) 27g mol^{-1} (b) 20g mol^{-1}
    (c) 40 g mol^{-1} (c) 30 g mol^{-1}

76. N:O adopts rock- salt structure. The Co-ordination no. of the Ni^{2+} ion is:
    (a) 2   (b) 4
    (c) 12   (d) 6

77. distance of ions is:
    A) a/4 In Nacl : the centre – to- nearest neighbour
    (b) $\frac{3a}{2}$
    c) $\frac{q\sqrt{2}}{2}$
    (d) $\frac{a}{2}$

78. The unit cell of $CO_2(s)$ is
    (a) FCC   (b) BCC
    (c) linear   (d) HCP

79. When the radius ratio lies between 0.44 and 0.732, the arrangement of the crystal is:
    (a) Tetrahedral   (b) Octahedral
    (c) linear   (d) Cubic

80. In HCP (ABAB……) and CCP (ABC ABC….) structure made up of spheres of equal size; the volume occupied per sphere is (a-radius of sphere)
(a) 5.66 a3
(b) 1.33 a3
(c) 2.66 a3
(d) 7.40a3

81. Ferrocene is :
(a) bis (cyclopentadienyl) iron (II)
B) dicyclopentadiengl iron (o)
(c) dicyclopentadingl iron (III)
(d) bis (cyclopentyl) iron (II)

82. The effective atomic number for the complex ion $[Ni(CN)_4]^{2-}$ is:
(a) 36
(b) 86
(c) 34
(d) 18

83. Which of the following is colourless
(a) $[Ti(H_2O)_6]^{3+}$
(b) $[Ti(NO_3)_4]$
(c) $[Cr(NH_3)_6]^{3+}$
(d) $[Fe(CN)_6]^{4-}$

84. Which of the following pairs of structures represent facial (fac) and meridional (mer) isomers (geometrical isomers) respectively?

(a)

(b)

(c)

(d)
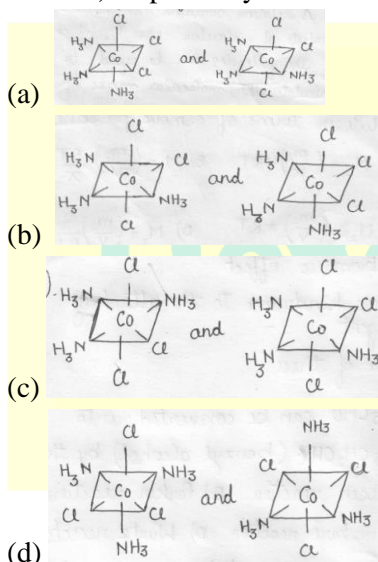
85. Which of the following are $\pi -$ bonded are organometallic compounds?
(a) Grignard reagents (RMgx)
(b) Gilman reagent (R2Culi)
(c) Di-Benzene chromium
(d) Di-ethylzinc $[Et_2Zn]$

86. The formation of the complex ion $[Co(NH_3)_6]^{3+}$ involves the sp^3d^2 hybridization of Co^{3+}. Thus the complex ion should have
(a) Octahedral geometry
(b) Titrahedral geometry
(c) Square – Planar geometry
(d) Square – Antiprismic geometry

87. The hybridisation status of the central atoms in the complex ions $[FeF6]^{3-}$ $[Fe(H_2O)_6]^{3+}$ and $[Ni(NH_3)_6]^{2+}$ are:
(a) $3s4p^34d^2$, 4d 3s $4d^2$&$4d^45s^2$ respectively
(b) all $3d^24s4p^3$

(c) all $4s4p^34d^2$
(d) $3s4p^34d^2$, 4d 3s $4p^3$&$4p^45s^2$ respectively

88. Which of the following types of octahedral complexes exhibit geometrical isomerism
(a) $[Ma_6]$
(b) $[Ma_8b]$
(c) $[M(a)_3]$
(d) $[Ma_4b_2]$

89. Tetrahedral complexes of type Ma_4 and Ma_3b do not show optical isomerism because they have:
(a) An axis of symmetry
B) A plane of symmetry and hence are achiral
(c) A centre of Symmetry
(d) Non-Suprimposable mirror image

