Free Mock Test 10 - NEET

(Target: NEET 2024)

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Physics - Section A

Section A Shall Consist Of 35 (Thirty-five) Questions In Each Subject .All Questions Are Compulsory.

1. A ball is thrown upwards from the foot of a tower. The ball crosses the top of the tower twice after an interval of 4 second and the ball reaches ground after 8 seconds then the height of tower in meters is.

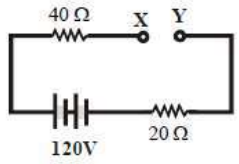
(1) 20 m (2) 30 m (3) 60 m (4) 50 m

2. The displacement–time graph for two particles A and B are straight lines inclined at angles of 30^o and 60^o with the time axis. The ratio of velocities of $v_A : v_B$ is :

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

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

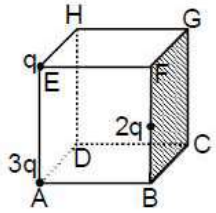
3. In the circuit shown in the figure the potential difference between X and Y will be :



(1) Zero (2) 20 V

(3) 60 V (4) 120 V

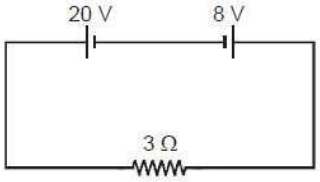
4. Find flux related to shaded face BCFG



(1) $\frac{q}{24\epsilon_0}$ (2) $\frac{q}{8\epsilon_0}$

(3) $\frac{q}{6\epsilon_0}$ (4) $\frac{q}{3\epsilon_0}$

5. In the following figure, power consumed by 8 V battery is



(1) 32 W (2) 16 W (3) 8 W (4) 40 W

6. A particle executes simple harmonic motion with a period of T sec. and amplitude A m. The shortest time it takes to reach a point $\left(A/\sqrt{2}\right)$m from its mean position in seconds is:

(1) T (2) $T/4$

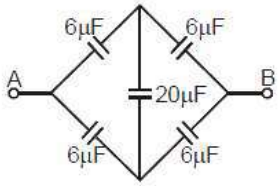
(3) $T/8$ (4) $T/16$

7. A string is rigidly tied at two ends and its equation of vibration is given by $y = \sin 2\pi x . \cos 2\pi t$. Then minimum length of string is

(1) 1 m (2) $\frac{1}{2}$m

(3) 5 m (4) 2πm

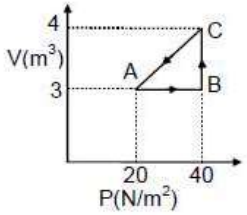
8. The effective capacity of the network between terminals A and B is :



(1) $6\mu F$ (2) $20\mu F$

(3) $3\mu F$ (4) $10\mu F$

9. P-V diagram of an ideal gas is given in the figure

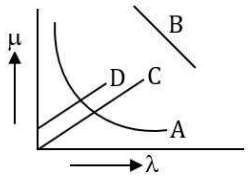


Work done on the gas in process CA is

(1) 60 J (2) 70 J

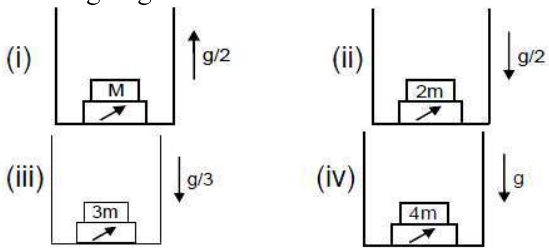
(3) 30 J (4) 20 J

10. Which of the following curve gives correct graphical representation between refractive index μ of glass and wavelength λ of light -



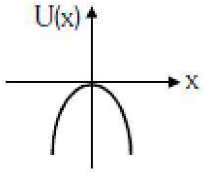
(1) A (2) D
(3) B (4) C

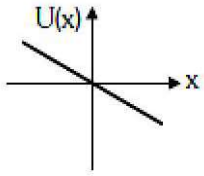
11. For the given four situations in which case, reading of the weighing machine is maximum ?

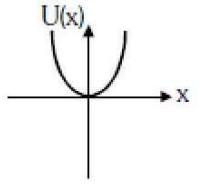


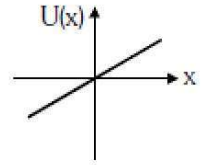
(1) i (2) ii
(3) iii (4) iv

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

(1) 

(2) 

(3) 

(4) 

13. The moment of inertia of a ring about an axis passing through its centre and normal to its face is 200 g-cm^2. Then its moment of inertia about diametric axis is-

(1) 100 g–cm^2 (2) 200 g–cm^2
(3) 400 g–cm^2 (4) 300 g–cm^2

14. A satellite of mass m moves around the earth along a circular path of radius r. Let m_e is the mass of the earth and R_e is its radius. The linear speed of the satellite depends upon-

(1) m_e and r (2) m_e only
(3) r only (4) m, R_e and r

15. A particle falls on earth : (i) from infinity (ii) from a height 10 times the radius of earth. The ratio of the velocities gained on reaching at the earth's surface is

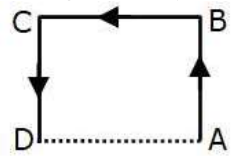
(1) $\sqrt{11} : \sqrt{10}$ (2) $\sqrt{10} : \sqrt{11}$
(3) 10 : 11 (4) 11 : 10

16. A particle A of charge q is placed near a uniformly charged infinite plane sheet with surface charge density σ, then it experiences a force F_1 while when this particle is placed near a finite metal plate with surface charge density σ, then it experiences a force F_2. Then $\frac{|F_1|}{|F_2|}$ is equal to

(1) 1 (2) 2

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

17. A particle moves along the sides AB, BC, CD of a square of side 25 m with a velocity of 15 ms^{-1}. Its average velocity is



(1) 15 ms^{-1} (2) 10 ms^{-1}

(3) 7.5 ms^{-1} (4) 5 ms^{-1}

18. A charge 'q' moves in a region where electric field and magnetic field both exist, then force on it:-

(1) $q\left(\vec{v} \times \vec{B}\right)$

(2) $q\vec{E} + q\left(\vec{v} \times \vec{B}\right)$

(3) $q\vec{E} - q\left(\vec{B} \times \vec{v}\right)$

(4) $q\vec{B} - q\left(\vec{E} \times \vec{v}\right)$

19. How many times is the adiabatic modulus of elasticity of gas as compared to its isothermal modulus of elasticity–

(1) two times (2) three times

(3) γ times (4) $1/\gamma$ times

20. According to Max well's law of distribution of velocities of molecules, the most probable velocity is :-

(1) greater than the mean velocity

(2) equal to the mean velocity

(3) equal to the root mean square velocity

(4) less than the root mean square velocity

21. A silver wire of length 10 metre and crosssectional area 10^{-8} m^2 is suspended vertically and a weight of 10N is attached to it. Young's modulus of silver and its resistivity are 7×10^{10} N/m^2 and $1.59 \times 10^{-8}\Omega - m$ respectively. The increase in its resistance is equal to (keeping volume constant)

(1) 0.0455Ω (2) 0.455Ω

(3) 0.91Ω (4) 0.091Ω

22. In a container neon gas has two isotopes Ne^{20} and Ne^{22}. The ratio of rms velocities of Ne^{20} and Ne^{22} is:

(1) $\sqrt{11} : \sqrt{10}$ (2) $\sqrt{10} : \sqrt{11}$

(3) 10 : 11 (4) 11 : 10

23. The value of $C_p - C_v = 1.00R$ for a gas in state A and $C_p - C_v = 1.06R$ in another state B. If P_A and P_B denote the pressure and T_A and T_B denotes the temperature in the two states, then :

