

SAMPLE TEST PAPER

Do not open this Test Booklet until you are asked to do so.

Read carefully the Instructions on the Back Cover of this Test Booklet.

Important Instructions :

1. On the Answer Sheet and fill in the particulars on **Side-1** and **Side-2** carefully with **blue/black** ball point pen only.
2. The test is of **3 hours** duration and this Test Booklet contains **180** questions. 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.
3. Use **Blue/Black Ball Point Pen only** for writing particulars on this page/marking responses.
4. Rough work is to be done on the space provided for this purpose in the Test Booklet only.
5. **On completion of the test, the candidate must hand over the Answer Sheet to the Invigilator before leaving the Room/Hall. The candidates are allowed to take away this Test Booklet with them.**
6. The candidates should ensure that the Answer Sheet is not folded. 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.
7. Use of white fluid for correction is **not** permissible on the Answer Sheet.

Name of the Candidate (in Capitals) _____

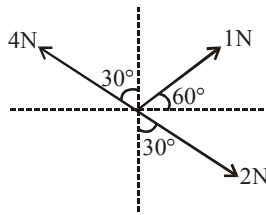
Form Number : in figures _____

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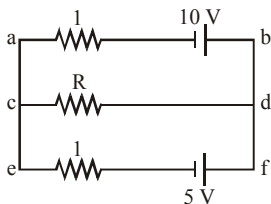
Centre of Examination (in Capitals) : _____

Candidate's Signature : _____ Invigilator's Signature : _____

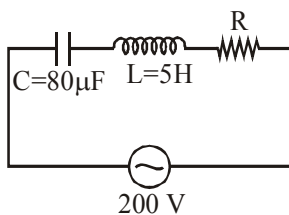
1. Three forces acting on a body are shown in the figure to have the resultant force only along the y-direction the magnitude of the minimum additional force needed is :



- (1) 0.5 N (2) 1.5 N (3) $\frac{\sqrt{3}}{2}$ N (4) $\sqrt{3}$ N
2. A small block of mass m is kept on a rough inclined surface of inclination θ fixed on a lift. The lift moves up with a uniform velocity v and the block does not slide on the incline. The work-done by the force of friction on the block in time t will be
 (1) zero (2) $Mgvt \cos^2\theta$
 (3) $Mgvt \sin^2\theta$ (4) $Mgvt \sin\theta$
3. A cube of aluminium of sides 0.1 m is subjected to a shearing force of 100N. The top face of the cube is displaced through 0.02 cm with respect to bottom face. the shearing strain would be
 (1) 0.02 (2) 0.1 (3) 0.005 (4) 0.002
4. Find the value of R for which no current will flow through 5 V battery :-

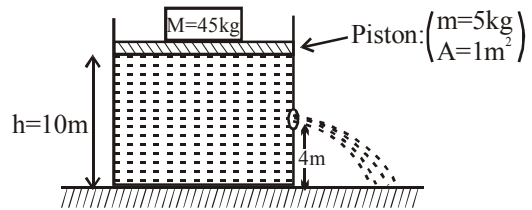


- (1) 4 Ω (2) 1 Ω (3) 3 Ω (4) 5 Ω
5. The source frequency for the given circuit at resonance is



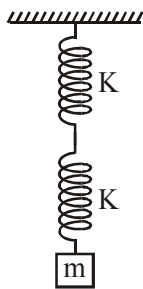
- (1) 25 Hz (2) $\frac{25}{\pi}$ Hz (3) 50 Hz (4) $\frac{50}{\pi}$ Hz

6. Which of the following quantities can have SI unit $\text{kg m}^2\text{A}^{-2}\text{s}^{-3}$.
 (1) Inductance (2) Capacitance
 (3) Resistance (4) Magnetic flux
7. If v be the instantaneous velocity of the body dropped from the top of tower, when it is located at height h , then which of the following remains constant ?
 (1) $gh + v^2$ (2) $gh + \frac{v^2}{2}$ (3) $gh - \frac{v^2}{2}$ (4) $gh - v^2$
8. The cylindrical vessel is kept on horizontal surface as shown in figure. The speed of water coming out through small hole :-



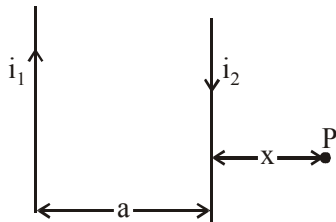
- (1) 6 m/s (2) 0.6 m/s (3) 11 m/s (4) 1.1 m/s
9. A galvanometer having a coil resistance of 30Ω shows full scale deflection when a current of 2A passes through it. It can be converted into an ammeter to read currents upto 10A by :-
 (1) by putting in series a resistance of 240Ω
 (2) by putting in parallel a resistance of 240Ω
 (3) by putting in series a resistance of 7.5Ω
 (4) by putting in parallel a resistance of 7.5Ω
10. For a telescope to have a large resolving power the
 (1) focal length of its objective should be large
 (2) focal length of its eye piece should be large
 (3) focal length of its eye piece should be small
 (4) aperture of its objective should be large
11. Which of the following product of e, h, μ, G (where μ is the permeability and all symbols have usual meaning) be taken so that the dimensions of the product are same as that of speed of light ?
 (1) $he^{-2}\mu^{-1}G^0$ (2) $h^2eG^0\mu$ (3) $h^0e^2G^{-1}\mu$ (4) $hGe^{-2}\mu^0$
12. Speed of a rotating particle in a circle of 4 m radius is $v = t^2$, its acceleration after 2 s will be :-
 (1) 4 m/s^2 (2) $4\sqrt{2}$ m/s^2 (3) 8 m/s^2 (4) $8\sqrt{2}$ m/s^2

13. 50 R calories of heat is required to raise the temperature of 4 moles of an ideal gas at constant pressure from 50°C to 55°C. The gas may be :
 (1) N₂ (2) CO₂ (3) He (4) CH₄
14. Two 1000 W heaters when connected in parallel across 220 V supply produce heat Q_p in time t. If they are connected in series across the same power supply, heat produced in the same time is Q_s. What is Q_p / Q_s ?
 (1) 4 (2) 2 (3) 0.5 (4) 0.25
15. Light considering of wavelengths 6000 Å and 5500 Å falls on the double slits in YDSE. nth order bright fringe of λ = 6000 Å is found to coincide with the mth order bright fringe of λ = 5500 Å. Smallest values of n and m are respectively
 (1) 22, 23 (2) 11, 12 (3) 7, 9 (4) 15, 17
16. If a particle is projected vertically upward from ground at t = 0 and at two instant t = 2s and t = 8s particle at same height 'h'. The value of height h is (g = 10 m/s²) :-
 (1) h = 40m (2) h = 80m (3) h = 100m (4) h = 160m
17. A motor van weighing 4400 kg rounds a level curve of radius 1000 m on unbanked road at 70 m/s. What should be the minimum value of the coefficient of friction to prevent skidding (g = 9.8 m/s²)
 (1) 0.3 (2) 0.4 (3) 0.5 (4) 0.6
18. Two springs are connected to mass as shown find frequency of oscillation :-



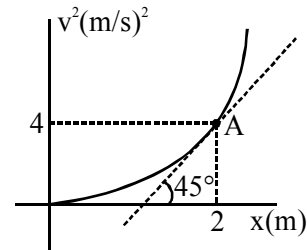
- (1) $\frac{1}{2\pi} \sqrt{\frac{K}{m}}$
 (2) $\frac{1}{2\pi} \sqrt{\frac{K}{2m}}$
 (3) $\frac{1}{2\pi} \sqrt{\frac{m}{K}}$
 (4) $\frac{1}{2\pi} \sqrt{\frac{2K}{m}}$

19. The value of x, where magnetic field is zero due to long anti-parallel currents, is :-

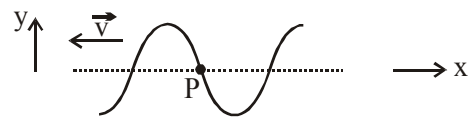


- (1) $\frac{i_2}{i_1 - i_2} a$ (2) $\frac{i_1}{i_1 - i_2} a$ (3) $\frac{i_2}{i_1 + i_2} a$ (4) $\frac{i_1}{i_2 + i_1} a$

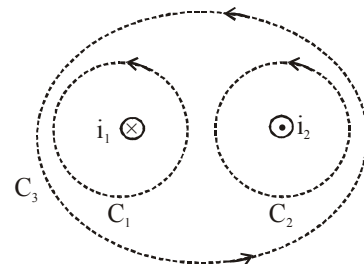
20. Consider a photon of continuous X-ray and a photon of characteristics X-ray of the same wavelength. Which of the following is different for the two photons :-
 (1) Frequency (2) Energy
 (3) Method of creation (4) Penetrating power
21. Square of velocity and position graph of particle is given, at point A slope is 45°. The acceleration of particle at A is :-



- (1) 4 m/s² (2) 2 m/s² (3) 1 m/s² (4) 0.5m/s²
22. Find the position of centre of mass from the base of a uniform solid cone of height 20 cm.
 (1) 5 cm (2) $\frac{20}{3}$ cm
 (3) 12 cm (4) lie outside the cone
23. The transverse wave shown is travelling from right to left in a medium. The direction of the instantaneous velocity of a particle of the medium at point P is :-



- (1) ↑ (2) ↓ (3) ↙ (4) ←
24. Which one of the following line integrals is correct? The direction of loop orientation is shown.