90. $[Co(NH_3)_5(NO_3)]SO_4$ and $[Co(NH_3)_5(SO_4)]NO_3$ exhibit :
(a) Co-ordinate isomerism
(b) linkage isomerism
(c) ionization isomerism
(d) optical isomerism

91. What is the final product of Aldol Condensation reaction ?
(a) Alchol
(b) Aldol
(c) Unsaturated aldehyde
(d) All the above

92. NaBH4 will not reduce an:
(a) aldehyde
(b) Ketone
(c) acid chlorides
(d) Esters

93. The reactivities of the carbonyl compeonds ; HCHO ; RCHO and $R_2C=0$ in nucleophilic addition reaction are in the following order:
(a) $HCHO > RCHO > R_2CO$
(b) $RCHO > HCHO > R_2CO$
(c) $R2CO > RCHO > H_CHO$
(d) $HCHO > R2CO > R_CHO$

94. The conversion $H_3CCH=CHCHO \rightarrow H_3CCH=CHCH_2OH$ can be effected with :
(a) Ni/H_2
(b) q-BBN
(c) Zn-Hg/HCl
(d) None of these

95. Which of the following respond positively to the iodoform test ?
(a) 2-Pentsrone
(b) 1-Pentonal
(c) 3-Pentarone
(d) Pentonol

96. Ketone are less reactive than aldehydes because:
(a) the C=0 group is less polar in ketone
B) Electroneric effect
(c) Steric hindrance to the attacking reagent
(d) None of these

97. C_6H_5CHO can be converted into $C_6H_5CH_2OH$ (benzyl alcohol) by the
(a) Claisen reactin
(b) Perkin reaction
C) Cannizzaro reaction
(d) Wvrtz reaction

98. $C_6H_6 + CO + HCl \xrightarrow[AlCl_3]{Anhy.}$ The main product obtained in this reaction is :

(a) $C_6H_5CH_3$ (b) C_6H_5CHO
(c) $C_6H_5CH_2Cl$ (d) C_6H_5COOH

99. In the reaction $CH_3CH_2COCl \xrightarrow[H_2]{Pd/BaSO_4} X$; the product is:
(a) CH_3CH_2CHO (b) CH_3CHO
(c) CH_3COOH (d) $(CH_3)_2CO$

100. The oreder of reactivity of $CH_3CHO(I)$: $CH_3CH_2COCH_3$ (II) and H_3CCOCH_3 (III) is:
(a) I > III > II (b) I > II > III
(c) II > I > III (d) III > II > I

PART-III.

101. Which one of the following is incorrect match :
(a) Hymen – Female external genitalia
(b) Acrosome – Help in fertilisation
(c) Labia minora – Female external genitalia
(d) Fimbriae – Help in collection of Sperm

102. Which one of the following is the incorrect match:
(a) Regulator – Parrot
(b) Conformer – Tomato
(c) Aestivation – Zooplankton
(d) CAM pathway – Adaptation

103. Which one of the following statements is not true
(a) Apomixis is sexual reproduction that mimics asexual reproduction
(b) Pollen grains are rich in nutrients, and they are used in the form of tablets and syrups
(c) Pollen grains cause severe allergies and bronchial afflictions in some people
(d) The flowers pollinated by flies and beetle secrete foul odour to attract them

104. In C4 plant the light reaction are takes place in :
(a) Mesophyll cells (b) Bundle sheath cells
(c) Both 1 and 2 (d) None of these

105. Which one of the following is the incorrect match with reference to biofortified crops
(a) Atlas 66 - High fats content
(b) Spinach - Calcium enrich
(c) Bathua - Calcium enrich
(d) Carrots - Vitamin A enrich

106. Which one is product of ductless gland :
(a) Mucus (b) Saliva
(c) Milk (d) Hormone

107. Which is a correct matching set
Column-I Column-II
(a) Hexagonal structure (i) Type of development
(b) Phallomere (ii) Fertilised eggs encased in capsules
(c) Oothecae (iii) Chitinous Asymmetrical structure
(d) Paurometabolous (iv) Unit of compound eye
(a) a-iv, b-iii, c-ii, d-I (b) a-iv, b-iii, c-i, d-ii
(c) a-iv, b-ii, c-iii, d-I (d) a-iii, b-iv, c-i, d-ii