(1) $P_A = P_B : T_A > T_B$ (2) $P_A > P_B : T_A = T_B$

(3) $P_A < P_B : T_A > T_B$ (4) $P_A = P_B : T_A < T_B$

24. "Heat cannot by itself flow from a body at lower temperature to a body at higher temperature" is

(1) Claussius statement of second law of thermodynamics

(2) Kelvin-Plank statement of second law of thermodynamics

(3) First law of thermodynamics

(4) Law of conservation of heat

25. An object is 20 cm away from a concave mirror of focal length, 15 cm. If the object moves with a speed of 5 m/s along the axis, then the instantaneous speed of image will be

(1) 30 m/s (2) 45 m/s

(3) 9 m/s (4) 18 m/s

26. Relation between critical angles of water and glass is :

(1) $c_w > c_g$ (2) $c_w < c_g$

(3) $c_w = c_g$ (4) $c_w = c_g = 0$

27. A thin prism deviates a ray towards its base by 8. If refraction index of the material of the prism is 1.5, and the angle of prism is 5° then the value of δ is

(1) 0.5° (2) 1.5°

(3) 3.5° (4) 2.5°

28. In a Young's double slit experiment the intensity at a point where the path difference is $\frac{\lambda}{6}$ (λ being the wavelength of the light used) is I. If I_0 denotes the maximum intensity, I_0/I is equal to :-

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

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

29. The intensity of gamma radiations from a given source is I_0. On passing through x of lead it is reduced to $\frac{I_0}{8}$. The thickness of lead which will reduce it to $\frac{I_0}{2}$ is

(1) $(x)^{1/3}$ mm (2) $\left(\frac{x}{5}\right)^{1/4}$ mm

(3) $\left(\frac{x}{3}\right)$mm (4) $\left(\frac{x}{4}\right)$mm

30. A screen is placed at 50 cm from a single slit, which is illuminated with 600 nm light. If separation between the first and third minima in the diffraction pattern is 3.0 mm, then width of the slit is

(1) 0.4 mm (2) 0.1 mm

(3) 0.3 mm (4) 0.2 mm

31. A parallel beam of fast moving electrons is incident normally on a narrow slit. A fluorescent screen is placed at a large distance from the slit . If the speed of the electrons is increased, which of the following statements is correct ?

(1) Diffraction pattern is not observed on the screen in the case of electrons

(2) The angular width of the central maximum of the diffraction pattern will increase

(3) The angular width of the central maximum will decrease

(4) The angular width of the central maximum will be unaffected

32. A person is standing in an elevator. In which situation he finds his weight less than his true weight ?

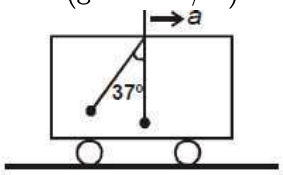
(1) When the elevator moves upward with constant acceleration

(2) When the elevator moves downward with constant acceleration

(3) When the elevator moves upward with uniform velocity.

(4) When the elevator moves downward with uniform velocity

33. A pendulum with a bob of mass 2 kg is hanging from the ceiling of a trolley as shown in the figure. The trolley is uniformly accelerating with an acceleration a, then $(g = 10\ m/s^2)$



(1) $a = 6\ m/s^2$ (2) $a = 7.5\ m/s^2$

(3) $a = 4\ m/s^2$ (4) $a = 2.5\ m/s^2$

34. If the momentum of a certain body is increased by 50%, its kinetic energy will be increased by:-

(1) 25% (2) 50%

(3) 100% (4) 125%

35. At time $t = 0$s particle starts moving along the x-axis. If its kinetic energy increases uniformly with time 't', the net force acting on it must be proportional to :-

(1) $\sqrt{t}$ (2) constant

(3) t (4) $\frac{1}{\sqrt{t}}$

Physics - Section B

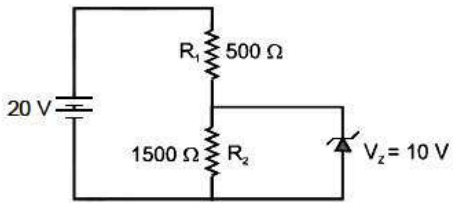
Section B Shall Consist Of 15 (Fifteen) Questions In Each Subject. Candidate Needs To Attempt Any 10 (Ten) Questions Out Of 15 (Fifteen) In Each Subject.

36. A particle rests on the top of a hemisphere of radius R. Find the smallest horizontal velocity that must be imparted to the particle if it is to leave the hemisphere without sliding down it-

(1) $\sqrt{gR}$ (2) $\sqrt{2gR}$

(3) $\sqrt{3gR}$ (4) $\sqrt{5gR}$

37. In the circuit given the current through the zener diode is :



(1) 10 mA (2) 6.67 mA

(3) 5 mA (4) 13.33 mA

38. A satellite S is moving in an elliptical orbit around the earth. The mass of the satellite is very small compared to the mass of the earth. Then,

(1) the acceleration of S is always directed towards the centre of the earth.

(2) the angular momentum of S about the centre of the earth changes in direction, but its magnitude remains constant.

(3) the total mechanical energy of S varies periodically with time.

(4) the linear momentum of S remains constant in magnitude.

39. A cylinder of radius r and length l is placed in an uniform electric field in such a way that the axis of the cylinder is parallel to the field. The total flux associated with cylindrical surface is :

(1) $\frac{2rl}{\varepsilon_0}$ (2) $\frac{l}{\varepsilon_0}$

(3) $\frac{2\pi rl}{\varepsilon_0}$ (4) Zero

40. Two resistors, 400Ω and 800Ω are connected in series with a 6 V battery. It is desired to measure the current in the circuit. An ammeter of 10Ω resistance is used for this purpose. What will be the reading in the ammeter? Similarly, if a voltmeter of 1000Ω resistance is used to measure the potential difference across the 400 Ω resistor what will be the reading in the voltmeter?

(1) 4.96 mA, 0.158 V (2) .496 mA, .158 V

(3) 4.96 mA, 1.58 V (4) 49.6 mA, .1.58 V

41. A uniform conducting wire of length 12a and resistance 'R' is wound up as a current carrying coil in the shape of (I = current),

(i) An equilateral triangle of side 'a'

(ii) A square of side 'a'

The magnetic dipole moments of the coil in each case respectively are:

(1) $4Ia^2$ and $3Ia^2$

(2) $\sqrt{3}Ia^2$ and $3Ia^2$

(3) $3Ia^2$ and Ia^2

(4) $3Ia^2$ and $4Ia^2$

42. The equation of a plane polarised electromagnetic wave is given as $E_0 \sin(at - bx)$

(1) Wave speed is $\frac{a}{b}$

(2) The waves move along positive x-axis

(3) y-z plane is the plane of polarisation

(4) All of these

43. The momentum carried by EM waves in vacuum is p, then energy associated with the wave is equal to (c is speed of light)

(1) $P \times c$ (2) $\frac{pc}{2}$

(3) $\frac{p^2}{2c}$ (4) $\frac{p}{c}$

44. De-Broglie wavelength depends upon mass 'm' and kinetic energy 'E' according to the relation as-

(1) $mE^{-1/2}$ (2) $m^{1/2}E$

(3) $m^{-1/2}E^{-1/2}$ (4) $m^{-1/2}E$

45. The KE of the electron in an orbit of radius r in hydrogen atom is (e = electronic charge)

(1) $\frac{e^2K}{r}$ (2) $\frac{e^2K}{2r}$

(3) $\frac{2e^2K}{r}$ (4) $\frac{e^2K}{2r^2}$

46. The truth table given below belongs to

X	Y	Z
0	0	0
0	1	1
1	0	1
1	1	0

(1) NAND gate (2) NOR gate

(3) AND gate (4) XOR gate

47. A copper rod of length ℓ is rotated about mid point of rod, perpendicular to the magnetic field B with constant angular velocity ω. The induced emf between the two ends is

(1) $\frac{1}{2}$ B$\omega\ell^2$ (2) B$\omega\ell^2$

(3) 2B$\omega\ell^2$ (4) Zero

48. A straight conductor of length 4m moves at a speed of 10m/s. When the conductor makes an angle of 30° with the direction of magnetic field of induction of 0.1 wb. per m^2 then induced emf is :

(1) 8V (2) 4V

(3) 1V (4) 2V

49. A conducting rod is moved with a constant velocity v in a magnetic field. A potential difference appears across the two ends.

