_____

BEST WISHES

ALL ASPIRING DOCTORS

(APRROX 21 LAKHS) for THIS SUNDAY (7th MAY2023)

NEET MOCK TEST 2023

Question Paper

Date: 05.05.2023 FRIDAY
NEET PERSONAL BATCH BY EXPERTS

https://edifystudycenter.in/

CONTACT: Neelesh Upadhyay (98989966050)

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Important Instructions for Mock test :

1. The Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars on OFFICE Copy carefully with **blue/black** ball point pen only.

 2. The test is of 3 hours duration and the Test Booklet contains 200 multiple-choice questions (four options with a single correct answer) from Physics, Chemistry and Biology (Botany and Zoology). 50 questions in each subject are divided into two Sections (A and B) as per details given below : (a) Section A shall consist of 35 (Thirty-five) Questions in each subject (Question Nos – 1 to 35, 51 to 85, 101 to 135 and 151 to 185). All questions are compulsory. (b) Section B shall consist of 15 (Fifteen) questions in each subject (Question Nos – 36 to 50, 86 to 100, 136 to 150 and 186 to 200). In Section B, a candidate needs to attempt any 10 (Ten) questions out of 15 (Fifteen) in each subject. Candidates are advised to read all 15 questions in each subject of Section B before they start attempting the question paper. In the event of a candidate attempting more than ten questions, the first ten questions answered by the candidate shall be evaluated.

3. Each question carries 4 marks. For each correct response, the candidate will get 4 marks. For each incorrect response, one mark will be deducted from the total scores. The maximum marks are 720.

4. **Use Blue/Black Ball Point Pen** only for writing particulars on this page/marking responses on Answer Sheet.

5. Rough work is to be done in the space provided for this purpose in the Test Booklet only.

6. On completion of the test, the candidate must hand over the Answer Sheet (ORIGINAL and OFFICE Copy) to the Invigilator before leaving the Room/Hall. The candidates are allowed to take away this Test Booklet with them.

7.Do not make any stray marks on the Answer Sheet. Do not write your Roll No. anywhere else except in the specified space in the Test Booklet/ Answer Sheet.

8. Use of white fluid for correction is NOT permissible on the Answer Sheet.

9. No candidate, without special permission of the centre Superintendent or Invigilator, would leave his/her seat.

10. The candidates should not leave the Examination Hall without handing over their Answer Sheet to the Invigilator on duty and sign (with time) the Attendance Sheet twice. Cases, where a candidate has not signed the Attendance Sheet second time, will be deemed not to have handed over the Answer Sheet and dealt with as an Unfair Means case

11. The candidates will write the Correct Test Booklet Code as given in the Test Booklet/Answer Sheet in the Attendance Sheet.

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Physics
SECTION : A

1. The dimensional formula of torque is
(1) $[ML^2 T^{-2}]$
(2) $[MLT^{-2}]$
(3) $[ML^{-1} T^{-2}]$
(4) $[ML^{-2} T^{-2}]$

2. If the error in the measurement of radius of a sphere is 2%, then the error measurement of volume will be:
(1) 4%
(2) 6%
(3) 8%
(4) 2%

3. A car moving with a speed of 40 km/h can be stopped by applying brakes at least after 2 m. If the same car is moving with a speed of 80 km/h, what is the minimum stopping distance?
(1) 8 m
(2) 6 m
(3) 4 m
(4) 2 m

4. From Ampere's circuital law for a long straight wire of circular cross-section carrying a steady current, the variation of magnetic field in the inside and outside region of the wire is
(1) Uniform and remains constant for both the regions.
(2) A linearly increasing function of distance upto the boundary of the wire and then linearly decreasing for the outside region.
(3) A linearly increasing function of distance r upto the boundary of the wire and then decreasing one with $\frac{1}{r}$ dependence for the outside region.

(4) A linearly decreasing function of distance upto the boundary of the wire and then a linearly increasing one for the outside region.

5. A particle moves with a velocity $6\hat{i} -4\hat{j} +3\hat{k}$ m/s under the influence of a constant force $F=20\hat{i}+15\hat{j}-5\hat{k}$ N. The instantaneous power applied to the particle is
(1) 45 J/s
(2) 35 J/s
(3) 25 J/s
(4) 195 J/s

6. The horizontal range and the maximum height of a projectile are equal. The angle of projection of the projectiles is:
(1) $\theta = \tan^{-1}\left(\frac{1}{4}\right)$
(2) $\theta = \tan^{-1}(4)$
(3) $\theta = \tan^{-1}(2)$
(4) $\theta = 45^0$

7. If a cricketer catches a ball of mass 150 gm moving with a velocity of 20 m/s, then he experiences a force of (Time taken to complete the catch is 0.1 sec.)
(1) 300 N
(2) 30 N
(3) 3 N
(4) 0.3 N

8. The kinetic energy acquired by a mass (m) in travelling distance (s) starting from rest under the action of a constant force is directly proportional to
(1) $1/\sqrt{m}$
(2) $1/ m$
(3) $\sqrt{m}$
(4) m^0

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9. A body of mass 1 kg is thrown upwards with a velocity 20 m/s. It momentarily comes to rest after attaining a height of 18 m. How much energy is lost due to air friction? (g = 10 m/s^2)
(1) 30 J
(2) 40 J
(3) 10 J
(4) 20 J

10. In a triangle ABCD(BC= 2AB). The moment of inertia is minimum along axis through.
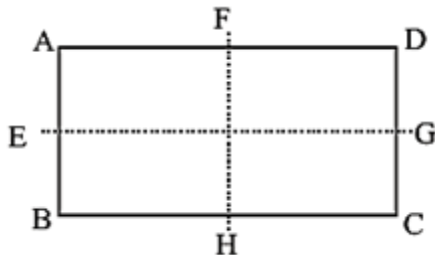
(1) BC
(2) BD
(3) HF
(4) EG

11. A thin circular ring of mass M and radius r is rotating about its axis with a constant angular velocity ω. Four objects each of mass m, are kept gently to the opposite ends of two perpendicular diameters of the ring. The angular velocity of the ring will be
(1) $\frac{(M+4m)\omega}{M+4m}$
(2) $\frac{4\omega}{4m}$
(3) $\frac{M\omega}{M+2m}$

(4) $\frac{(M-4m)\omega}{m}$

12. From Ampere's circuital law for a long straight wire of circular cross-section carrying a steady current, the variation of magnetic field in the inside and outside region of the wire is
(1) Uniform and remains constant for both the regions.
(2) A linearly increasing function of distance upto the boundary of the wire and then linearly decreasing for the outside region.
(3) A linearly increasing function of distance r upto the boundary of the wire and then decreasing one with $\frac{1}{r}$ dependence for the outside region.
(4) A linearly decreasing function of distance upto the boundary of the wire and then a linearly increasing one for the outside region.