108. Which one of the following is the secondary meristem
(a) Lateral meristems
(b) Interfascicular cambium
(c) Cork cambium
(d) All of these

109. In roots, the tangential as well as radial walls of the barrel-shaped endodermal cells have a deposition of water impermeable, waxy material suberin in the form of
(a) Cuticle strips (b) Protein strips
(c) Casparian strips (d) Silicious strips

110. Which of the following statements are incorrect with reference to eukaryotic cell:
(a) It has true nucleus
(b) It has membrane bound cell organelles
(c) Their genetic material is organised into chromosomes
(d) All eukaryotic cells are identical

111. Function of cytoskeleton is:
(a) Mechanical support
(b) Motility
(c) Maintenance of the shape of the cell
(d) All of these

112. Which of the following chemicals are present in chromatin:
(a) Some non histone protein
(b) DNA and some basic proteins
(c) RNA
(d) All of these

113. Match the following column I and column II:
Column I Column II
A. Acidic amino acid (i) Histidine
B. Aromatic amino acid (ii) Leucine
C. Neutral amino acid (iii) Glutamic acid
D. Basic amino acid (iv) Phenylalanine
(a) A – iii, B – iv, C – ii, D – i
(b) A – ii, B – iii, C – iv, D – i
(c) A – i, B – iv, C – iii, D – ii
(d) A – iv, B – iii, C – i, D – ii

114. Which among the following element has maximum weight–percent in human body:
(a) Oxygen (b) Hydrogen
(c) Calcium (d) Nitrogen

115. Iodine test is positive for starch because:
(a) Starch forms helical primary structure
(b) Starch forms helical tertiary structure
(c) Starch forms globular secondary structure
(d) Starch forms helical secondary structure

116. Which of the following phases of the cell cycle is not a part of interphase:
(a) S (b) G1
(c) G2 (d) M

117. Identify phases (A–D) from the diagrammatic view of cell cycle given below :
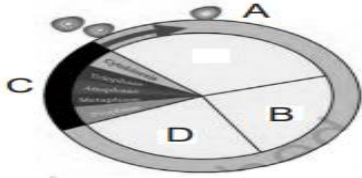
In which of the four options all the stages A, B, C, and D are correct:

A B C D

(a) M G0 S G1   (b) G0 S M G2
(c) G2 M S G0   (d) G1 G0 M S

118. Hill Bunt disease resistant crop is of :
(a) Cowpea   (b) Wheat
(c) Chilli   (d) All

119. Which of the following is incorrect option for apoplast
(a) It is the system of adjacent cell wall that is continous through out the plant except at the casparian strip of endodermis
(b) In apoplast movement of water occur through intercellular space
(c) In apoplast movement of water is not dependent on gradient
(d) The apoplast does not provide any barrier to water Movement

120. Match the element with its associated functions/ roles and choose the correct option among given below
A. Boron i. Splitting of H_2O to liberate O_2 during photosynthesis
B. Chlorine ii. Needed for synthesis of auxins
C. Molybdenum iii. Component of nitrogenase
D. Zinc iv. Pollen germination
E. Iron v. Component of ferredoxin
(a) A-i, B-ii, C-iii, D-iv, E-v
(b) A-iv, B-i, C-iii, D-ii, E-v
(c) A-iii, B-ii, C-iv, D-v, E-i
(d) A-ii, B-iii, C-v, D-i, E-iv

121. The sulphur is the main constituents of :
a. Thiamine   b. Biotin
c. Ferredoxin   d. Coenzyme A
(a) a, b, c, d   (b) Only a, b, d
(c) Only a, c, d   (d) Only a, b

122. The first stable product of Calvin cycle and Hatch and Slack cycle are:
(a) 4-C and 3-C compound (b) 4-C and 6-C compound
(c) 3-C and 4-C compound (d) 5-C and 4-C compound

123. In human body many hormones interact with intracellular receptors mostly gene expressions or chromosome function by the interaction of hormone receptor complex with the genome. In the given below example how many hormones are such type :Progesterone, Estrogen, Thyroxine, Insulin, Glucagon, Androgen, Cortisol, Aldosterone, GIP, ANF, CCK
(a) 7   (b) 6
(c) 8   (d) 5