(1) If $\vec{v} \| \vec{\ell}$

(2) If $\vec{v} \| \vec{B}$

(3) If $\vec{\ell} \| \vec{B}$

(4) None of these

50. If $\phi = 0.02 \cos 100\pi t$ weber/turns and number of turns is 50 in the coil, the maximum induced emf is-

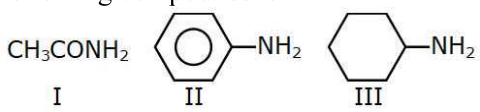
(1) 314 volt (2) 100 volt

(3) 31.4 volt (4) 6.28 volt

Chemistry - Section A

Section A Shall Consist Of 35 (Thirty-five) Questions In Each Subject .All Questions Are Compulsory.

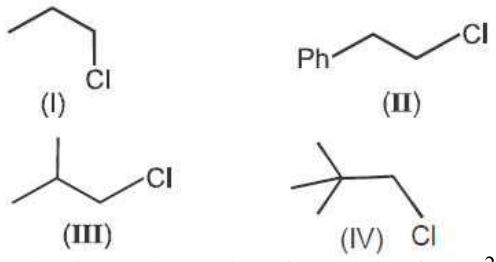
51. Correct decreasing order of basic strength for the following compounds is-



(1) I > II > III (2) III > II > I

(3) III > I > II (4) II > I > III

52.



Write decreasing order of reactivity for S_N2 reaction?

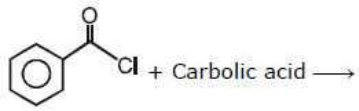
(1) I > II > III > IV

(2) II > I > III > IV

(3) IV > III > II > I

(4) IV > III > I > II

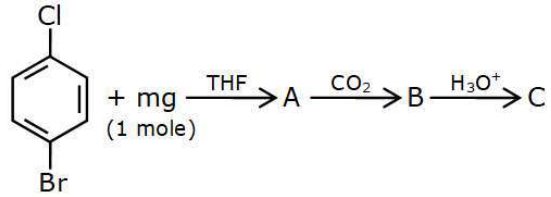
53.



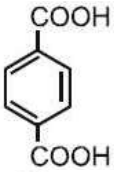
The above reaction is-

(1) Friedel craft reaction (2) Schotten Baumann reaction

(3) Benzoylation (4) (2) & (3) both

54. 

End product C is-

(1) 

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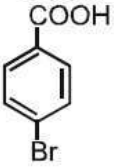
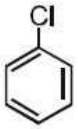
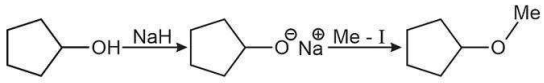
(3) 

(4) 

55. The reaction



can be classified as-

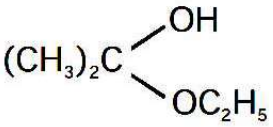
(1) Williamson ether synthesis reaction

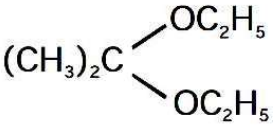
(2) Alcohol formation reaction

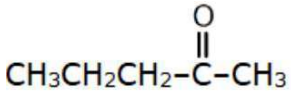
(3) Dehydration reaction

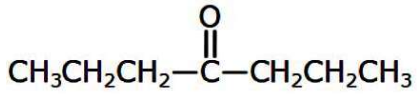
(4) Williamson alcohol synthesis reaction

56. Acetone is treated with excess of ethanol in the presence of hydrochloric acid. The product obtained is-

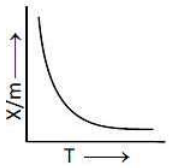
(1) 

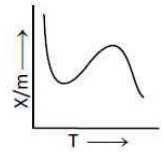
(2) 

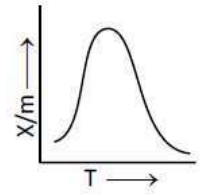
(3) 

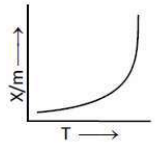
(4) 

57. Which of the following graph represents the variation of amount of chemisorption of a gas by a solid with temperature under constant pressure?

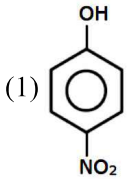
(1) 

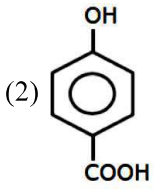
(2) 

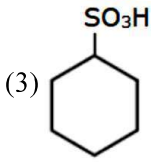
(3) 

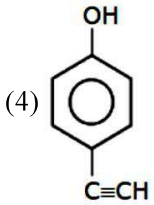
(4) 

58. Which of the following does not react with $NaHCO_3$?

(1) 

(2) 

(3) 

(4) 

59. $C_6H_5-CH=O+H_2C=O \xrightarrow[\Delta]{50\%\ KOH} (X+Y)$

Product X & Y are-

(1) $C_6H_5-CH_2-OH + HCOOK$

(2) $C_6H_5-OH + HCOOK$

(3) $C_6H_5-COOK + CH_3-OH$

(4) $C_6H_5-CH_2-COOK + CH_3-OH$

60. Which of the following does not give yellow precipitate with $NaOH + I_2$?

(1) Acetone (2) Acetaldehyde

(3) Benzaldehyde (4) Acetophenone

61. Which of the following reaction is appropriate for converting benzamide to aniline?

(1) Hoffmann bromamide reaction

(2) Carbyl amine reaction

(3) Stephens reaction

(4) Gabriels phthalimide synthesis

62. Three elements X, Y and Z are in the 3rd period of the periodic table. The oxides of X, Y and Z, respectively, are basic, amphoteric and acidic, The correct order of the atomic numbers of X, Y and Z is-

(1) X < Y < Z (2) Y < X < Z

(3) Z < Y < X (4) X < Z < Y

63. Which one of the following is a mineral of iron?

(1) Pyrolusite (2) Magnetite

(3) Malachite (4) Cassiterite

64. Which of the following is/are the examples of square planar complex?

(1) $[NiCl_4]^{-2}$ (2) $[PtCl_4]^{-2}$

(3) $[Ni(CO)_4]$ (4) All of these

65. In which of the following compound C–O bond length is maximum?

(1) $K[Co(CO)_4]$ (2) $[Ni(CO)_4]$

(3) $[Cr(CO)_6]$ (4) $[Mn(CO)_6]^+$

66. The stable oxidation states of Cr are-

(1) Cr^{2+} (2) Cr^{3+}

(3) Cr^{4+} (4) Cr^{6+}

67. Among the following which is the strongest oxidising agent?

(1) Cl_2 (2) F_2

(3) Br_2 (4) I_2

68. Correct name of H_3PO_4 -

(1) Phosphinic acid (2) Phosphonic acid

(3) Phosphoric acid (4) Hypophosphorus acid

69. Which of the following statement is not correct regarding the diagonal relationship between Al and Be?

(1) BeO and Al_2O_3 are amphoteric in nature

(2) Al_4C_3 and Be_2C give same gas on hydrolysis

(3) Both can form compounds with same maximum co-ordination

(4) Both form electron deficient and covalent hydride

70. An element whose IUPAC name is ununtrium (Uut) belongs to-

(1) s-block element (2) p-block element
(3) d-block element (4) transition element