13. Assuming earth to be a sphere of a uniform density, what is the value of gravitational acceleration in a mine 100 km below the earth's surface (Given R=6400 km)
(1) 9.65 m/s^2
(2) 7.65 m/s^2
(3) 5.06 m/s^2
(4) 3.10 m/s^2

14. When an elastic material with Young's modulus Y is subjected to stretching stress S, elastic energy stored per unit volume of the material is
(1) YS/ 2
(2) S^2 Y/ 2
(3) S^2 / 2Y
(4) S/ 2Y

15. Consider a compound slab consisting of two different materials having equal thicknesses and thermal conductivities K

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and 2K, respectively. The equivalent thermal conductivity of the slab is
(1) 4/3 K
(2) 2/3 K
(3) √3 K
(4) 3 K

16. 110 joules of heat is added to a gaseous system, whose internal energy is 40J; then the amount of external work done is
(1) 150 J
(2) 70 J
(3) 110 J
(4) 40 J

17. A mass of diatomic gas (γ = 1.4) at a pressure of 2 atmospheres is compressed adiabatically so that its temperature rises from 27°C to 927°C. The pressure of the gas in final state is
(1) 28 atm
(2) 68.7 atm
(3) 256 atm
(4) 8 atm

18. A particle moving along the X-axis, executes simple harmonic motion then the force acting on it is given by
(1) – A kx
(2) A cos (kx)
(3) A exp (– kx)
(4) Akx

19. A series LCR circuit with inductance 10 H, capacitance 10 μF , resistance 50 Ω is connected to an ac source of voltage, V = 200sin(100t) volt. If the resonant frequency of the LCR circuit is v_1 and the frequency of the ac source is v, then
(1) v_0 = v = 50 Hz
(2) v_0 = v = $\frac{50}{\pi}$ Hz

(3) v_0 = $\frac{50}{\pi}$ Hz, v = 50 Hz
(4) v = 100 Hz; $_0$ = $\frac{100}{\pi}$ Hz

20. The velocity of sound in any gas depends upon
(1) wavelength of sound only
(2) density and elasticity of gas
(3) intensity of sound waves only
(4) amplitude and frequency of sound

21. The equation of a travelling wave is y = 60 cos (180t – 6x) where y is in microns, t in second and x in metres. The ratio of maximum particle velocity to velocity of wave propagation is
(1) 3.6
(2) 3.6×10^{-4}
(3) 3.6 × 10^{-6}
(4) 3.6×10^{-11}

22. A wave in a string has an amplitude of 2 cm. The wave travels in the + ve direction of x axis with a speed of 128 m/sec and it is noted that 5 complete waves fit in 4 m length of the string. The equation describing the wave is
(1) y = (0.02) m sin (15.7x – 2010t)
(2) y = (0.02) m sin (15.7x + 2010t)
(3) y = (0.02) m sin (7.85x – 1005t)
(4) y = (0.02) m sin (7.85x + 1005t)

23. Two point charges –q and +q are placed at a distance of L, as shown in the figure.
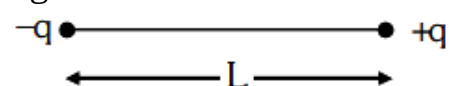
The magnitude of electric field intensity at a distance R(R>>L) varies as:
(1) $1/R^3$
(2) $1/R^4$

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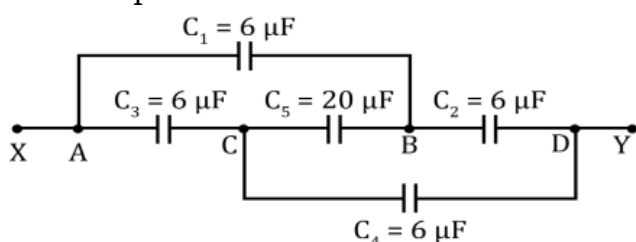**AKOTA (Near CHAI BUGS)/**

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(3) $1/R^6$
(4) $1/R^2$

24. What is the effective capacitance between points X and Y ?

(1) 04 µF
(2) 98 µF
(3) 90 µF
(4) 6 µF

25. Four point charges –Q, –q, 2q and 2Q are placed, one at each corner of the square. The relation between Q and q for which the potential at the centre of the square is zero is:
(1) Q =- q
(2) Q = $-\frac{1}{q}$
(3) Q = q
(4) Q = $\frac{1}{q}$

26. Three equal resistors connected across a source of e.m.f. together dissipate 10 watt of power. What will be the power dissipated in watts if the same resistors are connected in parallel across the same source of e.m.f.?
(1) 10
(2) 10/3
(3) 30
(4) 90

27. A 6 volt battery is connected to the terminals of the three metre long wire of uniform thickness and resistance of 100 ohm. The difference of potential between two points on the wire separated by a distance of 50 cm will be
(1) 1.5 volt
(2) 3 volt
(3) 3 volt
(4) 1 volt

28. A thermocouple of negligible resistance produces an e.m.f. of 42 µV/°C in the linear range of temperature. A galvanometer of resistance 10 ohm whose sensitivity is 9 µA/div, is employed with the termocouple. The smallest value of temperature difference that can be detected by the system will be
(1) 0.5°C
(2) 1°C
(3) 0.1°C
(4) 0.25°C

29. At what distance from a long straight wire carrying a current of 12 A will the magnetic field be equal to 3×10^{-6} Wb/m² ?
(1) 8×10^{-2} m
(2) 12×10^{-2} m
(3) 18×10^{-2} m
(4) 24×10^{-2} m

30. A short bar magnet of magnetic moment 0.4 JT^{-1} is placed in a uniform magnetic field of 0.16 T. The magnet is in stable equilibrium when the potential energy is
(1) –0.64 J
(2) zero
(3) –0.082 J
(4) 0.064 J

31. A wire loop is rotated in a magnetic field. The frequency of change of direction of the induced e.m.f. is
(1) twice per revolution
(2) four times per revolution
(3) six times per revolution
(4) once per revolution

32. A 220 volts input is supplied to a transformer. The output circuit draws a current of 2.0 ampere at 440 volts. If the efficiency of the transformer is 80%, the current drawn by the primary windings of the transformer is
(1) 3.6 ampere
(2) 2.8 ampere
(3) 2.5 ampere
(4) 5.0 ampere

33. The electric and magnetic field of an electromagnetic wave are
(1) in opposite phase and perpendicular to each other
(2) in opposite phase and parallel to each other
(3) in phase and perpendicular to each other
(4) in phase and parallel to each other.

34. Aluminous object is placed at a distance of 30 cm from the convex lens of focal length 20 cm. On the other side of the lens, at what distance from the lens a convex mirror of radius of curvature 10 cm be placed in order to have an upright image of the object coincident with it?
(1) 12 cm
(2) 30 cm
(3) 50 cm
(4) 60 cm

35. A ray of light is incident at an angle of incidence, i, on one face of prism of angle A(assumed to be small) and emerges normally from the opposite face. If the refractive index of the prism is μ, the angle of incidence is nearly equal to:
(1) μA
(2) $\frac{\mu A}{2}$
(3) $\frac{A}{\mu}$
(4) $\frac{A}{2\mu}$

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SECTION : B

36. In Young's double slit experiment the distance between the slits and the screen is doubled. The separation between the slits is reduced to half. As a result the fringe width
(1) is doubled
(2) is halved
(3) becomes four times
(4) remains unchanged

37. Einstein work on the photoelectric effect provided support for the equation
(1) $E = h\nu$
(2) $E = mc^2$
(3) $E = -\frac{Rhc}{n^2}$
(4) K.E. $= \frac{1}{2}mv^2$

38. The threshold frequency for a photosensitive metal is 3.3×10^{14} Hz. If light of frequency 8.2×10^{14} Hz is incident on this metal, the cut-off voltage for the photoelectric emission is nearly
(1) 2 V
(2) 3 V
(3) 5 V
(4) 1 V