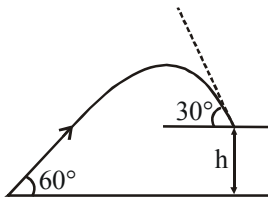
- (1) $\oint_{C_1} \vec{B} \cdot d\vec{l} = \mu_0 i_1$ (2) $\oint_{C_2} \vec{B} \cdot d\vec{l} = \mu_0 i_2$
 (3) $\oint_{C_3} \vec{B} \cdot d\vec{l} = \mu_0 (i_1 - i_2)$ (4) None of these

25. The curve of binding energy per nucleon as a function of atomic mass number has a sharp peak for helium nucleus.

This implies that helium

- (1) Can easily be broken up
- (2) Is very stable
- (3) Can be used as fissionable material
- (4) Is radioactive

26. A stone is projected at an angle of 60° from horizontal. If it strikes at angle of 30° on the roof of a building of height h , then speed of projection of the stone is :



- (1) $\sqrt{2gh}$
- (2) $\sqrt{6gh}$
- (3) $\sqrt{3gh}$
- (4) \sqrt{gh}

27. Which of the following option is not correct for inelastic collision :

- (1) The velocity of both the particles may be same after the collision
- (2) Kinetic energy is not conserved
- (3) Linear momentum of the system is conserved
- (4) Velocity of separation may be greater than velocity of approach

28. Electric potential at the mid point of two identical point charges placed at some distance is V . If 25% of charge of one point charge is transferred to another then new potential at mid point will be -

- (1) $\frac{15V}{16}$
- (2) V
- (3) $\frac{3V}{4}$
- (4) $\frac{5V}{4}$

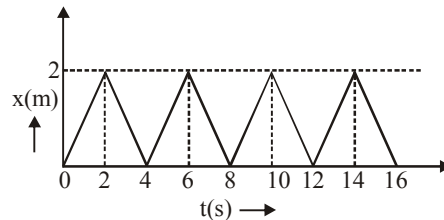
29. Susceptibility of a material is 100 then material will be:-

- (1) Ferromagnetic
- (2) Paramagnetic
- (3) Diamagnetic
- (4) All of the above

30. The ratio of molecular mass of two radioactive substances is $\frac{3}{2}$ and the ratio of their decay constants is $\frac{4}{3}$. Then the ratio of their initial activity per mole will be :

- (1) 2
- (2) $\frac{8}{9}$
- (3) $\frac{4}{3}$
- (4) $\frac{9}{8}$

31. The figure shows the position-time ($x-t$) graph of one-dimensional motion of a body of mass 0.4 kg. The magnitude of each impulse is :-



- (1) 0.4 Ns
- (2) 0.8 Ns
- (3) 1.6 Ns
- (4) 0.2 Ns

32. From a disc of radius R and mass M , a circular part of diameter R , whose rim passes through the centre is cut. What is the moment of inertia of the remaining part of the disc about perpendicular axis passing through centre ?

- (1) $\frac{3}{32}MR^2$
- (2) $\frac{15}{32}MR^2$
- (3) $\frac{13}{32}MR^2$
- (4) $\frac{11}{32}MR^2$

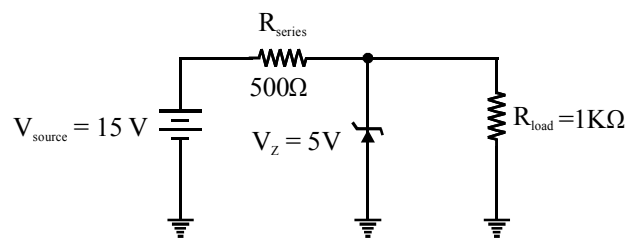
33. A dipole of dipole moment P is kept at the center of a ring of radius R and charge Q . The dipole moment has direction along the axis of the ring. The resultant force on the ring due to the dipole is :

- (1) Zero
- (2) $\frac{KPQ}{R^3}$
- (3) $\frac{2KPQ}{R^3}$
- (4) $\frac{KPQ}{R^3}$ only if the charge is uniformly distributed on the ring.

34. Magnetic flux in a circuit containing a coil of resistance 2Ω changes from 2.0 Wb to 10 Wb in 0.2 s. The charge passed through the coil in this time is

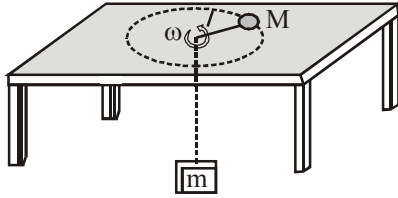
- (1) 0.8 C
- (2) 1.0 C
- (3) 5.0 C
- (4) 4.0 C

35. Calculate the current through the zener diode for the given values of load resistance in this circuit:

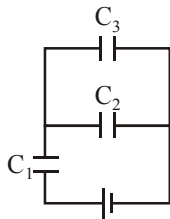


- (1) 5mA
- (2) 10mA
- (3) 15mA
- (4) 20mA

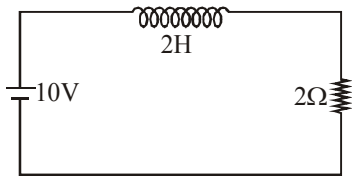
36. A block of mass M is situated on a smooth horizontal frictionless table. A thread tied to the block passes through a hole in the table and carries a mass m at its other end. If the length of the thread above the table is ℓ , what should be the value of m so that it may remain suspended at a constant height and the block M moves in a circular path with an angular velocity ω on the table?



- (1) $\frac{M\ell\omega^2}{g}$ (2) $\frac{M\ell\omega^2}{3g}$ (3) $\frac{M\ell\omega^2}{5g}$ (4) $\frac{2M\ell\omega^2}{g}$
37. A hoop of radius 2 m weighs 100 kg. It rolls along a horizontal floor so that its centre of mass has a speed of 20 cm s^{-1} . How much work has to stop it?
 (1) 2 J (2) 4 J (3) 6 J (4) 8 J
38. An arrangement of three capacitors is connected to a battery as shown in the figure. C_1 and C_2 having fixed values, if C_3 is increased :-



- (1) charge on C_1 increases and that on C_2 also increases
 (2) charge on C_1 decreases and that on C_2 also decreases
 (3) charge on C_1 increases but that on C_2 decreases
 (4) charge on C_1 decreases but that on C_2 increases
39. In the figure magnetic energy stored in the coil is:



- (1) Zero (2) Infinite
 (3) 25 Joules (4) None of the above

40. Light of wavelength λ strikes a photo-sensitive surface and electrons are ejected with kinetic energy E . If the kinetic energy is to be increased to $2E$, the wavelength must be changed to λ' where

(1) $\lambda' = \frac{\lambda}{2}$ (2) $\lambda' = 2\lambda$ (3) $\lambda' < \frac{\lambda}{2}$ (4) $\lambda' > \lambda/2$