71. Which of the following is isostructural to I_3^-?

(1) ICl_2^-, XeF_2, N_3^-
(2) NO_2^-, XeF_2, N_3^-
(3) NH_2^-, NO_2^-, ICl_2^-
(4) BH_3, CO_2, ICl_2^-

72. Lattice energy of ionic compound is calculated by using-

(1) Hess's law (2) Kirchoff's equation
(3) Born-Haber cycle (4) Carnot cycle

73. Which of the following is most soluble in water?

(1) MnS($K_{SP} = 8 \times 10^{-37}$)
(2) ZnS($K_{SP} = 7 \times 10^{-16}$)
(3) Bi_2S_3($K_{SP} = 5 \times 10^{-70}$)
(4) Ag_2S($K_{SP} = 6 \times 10^{-51}$)

74. Mixture of acetone and ethanol-

(1) Obeys Raoult's law (2) Is an ideal mixture
(3) Show positive deviation (4) Show negative deviation

75. Which of the following has highest pH?

(1) 0.1 MHCl (2) 0.2 MHCl
(3) 0.1 MCH_3COOH (4) 0.15 MHNO_3

76. What is the product of electrolysis of KNO_3(aq) using Pt electrodes?

(1) K, NO_2 (2) H_2, NO_2
(3) K, O_2 (4) H_2, O_2

77. The decomposition of N_2O into N_2 & O_2 in presence of gaseous argon follow second order kinetics with k = $(5.0 \times 10^{11}\ L\ mol^{-1}\ s^{-1})\ e^{-\frac{41570\ K}{T}}$ (K stands for Kelvin units). The energy of activation of the reaction is-

(1) 5×10^8 kJ/mol
(2) 415 kJ/mol
(3) 5 kJ/mol
(4) 345 kJ/mol

78. In a normal spinel types structure, the oxide ions are arranged in ccp whereas 1/8 tetrahedral holes are occupied by Zn^{2+} ions and 50% of octahedral holes are occupied by Fe^{3+} ions. The formula of the compound is-

(1) $Zn_2Fe_2O_4$ (2) $ZnFe_2O_3$
(3) $ZnFe_2O_4$ (4) $ZnFe_2O_2$

79. If the slope of graph between $\log\left(\frac{x}{m}\right)$ and log P is 1 with intercept 0.301, the extent of adsorption at a pressure of 0.2 atm is-

(1) 0.2 (2) 0.4
(3) 0.6 (4) 0.8

80. If 30 mL of H_2 and 20 mL of O_2 react to form water, what is left at the end of the reaction?

(1) 10 mL of H_2 (2) 5 mL of H_2
(3) 10 mL of O_2 (4) 5 mL of O_2

81. A light whose frequency is equal to 6×10^{14} Hz is incident on a metal whose work function is 2eV (h = 6.63×10^{-34} Js, 1 eV = 1.6×10^{-19} J). The maximum energy of electrons emitted will be-

(1) 2.49 eV (2) 4.49 eV
(3) 0.48 eV (4) 5.49 eV

82. For the gases H_2, NH_3 and CH_4, the value of 'a' bar $L^{-2}mol^{-2}$ are 0.2453, 4.170 and 2.253 respectively. Which of the following can be inferred from the 'a' values?

(1) NH_3 can be most easily liquified
(2) H_2 can be most easily liquified
(3) CH_4 can be most easily liquified
(4) None of these

83. For reaction $2NOCl(g) \rightleftharpoons 2NO(g) + Cl_2(g)$, K_c at 427°C is 3×10^{-6} mol. The value of K_p is nearly-

(1) 7.50×10^{-5} (2) 2.50×10^{-5}
(3) 2.50×10^{-4} (4) 1.75×10^{-4}

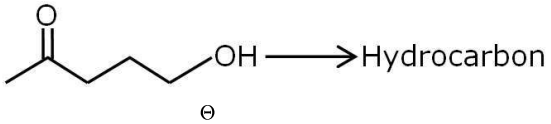
84. The correct thermodynamic conditions for the spontaneous reaction at all temperatures is :

(1) $\Delta H < 0$ & $\Delta S = 0$
(2) $\Delta H > 0$ & $\Delta S < 0$
(3) $\Delta H < 0$ & $\Delta S > 0$
(4) $\Delta H < 0$ & $\Delta S < 0$

Chemistry - Section B

Section B Shall Consist Of 15 (Fifteen) Questions In Each Subject. Candidate Needs To Attempt Any 10 (Ten) Questions Out Of 15 (Fifteen) In Each Subject.

86. Which of the following can be used to convert?



(1) (i) N_2H_4, (ii) $\overset{\Theta}{O}H, \Delta$
(2) $NaBH_4$
(3) $LiAlH_4$
(4) Red P/HI

87. $CH_3 - CH = CH - CH_3 \xrightarrow{O_3/H_2O/Zn}$ Product
In which of the following reaction, same product is formed?

(1) $CH_3 - CH_3 + O_2 \xrightarrow{Cu}$
(2) $CH_3 - CH_3 + O_2 \xrightarrow{Mo_2O_3}$
(3) $CH_3 - CH_3 + O_2 \xrightarrow{(CH_3COO)_2Mn}$
(4) $CH_3 - CH_2 - COOH \xrightarrow{NaOH+CaO}$

88. Low density of ice compared to water is due to-
(1) H-Bonding interaction (2) ionic interaction
(3) London-forces (4) ion dipole interaction

89. The element having maximum value for its 3rd ionisation enthalpy is-
(1) Be (2) Li
(3) N (4) B

90. Zone refining is based on the principle that-
(1) impurities of low boiling metals can be separated by distillation
(2) impurities are more soluble in molten metal than in solid metal
(3) different components of a mixture are differently absorbed on an adsorbent
(4) Vapours of volatile compound can be decomposed in pure metal

91. Correct set of magnetic property, shape and hybridisation for $[Cr(NH_3)_6]^{3+}$ complex ion respectively are-
(1) Diamagnetic, Octahedral, d^2sp^3
(2) Paramagnetic, Octahedral, d^2sp^3
(3) Diamagnetic, Octahedral, sp^3d^2
(4) Paramagnetic, Octahedral, sp^3d^2

92. Which condition is not satisfied by an ideal solution?
(1) $\Delta_{mix} V = 0$ (2) $\Delta_{mix} S = 0$
(3) Obeyance to raoult's law (4) $\Delta_{mix}H = 0$

93. $M(OH)_x$ has a K_{sp} of 4×10^{-9} and its solubility is 10^{-3} M. The value of x is-
(1) 4 (2) 1
(3) 3 (4) 2

94. At 25°C a cell is formulated as-
$Tl \mid Tl^+ (0.001\ M) \parallel Cu^{2+} (0.1\ M) \mid Cu$
E_{cell} is 0.83 V. E_{cell} can be increased by-
(1) Decreasing $[Cu^{2+}]$ (2) Increasing $[Cu^{2+}]$
(3) Increasing $[Tl^+]$ (4) None