39. J.J. Thomson's cathode-ray tube experiment demonstrated that
(1) the e/m ratio of the cathode-ray particles changes when a different gas is placed in the discharge tube
(2) cathode rays are streams of negatively charged ions
(3) all the mass of an atom is essentially in the nucleus
(4) the e/m of electrons is much greater than the e/m of protons

40. The nuclei $6C^{13}$ and $7N^{14}$ can be described as
(1) isotones
(2) isobars
(3) isotopes of carbon
(4) isotopes of nitrogen

41. Which of the following is used as a moderator in nuclear reactors?
(1) Plutonium
(2) Cadmium
(3) Heavy water
(4) Uranium

42. The binding energy of deuteron is 2.2 MeV and that of $_2H^e$ is 28 MeV. If two deuterons are fused to form one 2He4, then the energy released is
(1) 23.6 MeV
(2) 19.2 MeV
(3) 30.2 MeV
(4) 25.8 MeV

43. At absolute zero, Si acts as
(1) non-metal
(2) metal
(3) insulator
(4) none of these

44. A combination of logic gates has the truth table below.
P Q Z
0 0 0
0 1 1
1 0 1
1 1 0

(1) XOR
(2) OR
(3) AND

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(4) NAND

45. Carbon, silicon and germanium atoms have four valence electrons each. Their valence and conduction bands are separated by energy band gaps represented by (Eg)C, (Eg) Si and (Eg)Ge respectively. Which one of the following relationships is true in their case?
(1) (Eg)C > (Eg) Si
(2) (Eg)C < (Eg) Si
(3) (Eg)C = (Eg) Si
(4) (Eg)C< (Eg)Ge

46. For a plane electromagnetic wave propagating in x-direction, which one of the following combination gives the correct possible directions for electric field
(E) and magnetic field (B) respectively?
(1) $-\hat{j} +\hat{k}$, $- \hat{j} +\hat{k}$
(2) $\hat{j} +\hat{k}$, $\hat{j} +\hat{k}$
(3) $-\hat{j} +\hat{k}$, $- \hat{j} -\hat{k}$
(4) $\hat{j} +\hat{k}$, $- \hat{j} -\hat{k}$

47. The resistance of a wire is 'R' ohm. If it is melted and stretched to 'n' times its original length, its new resistance will be :
(1) $\frac{R}{n}$
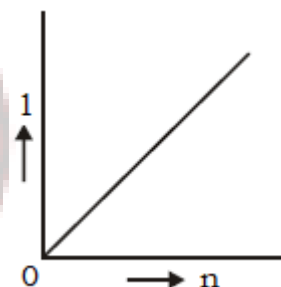(2) $n^2 R$
(3) $\frac{R}{n^2}$
(4) nR

48. A battery consists of a variable number 'n' of identical cells (having internal resistance 'r' each) which are connected in series. The terminals of the battery are short-circuited and the current I is measured. Which of the

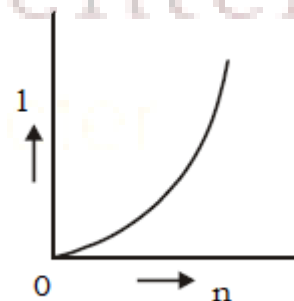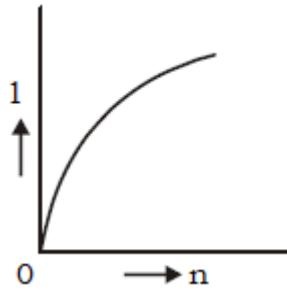graphs shows the correct relationship between I and n?
(1)
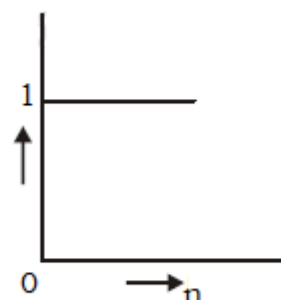
(2)

(3)

(4)

49. Two similar thin equi-convex lenses, of focal length f each, are kept coaxially in contact with each other such that the focal length of the combination is F_1. When the space between the two lenses is filled with glycerin (which has the same refractive index (μ= 1.5) as that of glass) then the equivalent focal length is F_2. The ratio F_1 : F_2 will be :

(1) 2 : 1
(2) 1 : 2
(3) 2 : 3
(4) 3 : 4

50. A long solenoid of 50 cm length having 100 turns carries a current of 2.5 A. The magnetic field at the centre of the solenoid is :

$\mu_0 = 4\pi \times 10^{-7} TmA^{-1}$

(1) 6.28 × 10^{-5} T
(2) 3.14 × 10^{-5} T
(3) 6.28 × 10^{-4} T
(4) 3.14 × 10^{-4} T

Chemistry
SECTION : A

51. Match List-I with List-II.

List-I (Ores)	List-II (Composition)
(a) Haematite	(i) Fe_3O_4
(b) Magnetite	(ii) $ZnCO_3$
(c) Calamine	(iii) Fe_2O_3
(d) Kaolinite	(iv) $[Al_2(OH)_4Si_2O_5]$

Choose the correct answer from the options given below:
(1) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
(2) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
(3) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)
(4) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)

52. Volume occupied by one molecule of water (density = 1 g /cm³) is:
(1) 9.0×10^{-23} cm³
(2) 6.023×10^{-23} cm³
(3) 3.0×10^{-23} cm³
(4) 5.5×10^{-23} cm³

53. The radius of hydrogen in the ground state is 0.53 Å. The radius of Li^{2+} in ground state will be:
(1) 0.17 Å
(2) 0.265 Å
(3) 0.53 Å
(4) 1.06 Å

54. The energies E_1 and E_2 of two radiations are 25 eV and 50 eV respectively. The relation between their wavelengths i.e. λ_1 and λ_2 will be:
(1) $\lambda_1 = \lambda_2$
(2) $\lambda_1 = 2 \lambda_2$
(3) $\lambda_1 = 4 \lambda_2$
(4) $\lambda_1 = \frac{1}{2} \lambda_2$

55. An atom has electronic configuration $1s^2 ,2s^2 2p^6,3s^23p^6 3d^3 ,4s^2$, you will place it in which group?
(1) Fifth
(2) Fifteenth
(3) Second
(4) Third

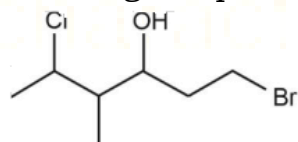56. Which one of the following has the shortest carbon carbon bond length?
(1) Benzene
(2) Ethene
(3) Ethyne
(4) Ethane

57. Copper crystallises in fcc unit cell with cell edge length of 3.608×10^{-8} cm. The density of copper is 8.92 g cm⁻³. Calculate the atomic mass of copper.
(1) 65 u
(2) 63.1 u
(3) 31.55 u
(4) 60 u

58. The correct IUPAC name of the following compound is

(1) 6-bromo-4-methyl-2-chlorohexan-4-ol
(2) 1-bromo-5-chloro-4-methylhexan-3-ol
(3) 6-bromo-2-chloro-4-methylhexan-4-ol
(4) 1-bromo-4-methyl-5-chlorohexan-3-ol

59. Absolute zero is defined as the temperature
(1) at which all molecular motion ceases
(2) at which liquid helium boils
(3) at which ether boils

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(4) all of the above
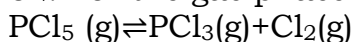
60. The pressure exerted by 6.0g of methane gas in a 0.03 m^3 vessel at 129^0 C is (Atomic masses : C = 12.01 H = 1.01 and R = 8.314 J $K^{-1}mol^{-1}$) :
(1) 31684 Pa
(2) 215216 Pa
(3) 13409 Pa
(4) 41648 Pa

