MHT CET 2020 Question Paper aglasem.com

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Test Center Name:	Chatrapati Shahu Maharaj Shikshan Sansthas College of Engineering
Test Date:	04/10/2020
Test Time:	9:00 AM - 12:00 PM
Subject:	PCB

Section : **Physics**

Q.1

For a transistor $\frac{1}{\alpha_{dc}} - \frac{1}{\beta_{dc}}$ is (α_{dc} and β_{dc} are current gains)

Ans

✗ 1. Zero

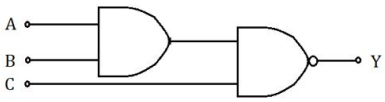
✗ 2. -1

✓ 3. 1

✗ 4. 2

Question Type : **MCQ**
Question ID : **37135112708**
Option 1 ID : **37135150829**
Option 2 ID : **37135150831**
Option 3 ID : **37135150830**
Option 4 ID : **37135150832**
Status : **Answered**
Chosen Option : **1**

Q.2 For the following combination of logic gates , when all the three inputs are first high and then low, the output 'Y' will respectively be



Ans

✗ 1. 1 , 0

✗ 2. 0 , 0

✗ 3. 1 , 1

✓ 4. 0 , 1

Question Type : **MCQ**
Question ID : **37135112743**
Option 1 ID : **37135150969**
Option 2 ID : **37135150971**
Option 3 ID : **37135150970**
Option 4 ID : **37135150972**
Status : **Answered**
Chosen Option : **4**

Q.3 When a ray of light is incident normally on one refracting surface of an equilateral prism of refractive index 1.5, the emerging ray $[\sin^{-1}\left(\frac{1}{1.5}\right) = 41.8^{\circ}]$

Ans

✗ 1. just grazes the second refracting surface.

✗ 2. is deviated by 20°.

✗ 3. is deviated by 30°.

✓ 4. undergoes total internal reflection at second refracting surface.

Question Type :	**MCQ**
Question ID :	**37135112727**
Option 1 ID :	**37135150907**
Option 2 ID :	**37135150905**
Option 3 ID :	**37135150906**
Option 4 ID :	**37135150908**
Status :	**Answered**
Chosen Option :	**4**

Q.4 The mutual inductance between two coplanar concentric rings A and B of radii 'R_1' and 'R_2' placed in air when a current 'I' flows through ring A is ($R_1 >> R_2$)

(μ_0 = permeability of free space)

Ans

✗ 1. $\frac{\mu_0 \pi R_2}{R_1}$

✗ 2. $\frac{\mu_0 \pi R_1}{R_2}$

✓ 3. $\frac{\mu_0 \pi R_2^2}{2R_1}$

✗ 4. $\frac{\mu_0 \pi R_1^2}{2R_2}$

Question Type : **MCQ**
Question ID : **37135112718**
Option 1 ID : **37135150871**
Option 2 ID : **37135150872**
Option 3 ID : **37135150869**
Option 4 ID : **37135150870**
Status : **Answered**
Chosen Option : **4**

Q.5 A particle of mass 'm' is rotating in a circle of radius 'r' having angular momentum 'L' . Then the centripetal force will be

Ans

✗ 1. $\frac{L^2}{mr}$

✗ 2. $\frac{L^2 m}{r}$

✓ 3. $\frac{L^2}{mr^3}$

✗ 4. $\frac{L^2}{mr^2}$

Question Type :	**MCQ**
Question ID :	**37135112701**
Option 1 ID :	**37135150801**
Option 2 ID :	**37135150802**
Option 3 ID :	**37135150803**
Option 4 ID :	**37135150804**
Status :	**Answered**
Chosen Option :	**3**

Q.6 If $|\overrightarrow{A_1}| = 3$, $|\overrightarrow{A_2}| = 4$ and $|\overrightarrow{A_1} + \overrightarrow{A_2}| = 4$ the value of $(2\overrightarrow{A_1} + \overrightarrow{A_2}) \cdot (\overrightarrow{A_1} - \overrightarrow{A_2})$ is