95. NO_2 produced by the decomposition of N_2O_5,
$2N_2O_5(g) \rightarrow 4NO_2(g) + O_2(g)$.
The initial concentration of N_2O_5 is 3.00 mol L^{-1} and it is 2.75 mol L^{-1} after 30 minutes. The rate of formation of NO_2 is-
(1) 4.167×10^{-3} mol L^{-1} min^{-1}
(2) 8.333×10^{-3} mol L^{-1} min^{-1}
(3) 1.667×10^{-2} mol L^{-1} min^{-1}
(4) 2.083×10^{-3} mol L^{-1} min^{-1}

96. Which of the following has highest number of formula units per unit cell?
(1) NaCl type structure
(2) Na_2O type structure
(3) CaF_2 type structure
(4) All have same number of formula unit

97. The atom of the element having atomic number 14 should have

(1) One unpaired electron

(2) Two unpaired electron

(3) Three unpaired electrons

(4) Four unpaired electrons

98. The conversion of ozone into oxygen is exothermic. Under what conditions is ozone the most stable?

$2O_3(g) \rightleftharpoons 3O_2(g)$

(1) At low pressure and low temperature

(2) At high pressure and high temperature

(3) At high pressure and low temperature

(4) At low pressure and high temperature

99. The enthalpies of formation of N_2O and NO are 82 and 90 kJ mol^{-1}, respectively. The change in enthalpy of the reaction is:

$2N_2O(g) + O_2(g) \rightarrow 4NO(g)$ would be-

(1) 16 kJ (2) 196 kJ (3) 8 kJ (4) 88 kJ

100. What is the change in oxidation number of carbon in the following reaction?

$CH_4(g) + 4Cl_2(g) \rightarrow CCl_4(l) + 4HCl(g)$

(1) 0 to +4 (2) –4 to +4

(3) 0 to –4 (4) +4 to +4

Botany - Section A

Section A Shall Consist Of 35 (Thirty-five) Questions In Each Subject .All Questions Are Compulsory.

101. In Cyanobacteria, Heterocyst is concerned with:-

(1) Reproduction (2) Hormogonia

(3) Photosynthesis (4) Nitrogen fixation

102. Chemoautotroph do not require-

(1) H_2S (2) Nitrites

(3) Sunlight (4) Ammonium compounds

103. Site of respiration in bacteria is -

(1) Episome (2) Mitochondria

(3) Ribosome (4) Mesosome

104. Which of the following is called "Jokers of Plant Kingdom"

(1) Bacteria (2) Mycoplasma

(3) Nostoc (4) None of these

105. What is absent in euglenoids :

(1) Cell wall (2) Flagella

(3) Pigments (4) All of the above

106. The rules of scientific naming of E·coli are given in

(1) ICNB (2) ICBN

(3) ICNCP (4) ICTV

107. The international size of the herbarium sheet is :

(1) 42 x 29 cm^2 (2) 40 x 29 cm^2

(3) 14 x 29 cm^2 (4) 29 x 19 cm^2

108. Modern day (Advanced) plants are -

(1) Monocots (2) Dicots

(3) Gnetales (4) Ferns

109. Ubisch bodies are associated with the development of-

(1) Embryo (2) Pollen grains

(3) Endosperm (4) Embryo sac

110. Vascular system include …A… bundles, which can be seen in the veins and the …B…. The size of vascular bundles are dependent on the size of …C…. The veins vary in thickness in the reticulate venation of the …D…leaves.

(1) A-phloem, B-midrib, C-veins, D-Dicot

(2) A-Xylem, B-midrib, C-veins, D-Dicot

(3) A-Vascular, B-midrib, C-veins, D-Dicot

(4) A-Vascular, B-midrib, C-veins, D-monocot

111. Choose the correct pair:

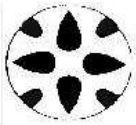
(1) Isobilateral leaf - Stomata is present on both surface

(2) Bulliform cells - Modified adaxial epidermal cells

(3) Both (A) and (B)

(4) None of the above

112. Match the columns I, II and III, and choose the correct combination from the options given.

	Column I		Column II		Column III
a		1	Radial	K	Monocot stem
b		2	Conjoint Open	L	Dicot stem
c		3	Conjoint closed	M	Dicot Root

(1) a–3–M, b–2–L, c–1–K

(2) a–2–M, b–3–L, c–1–K

(3) a–3–K, b–2–L, c–1–M

(4) a–2–K, b–3–M, c–1–L

113. Lateral meristem are :

(1) Phellogen and procambium

(2) Procambium and dermatogens

(3) Fascicular cambium and procambium

(4) Fascicular cambium and cork cambium

114. Which statement is true–

(1) Characters segregate during formation of gametes

(2) All characters show true dominance

(3) The characters always blend in heterozygous condition

(4) Mendelian disorder are determined by absence or excess of one or more chromosome

115. The chromosomal theory of heredity means that

(1) chromosomes are composed of genes

(2) chromosomes are made up of DNA and protein

(3) genes are located on the chromosomes

(4) all of the above.

116. Which of the following genotypes does not add any terminal sugar on the surface of the RBC

(1) I^AI^A (2) I^Bi

(3) I^AI^B (4) i i

117. Which of the following is a correct match between crop, variety and resistance to diseases?

(1) **Crop—**Wheat, **Variety—**Himgiri, **Resistance of diseases —**White rust

(2)**Crop—**Brassica, **Variety—**Pusa sadabahar, **Resistance of diseases —**Black rot

(3)**Crop—**Cowpea, **Variety—**Pusa komal, **Resistance of diseases —**Bacterial blight

(4)**Crop—**Chilli, **Variety—**Pusa swarnim, **Resistance of diseases —**Chilli mosaic virus

118. The carbon atoms of the pentose sugar involved in phosphodiester bond formation in DNA and RNA-

(1) C_1 and C_5 (2) C_2 and C_3

(3) C_3 and C_5 (4) C_4 and C_5

119. Consider the following

1. Structural gene
2. Messenger RNA
3. Ribosomes
4. Transcription
5. Translation

Which of the following is the correct sequence for protein synthesis

(1) 1, 4, 3, 2, 5 (2) 1, 4, 5, 2, 3

(3) 1, 4, 2, 3, 5 (4) 3, 5, 4, 2, 1

120. An environmental agent that triggers transcription from an Operon is a

(1) Derepressor (2) Inducer

(3) Regulator (4) Controlling element

121. The most important force which pulls water up in tall trees is

(1) Imbibition force (2) Osmotic force

(3) Cohesive force (4) Electromagnetic force

122. Which of the following factors inhibit the absorption of water by roots ?

(1) Low soil temperature

(2) High concentration of soil solution

(3) Low soil aeration

(4) All of the above

123. Transported and storage form of nitrogen in plants are

(1) Amides

(2) Polypeptides

(3) Amino acids

(4) α–ketoglutaric acids

124. During the process of photosynthesis the light reaction and dark reaction respectively occurs at-

(1) Stroma and Thylakoids (2) Grana and intergrana

(3) Stroma and Grana (4) Thylakoids and stroma

125. During photorespiration, Rubisco enzyme combined with oxygen to yield:-

(1) Two molecules of phosphoglycerate

(2) Two molecules of phosphoglycolate

(3) One molecule of phosphoglycerate and one molecule of phosphoglycolate

(4) Two molecules of phosphoglyceraldehyde

126. Different flavours in tea and tobacco are due to.

(1) Mechanical processes (2) Activity of virus

(3) Bacterial fermentation (4) Physical processes

127. Krebs-cycle takes place in :-

(1) Inner membrane of mitochondria

(2) Outer membrane of mitochondria

(3) Matrix of mitochondria

(4) Outside of mitochondria

128. What causes a green plant to bend towards light as it grows-

(1) Because green plants need light to carry on photosynthesis

(2) Because green plants are phototropic

(3) Light stimulates, plant cells on the lighted side to grow faster

(4) Auxin accumulates on shaded side stimulating greater cell elongation

129. The entire sequence of communities that successively change in a given area is called

(1) Seral stages (2) Pioneer community

(3) Climax community (4) Sere

130. A Ecosystem is :

(1) Group of communities

(2) Population of a species interacting with environment

(3) Community interacting among themselves and with surrounding environment for energy flow and nutrient cycling