61. The entropy change in the fusion of one mole of a solid melting at 27°C(Latent heat of fusion, 2930 $Jmol^{-1}$) is:
(1) 9.77 JK^{-1} mol^{-1}
(2) 10.73 JK^{-1} mol^{-1}
(3) 2930 JK^{-1} mol^{-1}
(4) 108.5 JK^{-1} mol^{-1}

62. For the gas phase reaction
PCl_5 (g)$\rightleftharpoons PCl_3$(g)+Cl_2(g)
Which of the following conditions are correct ?
(1) $\Delta H = 0$ and $\Delta S < 0$
(2) $\Delta H > 0$ and $\Delta S > 0$
(3) $\Delta H < 0$ and $\Delta S < 0$
(4) $\Delta H > 0$ and $\Delta S < 0$

63.The equilibrium constants for the reaction $A_2 \rightleftharpoons 2A$ at 500K and 700K are 1×10^{-10} and 1×10^{-5}. The given reaction is
(1) exothermic
(2) slow
(3) endothermic
(4) fast

64. The hydrogen ion concentration of a 10^{-8} M HCl aqueous solution at 298 K is:
[Given that: $Kw = 10^{-14}$]

(1) 11×10^{-8} M
(2) 1.0525×10^{-7} M
(3) 9.525×10^{-8} M
(4) 1.0×10^{-6} M

65. The values of K_{sp} of $CaCO_3$ and CaC_2O_4
 are 4.7×10^{-9} and 1.3×10^{-9} respectively at 25^0C. If the mixture of these two is washed with water, what is the concentration of Ca^{2+} ions in water?
(1) 7.746×10^{-5} M
(2) 5.831×10^{-5} M
(3) 6.856×10^{-5} M
(4) 3.606×10^{-5} M

66. When a substance A reacts with water it produces a combustible gas Band a solution of substance C in water. When another substance D reacts with this solution of C, it also produces the same gas Bon warming but Dcan produce gas Bon reaction with dilute sulphuric acid at room temperature. A imparts a deep golden yellow colour to a smokeless flame of Bunsen burner. A, B, Cand Drespectively are
(1) Na, H_2, NaOH, Zn
(2) K, H_2, KOH, Al
(3) Ca, H_2, $Ca(OH)_2$, Sn
(4) CaC_2, C_2H_2, $Ca(OH)_2$, Fe

67. The compound Aon heating gives a colourless gas and a residue that is dissolved in water to obtain B. Excess of CO2 is bubbled through aqueous solution of B, C is formed which is recovered in the solid form. Solid Con gentle heating gives back A. The compound is
(1) $CaSO_4$.$2H_2O$
(2) $CaCO_3$

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(3) Na_2CO_3
(4) K_2CO_3

68. The Cl – C– Cl angle in 1,1,2,2-tetrachloroethene and tetrachloromethane respectively will be about
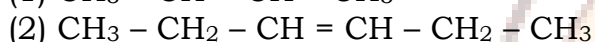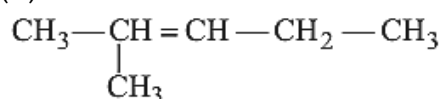(1) 120°
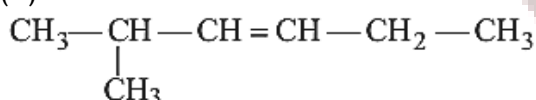(2) 90° and 109.5°
(3) 109.5° and 90°
(4) 120° and 109.5°

69. Which of the following will not show cis-trans isomerism?
(1) $CH_3 – CH = CH – CH_3$
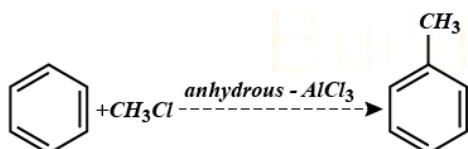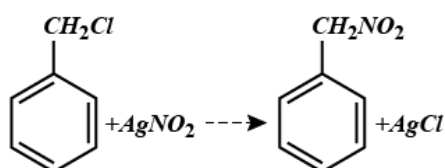(2) $CH_3 – CH_2 – CH = CH – CH_2 – CH_3$
(3)

(4)

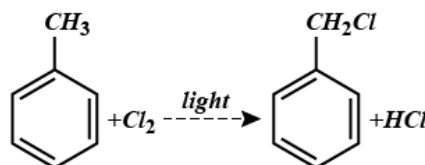70. Which one of the following is a free radical substitution reaction ?
(1)

(2)
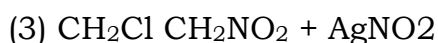
(3) CH_2Cl CH_2NO_2 + AgNO2
(4)

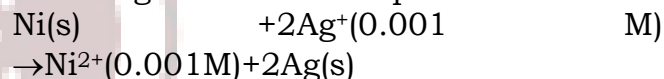71. Which of the following compounds will exhibit cistrans (geometrical) isomerism?
(1) Butanol
(2) 2-Butyne
(3) 2-Butenol
(4) 2-Butene

72. Find the emf of the cell in which the following reaction takes place at 298 K
Ni(s)   +2Ag$^+$(0.001   M) →Ni^{2+}(0.001M)+2Ag(s)
(Given that E^0_{cell} = 10.5 V, $\frac{2.303RT}{F}$ = 0.059 at 298K)
(1) 1.05 V
(2) 1.0385 V
(3) 1.385 V
(4) None

73. Which one of the following statement is not true?
(1) pHof drinking water should be between 5.5 – 9.5.
(2) Concentration of DObelow 6 ppm is good for the
growth of fish.
(3) Clean water would have a BODvalue of less than 5 ppm.
(4) Oxides of sulphur, nitrogen and carbon are the
most widespread air pollutant.

74. If a stands for the edge length of the cubic system : simple cubic, body-centred cubic and face-centred cubic,

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then the ratio of radii of the spheres in these systems will be respectively

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

(2) $\frac{1}{2}a : \sqrt{2}a : \frac{1}{\sqrt{2}}a$

(3) $\frac{1}{2}a : \frac{\sqrt{3}}{2}a : \frac{\sqrt{3}}{2}a$

(4) $1a : \sqrt{3}a : \sqrt{2}a$

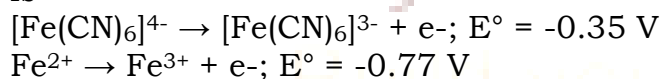75. Which of the following statements, regarding the mole fraction of a component in solution, is incorrect?
(1) $0 \leq x \leq 1$
(2) $x \leq 1$
(3) x is always non negative
(4) $-2 \leq x \leq 2$

76. Which of the following is an insulator?
(1) Graphite
(2) Aluminium
(3) Diamond
(4) Silicon

77. On the BDis of the following E° values, the strongest oxidizing agent is
$[Fe(CN)_6]^{4-} \rightarrow [Fe(CN)_6]^{3-} + e-$; E° = -0.35 V
$Fe^{2+} \rightarrow Fe^{3+} + e-$; E° = -0.77 V
(1) $[Fe(CN)6]^{4-}$
(2) Fe^{2+}
(3) Fe^{3+}
(4) $[Fe(CN)6]^{3-}$