124. In seed presence of which chemical inhibitors causes dormancy :
a. Phenolic acids
b. Para ascorbic acid
c. abscissic acids
(a) Only c   (b) a, b, c
(c) Only a, c   (d) Only b, c

125. A layer of alimentary canal forms irregular folds in different part what is the name of layer and their irregular folds respectively :
a. Sub Mucosa, Rugae in stomach
b. Mucosa, villi in stomach
c. Mucosa, Rugae in stomach
d. Mucosa, villi in intestine
(a) c, d   (b) Only d
(c) a, d   (d) b, d

126. What is the correct sequence of organisation of skeletal muscles :
(a) Myofibrils - Muscle fibre - Fascicles - Skeletal muscle
(b) Myofibrils - Fascicles - Muscle fibre - Skeletal muscle
(c) Muscle fibre - Myofibrils - Fascicles - Skeletal muscles
(d) Myofibrils - Fascicles - Skeletal muscles - Muscle fibre.

127. A structure located on the basilar membrane of the Cochlea containing hair cells that convert sound vibration into nerve impulse. This structure is :
(a) Otolith   (b) Macula
(c) Crista ampullaris   (d) Organ of corti

128. The correct sequence of reproductive events in human female :
(a) Gametogenesis - Insemination - Fertilisation - Implantation - Gestation
(b) Gametogenesis - Insemination -Implantation - Fertilisation - Gestation
(c) Insemination - Gametogenesis - Fertilisation - Implantation - Gestation
(d) Gametogenesis -Insemination -Implantation - Gestation - Fertilisation

129. Embryological support for evolution was proposed by :
(a) Karl Ernst Von Baer   (b) Ernst Heckel
(c) Lamarck   (d) Hugo de vries

130. Which two animal are show convergent evolution:
    (a) Lemur and spotted cuscus (b) Lemur and Bobcat
    (c) Koala and wombat   (d) Sugar glider and koala

131. What is the meaning of saltation :
    (a) Small step large mutation
    (b) Large step large mutaion
    (c) Single step large mutation
    (d) Single step small mutation

132. The process by which partial oxidation of glucose occurs:
    (a) Kreb's cycle   (b) E.T.S
    (c) Both (1) and (2)   (d) Glycolysis

133. The periplaneta belongs to which of this phyla
    (a) Echinodermata   (b) Annelida
    (c) Mollusca   (d) Arthropoda

134. In most higher plants, the growing apical bud inhibits the growth of the axillary buds. This phenomenon is known as:
    (a) Lateral dominance   (b) Parthenocarpy
    (c) Apical dominance   (d) Lodging

135. Which of the following represents the sedimentary type of nutrient cycle :
    (a) Nitrogen   (b) Carbon
    (c) Phosphorus   (d) H2O

136. Which is the correct statement :
    (a) In most ecosystems all the pyramids of number, energy and biomass are not upright
    (b) Pyramid of numbers is inverted in a tree ecosystem
    (c) Pyramid of biomass is generally upright in sea
    (d) None

137. Select the true statement in the following :
    (a) Integrated organic forming is a cyclical zero waste procedure
    (b) Crop waste can be used to generate natural gas
    (c) Prime contaminant of cultural eutrophication is phosphates and nitrates
    (d) All of the above are true

138. Green house gases absorb _____ radiation from the earth and emit it again towards the earth. The cycle continues till the earth's surface has no _____ radiation to emit
    (a) long wave (infrared); long wave
    (b) short wave (UV); long wave
    (c) long wave (infrared|); short wave (UV)
    (d) short wave (UV); short wave (UV)

139. Which is a correct statement
    (a) Trachea is a straight tube extending upto the mid abdominal cavity
    (b) Pleural fluid is present between two lungs
    (c) Thoracic chamber is dorsally formed by cervical vertebrae
    (d) We can not directly alter the pulmonary volume
    (a) a and b   (b) b and c

(c) only c   (d) only d

140. Which one of the following is the correct description of a certain part of a normal human skeleton
    (a) Parietal bone of the skull are paired
    (b) First vertebra is atlas
    (c) The 9th and 10th pairs of ribs are called floating ribs
    (d) Both 1 and 2