(4) Sum of hydrosphere, lithosphere and atmosphere

131. Which of the following is not a attribute of population-

(1) Natality (2) Age pyramid

(3) Death (4) Density dependent effects

132. Which of the following ecological pyramids is most representative of functional characteristics of an ecosystem?

(1) Pyramid of number

(2) Pyramid of biomass

(3) Pyramid of energy

(4) All are equally representative

133. Cichlid fishes extinction in Victoria lake is related to-

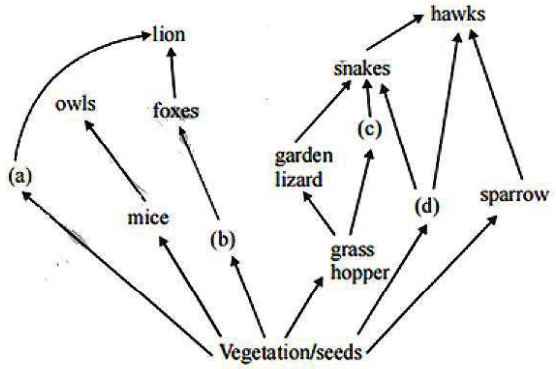
(1) Co-extinction (2) Over-exploitation

(3) Habitat loss (4) Alien species invasion

Botany - Section B

Section B Shall Consist Of 15 (Fifteen) Questions In Each Subject. Candidate Needs To Attempt Any 10 (Ten) Questions Out Of 15 (Fifteen) In Each Subject.

136. Indentify the likely organisms (a), (b) (c) and (d) in the food web shown below



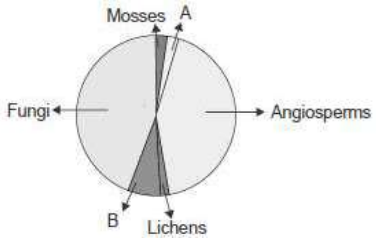
(1) (a) - squirrel, (b) - cat, (c) - rat, (d) - pigeon

(2) (a) - deer, (b) - rabbit, (c) - frog, (d) - rat

(3) (a) - dog, (b) squirrel, (c) - bat, (d) - deer

(4) (a) - rat, (b) - dog, (c) tortoise, (d) - crow

137. Name the unlabelled areas 'A' and 'B' of the pie chart representing the biodiversity showing their proportionate number of species of major taxa.



(1) A = Bryophytes B = Gymnosperms

(2) A = Ferns B = Algae

(3) A = Pteridophytes B = Ferns

(4) A = Ferns B = Bryophytes

138. 'Callase' enzyme which dissolve callose of tetrad of microspores to separate 4 microspores is provided by-

(1) Pollen grains (2) Middle layer

(3) Tapetum (4) Endothecium

139. Filiform apparatus is the feature of :

(1) Egg (2) Synergids

(3) Antipodal (4) Ovule

140. The coconut water from tender coconut that you are familiar with is

(1) Nuclear endosperm (2) Cellular endosperm

(3) Helobial endosperm (4) All of the above

141. Vascular bundles in monocotyledons are considered closed because :

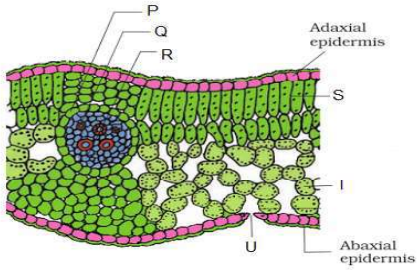
(1) Cambium is absent

(2) There are no vessels with perforations

(3) Xylem is surrounded all around by phloem

(4) A bundle sheath surrounds each bundles

142. Section of a dicot leaf is given. Select the option with **correct** identification of three of the given labeled parts :



(1) Q = Xylem, S = Spongy mesophyll, U = Stoma

(2) R = Phloem, T = Spongy mesophyll , U = Stoma

(3) P = Bundle sheath, Q = Xylem, U = Phloem

(4) Q = Phloem, R = Xylem, U = Spongy mesophyll

143. Non-sense codon takes part in -

(1) Terminating message of gene controlled protein synthesis

(2) Formation of unspecified amino acids

(3) Conversion of sense DNA into non-sense one

(4) Releasing t-RNA from polypeptide chain.

144. The separated bands of DNA are cut from the agarose gel and extracted from the gel piece. This process is known as :

(1) Elution (2) Transduction

(3) Down streaming (4) Transformation

145. A human female with Turner's syndrome-

(1) has 45 chromosomes with XO

(2) Has one additional X-chromosome

(3) exhibits male characters

(4) Is able to produce children with normal husband

146. What percent of gametes of a dihybrid plant (RrYy) will not have atleast one dominant allele is F_1 generation ?

(1) 12. 5% (2) 25%

(3) 75% (4) 50%

147. Present level of atmospheric CO_2 is limiting factor for the process of photosynthesis in C_3 plants as they show

(1) Kranz anatomy

(2) Oxygenation of RuBP

(3) Final CO_2 fixation in mesophyll cells

(4) Carboxylation of RuBP

148. Choose the group of minerals helps in evolution of oxygen during the light reaction of photosynthesis:

(1) Cu, Mn, Zn (2) Mn, Cl, Ca

(3) Fe, Ca, Zn (4) CO, Ni, Mn

149. During conversion of succinyl Co-A to succinic acid a molecule of GTP is formed, that is known as

(1) Oxidative phosphorylation

(2) Substrate level phosphorylation

(3) Photophosphorylation

(4) Terminal oxidation

150. Population growth of a country depends upon

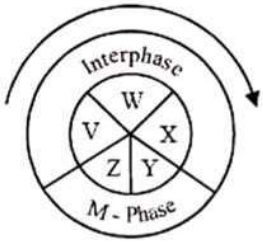
(1) Birth and death rates (2) Death rate and emigration

(3) Birth rate and emigration (4) All the above

Zoology -Section A

Section A Shall Consist Of 35 (Thirty-five) Questions In Each Subject .All Questions Are Compulsory.

151. The diagram below shows a cell cycle.



Which of the following process occur during V ?

(1) Replication of DNA

(2) Replication of centrioles

(3) Chromosomes condense and become shorter and thicker

(4) High metabolic rate and synthesis of proteins and cellular organelles.

152. In sewage treatment plant the activated sludge is further treated in :

(1) Aerobic sludge digester (2) Anaerobic sludge digester

(3) Primary treatment (4) Tertitary treatment

153. Restriction endonucleases :

(a) Are molecular scissor

(b) Are very useful in genetic engineering

(c) Cut the DNA at any sites

(d) Are used naturally in a bacterial cell to defend against foreign DNA

(1) a, b, d (2) b, c

(3) c, d (4) a, b, c, d

154. Pick the **incorrect** match

(1) Biolistics - gene transfer method

(2) Antibiotic resistant genes - selectable markers

(3) EcoRI - Plasmid

(4) Agrobacterium - Natural genetic engineer

155. The Polymerase Chain Reaction (PCR) is technique that is used for

(1) in vivo replication of specific DNA sequence using thermostable DNA polymerase.