Ans

✗ 1. $4 \cdot 5$

✗ 2. $5 \cdot 5$

✓ 3. $6 \cdot 5$

✗ 4. $2 \cdot 5$

Question Type : **MCQ**
Question ID : **37135112714**
Option 1 ID : **37135150854**
Option 2 ID : **37135150855**
Option 3 ID : **37135150856**
Option 4 ID : **37135150853**
Status : **Answered**
Chosen Option : **2**

Q.7 The effective length of a magnet is 31·4 cm and its pole strength is 0·8 A m. The magnetic moment, if it is bent in the form of a semicircle is

Ans

✗ 1. $0{\cdot}12\ \text{A m}^2$

✓ 2. $0{\cdot}16\ \text{A m}^2$

✗ 3. $1{\cdot}2\ \text{A m}^2$

✗ 4. $1{\cdot}6\ \text{A m}^2$

Question Type : **MCQ**
Question ID : **37135112731**
Option 1 ID : **37135150924**
Option 2 ID : **37135150923**
Option 3 ID : **37135150922**
Option 4 ID : **37135150921**
Status : **Answered**
Chosen Option : **4**

Q.8 A force $F = (10 + 0.5x)$ N acts on a particle in the x-direction. The work done by the force in displacing the particle from $x = 0$ to $x = 2$ metre is

Ans

✗ 1. 63 J

✗ 2. 42 J

✗ 3. 31.5 J

✓ 4. 21 J

Question Type :	**MCQ**
Question ID :	**37135112719**
Option 1 ID :	**37135150873**
Option 2 ID :	**37135150874**
Option 3 ID :	**37135150875**
Option 4 ID :	**37135150876**
Status :	**Answered**
Chosen Option :	**4**

Q.9 A stone of mass 2kg attached at one end of a 2m long string is whirled in horizontal circle. The string makes an angle of 45° with the vertical then the centripetal force acting on the stone is ($g=10\ m/s^2$, $\tan 45^{\circ}=1$)

Ans

✗ 1. 30 N

✗ 2. 40 N

✓ 3. 20 N

✗ 4. 10 N

Question Type :	**MCQ**
Question ID :	**37135112711**
Option 1 ID :	**37135150843**
Option 2 ID :	**37135150844**
Option 3 ID :	**37135150842**
Option 4 ID :	**37135150841**
Status :	**Not Attempted and Marked For Review**
Chosen Option :	**--**

Q.10 The moment of inertia of a ring about an axis passing through its centre and perpendicular to its plane is 'I'. It is rotating with angular velocity 'ω'. Another identical ring is gently placed on it so that their centres coincide. If both the rings are rotating about the same axis , then loss in kinetic energy is

Ans

✗ 1. $I\omega^2/3$

✗ 2. $I\omega^2/2$

✓ 3. $I\omega^2/4$

✗ 4. $I\omega^2$

Question Type : **MCQ**
Question ID : **37135112729**
Option 1 ID : **37135150914**
Option 2 ID : **37135150915**
Option 3 ID : **37135150913**
Option 4 ID : **37135150916**
Status : **Answered**
Chosen Option : **3**

Q.11 Assuming the earth to be a sphere of uniform density, the ratio of acceleration due to gravity on the earth's surface to its value at halfway towards the centre of the earth, will be

Ans

✔ 1. 2 : 1

✘ 2. 2 : 3

✘ 3. 1 : 1

✘ 4. 1 : 2

Question Type : **MCQ**
Question ID : **37135112723**
Option 1 ID : **37135150889**
Option 2 ID : **37135150890**
Option 3 ID : **37135150891**
Option 4 ID : **37135150892**
Status : **Answered**
Chosen Option : **4**

Q.12 The Young's double-slit experiment is performed with the light of blue colour (λ_b=4350 Å) and then with green colour (λ_g=5450 Å). Without changing experimental setup, if the distance of the sixth fringe from the centre is determined for both the colours as x_{blue} and x_{green}, then $x_{blue} : x_{green}$ is nearly