141. Which is a correct matching set :
    Column I   Column II
    a. Gonadocorticoids   i. Posterior pituitary
    b. Melatonin   ii. Anterior pituitary
    c. PRL   iii. Adrenal cortex
    d. Vasopressin   iv. Pineal gland
    (a) a-iii, b-iv, c-ii, d-I   (b) a-iii, b-iv, c-i, d-ii
    (c) a-iii, b-i, c-ii, d-iv   (d) a-i, b-iv, c-ii, d-iii

142. Which is a correct matching set
    Column-I   Column-II
    a. pO2 in the alveoli i. 0.5 L
    b. pO2 of oxygenated ii. 1 L blood
    c. ERV iii. 95 mm Hg
    d. Tidal volume iv. 104 mm Hg
    (a) a-iv, b-iii, c-ii, d-I   (b) a-i, b-iii, c-ii, d-iv
    (c) a-iii, b-ii, c-iv, d-I   (d) a-ii, b-iii, c-iv, d-i

143. How many molar teeth present in upper jaw of human :
    (a) 2   (b) 4
    (c) 1   (d) 6

144. How do parasympathetic neural signals affect the working of the heart :
    (a) Reduce both heart rate and cardiac output
    (b) Heart rate is increases without affecting the cardiac output
    (c) Both heart rate and cardiac output increases
    (d) heart rate decreases but cardiac output increases.

145. Match the items given in column I with those in column II and select the correct option given below :
    Column I   Column II
    a. Glycosuria   i. Accumulation of uric acid in joints
    b. Gout   ii. Mass of crystallised salts within the kidney
    c. Renal calculi   iii. Inflammation in glomeruli
    d. Glomerulonephritis iv. Presence of glucose in urine
    (a) a-iii, b-ii, c-iv, d-I   (b) a-i, b-ii, c-iii, d-iv
    (c) a-ii, b-iii, c-i, d-iv   (d) a-iv, b-i, c-ii, d-iii

146. What will happen if the stretch receptors of the urinary bladder wall are totally removed :
    (a) Micturition will continue
    (b) Urine will not continously formed in kidney
    (c) There will be no micturition

(d) Urine will not collect in the bladder

147. The correct route through which pulse making impulse travels in the heart is :

(a) SA Node ➡ Purkinje fiber ➡ Bundle of his ➡ AV node ➡ Heart muscle

(b) SA Node ➡ AV node ➡ Bundle of his ➡ Purkinje fiber ➡ Heart muscle

(c) AV node ➡ Bundle of his ➡ SA Node ➡ Purkinje fiber ➡ Heart muscle

(d) AV node ➡ SA Node ➡ Purkinje fiber ➡ Bundle of his ➡ Heart muscle

148. Myelin sheath is produced by :
(a) astrocytes and Schwann cells
(b) oligodendrocytes and osteoclasts
(c) osteoclasts and astrocytes
(d) Schwann cells and oligodendrocytes

149. Which one of the following is the incorrect match:
(a) Ethidium bromide – Staining
(b) Gel electrophoresis – Annealing
(c) Cloning vector – Bacteriophage
(d) pBR322 – Artificial plasmid

150. The technique called Gamete Intra Fallopian Transfer (GIFT) is recommended for those females:
(a) Who cannot produce an ovum
(b) Who cannot retain the foetus inside uterus
(c) Whose cervical canal is too narrow to allow passage for the sperms
(d) Who cannot provide suitable environment for fertilization

151. Full form of ICSI is :
(a) Inter Cytoplasmic Sperm Insemination
(b) Intra Cytoplasmic Sperm Injection
(c) Intra Cervical Sperm Injection
(d) Inter Cervical Sperm Injection

152. No individual is immortal except :
(a) Trypanosoma   (b) Agaricus
(c) Chara   (d) Tapeworm

153. Total types of cells are present in embryo sac :
(a) 3   (b) 4
(c) 2   (d) 5

154. Bagging process is done in artificial hybridization of plants
(a) to make marking of selected flowers
(b) to avoid chances of unwanted crosspollination
(c) to prevent flower from water during fertilisation
(d) to enhance chances of self pollination

155. Increased levels of several hormones in maternal blood are necessary
(a) supporting fetal growth
(b) maintenance of pregnancy
(c) supporting metabolic changes in mother
(d) All of these