41. A heavy body of mass 25 kg is to be dragged along a horizontal plane ($\mu = \frac{1}{\sqrt{3}}$). The least force

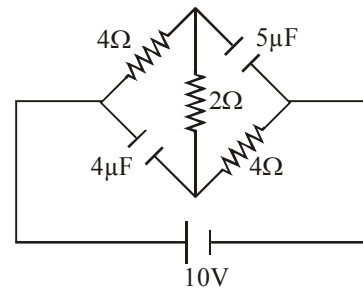
required is :-

- (1) 25 kgf (2) 2.5 kgf (3) 12.5 kgf (4) 6.25 kgf

42. A missile is launched with a velocity less than the escape velocity. The sum of its kinetic and the potential energy is :-

- (1) Positive
 (2) Negative
 (3) Zero
 (4) May be positive or negative depending upon its initial velocity

43. The ratio between the energy stored in $5\mu F$ capacitor to the $4\mu F$ capacitor in the given figure is :



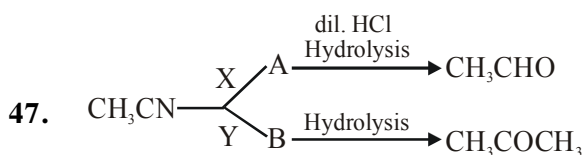
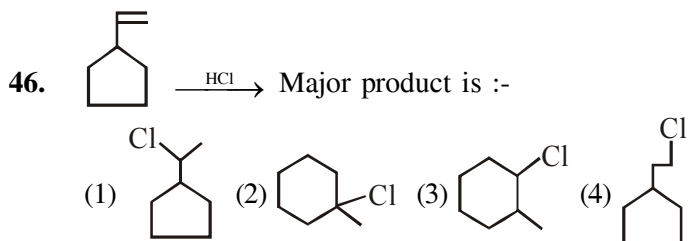
- (1) 1.2 (2) 1 (3) 1.25 (4) 3.6

44. A parallel plate capacitor with plate Area A and separation between plates d , is charged by a constant current i . Consider a plane surface of area $\frac{A}{4}$ Parallel to the plates, what is displacement current through this area.

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

45. Boolean output for $ABC(\bar{A} + \bar{B} + \bar{C})$ is :-

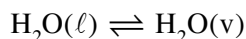
- (1) Zero (2) 1
 (3) $A + B + C$ (4) ABC



X & Y respectively is -

- (1) CH_3MgX and $\text{C}_2\text{H}_5\text{OH}$
- (2) SnCl_2/HCl and CH_3MgX
- (3) CH_3MgX and $\text{SnCl}_2 + \text{HCl}$
- (4) $\text{SnCl}_2 + \text{HCl}$ and $\text{Na} + \text{C}_2\text{H}_5\text{OH}$

48. Which of the following is correct for the given phase transition :-



- (1) Both the phases remains in equilibrium at 273.15 K temperature and at any given pressure
- (2) On increasing pressure at given equilibrium more amount of vapours are formed
- (3) On increasing external pressure $\text{H}_2\text{O}(\ell)$ boils at high temperature than normal boiling point
- (4) If a non volatile solute is added then boiling point is decreased

49. Consider the following thermochemical equation
 $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{g}) \quad \Delta H^\circ = -470 \text{ kJ}$
 If standard enthalpy of vaporisation of $\text{H}_2\text{O}(\ell)$ is 50 kJ/mole, then find calorific value of $\text{H}_2(\text{g})$ in standard conditions :-

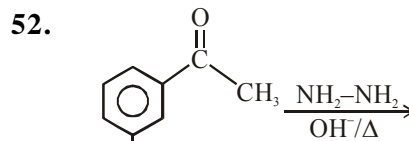
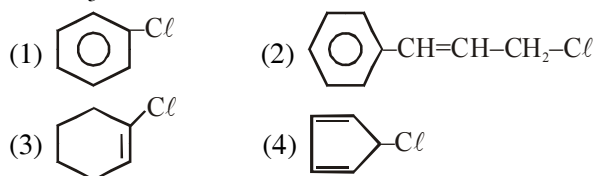
- (1) 285 kJ/g (2) 235 kJ/g
- (3) 117.5 kJ/g (4) 142.5 kJ/g



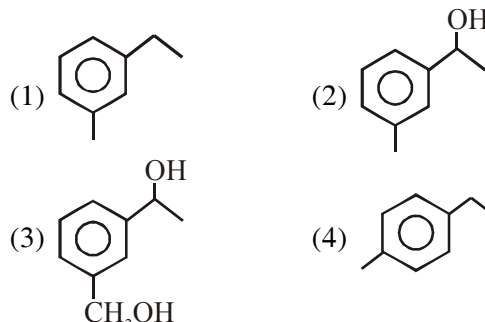
True statement is

- (1) x can't be MnO_2
- (2) y can be KMnO_4
- (3) z can be K_2MnO_4
- (4) Step I is oxidation while step II is disproportionation

51. Which of the following give white ppt of AgCl with AgNO_3



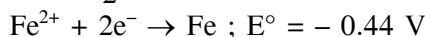
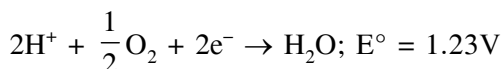
The major product is :-



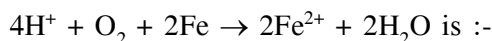
53. Maximum possible pH of a solution of slaked lime is $[\text{K}_{\text{sp}}$ of $\text{Ca}(\text{OH})_2 = 32 \times 10^{-6}]$:-

- (1) 1.4 (2) 1.7 (3) 12.3 (4) 12.6

54. The half cell reaction for rusting of iron are



ΔG° for the reaction

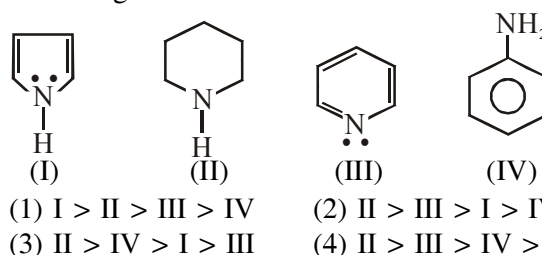


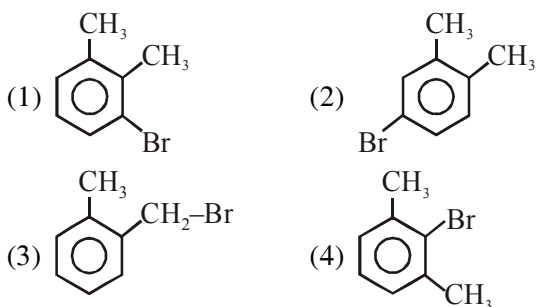
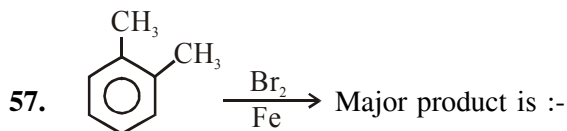
- (1) -76 kJ (2) -644 kJ (3) -122 kJ (4) -176 kJ

55. EAN of $[\text{Fe} \eta^5\text{-(C}_5\text{H}_5)_2(\text{CO})_2\text{Cl}]$:-

- (1) 36 (2) 35 (3) 37 (4) 34

56. Correct decreasing order of basic strength for following :-





58. For a reversible thermodynamic process for monoatomic gas $PV^x = \text{constant}$. If for this process

$x = \frac{C_p}{C_v}$, then heat capacity for the process is :-

(1) $\frac{3R}{2}$ (2) $\frac{5R}{2}$ (3) 0 (4) ∞

59. If the pressure of $H_2(g)$ is increased from 1atm to 100 atm keeping $[H^+]$ constant at 1M, the change in reduction potential of hydrogen half cell at $25^\circ C$ will be :-

(1) 0.059 V (2) -0.059 V
 (3) 0.0295 V (4) 0.118 V

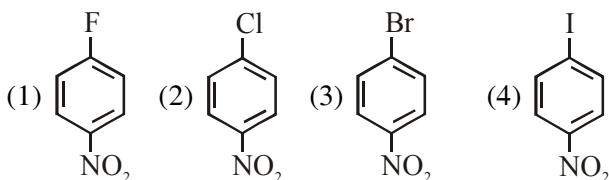
60. Which of the following electronic arrangement will give highest value of magnetic moment ?