78. If radius of second Bohr orbit of the He+ ion is 105.8 pm, what is the radius of third Bohr orbit of Li^{2+} ion?
(1) 158.7 Å
(2) 158.7 pm
(3) 15.87 pm
(4) 1.587 pm

79. In a zero-order reaction for every 10° rise of temperature, the rate is doubled. If the temperature is increased from 10°C to 100°C, the rate of the reaction will become:
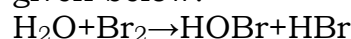(1) 256 times
(2) 512 times
(3) 64 times
(4) 128 times

80. In the extraction of copper from its sulphide ore, the metal is finally obtained by the reduction of cuprous oxide with:
(1) Copper sulphide (Cu2 S)
(2) Sulphur dioxide (SO2)
(3) Iron sulphide (FeS)
(4) Carbon monoxide (CO)

81. $H_3 PO_2$ is the molecular formula of an acid of phosphorus. Its name and basicity respectively are
(1) Phosphorus acid and two
(2) Hypophosphorous acid and two
(3) Hypophosphorous acid and one
(4) Hypophosphoric acid and two

82. Which is the best description of the behaviour of bromine in the reaction given below?
$H_2O + Br_2 \rightarrow HOBr + HBr$
(1) Proton acceptor only
(2) Both oxidized and reduced
(3) Oxidized only
(4) Reduced only

83. The electronic configurations of four elements are given below. Which element does not belong to the same family as others?
(1) $[Xe]4f^{14}5d^{10}6s^2$
(2) $[Kr]4d^{10}5s^2$

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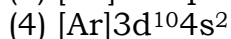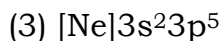
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(3) $[Ne]3s^2 3p^5$
(4) $[Ar]3d^{10}4s^2$

84. The basic character of the transition
metal monoxides follows the order
(Atomic Nos.,Ti = 22, V= 23, Cr = 24, Fe
= 26)
(1) TiO> VO> CrO> FeO
(2) VO> CrO> TiO> FeO
(3) CrO> VO> FeO> TiO
(4) TiO> FeO> VO> CrO
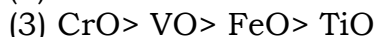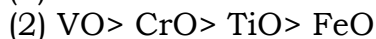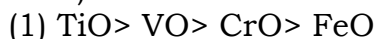
85. Sc (Z= 21) is a transition element but
Zn (Z= 30) is not because
(1) both Sc and Zn do not exhibit variable
oxidation states
(2) both Sc^{3+} and Zn^{2+} ions are
colourless and form white compounds
(3) in case of Sc, 3 orbitals are partially
filled but in Zn these are completely filled
(4) last electron is assumed to be added
to 4s level in case of Zn

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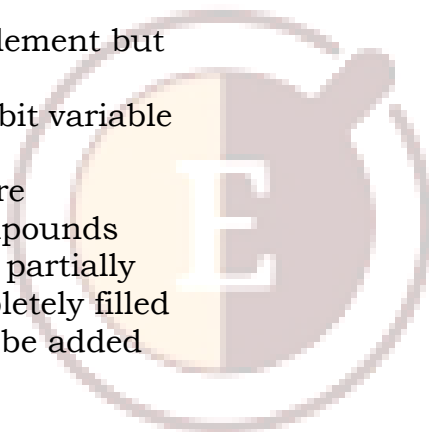Visit our Website: http://edifystudycenter.in/

SECTION : B

86. Among the following, which is not the S-bonded organometallic compound?
(1) $(CH_3)_4Sn$
(2) $K[PtCl_3(\eta^2 - C_2H_4)]$
(3) $Fe(\eta^5 - C_5H_5)_2$
(4) $Cr(\eta^6 - C_6H_6)_2$

87. Crystal field splitting energy for high spin 4 octahedral complex is:
(1) – 1.6 '0
(2) – 1.2 '0
(3) – 0.6 '0
(4) – 0.8 '0

88. Which one of the following compounds will be most readily attacked by an electrophile ?
(1) Chlorobenzene
(2) Benzene
(3) Phenol
(4) Toluene

89. Which of the following compounds can be used as antifreeze in automobile radiators?
(1) Methyl alcohol
(2) Glycol
(3) Nitrophenol
(4) Ethyl alcohol
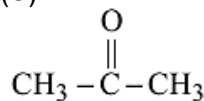
90. Aspirin is an acetylation product of
(1) o-hydroxybenzoic acid
(2) o-dihydroxybenzene
(3) m-hydroxybenzoic acid
(4) p-dihydroxybenzene

91. Which one of the following on treatment with 50% aqueous sodium hydroxide yields the corresponding alcohol and acid?
(1) C_6H_5CHO
(2) $CH_3CH_2CH_2CHO$
(3)

$$CH_3 - \overset{\overset{\displaystyle O}{\|}}{C} - CH_3$$

(4) $C_5CH_5CH_2CHO$

92. The compound obtained by heating a mixture of a primary amine and chloroform with ethanolic potassium hydroxide (KOH) is
(1) an alkyl cyanide
(2) a nitro compound
(3) an alkyl isocyanide
(4) an amide

93. Enzymes take part in a reaction and
(1) decrease the rate of a chemical reaction
(2) increase the rate of a chemical reaction
(3) both
(4) and

94. A sequence of how many nucleotides in messenger RNA makes a codon for an amino acid?
(1) Three
(2) Four
(3) One
(4) Two

95. Which of the following is not correctly matched?
(1) Copper - Co
(2)cobalt - Co
(3) calcium - Ca
(4) Silver - Ag

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96. Ionic mobility of which of the following alkali metal ions is lowest when aqueous solution of their salts are put under an electric field ?
(1) K
(2) Rb
(3) Li
(4) Na

97. Which of the following oxides is most acidic in nature?
(1) MgO
(2) BeO
(3) CaO
(4) BaO

98. The most suitable reagent for the following conversion, is :

$$H_3C-C \equiv C-CH_3 \longrightarrow$$

cis-2-butene
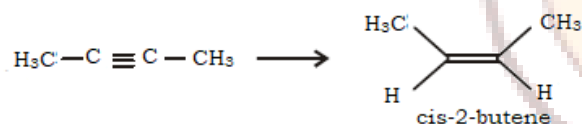
(1) Na/liquid NH_3
(2) H_2 , Pd/C, quinoline
(3) Zn/HCl
(4) Hg^{2+} /H+, H_2O

99. Which of the following is the correct order of increasing field strength of ligands to form coordination compounds?

(1) F- < SCN- < CO_4^{2-} < CN-

(2) CN- < C$_2 O_4^{2-}$ < SCN- < F-

(3) SCN- < F- < C$_2 O_4^{2-}$ < CN-

(4) SCN- < F- < CN- < C$_2$ CO_4^{2-}

100. The correct structure of 2, 6-Dimethyl-dec-4-ene is
(1)
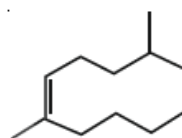
(2)

(3)

(4)

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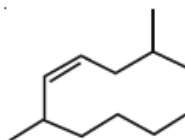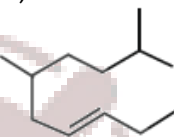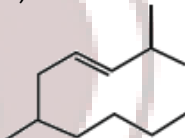Visit our Website: http://edifystudycenter.in/