156. Choose the incorrect statement :

(a) Mendel selected 14 true breeding pea plant varieties
(b) Factors occurs in pairs
(c) The laws of dominance is used to explain the expression of only one of the parental characters in monohybrid cross in the F2 and the expression on of both in the F1
(d) Alfred sturtevant mapped the position of genes on the chromosome

157. In dihybrid experiment on garden peas worked by mendel. What is the % of yellow round seed :
(a) 56.25%   (b) 12.5%
(c) 25%   (d) 37.5%

158. In a cross in Animal, the heterozygous animal with grey body (b+) and long wings (vg+) was crossed with an animal with black body and vestigial wings. The progeny of the animals is in the following ratio : Grey vestigeal 24; grey long 126; black long 36; black vestigeal 114. What is the frequency of recombinants in the population
(a) 15.8   (b) 16.7
(c) 17.5   (d) 20

159. The genetic disorder where point mutation is observed:
(a) Down syndro
(b) Turner's syndrome
(c) Sickle cell Anaemia
(d) Klinefelter's syndrome

160. In transcription unit the promoter is located towards 5' end while terminator is located towards 3' end, the reference is made with respect to the
(a) Polarity of non-coding strand
(b) Polarity of template strand
(c) Polarity of coding strand
(d) Both 1 and 2

161. Which of the following incorrect for salient features of double helix structure of B DNA:
i. It is made by one nucleotide chain
ii. Back bone is made by sugar and phosphate and bases project out side
iii. Two chains have parallel polarity
iv. 15 bp are present in each turn
(a) Only i and ii incorrect
(b) Only ii and iv incorrect
(c) Only i, ii and iv incorrect
(d) All are incorrect

162. In E. coli, during lactose metabolism, in absence of inducer, repressor protein binds to :
(a) Regulator gene   (b) Operator
(c) Structural gene   (d) Promoter

163. Which one of the following is the correct match:

(a) Histone octamer – 2000 bp

(b) Typical mammalian – 1.2 metres DNA cell

(c) Nucleoid – E. coli

(d) Histones – E. coli

164. If a sample of B-DNA which length are 5.1 metre then number of base pairs present in this sample:

(a) 6.6×1010   (b) 1.5×1010

(c) 2×109   (d) 1.5×109

165. Which organ is infected by Rhino virus :

(a) Nose   (b) GIT

(c) Lungs   (d) CNS

166. Which one of the following is a kind of lymphoid tissue :

(a) CT   (b) MALT

(c) RTI   (d) TCT

167. Intestinal perforation may occur in severe cases of

(a) Dysentery   (b) Malaria

(c) Typhoid   (d) Both 1 and 3

168. Measures for prevention and control of drug abuse includes :

(a) Avoid undue peer pressure

(b) Education and counselling to face problems and accept disappointment

(c) Guidance from parents, professionals and medical help

(d) All of these

169. The new DNA molecule generated by the linking of foreign DNA to vector is called

(a) Plasmid DNA   (b) Recombinant DNA

(c) Combination DNA   (d) Chromosomal DNA

170. EcoR I cuts DNA between bases G and A only when

(a) AAGTTC is present in DNA

(b) GATTC is present in DNA

(c) GAATTC is present in ribonucleic acid

(d) GAATTC is present in DNA

171. Stirred-tank bioreactors have been designed for

(a) purification of product

(b) addition of preservatives to the product

(c) availability of oxygen throughout the process

(d) ensuring anaerobic conditions in the culture vessel

172. Primary sewage treatment is mainly a :

(a) Biological process

(b) Physical process

(c) Physico - chemical process

(d) Chemical process

173. Choose the drug correctly matched with its producer and function:

(a) Blood pressure controlling agent – Streptokinase - produced by protozoa

(b) Immunosuppressant agent - Streptokinase - produced by fungus

(c) Blood-cholesterol lowering agent -Statins - produced by yeast

(d) Clot buster - Cyclosporin A - produced by fungus

174. What is antisense technology :

(a) When a piece of RNA that is complementary in sequence is used to stop expression of a specific gene