- (1) d^6 , strong ligand (2) d^7 , High spin
 (3) d^4 , weak field (4) d^2 , strong field

61. Select the wrong pair :-

- (1) Cellulose - Polymer of β -D - Glucose
 (2) Lactose - β - D - Galactose and β - D - Glucose
 (3) Sucrose - β - D - Glucose and α - D - Fructose
 (4) Starch - α - D - Glucose

62. Which of the following compounds will show faster ArS_N2 reaction ?



63. Which of the following is/are correct :-

- (1) $\Delta_f H^\circ$ of $H^+(aq) = 0$
 (2) $\Delta_f G^\circ$ of $H^+(aq) = 0$
 (3) $\Delta_f H^\circ$ of $O_2(g) = 0$
 (4) All are correct

64. pH of pure water is found to 6.8, the temperature of water is :-

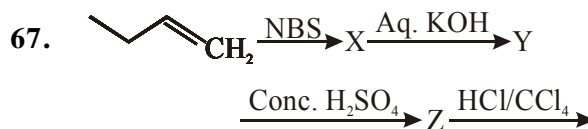
- (1) $25^\circ C$
 (2) Greater than $25^\circ C$
 (3) Less than $25^\circ C$
 (4) Can't be predicted

65. In the froth floatation process, ZnS & PbS can be separated by using :-

- (1) Collectors (2) Depressant
 (3) Stabilisers (4) All of these

66. Example of polycondensation products of dicarboxylic acids and diols is :-

- (1) Nylon - 6 (2) Dacron
 (3) Novolac (4) Neoprene



Product is :-

- (1) 1-Chlorobut-2-ene (2) 4-Chlorobut-1-ene
 (3) 3-Chlorobut-1-ene (4) 2-Chlorobut-2-ene

68. Vander waal's equation for 1-mole He gas at high pressure can be written as :-

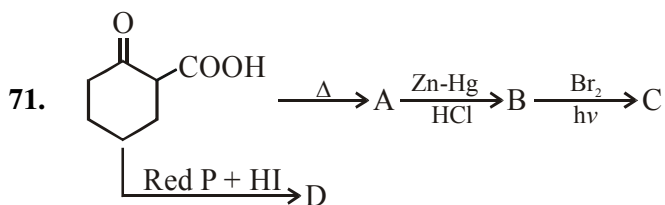
(1) $PV_m = RT - Pb$ (2) $PV_m = RT + \frac{a}{V_m}$
 (3) $PV_m = RT - \frac{a}{V_m}$ (4) $PV_m = RT + Pb$

69. An element whose IUPAC name is ununquadium (Uuq) belongs to which block?

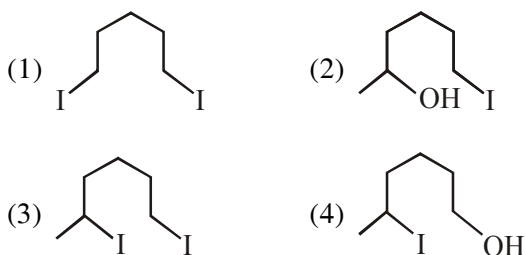
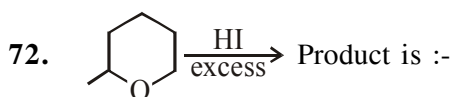
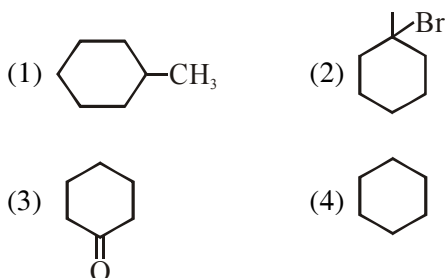
- (1) s-block (2) p-block
 (3) d-block (4) f-block

70. Which of the following pair gives same gaseous product on heating?

- (1) KNO_3 and $Pb(NO_3)_2$
 (2) NH_4NO_2 and NaN_3
 (3) $(NH_4)_2Cr_2O_7$ and NH_4NO_3
 (4) Na_2CO_3 and $BeCO_3$



Which of the following product is not formed in above reaction ?



73. How many moles of KMnO_4 are required in acidic medium to oxidise 10 moles of ferric oxalate :-

- (1) 15 (2) 12
 (3) 4 (4) 8

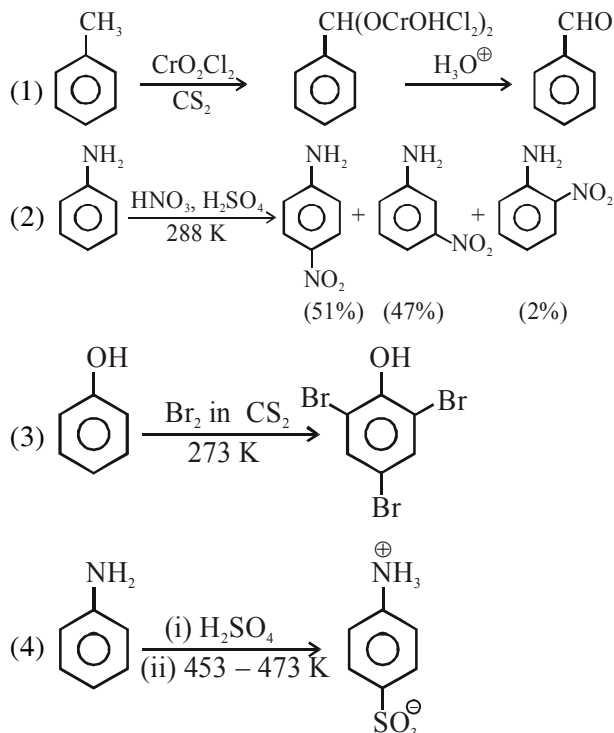
74. Which of the following is correct order of stability?

- (1) $[\text{NiCl}_4]^{-2} < [\text{PdCl}_4]^{-2} < [\text{PtCl}_4]^{-2}$
 (2) $[\text{Co}(\text{H}_2\text{O})_6]^{+3} < [\text{Co}(\text{NH}_3)_6]^{+3} < [\text{Co}(\text{CN})_6]^{-3}$
 (3) $[\text{Ni}(\text{NH}_3)_4]^{+2} < [\text{Ni}(\text{CN})_4]^{-2}$
 (4) All

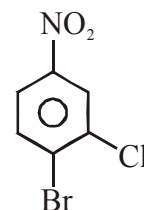
75. Identify the incorrect statement :-

- (1) SnCl_2 work as reducing agent
 (2) PbCl_2 is more stable than PbCl_4 at room temperature.
 (3) $\text{Tl}(\text{I})\text{F}_3$ does not exist
 (4) Basicity of $\text{H}_3\text{PO}_2 = 2$

76. Which of the following reaction is incorrect ?

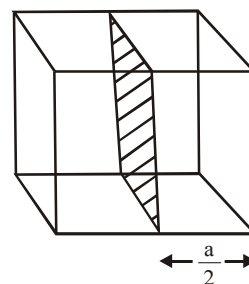


77. IUPAC name of given compound will be :-



- (1) 1-bromo-2-chloro-4-nitrobenzene
 (2) 4-bromo-3-chloro-1-nitrobenzene
 (3) 2-bromo-1-chloro-5-nitrobenzene
 (4) 4-bromo-5-chloro-1-nitrobenzene

78. How many centres of octahedral voids lie in the given plane of FCC unit cell ?



- (1) Zero (2) 1 (3) 4 (4) 5

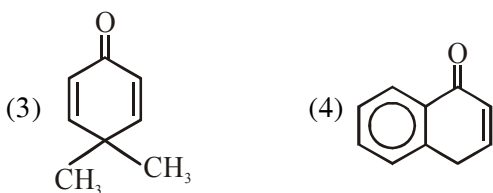
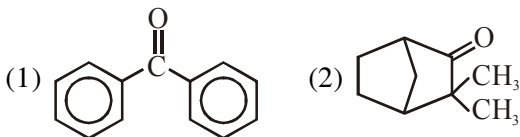
79. The common product of hydrolysis of XeF_2 & XeF_6 is/are :-