BOTANY
SECTION : A

101. Classification given by Bentham and Hooker is
(1) artificial
(2) natural
(3) phylogenetic
(4) numerical

102. What is true for photolithotrops?
(1) Obtain energy from radiations and hydrogen from organic compounds
(2) Obtain energy from radiations and hydrogen from inorganic compounds
(3) Obtain energy from organic compounds
(4) Obtain energy from inorganic compounds

103. Which one belongs to monera?
(1) Amoeba
(2) Escherichia
(3) Gelidium
(4) Spirogyra

104. Entamoeba coli causes
(1) Pyrrhoea
(2) Diarrhoea
(3) Dysentery
(4) None

105. A few organisms are known to grow and multiply at temperatures of 100–105^{0}C. They belong to
(1) marine archaebacteria
(2) thermophilic sulphur bacteria
(3) hot-spring blue-green algae (cyanobacteria)
(4) thermophilic, subaerial fungi

106. Mannitol is the stored food in:
(1) Porphyra
(2) Fucus
(3) Gracillaria
(4) Chara

107. In gymnosperms like Pinus and Cycas, the endosperm is
(1) triploid
(2) haploid
(3) diploid
(4) tetraploid

108. Agar is commercially obtained from
(1) red algae
(2) green algae
(3) brown algae
(4) blue-green algae

109. Cycas have two cotyledons but not included in angiosperms because of
(1) Naked ovules
(2) Seems like monocot
(3) Circinate ptyxis
(4) Compound leaves

110. Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses
(1) Diplontic life cycle
(2) Members of kingdom plantae
(3) Mode of Nutrition
(4) Multiplication by fragmentation

111. Buttress roots are found in
(1) sorghum
(2) banyan
(3) Terminalia
(4) Pandanus

112. Which of the following is a flowering plant with nodules containing filamentous nitrogen-fixing microorganism
(1) Crotalaria juncea
(2) Cycas revoluta
(3) Cicer arietinum
(4) Casuarina equisetifolia

113. Which meristem helps in increasing girth?
(1) Lateral meristem
(2) Intercalary meristem
(3) Primary meristem
(4) Apical meristem

114. What is not true about sclereids?
(1) These are parenchyma cells with thickened lignified walls
(2) These are elongated and flexible with tapered ends
(3) These are commonly found in the shells of nuts and in the pulp of guava, pear, etc
(4) These are also called the stone cells

115. Reduction in vascular tissue, mechanical tissue and cuticle is characteristic of:
(1) mesophytes
(2) epiphytes
(3) hydrophytes
(4) xerophytes

116. Fluid mosaic model of cell membrane was put forward by
(1) Danielli and Davson
(2) Singer and Nicolson
(3) Garner and Allard
(4) Watson and Crick

117. The desmosomes are concerned with
(1) cytolysis
(2) cell division
(3) cell adherence
(4) cellular excretion

118. Vacuole in a plant cell
(1) is membrane-bound and contains storage proteins and lipids
(2) is membrane-bound and contains water and excretory substances
(3) lacks membrane and contains air
(4) lacks membrane and contains water and excretory substances

119. A competitive inhibitor of succinic dehydrogenase is
(1) Malonate
(2) Oxaloacetate
(3) m-ketoglutarate
(4) Malate

120. In the somatic cell cycle
(1) In G_1 phase DNA content is double the amount of DNA present in the original cell
(2) DNA replication takes place in S-phase
(3) a short interphase is followed by a long mitotic phase
(4) G_2 phase follows mitotic phase

121. At constant temperature, the rate of transpiration will be higher at
(1) Sea level
(2) 1 km below sea level
(3) 1 km above sea level
(4) 1.5 km above sea level

122. Which one of the following elements is not an essential micronutrient for

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plant growth?
(1) Zn
(2) Cu
(3) Ca
(4) Mn

123. Kranz anatomy is typical of
(1) C_4 plants
(2) C_3 plants
(3) C_2 plants
(4) CAM plants

124. Which one of the following statements about cytochrome P_{450} is wrong?
(1) It contains iron
(2) It is an enzyme involved in oxidation reaction
(3) It is a coloured cell
(4) It has an important role in metabolism

125. In leaves of C_4 plants malic acid synthesis during CO_2 fixation occurs in
(1) epidermal cells
(2) mesophyll cells
(3) bundle sheath
(4) guard cells

126. Life without air would be
(1) reductional
(2) free from oxidative damage
(3) impossible
(4) anaerobic

127. In germinating seeds fatty acids are degraded exclusively in the
(1) proplastids
(2) glyoxysomes
(3) peroxisomes
(4) mitochondria

128. Flowering dependent on cold treatment is
(1) cryotherapy
(2) cryogenics
(3) cryoscopy
(4) vernalisation

129. One set of a plant was grown at 12 hours day and 12 hours night period cycles and it flowered while in the other set night phase was interrupted by flash of light and it did not produce flower. Under which one of the following categories will you place this plant?
(1) Long day
(2) Darkness neutral
(3) Day neutral
(4) Short day

130. An example of a seed with endosperm, perisperm, and caruncle is
(1) coffee
(2) lily
(3) castor
(4) cotton

131. The estrous cycle is a characteristic of
(1) human males only
(2) human females only
(3) mammalian males other than primates
(4) mammalian females other than primates

132. An organism with two identical alleles is
(1) dominant
(2) hybrid
(3) heterozygous
(4) homozygous

133. When two genetic loci produce identical phenotypes in cis and trans position, they are considered to be
(1) pseudoalleles
(2) different genes
(3) multiple alleles
(4) parts of same gene

134. Red-green colour blindness in humans is governed by a sex-linked recessive gene. A normal woman whose father was colour blind marries a colour blind man. What proportion of their daughters is expected to be colour blind?
(1) 3/4
(2) 1/2
(3) 1/4
(4) All

135. Two crosses between the same pair of genotypes or phenotypes in which the source of the gametes are reversed in one cross, is known as
(1) reverse cross
(2) test cross
(3) reciprocal cross
(4) dihybrid cross

SECTION : B

136. Two genes R and Y are located very close on the chromosomal linkage map of maize plant. When RRYY and rryy genotypes are hybridized, the F2 segregation will show
(1) segregation in the expected 9: 3: 3: 1 ratio
(2) segregation in 3: 1 ratio
(3) higher number of the parental types
(4) higher number of the recombinant types.

137. The incorrect statement with regard to Haemophilia is:
(1) It is a recessive disease
(2) It is a dominant disease
(3) A single protein involved in the clotting of blood is affected
(4) It is a sex-linked disease

138. In E.coli during lactose metabolism repressor binds to
(1) regulator gene
(2) operator gene
(3) structural gene
(4) promoter gene

139. The length of DNA molecule greatly exceeds the dimensions of the nucleus in eukaryotic cells. How is this DNA accommodated?
(1) super-coiling in nucleosomes
(2) DNase digestion
(3) through elimination of repititive DNA
(4) deletion of non-essential genes.