(2) in vitro synthesis of mRNA.

(3) in vitro replication of specific DNA sequence using thermostable DNA polymerase.

(4) in vivo synthesis of mRNA.

156. Golden rice is a promising transgenic crop. When released for cultivation, it will help in

(1) Alleviation of vitamin A deficiency

(2) Pest resistance

(3) Herbicide tolerance

(4) Producing a petrol-like fuel from rice

157. RNA interference is used for which of the following purposes in the field of biotechnology?

(1) To reduce post harvest losses

(2) To develop a plant tolerant to abiotic stresses

(3) To develop a pest resistant plant against infestation by nematode

(4) To enhance the mineral usage by the plant

158. Which of the following statements in not true for plasma membrane?

(1) It is present in both plant and animal cells

(2) Lipid is present as a bilayer in it

(3) Proteins are present integrated as well as loosely

(4) Carbohydrate is never found in it

159. What is common for plasmids and mesosomes?

(1) Both of these are made of nucleotides

(2) Both of these are concerned with molecular respiration

(3) Both of these are found in prokaryotes

(4) Both of these are found in yeast

160. Choose the incorrect pair

(1) Cilium or flagellum-9+2 arrangement

(2) Axonema- core of cilium or flagellum

(3) Basal body-Centriole like structure

(4) Radial spokes-connect two central microtubules

161. Microtubules are polar structure, which polymerizes to form spindle fiber. The chromosomal spindle fiber has it's different polar end:

(1) Positive polar end at centrosome, negative end at centromere

(2) Both polar ends at centrosome

(3) Both polar ends at centromere

(4) Negative polar end at centrosome, positive end at centromere

162. The law of conservation of energy is applicable on :-

(1) Cell respiration (2) Photosynthesis

(3) β-oxidation of fats (4) All the above

163. New species develop due to

(1) Isolation and mutation (2) Competition and mutation

(3) Isolation and competition (4) Isolation and variation

164. Role of mutation in evolution is :-

(1) Genetic drift (2) Reproductive isolation

(3) Genetic variation (4) None of the above

165. Long neck of Girraffe or camel due to:-

(1) More number of cervical vertebra

(2) More length of cervical vertebra

(3) Presence of pads between cervical vertebra

(4) Presence of extra bony plates

166. Superovulation and embryo transplantation techniques are being used for improving

(1) Quality of milk breeds of cows

(2) Breeds of sheep

(3) Breeds of goats

(4) All of these

167. Which of the following vitamin is fat soluble as well as an anti-oxidant:-

(1) Vitamin – 'C' (2) Vitamin – 'A'
(3) Vitamin – 'D' (4) Vitamin – 'E'

168. Choose the **correct** pair :-

(1) Physical barriers – HCl in stomach, saliva in mouth
(2) Cellular barriers – NK cells, Monocytes
(3) Physiological barriers – Mucosa of gut and Urinogenital tract
(4) Cytokine barriers – Toxoids

169. Which of the following is non-pathogenic bacteria of colon ?

(1) Escherichia coli (2) Balantidium coli
(3) Entamoeba coli (4) Enterobius vermicularis

170. Open circulatory system is present in -
I. Arthropods II. Annelida
III. Chordates IV. Mollusca

(1) III only (2) III and II
(3) I and II (4) I and IV only

171. The sound of lub is produced during closure of–

(1) Bicuspid valve (2) Tricuspid valve
(3) Semilunar valve (4) Both (A) and (B)

172. Which of these has a closed type of circulatory system –

(1) Cockroach (2) Tadpole/Fish
(3) Mollusca (4) Scorpion

173. Hormones secreted by the placenta to maintain pregnancy are :

(1) hCG, hPL, progestogens, prolactin
(2) hCG, hPL, estrogens, relaxin, oxytocin
(3) hCG, hPL, progestogens, estrogens
(4) hCG, progestogens, estrogens, glucocorticoids

174. Fetal movements and appearance of hair on head occur in ..... month of pregnancy :

(1) Fifth (2) Sixth (3) Third (4) Second

175. Read the following statements and find out the incorrect statement.
(a) Androgens are produced by Sertoli cells
(b) Spermatozoa get nutrition from Sertoli cells
(c) Leydig cells are found in ovary
(d) Leydig cells synthesise androgens
(e) Oogenesis takes place in corpus luteum
(f) Menstrual cycle ceases during pregnancy
(g) Presence or absence of a hymen is not a reliable indicator of virginity or sexual experience

(1) a, c and e (2) b, d f and g
(3) a, b, c and e (4) a, c, e and g

176. Which of the following structures are situated in the cortical region of the kidney?
(I) Malpighian corpuscle
(II) PCT (Proximal Convoluted Tubules)
(III) DCT (Distal Convoluted Tubules)
(IV) Loop of Henle
(V) Collecting duct

(1) II, IV and V (2) III, IV and V
(3) II, III and IV (4) I, II and III

177. Substances like amino acids and glucose in the filtrate are reabsorbed ....**a**.... in the tubular epithelial cells whereas the nitrogenous wastes are absorbed by ....**b**.... transport :

(1) **a**–actively, **b**–passive (2) **a**–passively, **b**–active
(3) **a**–actively, **b**–active (4) **a**–passively, **b**–passive

178. ATPase enzyme needed for muscle contraction is located in -

(1) Actin (2) Tropomyosin
(3) Myosin (4) Troponin

179. The characteristics and an example of a synovial joint in humans is :-

Characteristics	Examples
A. Fluid cartilage between two bones, limited movements	Knee joint
B. Fluid filled between two joints, provides cushion	Skull bones
C. Fluid filled synovial cavity between two bones	Joint between Humerus and pectoral girdle
D. Lymph filled between two bones, limited movement	Gliding joint between carpals

(1) B (2) A
(3) D (4) C

180. Select the **correct** statement with respect to diseases and immunisation:

(1) Injection of snake antivenom against snake bite is an example of active immunisation.
(2) If due to some reason B and T lymphocytes are damaged, the body will not produce antibodies against a pathogen.
(3) Injection of dead/inactivated pathogens causes passive immunity.
(4) Certain protozoans have been used to produce hepatitis B vaccine.

181. Which cell works as HIV factory?

(1) Neutrophils (2) T-helper
(3) T-cytotoxic (4) Macrophage

182. Identify the hormone with its correct matching of source and function.

(1) **Oxytocin -** posterior pituitary, growth and maintenance of mammary gland
(2) **Thymosine -** Thymus gland, regulates the normal rhythm of sleep wake cycle
(3) **Progesterone -** corpus luteum, stimulation of growth and activities of female secondary sex organs
(4) **Atrial natriuretic factor -** Atrial wall of heart → decreases the blood pressure

183. Mark the **correct** statement

(a) Pars distalis secretes 6 trophic hormones
(b) Cortisol and Glucagon stimulates gluconeogenesis.
(c) Thymus gland is located behind sternum and secrete thymosin Hormone.
(d) ACTH of Pituitary gland acts on adrenal medulla
(e) Heart secretes hormone but not considered as organised endocrine glands

(1) a and c (2) b, c and d
(3) a, b, c, and e (4) a, b, c, d and e

184. Hypersecretion of Growth Hormone in adults does not cause further increase in height, because:

(1) Epiphyseal plates close after adolescence
(2) Bones loose their sensitivity to Growth Hormone in adults
(3) Muscle fibres do not grow in size after birth
(4) Growth Hormone becomes inactive in adults

185. Volume of Air that will remain in the lungs after a normal expiration, is :

(1) RV (2) ERV + RV
(3) TV + ERV (4) TV + IRV

Zoology -Section B

Section B Shall Consist Of 15 (Fifteen) Questions In Each Subject. Candidate Needs To Attempt Any 10 (Ten) Questions Out Of 15 (Fifteen) In Each Subject.