- (1) Xe , O_2 (2) XeO_3 , O_2
 (3) Xe , XeO_3 (4) Only HF

80. Identify the incorrect order ?

- (1) $\text{N}^{3-} > \text{O}^{2-} > \text{Na}^+$ (Radius order)
 (2) $\text{H}^- > \text{Al}^{3+} > \text{H}^+$ (Ionic Radius order)
 (3) $\text{S} > \text{O}$ (E.A. order)
 (4) $\text{O} > \text{S} > \text{O}^- > \text{S}^-$ (I.P. order)

81. Which of the following show tautomerism



82. A compound (molar mass = 120g) contains 40% carbon by mass. If ratio number of 'H' and 'O' atoms in the compound is 2 : 1, then number of H-atoms in one molecule of the compound is :-

- (1) 2 (2) 6 (3) 8 (4) 10

83. Molality of a sulphuric acid solution in which the mole fraction of water is 0.85 is :-

- (1) 4.9 (2) 9.8 (3) 19.6 (4) 0.15

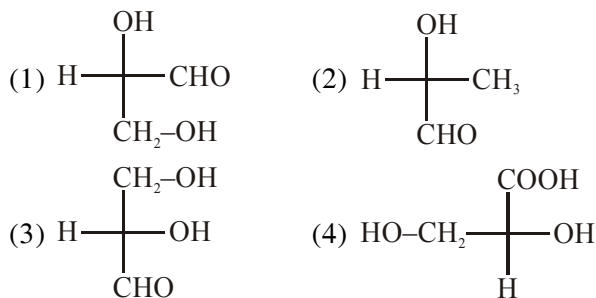
84. Colour of F_2 and Cl_2 can be explained by :-

- (1) d-d transition
 (2) HOMO-LUMO transition
 (3) Paramagnetic nature
 (4) Charge transfer

85. Which of the following reaction are incorrect?

- (1) $\text{Pb}(\text{NO}_3)_2 \xrightarrow{\Delta} \text{PbO}_2 + \text{NO}_2 + \text{O}_2$
 (2) $\text{MgCO}_3 \xrightarrow{\Delta} \text{MgO} + \text{CO}_2$
 (3) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O} \xrightarrow{\Delta} \text{Fe}_2\text{O}_3 + \text{SO}_2 + \text{SO}_3$
 (4) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O} \xrightarrow[\text{Red Hot}]{\Delta} \text{CaSO}_4$

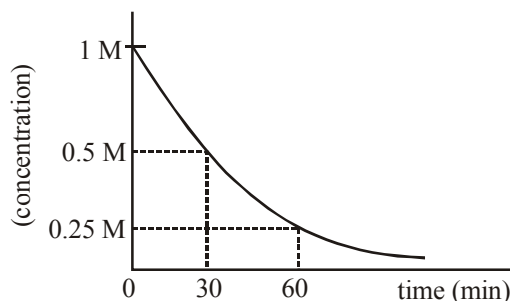
86. Which of the following structure has D-configuration?



87. The maximum kinetic energy of the photo-electrons ejected by a metal surface is increased from 1.2 eV to 1.8 eV, when the energy of the incident photons was increased by 25%. The work function of metal is :-

- (1) 0.6 eV (2) 1.2 eV (3) 1.5 eV (4) 1.8 eV

88. For the reaction $\text{A} \xrightarrow{\text{K}_1} \text{P}$, the graph between concentration and time is :-



Rate of reaction at 60 min. will be : (use $\ln 2 = 0.7$)

- (1) $\frac{7}{1200} \text{ M min}^{-1}$ (2) $\frac{1}{1200} \text{ M min}^{-1}$
 (3) $\frac{3.5}{120} \text{ M min}^{-1}$ (4) $\frac{0.7}{60} \text{ M min}^{-1}$

89. K_2MnO_4 can be converted to KMnO_4 by which of the following method ?

- (a) Passing HCl acid
 (b) Electrolysis of K_2MnO_4
 (c) Cl_2 as an oxidizing Agent
 (d) O_3 as an oxidizing Agent

Options :

- (1) a, b (2) b, c (3) a, b, c (4) All

90. In which of the following pair of species, all bond angles are equal ?

- (1) CO_3^{2-} , COCl_2 (2) PO_4^{3-} , POCl_3
 (3) ClO_4^- , PO_4^{3-} (4) CH_3F , CH_4

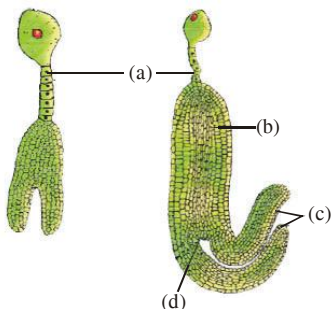
91. Deficiency of enzyme homogentisic acid oxidase leads to:-

- (1) Phenyl ketonuria (2) Tay-sach's disease
 (3) Alkaptonuria (4) Albinism

92. Which fungi causes, rust disease of wheat ?

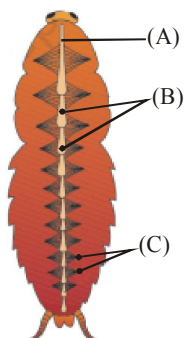
- (1) *Rhizopus* (2) *Mucor*
 (3) *Puccinia* (4) *Phythium*

93. In the diagram given below, identify the labelled part (a), (b), (c) and (d) & select correct option :-



- (1) (a) Plumule (b) Radicle (c) Suspensor (d) Cotyledon
 (2) (a) Suspensor (b) Radicle (c) Cotyledon (d) Plumule
 (3) (a) Cotyledon (b) Plumule (c) Radicle (d) Suspensor
 (4) (a) Radicle (b) Suspensor (c) Cotyledon (d) Plumule

94. Given diagram is showing open circulatory system of Cockroach :-



Find the A-C and select the correct option :

- (1) A-Anterior Aorta, B-Alary Muscles, C-Heart chamber
 (2) A-Chamber of Heart, B-Anterior Aorta, C-Alary Muscles
 (3) A-Alary Muscles, B-Chamber of Heart, C-Anterior Aorta
 (4) A-Anterior Aorta, B-Chamber of Heart, C-Alary Muscles

95. Match the following and select the correct answer :-

	Column-I		Column-II
(a)	Crista	(i)	Centriole
(b)	Thylakoid	(ii)	Mitochondria
(c)	Doublet fibril	(iii)	Chloroplast
(d)	Triplet fibril	(iv)	Cilia

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

96. Select the incorrect statement :-

- (1) Inbreeding increases homozygosity
 (2) Inbreeding increases heterozygosity
 (3) Inbreeding is essential to evolve pureline in crops
 (4) Inbreeding exposes harmful recessive gene that are eliminated by selection