140. In an inducible operon, the genes are
(1) Always expressed
(2) Usually not expressed unless a signal turns them "on"
(3) Usually expressed unless a signal turns them "off "
(4) Never expressed

141. Vacuole in a plant cell
(1) is membrane-bound and contains storage proteins and lipids
(2) is membrane-bound and contains water and excretory substances
(3) lacks membrane and contains air
(4) lacks membrane and contains water and excretory substances

142. The appearance of recombination nodules on homologous chromosomes during meiosis characterizes :
(1) Terminalization
(2) Synaptonemal complex
(3) Bivalent
(4) Sites at which crossing over occurs

143. Among flowers of Calotropis, tulip, Sesbania, Asparagus, Colchicine, Sweet pea, Petunia, Indigofera, Mustard, Soyabean, Tobacco and groundnut how many plants have corolla with valvate aestivation?
(a) Five
(b) Six
(c) Seven
(d) Eight

144. The flowers are Zygomorphic in:
(a) Mustard
(b) Gulmohar
(c) Cassia
(d) Datura
(e) Chilly
Choose the correct answer from the options given below:
(1) (c), (d), (e) Only

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(2) (a), (b), (c) Only
(3) (b), (c) Only
(4) (d), (e) Only

145. A woman has an X-linked condition on one of her X chromosomes. This chromosome can be inherited by
(1) Only daughters
(2) Only sons
(3) Both sons and daughters
(4) Only grandchildren

146. AGGTATCGCAT is a sequence from the coding strand of a gene. What will be the corresponding sequence of the transcribed mRNA?
(1) AGGUAUCGCAU
(2) UGGTUTCGCAT
(3) UCCAUAGCGUA
(4) ACCUAUGCGAU

147. Select the wrong statement :
(1) Cell wall is present in members of Fungi and Plantae
(2) Mushrooms belong to Basidiomycetes
(3) Mitochondria are the powerhouse of the cell in all kingdoms except Monera
(4) Pseudopodia are locomotory and feeding structures in Sporozoans

148. Which of the following statements is correct?
(1) Ovules are not enclosed by ovary wall in gymnosperms
(2) Selaginella is heterosporous, while Salvinia is homosporous
(3) Stems are usually unbranched in both Cycas and Cedrus
(4) Horsetails are gymnosperms

150. If the distance between two consecutive base pairs is 0.34 nm and

the total number of base pairs of a DNA double helix in a typical mammalian cell is 6.6×10^9 bp, then the length of the DNA is approximately
(1) 2.2 meters
(2) 2.7 meters
(3) 2.0 meters
(4) 2.5 meters

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Zoology
SECTION : A

151. The chief advantage of encystment to an Amoeba is
(1) the chance to get rid of accumulated waste products
(2) the ability to survive during adverse physical conditions
(3) the ability to live for sometime without ingesting food
(4) protection from parasites and predators

152. A chordate character is
(1) gills
(2) spiracles
(3) post anal tail
(4) chitinous exoskeleton

153. Sound box of birds is called
(1) pygostyle
(2) larynx
(3) syrinx
(4) synsacrum

154. The organisms attached to the substratum, generally, possess
(1) radial symmetry
(2) one single opening of digestive canal
(3) asymmetrical body
(4) cilia on surface to create water current

155. In contrast to Annelids the Platyhelminths show:
(1) Absence of body cavity
(2) Bilaterial symmetry
(3) Radial symmetry
(4) Presence of pseudocoel

156. Which group of animals belong to the same phylum?
(1) Earthworm, Pinworm, Tapeworm
(2) Prawn, Scorpion, Locusta
(3) Sponge, Sea anemone, Starfish
(4) Malarial parasite, Amoeba, Mosquito

157. Formation of cartilage bones involves
(1) deposition of bony matter by osteoblasts and resorption chondroblasts
(2) deposition of bony matter by osteoclasts and resorption by chondroblasts
(3) deposition of bony matter by osteoclasts only
(4) deposition of bony matter by osteoblasts only

158. If a live earthworm is pricked with a needle on it outer surface without damaging its gut, the fluid that comes out is:
(1) coelomic fluid
(2) haemolymph
(3) slimy mucus
(4) excretory fluid

159. Which is not consistent with double helical structure of DNA?
(1) A = T, C = G
(2) Density of DNA decreases on heating
(3) A + T/C + G is not constant
(4) Both A and B

160. Carbohydrates are commonly found as starch in plant storage organs. Which of the following five properties of starch (a-e) make it useful as a storage material?
(A) Easily translocated
(B) Chemically nonreactive

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(C) Easily digested by animals
(D) Osmotically inactive
(E) Synthesized during photosynthesis
The useful properties are
(1) (B) and (C)
(2) (B) and (D)
(3) (A), (C) and (E)
(4) (A) and (E)

161. Secretion of gastric juice is stopped by
(1) Gastrin
(2) Pancreazymin
(3) Cholecystokinin
(4) Enterogastrone

162. A person is eating boiled potato, which food component is found in it?
(1) DNA which gets digested by pancreatic DNAase
(2) Lactose which is indigestible
(3) Starch which does not get digested
(4) Cellulose which is digested by intestinal cellulose

163. One of the constituents of the pancreatic juice while poured into the duodenum in humans, is:
(1) trypsinogen
(2) chymotrypsin
(3) trypsin
(4) enterokinase

164. RBC do not occur in
(1) frog
(2) cow
(3) camel
(4) cockroach

165. Which one of the following statements about blood constituents and transport of respiratory gases is most accurate?
(1) RBCs transport oxygen whereas WBCs transport CO_2
(2) RBCs transport oxygen whereas plasma transports only CO_2
(3) RBCs as well as WBCs transport both oxygen and CO_2
(4) RBCs as well as plasma transport both oxygen and CO_2

166. Solenocytes are the main excretory structures in
(1) Platyhelminthes
(2) Annelids
(3) Molluscs
(4) Echinodermates

167. A fall in glomerular filtration rate (GFR) activates
(1) adrenal cortex to release aldosterone.
(2) adrenal medulla to release adrenaline.
(3) juxta - glomerular cells to release renin.
(4) posterior pituitary to release vasopressin.

168. The characteristics and an example of a synovial joint in humans is:
Characteristics Examples
(1) Fluid filled between Skull bones two joints, provides cushion
(2) Fluid filled synovial Joint between cavity between two atlas and axis bones
(3) Lymph filled between gliding joint two bones, limited between movement carpals
(4) Fluid cartilage Knee joint between two bones, limited movements

169. When we migrate from dark to light, we fail to see for sometime but after a time visibility becomes normal. It is an

example of
(1) accommodation
(2) adaptation
(3) mutation
(4) photoperiodism

170. Insulin is
(1) vitamin
(2) lipid
(3) hormone
(4) enzyme

171. Melanin protects us from
(1) U. V. rays
(2) visible rays
(3) infrared rays
(4) X-rays

172. Match the source gland with respective hormone as well as the function correctly. Source gland – Hormone -- Function
(1) Anterior pituitary – Oxytocin -- Contraction of uterus muscles during child birth
(2) Posterior pituitary – Vasopressin – Stimulates reabsorption of water in the distal tubules in the nephron
(3) Corpus luteum -- Estrogen -- Supports pregnancy
(4) Thyroid -- Thyroxine --Regulates blood calcium level

173.Study of formation, growth and development of new individual from an egg is
(1) Apomixis
(2) Embryology
(3) Embryogeny
(4) Cytology

174. Which one of the following statements about human sperm is correct?
(1) Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in fertilisation
(2) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilisation
(3) Acrosome serves as a sensory structure leading the sperm towards the ovum
(4) Acrosome serves no particular function

175. Which one of the following statements is correct regarding Sexually Transmitted Diseases (STD)?
(1) The chances of a 5 year boy contacting a STD are very little
(2) A person may contact syphilis by sharing milk with one already suffering from the disease
(3) Haemophilia is one of the STD
(4) Genital herpes and sickle-cell anaemia are both STD

176. Extremities, tail and ear are relatively shorter in animals living in cooler regions as compared to those inhabiting warmer zones. This is
(1) Bergman's Rule
(2) Jordan's Rule
(3) Gloger's Rule
(4) Allen's Rule

177. Which of the following is most important for speciation?
(1) Seasonal isolation
(2) Reproductive isolation
(3) Behavioural isolation

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(4) Tropical isolation

178. Which one of the following statement is correct?
(1) There is no evidence of the existence of gills during embryogenesis of mammals
(2) All plant and animal cells are totipotent
(3) Ontogeny repeats phylogeny
(4) Stem cells are specialize cells.