Ans

✗ 1. 0·2

✗ 2. 1·2

✓ 3. 0·8

✗ 4. 1·5

Question Type : **MCQ**
Question ID : **37135112730**
Option 1 ID : **37135150920**
Option 2 ID : **37135150918**
Option 3 ID : **37135150919**
Option 4 ID : **37135150917**
Status : **Answered**
Chosen Option : **3**

Q.13 A proton moving in perpendicular magnetic field possess energy 'E'. The magnetic field is increased four times. But the proton is constrained to move in the path of same radius. The kinetic energy will increase

Ans

✔ 1. 16 times.

✘ 2. 8 times.

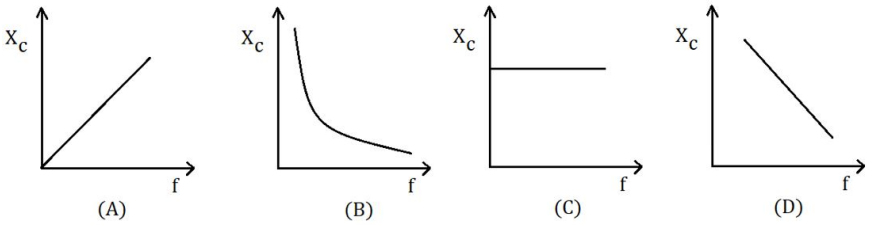
✘ 3. 2 times.

✘ 4. 4 times.

Question Type : **MCQ**
Question ID : **37135112738**
Option 1 ID : **37135150949**
Option 2 ID : **37135150950**
Option 3 ID : **37135150952**
Option 4 ID : **37135150951**
Status : **Answered**
Chosen Option : **1**

Q.14

When an alternating emf is applied across a capacitor C , the graph of capacitive reactance (X_c) with frequency (f) of the source of alternating signal is



Ans

✔ 1. (B)

✘ 2. (A)

✘ 3. (C)

✘ 4. (D)

Question Type : **MCQ**
Question ID : **37135112733**
Option 1 ID : **37135150930**
Option 2 ID : **37135150929**
Option 3 ID : **37135150931**
Option 4 ID : **37135150932**
Status : **Answered**
Chosen Option : **1**

Q.15 Water rises in a capillary tube to a certain height such that the upward force due to surface tension is balanced by 63×10^{-4} N force due to the weight of the water. The surface tension of water is 7×10^{-2} N/m . The inner diameter of the capillary tube is nearly $(\pi = 22/7)$

Ans

1. $6{\cdot}3 \times 10^{-1}$ m
2. 3×10^{-2} m
3. 7×10^{-2} m
4. 9×10^{-2} m

Question Type : **MCQ**
Question ID : **37135112737**
Option 1 ID : **37135150947**
Option 2 ID : **37135150945**
Option 3 ID : **37135150948**
Option 4 ID : **37135150946**
Status : **Answered**
Chosen Option : **2**

Q.16

If $\vec{A} = a_1\hat{i} + a_2\hat{j} + a_3\hat{k}$, then $\hat{i} \times (\hat{i} \times \vec{A})$ is

Ans

✗ 1. $a_2\hat{j} - a_3\hat{k}$

✗ 2. $a_1\hat{j} + a_3\hat{k}$

✓ 3. $-a_2\hat{j} - a_3\hat{k}$

✗ 4. $a_3\hat{j} - a_2\hat{k}$

Question Type :	**MCQ**
Question ID :	**37135112709**
Option 1 ID :	**37135150833**
Option 2 ID :	**37135150834**
Option 3 ID :	**37135150836**
Option 4 ID :	**37135150835**
Status :	**Answered**
Chosen Option :	**3**

Q.17 A solenoid having 250 turns/metre has a core of a material with relative permeability 500. What is approximate value of the magnetisation of the core material, if a current of 2A is passed through it ?