97. Joint of sternum and Rib is :-

- (1) Cartilaginous joint
 (2) Fibrous joint
 (3) Hinge joint
 (4) Gliding joint

98. Part of external genitalia in female covered by prepuce is :-

- (1) Mons pubis
 (2) Labia majora
 (3) Labia minora
 (4) Clitoris

99. Which one is a MUFA (monosaturated fatty acid):

- (1) Arachidonic acid
 (2) Linolenic acid
 (3) Linoleic acid
 (4) Oleic acid

- 100.** Select incorrect statement ?
- (1) Lenticels occur in most woody trees.
 - (2) Conjoint collateral vascular bundles are found in stem and leaves of flowering plants.
 - (3) In dicot stems, cork cambium develops usually in cortical region.
 - (4) In temperate regions, climatic conditions are uniform throughout the year.
- 101.** Choose the correct statement from given below :-
- (1) Nicotin decreases blood pressure and heart rate
 - (2) Smoking can cause ulcer and other irregularities of gut
 - (3) Smoking increases the concentration of haembound oxygen in blood
 - (4) Most common cancer caused due to smoking is urinary bladder cancer.
- 102.** According to Whittaker's classification *Chlorella* is placed in
- (1) Pyrrophyta (2) Protozoans
 - (3) Protista (4) Plantae
- 103.** Increase in gastro-intestinal secretion and movement after ingestion of food is mainly brought about by
- (1) Sympathetic nervous system
 - (2) Parasympathetic nervous system
 - (3) Central nervous system
 - (4) Hormone secreted by thyroid
- 104.** Choose the correct match :-
- | | | |
|------------------|---|-----|
| (1) Commensalism | - | -/+ |
| (2) Amensalism | - | -/0 |
| (3) Predation | - | -/- |
| (4) Competition | - | +/- |
- 105.** Which of the following nucleic acids is present in an organism having both 80s and 70s ribosomes?
- (1) ss circular DNA with Histone
 - (2) ds circular DNA without Histone
 - (3) ss linear DNA without Histone
 - (4) ds linear DNA with Histone
- 106.** Select the correct sequence :-
- (1) Genome > Gene pool > Chromosome
 - (2) Gene pool > Genome > Chromosome
 - (3) Chromosome > Gene pool > Genome
 - (4) Gene pool > Chromosome > Genome
- 107.** During high blood pressure, regulations of heart beat and circulation and controlled by :-
- (1) Cardio - inhibitory and vasodilator center
 - (2) Cardio - inhibitory and vasoconstrictor center
 - (3) Cardio - stimulatory and vasodilator center
 - (4) Cardio - stimulatory and vasoconstrictor center
- 108.** In embryo, number of blastomeres formed at end of third cleavage division is :-
- | | |
|-------|--------|
| (1) 2 | (2) 4 |
| (3) 8 | (4) 16 |
- 109.** When electrons move from PS-II to PS-I through the ETS in thylakoid membrane, which component from the following perform a role similar to role of CO-Q in mitochondrial ETS ?
- | | |
|-----------------|---------|
| (1) Pheophytine | (2) PQ |
| (3) Cyt-F | (4) FRS |
- 110.** How many structures/cells in list given below are parenchymatous:-
- (i) Epidermis
 - (ii) Vascular rays
 - (iii) Complimentary cells
 - (iv) Root cap
 - (v) Pith cells of sunflower stem
 - (vi) Hypodermis of maize stem
 - (vii) Hypodermis of sunflower stem.
 - (viii) Bundle sheath cells in maize stem
- | | | | |
|----------|-----------|---------|-----------|
| (1) Five | (2) Three | (3) Six | (4) Seven |
|----------|-----------|---------|-----------|
- 111.** Which of the following drug interferes with the transport of dopamine ?
- (1) Opium
 - (2) Cannabis sativa
 - (3) Erythroxyllum cocca
 - (4) Atropa belladona

112. Read the following statements regarding Gymnosperm :-

- (A) The main plant body is sporophyte and heterosporous in nature.
 - (B) Roots of some gymnosperm have algal (Blue green algae) association.
 - (C) The multicellular female gametophyte bears two or more archegonia.
 - (D) The male and female cones may be borne on the same tree or on different trees.
- (1) Statement A, C and D are correct and statement B is incorrect.
- (2) Statement A, B and D are correct and statement C is incorrect.
- (3) Statement A and D are correct and statement B and C are incorrect.
- (4) All statements are correct

113. Which is a sensory nerve ?

- (1) Trigeminal (2) Vagus
- (3) Facial nerve (4) Auditory nerve

114. By which means desert lizards maintain their body temperature constant at high temperatures ?

- (1) Physiologically
- (2) Behaviourally
- (3) Morphologically
- (4) Both (1) and (2)

115. Replication of DNA takes place in :-

- (1) G₂-phase
- (2) G₀-phase
- (3) S-phase
- (4) M-phase

116. Which of the following is a clot buster :-

- (1) Cyclosporin - A
- (2) Streptokinase
- (3) Lipases
- (4) Statin

117. Select the correct order of osmolarity w.r.t. blood in different parts of nephrons :-

Bowmans capsule → PCT → Thin part of descending limb of loop of henle → thin part of ascending limb of loop of henle → DCT → end of collecting duct

- (1) Isotonic → Isotonic → Hypotonic → Hypertonic → Hypotonic → Hypotonic
- (2) Isotonic → Isotonic → Hypertonic → Hypertonic → Hypotonic → Hypertonic
- (3) Isotonic → Hypertonic → Isotonic → Hypertonic → Hypotonic → Hypertonic
- (4) Hypotonic → Isotonic → Hypertonic → Isotonic → Hypotonic → Hypertonic

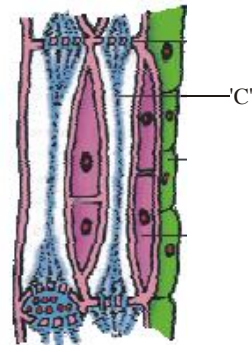
118. Hormone whose level remain low during follicular phase of menstrual cycle is :-

- (1) FSH (2) LH
- (3) Estrogen (4) Progesterone

119. Most plants meet their need of water transport by :-

- (1) Root pressure
- (2) Guttation
- (3) Transpiration pull
- (4) Diffusion

120. Given figure represent longitudinal section of phloem, in which labelled part 'C' is :-



- (1) Companion cell
- (2) Sieve tube element
- (3) Phloem parenchyma
- (4) Sieve pore

121. Which of the following property is not shown by malignant tumor ?

- (1) Metastasis
- (2) Uncontrolled division
- (3) Invasion
- (4) Contact inhibition

122. A process in which heritable variation enabling better survival are enabled to reproduce and leave greater number of progeny is called :-

- (1) Genetic drift
- (2) Natural selection
- (3) Founder effect
- (4) Both 1 and 3

123. How many types of cones are present which are responsible for the colour differentiation ?

- (1) Only one
- (2) 7 types for seven fundamental colours
- (3) 3 types
- (4) 4 types

124. The rate of decomposition becomes faster when:-

- (1) Lignin and Chitin rich detritus present
- (2) At low temperature
- (3) In deficiency of oxygen
- (4) Nitrogen and water-soluble substances rich detritus present.

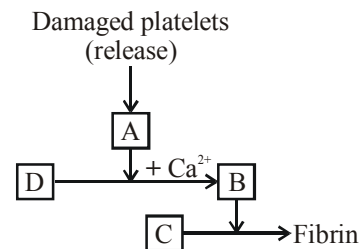
125. Arrange the following events of meiosis in correct sequence :-

- (a) splitting of centromere
 - (b) crossing over
 - (c) separation of homologous chromosome
 - (d) interkinesis
- (1) a, b, d, c (2) b, d, c, a
 (3) b, c, d, a (4) a, d, b, c

126. Select correct match :-

	Column-I		Column-II
(1)	Method of producing thousands of plants through tissue culture	(i)	Totipotency
(2)	Genetically identical plants through tissue culture	(ii)	Explant
(3)	Pomato	(iii)	Somatic hybrid
(4)	Virus free plant	(iv)	Callus culture

127. Identify A, B and C in the given below blood clotting process.



Options :-

	A	B	C
(1)	Thromoplastin	Prothrombin	Fibrinogen
(2)	Thrombin	Fibrinogen	Thrombokinase
(3)	Thromboplastin	Thrombin	Fibrinogen
(4)	Prothrombin	Thrombin	Fibrinogen

128. Perforatorium is a part of sperm, present between :-

- (1) Acrosome and nucleus
- (2) Head and middle piece
- (3) Middle piece and tail
- (4) Nucleus and proximal centriole

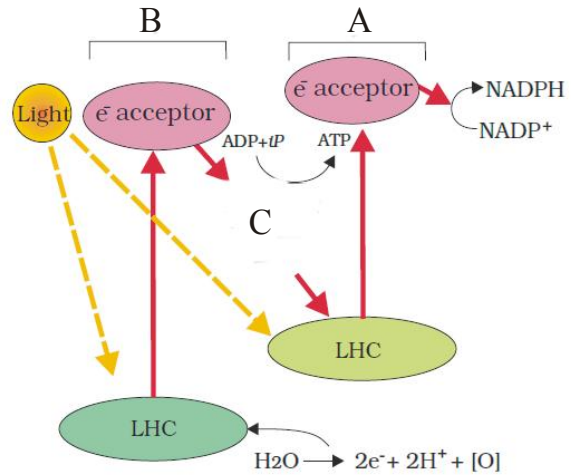
129. Which one is required in larger amounts in comparison to other micronutrient ?