186. Simplest carbohydrate composed of how many carbons-

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

187. Ankle joint is a :-

(1) Hinge joint (2) Ball & socket joint
(3) Ellipsoid (4) Saddle

188. During which stage of prophase-I, genetic recombination of parental characters, takes place?

(1) Zygotene (2) Pachytene
(3) Diplotene (4) Diakinesis

189. What is true for Telomere DNA

(1) Telomere DNA is adenine rich
(2) Telomere is present after sec. constriction
(3) Telomere DNA is Thymine rich
(4) Telomerase enzyme has lipid

190. Choose the correct statements:

(1) Presence of more than one recoginition site for one enzyme, within vector generate several fragments, which will complicate gene cloning.
(2) Ligation of alien DNA is carried out at a restriction site present in 'Ori'.
(3) In $P^{BR\,322}$ one antibiotic resistance gene helps in selection of transformants, whereas the other helps in cloning.
(4) **Rop** codes for proteins involved in ligation of foreign DNA

191. Maximum number of existing transgenic animals is-

(1) Fish (2) Mice
(3) Cow (4) Pig

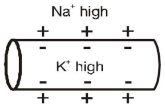
192. In the presence of Ca^{2+} channel blockers, which of the following will be true?

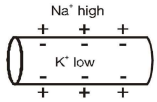
(1) Neurotransmitter is released but Na^+ channel of post-synaptic neuron will not open
(2) Neurotransmitter is not released but Na^+ channel of post-synaptic neuron will open up
(3) Neurotransmitter is released but K^+ channel of post-synaptic neuron open up
(4) Neither neurotransmitter is released nor the Na^+ channel of post-synaptic neuron open up

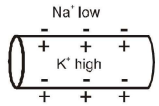
193. The "butter fly" like structure surrounding the central of human's spinal cord is called :-

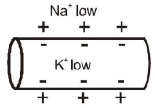
(1) Funiculus (2) White matter
(3) Horn (4) Gray matter

194. Which of the following options illustrates the distribution of Na^+ and K^+ ions in a section of non-myelinated axon which is at resting potential?

(1) 

(2) 

(3) 

(4) 

195. What will be the value of P_{O2} and P_{CO2} in the atmospheric air compared to those in the alveolar air ?

(1) P_{O2} lesser, P_{CO2} higher
(2) P_{O2} higher, P_{CO2} lesser
(3) P_{O2} higher, P_{CO2} higher
(4) P_{O2} lesser, P_{CO2} lesser

196. In the given table which animal is **correctly** matched with its taxon group and character.

(1) **Animal-**Balanoglossus, **Taxon-**Hemichordata, **Character-**Circulatory system is absent
(2) **Animal -** Hippocampus, **Taxon -** Chondrichthyes, **Character -** Air bladder is present
(3) **Animal -** Chameleon, **Taxon -** Amphibia, **Character -** Epidermal scales
(4) **Animal -** Canis, **Taxon -** Mammalia, **Character -** Possessing Hair

197. Which one of the following animals has two separate circulatory pathways?

(1) Shark (2) Frog
(3) Lizard (4) Whale

198. Medical Termination of pregnancy (**MTP**) is considered safe upto how many weeks of pregnancy :

(1) Eight weeks (2) Twelve weeks
(3) Eighteen weeks (4) Six weeks

199. Match the following -

a.	Cnidoblasts	(i)	Help in locomotion
b.	Comb plates	(ii)	Rasping organ
c.	Proboscis gland	(iii)	Balancing organ
d.	Radula	(iv)	anchorage, defense, capture prey
e.	Statocyst	(v)	Help in excretion

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

200. The drugs, which are commonly abused are opioid, cannabinoids and coca alkaloid. Majority of these are obtained from .... while some are obtained from...

(1) Fungi, non-flowering plants

(2) Flowering plants, fungi

(3) Fungi, flowering plants

(4) Non flowering plants, fungi

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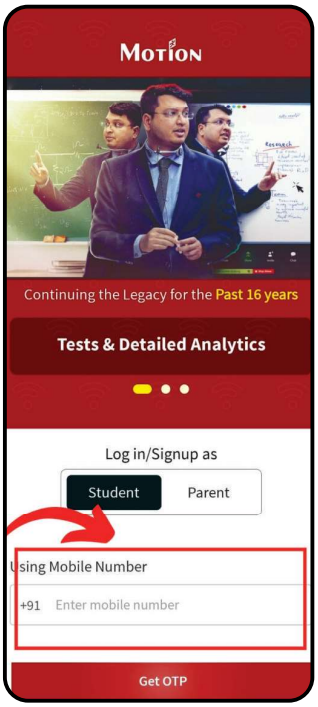

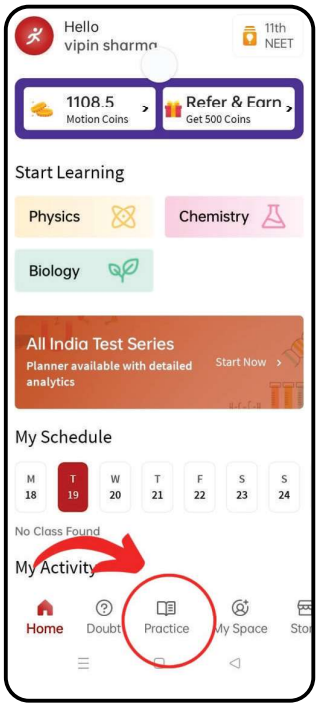

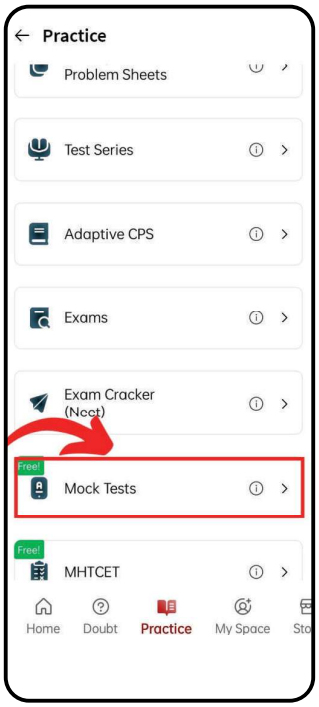

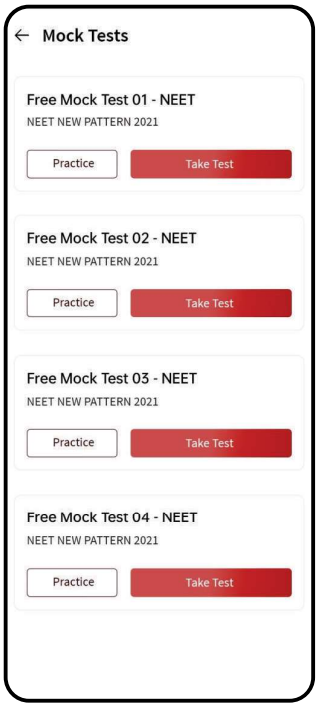

मोशन है, तो भरोसा है।