(b) RNA polymerase producing DNA

(c) A cell displaying a foreign antigen used for synthesis of antigens

(d) Production of somaclonal variants in tissue cultures

175. Bt toxin is coded by gene

(a) Bt   (b) cry

(c) Btry   (d) By

176. In which of the following, both pairs have correct combination :

(a) In situ conservation : Seed Bank

Ex situ conservation : National Park

(b) In situ conservation : Tissue culture

Ex situ conservation : Sacred groves

(c) In situ conservation : National Park

Ex situ conservation : Botanical Garden

(d) In situ conservation : Cryopreservation

Ex situ conservation : Wildlife Sanctuary

177. 20% of total oxygen in earth's atmosphere produced by :

(a) Amazonian rain forest   (b) Desert

(c) Megalaya forest   (d) Sarguja forest

178. Which substance in Calotropis gives itself protection against predators

(a) Carotenoids   (b) Concanavalin A

(c) Glycolipid   (d) Cardiac glycosides

179. On planet Earth, life exists not just in a few favourable habitats but even in extreme and harsh habitats. Which of the following are such type of habitat :

(a) Thermal springs   (b) Human intestine

(c) Torrential streams   (d) Stinking compost pits

(a) Only a, c, d   (b) Only c, d

(c) a, b, c, d   (d) Only a, b, c

180. Which one of the following is not a correct Statement:

(a) Herbarium houses dried, pressed and preserved plant specimens

(b) Botanical gardens have collection of living plants for reference

(c) A museum has collection of photographs of plants and animals

(d) Key is a taxonomic aid for identification of Specimens

181. M.W. Beijerinek demonstrated that the extract of the infected plants of tobacco could cause infection in healthy plants and called the fluid as
(a) Contagium vivum fluidum
(b) Infectious living fluid
(c) Both 1 and 2
(d) Infectious non living fluid

182. The gametophyte are produces
(a) Gametes
(b) Spore
(c) Gametes and spore both
(d) Always spore

183. Which one of the following are viviparous and oviparous mammals respectively :
(a) Delphinus, Platypus
(b) Platypus, Pteropus
(c) Platypus, Panthera
(d) More than one option are correct

184. Which of the following is a bath sponge
(a) Sycon   (b) Sea Anemone
(c) Euspongia   (d) Spongilla

185. On the basis of presence or absence of RBC, Aristotle divided animals in how many groups :
(a) 1   (b) 2
(c) 3   (d) 4

186. Male & female gametophyte do not have an independent free living existence in :
Pteris, Funaria, Riccia, Marchantia, Pinus, Cycas, Polytrichum, Cedrus, Sequoia
(a) 3   (b) 1
(c) 4   (d) 5

187. How many plants among these are ornamental- Lupin, Sweet pea, Petunia, Tulip, Gloriosa
(a) 5   (b) 4
(c) 3   (d) 1

188. Expanded petiole perform photosynthesis in :
(a) Onion   (b) Australian acacia
(c) Calotropis   (d) Alstonia

189. Which one of the following is the correct match:
a. Carrageen i. Eudorina
b. Anisogamous ii. Red algae
c. Oogamous iii. Volvox
d. Moss iv. Sphagnum
(a) a-i, b-ii, c-iii, d-iv   (b) a-iii, b-ii, c-i, d-iv
(c) a-ii, b-i, c-iii, d-iv   (d) a-iv, b-i, c-ii, d-iii

190. Which one of the following is the correct match :
a. Radial symmetry i. Earthworm
b. Bilateral symmetry ii. Spongilla
c. Asymmetrical iii. Aurelia
d. Alternation of iv. Obelia generation
(a) a-i, b-ii, c-iii, d-iv   (b) a-ii, b-i, c-iv, d-iii
(c) a-iii, b-i, c-ii, d-iv   (d) a-iv, b-i, c-ii, d-iii

191. This is the common factor between housefly, anopheles and cockroach
(a) three pair of legs
(b) two pair of wings
(c) cuticle covering the body
(d) presence of cephalothorax

192. Which of these immune cells are able to quickly respond post any subsequent encounter with the same antigen?
(a) helper T cells   (b) memory cells
(c) plasma cells   (d) basophil

193. Basophils, eosinophils and Neutrophils are referred to as
(a) Platelets   (b) Astocytomas
(c) Granulocytes   (d) Buffers