179. Dinosaurs dominated the world in which of the following geological era?
(1) Devonion
(2) Coenozoic
(3) Jurassic
(4) Mesozoic

180. Which one of the following is the correct statement regarding the particular psychotropic drug specified?
(1) Hashish causes after thought perceptions and hallucinations
(2) Opium stimulates nervous system and causes hallucinations
(3) Morphine leads to delusions and disturbed emotions
(4) Barbiturates cause relaxation and temporary euphoria

181. The cell-mediated immunity inside the human body is carried out by:
(1) B-lymphocytes
(2) Thrombocytes
(3) Erythrocytes
(4) T-lymphocytes

182. Which one of the following statement is correct in relation to honey bees?
(1) Apis indica is the largest wild honey bee in India
(2) Honey is predominantly sucrose and arabinose
(3) Beewax is a waste product of honey bees
(4) Communication in honey bees was discovered by Karl Von Frisch

183. Consider the following four measures (i-iv) that could be taken to successfully grow chickpea in an area where bacteri blight disease is common
(i) Spray with Bordeaux mixture
(ii) Control of the insect vector of the disease pathogen
(iii) Use of only disease-free seeds
(iv) Use of varieties resistant to the disease Which two of the above measures can control the disease?
Which two of the above measures can control the disease?
(1) III and IV
(2) I and IV
(3) II and III
(4) I and II

184. Cryl endotoxins obtained from Bacillus thuringiensis are effective against
(1) mosquitoes
(2) flies
(3) nematodes
(4) boll worms

85. There is a restriction endonuclease called EcoRI. What does .co. part in it stand for?
(1) colon
(2) coelom
(3) coenzyme
(4) coli

SECTION : B

186. Some of the characteristics of Bt cotton are:
(1) long fibre and resistance to aphids
(2) medium yield, long fibre and resistance to beetle pests
(3) high yield and production of toxic protein crystals which kill dipteran pests
(4) high yield and resistance to bollworms

187. At which latitude, heat gain through insolation approximately equals heat loss through terrestrial radiation?
(1) 22 1/2 ° North and South
(2) 40° North and South
(3) 42 1/ 2 ° North and South
(4) 66° North and South

188. Which one of the following statements is correct regarding Sexually Transmitted Diseases (STD)?
(1) The chances of a 5 year boy contacting a STD are very little
(2) A person may contact syphilis by sharing milk with one already suffering from the disease
(3) Haemophilia is one of the STD
(4) Genital herpes and sickle-cell anaemia are both STD

189. Receptor sites for neurotransmitters are present on :
(1) Pre-synaptic membrane
(2) Tips of axons
(3) Post-synaptic membrane
(4) Membrane of synaptic vesicles

190. Adult human RBCs are enucleated. Which of the following statement(s) is/are most appropriate explanation for this feature ?
(a) They do not need to reproduce
(b) They are somatic cells
(c) They do not metabolize
(d) All their internal space is available for oxygen transport
(1) only (a)
(2) (a), (c) and (d)
(3) (b) and (c)
(4) only (d)

191. According to Hugo de Vries, the mechanism of evolution is
(1) Multiple step mutations
(2) Saltation
(3) Minor mutations
(4) Phenotypic variations

192. Among the following sets of examples for divergent evolution, select the incorrect option :
(1) Forelimbs of man, bat and cheetah
(2) Heart of bat, man and cheetah
(3) Eye of octopus, bat and man
(4) Brain of bat, man and cheetah

193. Which kind of therapy was given in 1990 to a four-year-old girl with adenosine deaminase [ADA] deficiency ?
(1) Gene therapy
(2) chemotherapy
(3) Immunotherapy
(4) Radiation therapy

194.
Match the following

List - I	List - II
A. Sandwic	I. Three dimensional image

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h ELISA	
B. QRS complex	II. Substrate linked antibody
C. Allograft	III. Ventricular depolarisation
D. CT Scan	IV. Transplantation between genetically non-identical individu

(1) A – III , B –II , C – I , D – IV
(2) A – IV , B –III , C – II , D – I
(3) A – I , B –II , C – III , D – IV
(4) A – II , B –III , C – IV , D – I

195. Which of the following four glands is correctly matched with the accompanying description?
(1) Thyroid-Hyperactivity in young children causes cretinism
(2) Thymus-Starts undergoing atrophy after puberty.
(3) Parathyroid-Secretes parathormone, which promotes movement of ions from blood into bones during calcification.
(4) Pancreas- Delta cells of the islets of Langerhans secrete a hormone which stimulates glycolysis in liver.
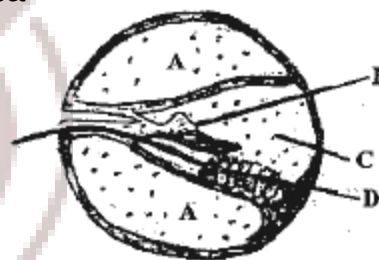
196.

Match list I with II and choose the correct answer

List I	List II
A. Hypothalamus	1. Sperm lysins
B. Acrosome	2. Estrogen
C. Graafian follicle	3. Relaxin

D. Leydig cells	4. GnRH
E. Parturition	5. Testosterone

(1) A-4, B-1, C-2, D-3, E-5
(2)A-2, B-1, C-4, D-3, E-5
(3) A-2, B-1, C-5, D-4, E-3
(4) A-4, B-1, C-2, D-5, E-3

197. Given below is a diagrammatic cross section of a single loop of human cochlea

Which one of the following options correctly represents the names of three different parts?
(1) B: Tectorial membrane, C: Perilymph, D: Secretory cells
(2) C: Endolymph, D: Sensory hair cells, A: Serum
(3) D: Sensory hair cells, A: Endolymph, B: Tectorial membrane
(4) A: Perilymph, B: Tectorial membrane, C: Endolymph

198. Match the following columns and select the correct option.

    Column-I   Column-II
(a) Floating Ribs   (i) Located between second and seventh ribs
(b) Acromion   (ii) Head of the Humerus
(c) Scapula   (iii)Clavicle

(d) Glenoid cavity   (iv) Do not connect
with the sternum

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

199. Match the following
(a) Inhibitor of catalytic activity

                    (i) Ricin
(b) Possess peptide bonds

                    (ii) Malonate
(c) Cell wall material in fungi
                    (iii) Chitin
(d) Secondary metabolite

                    (iv) Collagen
Choose the correct option from the
following
    (a) (b) (c) (d)
(1) (iii) (iv) (i) (ii)
(2) (ii) (iii) (i) (iv)
(3) (ii) (iv) (iii) (i)
(4) (iii) (i) (iv) (ii)

200. Which one of the following pairs is
not correctly matched?
(1) Streptomyces - Antibiotic
(2) Serratia - Drug addiction
(3) Spirulina - Single cell protein
(4) Rhizobium – Biofertilizer