- (1) Mn
- (2) Zn
- (3) Fe
- (4) B

- 130.** Consider the following statements (A & B) and choose correct option ?
 (A) Phloem fibres are made up of sclerenchymatous cells
 (B) Phellem, Phellogen and phelloderm are collectively termed as periderm
 (1) Both A and B are false (2) A is true and B is false
 (3) Both A and B are true (4) A is false and B is true
- 131.** Appearance of dry, scaly lesions on various parts of the body such as skin, nails and scalp is seen in which disease ?
 (1) Ascariasis (2) Filariasis
 (3) Ring worm (4) Amoebiasis
- 132.** What is the main key concept of Darwinian theory of evolution :-
 (A) Natural selection (B) Branching descent
 (C) Mutation (D) Genetic variation
 (1) A, C, D (2) A, B (3) A, B, C, D (4) A, D
- 133.** Read following statement carefully with regards to "Sea Walnut" .
 "The body of sea walnut bears __A__ external rows of comb plates which help in __B__".
 Select the correct option which correctly fills up the both blanks A and B respectively ?
 Option :
 (1) A-Eight, B-Digestion
 (2) A-Eight, B-Locomotion
 (3) A-Sixteen, B-Locomotion
 (4) A-Sixteen, B-Digestion
- 134.** Among animals which of the following taxonomic group is the most-species rich ?
 (1) Mammals (2) Fishes
 (3) Insects (4) Birds
- 135.** Chiasmata appears at :-
 (1) Prophase-I (2) Metaphase-II
 (3) Prophase-II (4) Metaphase-I
- 136.** Which of the following is incorrect match :-
 (1) DNA polymerase - replication
 (2) RNA polymerase - Transcription
 (3) Restriction endonuclease - removal of DNA nucleotide from terminal end.
 (4) DNA ligase - Joining of DNA fragment

- 137.** Epithelium commonly found in ducts of glands & tubular part of nephron ?
 (1) Compound epithelium
 (2) Stratified squamous epithelium
 (3) Columnar epithelium
 (4) Cuboidal epithelium
- 138.** Read the following statements and select the correct option :-
 (i) Lack of menstruation may indicate pregnancy
 (ii) LH surge induce rupture of Graafian follicle.
 (iii) Corpus luteum secrete progesterone
 (iv) Penis is composed of skeletal muscles
 (v) Formation of morphological abnormal embryo is called terratogenesis
 (1) i, ii, iii, v are correct and iv is incorrect
 (2) i, iii, iv, v are correct and ii is incorrect
 (3) i, ii, iii are correct and iv and v are incorrect
 (4) i, ii are correct and iii, iv and v are incorrect

139.



Choose the correct option for electron flow in A, B and C.

- (1) A-Uphill, B-Downhill, C-Uphill
 (2) A-Uphill, B-Uphill, C-Downhill
 (3) A-Downhill, B-Uphill, C-Downhill
 (4) A-Downhill, B-Downhill, C-Uphill
- 140.** Which one of the following is a hormone releasing IUD:
 (1) Progestasert (2) Lippes loop
 (3) Multiload-375 (4) Cu-T

141. Which of the following feature(s) is/are exclusive in angiosperms :-

- (A) Seed
- (B) Double fertilization
- (C) Female gametophyte
- (D) Presence of flowers
- (E) Formation of endosperm
- (F) Presence of vessels and companion cells

Tick the right one :-

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

142. First invertebrate, during evolution originated before how many year :-

- (1) 300 million years (2) 100 million years
- (3) 500 million years (4) 200 million years

143. Identify the correct match from the column I, II and III.

	Column-I	Column-II	Column-III
1.	Hepatic caeca	(a) Present on 10 th tergum in both ♂ and ♀	(i) Repel the enemies
2.	Malpighian tubules	(b) Present at the Junction of midgut and hind gut	(ii) Secrete the digestive enzymes
3.	Anal cerci	(c) Present at the initial part of midgut	(iii) excretion and osmoregulation
4.	Stink gland	(d) present between 5 th and 6 th tergum	(iv) Phonoreceptor

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

144. Which of the following is not a feature is 'biodiversity hot spots' ?

- (1) High degree of endemism
- (2) Very high levels of species richness
- (3) An example of ex-situ conservation
- (4) Accelerated habitat loss

145. Match the stage of meiosis in column-I to their characteristic feature in column-II and select the correct option using the codes given below :-

	Column-I		Column-II
(a)	Leptotene	(i)	Recombinase enzyme
(b)	Zygotene	(ii)	Terminalisation
(c)	Pachytene	(iii)	Longest & thinnest chromosome
(d)	Diplojene	(iv)	Synapsis
(e)	Diakinesis	(v)	Dissolution of synaptonemal complex

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

146. Dental formula of monophodont teeth in human being is :-

- | | |
|----------------------------------|----------------------------------|
| (1) $\frac{2123}{2123} \times 2$ | (2) $\frac{2102}{2102} \times 2$ |
| (3) $\frac{0021}{0021} \times 2$ | (4) $\frac{2120}{2120} \times 2$ |

147. Bronchioles and fallopian tube is lined by _____ epithelium towards inner side ?

- (1) Flagella containing squamous
- (2) Cilia containing cuboidal
- (3) Cilia containing columnar
- (4) Cilia containing stratified columnar

148. Some characters of true fishes are given below :-

- (a) Their gills are operculated
- (b) In male clasper present for copulation
- (c) They are ureotelic
- (d) They have ampulla of lorenzini as thermoreceptor
- (e) Mainly external fertilization and oviparous
- (f) Air bladder present
- (g) Bony skeleton

How many characters are related to Pristis ?

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

149. Choose the correct option for the products of alcoholic fermentation :-

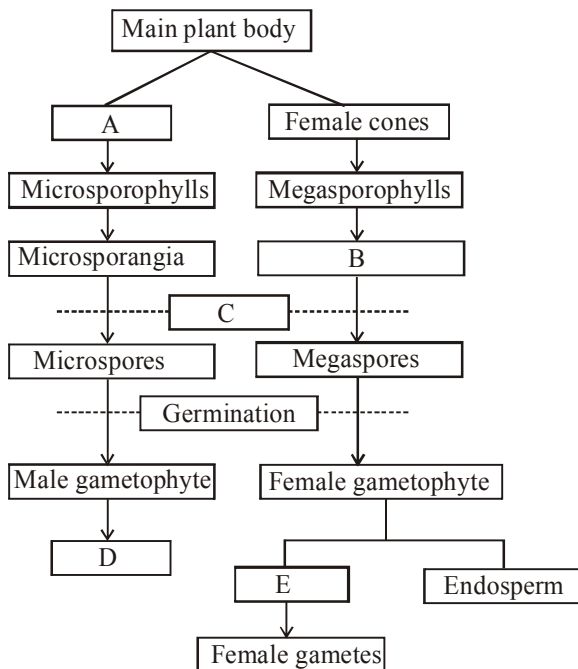
- (1) Alcohol, O₂ and NAD⁺
- (2) Alcohol + NADH + O₂
- (3) Alcohol, CO₂ and NAD⁺
- (4) Alcohol, CO₂ + NADH

150. Match the placent type (Column-I) with their examples (Column-II):

	Column-I		Column-II
A	Free central	i	<i>Argemone</i> and mustard
B	Basal	ii	Pea and Soyabean
C	Marginal	iii	<i>Dianthus</i> and <i>Primrose</i>
D	Parietal	iv	Sunflower and Marigold

- (1) A-ii, B-iv, C-i, D-iii
- (2) A-iii, B-ii, C-iv, D-i
- (3) A-iii, B-iv, C-ii, D-i
- (4) A-iv, B-i, C-ii, D-iii

151. The given flow chart shows the reproductive structure & events of a gymnospermic plant. Identify the structure/events those are blank.