194. Human blood types in the ABO blood group are identified by
(a) clotting factors in plasma
(b) microscopic examination of white blood cells
(c) antigen-antibody reactions
(d) series of enzyme controlled reactions

195. Which of the following is made of dead cells?
(a) Phloem   (b) Phellem
(c) Collenchyma   (d) Xylem parenchyma

196. Which of the following events takes place in a ring girdled plant?
(a) The eath of the root first
(b) The death of the shoot first
(a) The shoots and the root dies first
(d) Neither the shoot nor the root will die

197. This organism is not an example of eukaryotic cells
(a) Euglena viridis   (b) Escherichia coli
(c) Amoeba proteus   (d) Paramoecium caudatum

198. Juice containing sodium glycocholate is secreted under the influence of _____.
(a) Enterogastrone   (b) Cholecystokinin
(c) Enterokinin   (d) Secretin

199. In monocot leaf
(a) Veins form a network
(b) Mesophyll is not differentiated into palisade and spongy parenchyma
(c) Mesophyll is well differentiated into these parts
(d) Bulliform cells are absent from epidermis

200. If a stethoscope is used by doctors for cardiac auscultation, then what will be the second sound for each cardiac cycle?
(a) AV valves open up
(b) AV node receives a signal from SA node
(c) The walls of ventricles vibrate due to flooding in of blood from atria
(d) Semilunar valves shut down after the blood flows from ventricles into vessels

CENTURION DEFENCE ACADEMY
MNS TEST- 055ANSWER KEY (12 -06-2022

No.	Ans	No.	Ans	No.	Ans	No.	Ans	No.	Ans	No.	Ans	No.	Ans
1.	A	31.	B	61.	C	91.	C	121.	A	151.	A	181.	C
2.	C	32.	A	62.	D	92.	D	122.	C	152.	B	182.	A
3.	B	33.	C	63.	D	93.	A	123.	B	153.	B	183.	A
4.	C	34.	B	64.	D	94.	B	124.	B	154.	B	184.	C
5.	C	35.	C	65.	D	95.	A	125.	A	155.	D	185.	B
6.	B	36.	C	66.	B	96.	C	126.	A	156.	C	186.	C
7.	D	37.	D	67.	C	97.	C	127.	D	157.	A	187.	A
8.	D	38.	D	68.	B	98.	B	128.	A	158.	D	188.	B
9.	A	39.	C	69.	A	99.	A	129.	B	159.	C	189.	C
10.	C	40.	D	70.	D	100.	A	130.	A	160.	C	190.	C
11.	A	41.	B	71.	A	101.	D	131.	A	161.	D	191.	A
12.	B	42.	D	72.	D	102.	C	132.	C	162.	B	192.	B
13.	B	43.	A	73.	D	103.	A	133.	D	163.	C	193.	C
14.	A	44.	B	74.	A	104.	C	134.	C	164.	B	194.	C
15.	A	45.	B	75.	A	105.	A	135.	C	165.	A	195.	B
16.	A	46.	B	76.	D	106.	D	136.	B	166.	B	196.	C
17.	A	47.	A	77.	D	107.	A	137.	D	167.	C	197.	B
18.	C	48.	A	78.	A	108.	D	138.	A	168.	D	198.	B
19.	B	49.	C	79.	B	109.	C	139.	D	169.	B	199.	B
20.	C	50.	D	80.	A	110.	D	140.	D	170.	D	200.	D
21.	B	51.	B	81.	B	111.	D	141.	A	171.	C		
22.	A	52.	C	82.	C	112.	D	142.	A	172.	B		
23.	B	53.	D	83.	B	113.	A	143.	D	173.	C		
24.	B	54.	D	84.	A	114.	A	144.	A	174.	A		
25.	D	55.	D	85.	C	115.	D	145.	D	175.	B		
26.	A	56.	B	86.	A	116.	D	146.	A	176.	C		
27.	C	57.	B	87.	C	117.	B	147.	B	177.	A		
28.	C	58.	B	88.	D	118.	B	148.	D	178.	D		
29.	D	59.	B	89.	B	119.	C	149.	B	179.	C		
30.	A	60.	B	90.	C	120.	B	150.	A	180.	C		