	A	B	C	D	E
(1)	Male cone	Micro-sporangia	Meiosis	Archegonia	Antherozoids
(2)	Sori	Micro-sporangia	Meiosis	Antherozoids	Archegonia
(3)	Male cone	Mega-sporangia	Meiosis	Male gametes	Archegonia
(4)	Sori	Mega-sporangia	Mitosis	Male gametes	Egg cell

152. What is the main essence of Darwinian theory of evolution:-

- (1) Genetic drift
- (2) Isolation
- (3) Struggle for existence
- (4) Natural selection

153. Select the correct order for a Frog's life cycle :-

- (1) Eggs, Tadpole, Froglet, Frog
- (2) Froglet, Eggs, Frog, Tadpole
- (3) Eggs, Froglet, Tadpole, Frog
- (4) Frog, Eggs, Froglet, Tadpole

154. The removal of 'Key Stone' species will affect :-

- (1) The producers
- (2) The consumers
- (3) The ecosystem
- (4) The decomposition

155. In meiosis nucleus and chromosomes are divide respectively :-

- (1) One and two time
- (2) Two and two time
- (3) Two and one time
- (4) One and one time

156. Dissociation of CO₂ from Carbaminohaemoglobin in alveoli is due to :-

- (1) low Po₂ and high Pco₂
- (2) low Po₂ and low Pco₂
- (3) high Po₂ and high Pco₂
- (4) high Po₂ and low Pco₂

157. Find out the correct match :-

- (1) Cortisol - Adrenal medula
- (2) ADH - Anterior pituitary
- (3) Pitocin - Posterior pituitary
- (4) Melatonine - Middle pituitary

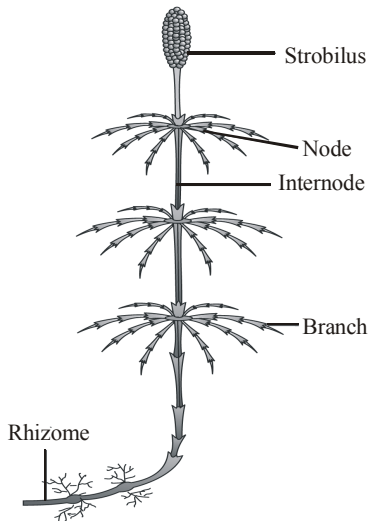
158. In cockroach special mushroom gland is present which is:-
 (A) It is present in 6th – 7th abdominal segments
 (B) It is found in female cockroach
 (C) Its function as an accessory reproductive gland
 (D) It is found in male cockroach

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

159. Interfacicular cambium is fully ____ cells :
 (1) differentiated (2) dedifferentiated
 (3) redifferentiate (4) mature

160. A plant in which leaves are small short lived and in these plants petioles expand become green and synthesise food :
 (1) *Opuntia* (2) *Asparagus*
 (3) *Euphorbia* (4) Australian Acacia

161. Study the given diagram and give answer of questions a, b and c.



- (a) Name of plant ?
 (b) Class of plant ?
 (c) Ploidy of rhizome ?

	(a)	(b)	(c)
(1)	<i>Sphagnum</i>	Lycopsida	Haploid
(2)	<i>Funaria</i>	Moss	Haploid
(3)	<i>Funaria</i>	Liverwort	Diploid
(4)	<i>Equisetum</i>	Sphenopsida	Diploid

162. Select the incorrect statements :-
 (A) The Darwinian theory of evolution is based on fitness
 (B) Evolution is a directed process in the sense of determinism
 (C) The geological history of earth is not related with the biological history of earth.
 (D) During evolution the rate of appearance of new forms is linked to the life cycle.
 (1) A and B (2) B and C
 (3) A and D (4) B and D

163. Read the following examples :-
 (a) Hirudinaria (b) Taenia
 (c) Fasciola (d) Aphrodite
 (e) Ascaris
 How many above examples are shown both bilateral symmetry and true coelom -
 (1) Two (2) Three (3) Four (4) Five

164. A group of animals related by descent and similar in most characters like general appearance, features, size, configuration etc is known as :-
 (1) Breed (2) Species
 (3) Hybrid (4) Sibling species

165. Specific pyrimidine base in DNA and RNA respectively:-
 (1) Thymine and Uracil
 (2) Thymine and Guanine
 (3) Adenine and Guanine
 (4) Cytidine and Uracil

166. The joint of our neck which allows us to rotate our head left or right is:-
 (1) Pivot joint (2) Hinge joint
 (3) Saddle joint (4) Ellipsoid joint

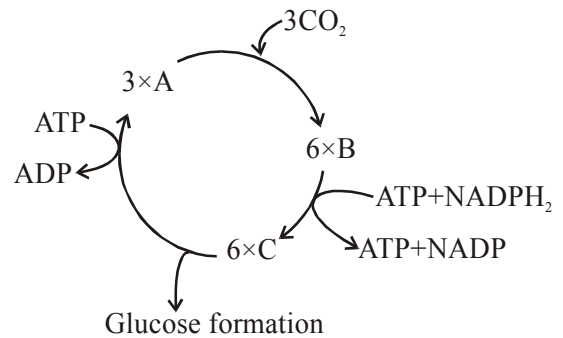
167. Which group of hormones helps in development of corpus luteum and ovarian follicles respectively?
 (1) MSH & Melatonin
 (2) MSH & LH
 (3) FSH & LH
 (4) LH & FSH

168. To form the proteins, Amino acids are joined with:-
 (1) Peptide bond (2) Glycosidic bond
 (3) Ester bond (4) Disulphide bond

169. The site of perception of light/Dark duration in photoperiodism is :-
 (1) Root (2) Fruit
 (3) Leaf (4) Flower
170. Which of the following is not present in Dicots :
 (1) Reticulate venation (2) Fruits
 (3) Perianth (4) Tap root system
171. In which algae type of sexual reproduction is oogamous ?
 (1) *Albugo* (2) *Volvox*
 (3) *Mucor* (4) *Puccinia*
172. Select the correct statement with respect to flowering plants :-
 (1) Mature pollen grain is single celled
 (2) Cells of perisperm are diploid
 (3) Majority of flowering plants produce cleistogamous flowers
 (4) Apomixis is a form of sexual reproduction
173. The glands present in the skin of Frog (rana) are :-
 (1) Mucous and Poisonous
 (2) Sweat and Mammary
 (3) Sweat and Sebaceous
 (4) Only Mucous
174. Find the incorrect statement related to animal husbandry:-
 (1) Inbreeding increases homozygosity
 (2) Apiculture is labour-intensive
 (3) In MOET, the fertilised egg at 8-32 cells stages are recovered non-surgically and transferred to surrogate mother.
 (4) Hisardale is an example of cross-breed
175. Which of the following is true for Golden rice :-
 (1) It is a vitamin A enriched, with gene from *Bacillus thuringiensis*
 (2) It is pest resistant with a gene from *Agrobacterium*
 (3) It is vitamin A enriched with β carotene gene
 (4) High yielding variety of rice developed through mutation.

176. Smooth muscles are :-
 (1) Found in the walls of heart only
 (2) Found in the walls of all the hollow organs except heart
 (3) Attached to the bones only
 (4) Found in the walls of alimentary canal
177. Temperature of testes in human being is :-
 (1) $34.5 - 35^{\circ}\text{C}$ (2) $2 - 2.5^{\circ}\text{C}$
 (3) $37 - 38^{\circ}\text{C}$ (4) $37 - 40^{\circ}\text{C}$
178. Choose the correct option for carbohydrates :-
 (1) β -glucose is an epimer of α -glucose
 (2) Mannose is an anomer of glucose.
 (3) Galactose is called as "brain sugar".
 (4) Fructose is known as grape sugar

179.



Choose the correct option for A, B, and C in given figure:-

- (1) A-5 carbon, B-3 carbon, C-3 carbon
 (2) A-3 carbon, B-3 carbon, C-5 carbon
 (3) A-3 carbon, B-5 carbon, C-5 carbon
 (4) A-3 carbon, B-5 carbon, C-3 carbon
180. The flower formula of potato and tomato is :

- (1) $\oplus \overset{\uparrow}{\underset{+}{\text{O}}} \text{K}_{(5)} \text{C}_{(5)} \text{A}_5 \underline{\text{G}_{(2)}}$
 (2) $\oplus \overset{\uparrow}{\underset{+}{\text{O}}} \text{K}_{(5)} \text{C}_{1+2+(2)} \text{A}_{(9)+1} \underline{\text{G}_{(1)}}$
 (3) $\oplus \overset{\uparrow}{\underset{+}{\text{O}}} \text{P}_{(3+3)} \text{A}_{(3+3)} \underline{\text{C}_{(3)}}$
 (4) $\oplus \overset{\uparrow}{\underset{+}{\text{O}}} \text{K}_{2+2} \text{C}_4 \text{A}_{2+4} \underline{\text{G}_{(2)}}$

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4. Use of Electronic/Manual Calculator is prohibited.
5. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
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