Ans

✗ 1. 2×10^5 A/m

✗ 2. $1{\cdot}5 \times 10^5$ A/m

✓ 3. $2{\cdot}5 \times 10^5$ A/m

✗ 4. 1×10^5 A/m

Question Type : **MCQ**
Question ID : **37135112721**
Option 1 ID : **37135150883**
Option 2 ID : **37135150882**
Option 3 ID : **37135150884**
Option 4 ID : **37135150881**
Status : **Answered**
Chosen Option : **4**

Q.18 If λ_1 and λ_2 are the wavelengths of the first spectral line of the Lyman and Paschen series respectively, then $\lambda_1 : \lambda_2$ is

Ans

✗ 1. $1:3$

✗ 2. $7:50$

✗ 3. $1:30$

✓ 4. $7:108$

Question Type :	**MCQ**
Question ID :	**37135112713**
Option 1 ID :	**37135150849**
Option 2 ID :	**37135150851**
Option 3 ID :	**37135150850**
Option 4 ID :	**37135150852**
Status :	**Answered**
Chosen Option :	**4**

Q.19 A string of length 'L' and linear density 'm' has a fundamental frequency 'n' when stretched by tension 'T'. The fundamental frequency of another string having double the length and double linear density , when same tension is applied is

Ans

✔ 1. $\frac{n}{2\sqrt{2}}$

✘ 2. $2\,n$

✘ 3. $\frac{n}{2}$

✘ 4. $\frac{n}{\sqrt{2}}$

Question Type : **MCQ**
Question ID : **37135112735**
Option 1 ID : **37135150940**
Option 2 ID : **37135150937**
Option 3 ID : **37135150939**
Option 4 ID : **37135150938**
Status : **Answered**
Chosen Option : **1**

Q.20 A plano-convex lens is made from glass of refractive index 1·5. The radius of curvature of its curved surface is 'R'. Its focal length is

Ans

✗ 1. 1·5 R

✓ 2. 2 R

✗ 3. R

✗ 4. R/2

Question Type : **MCQ**
Question ID : **37135112742**
Option 1 ID : **37135150967**
Option 2 ID : **37135150968**
Option 3 ID : **37135150966**
Option 4 ID : **37135150965**
Status : **Answered**
Chosen Option : **3**

Q.21 The period of oscillation of a mass 'M' suspended from a spring of negligible mass is 'T'. If along with it another mass M is also suspended, the period of oscillation now will be

Ans

✗ 1. T

✗ 2. $2\,T$

✗ 3. $\frac{T}{\sqrt{2}}$

✓ 4. $\sqrt{2}\,T$

Question Type :	**MCQ**
Question ID :	**37135112707**
Option 1 ID :	**37135150825**
Option 2 ID :	**37135150827**
Option 3 ID :	**37135150826**
Option 4 ID :	**37135150828**
Status :	**Answered**
Chosen Option :	**2**

Q.22 For a photocell, the work function is 'ϕ' and the stopping potential is 'V_s'. The wavelength of the incident radiation is

Ans

✔ 1. $\frac{hc}{\phi + eVs}$

✘ 2. $\frac{\phi + eVs}{hc}$

✘ 3. $\frac{\phi - eVs}{hc}$

✘ 4. $\frac{hc}{\phi - eVs}$

Question Type : **MCQ**
Question ID : **37135112725**
Option 1 ID : **37135150898**
Option 2 ID : **37135150897**
Option 3 ID : **37135150899**
Option 4 ID : **37135150900**
Status : **Answered**
Chosen Option : **1**

Q.23 The fundamental frequency of a string stretched with a weight 'M' kg is 'n' , hertz.

Keeping the vibrating length constant, the weight required to produce its octave is

Ans

✗ 1. M

✗ 2. 8 M

✗ 3. 2 M

✓ 4. 4 M

Question Type : **MCQ**
Question ID : **37135112720**
Option 1 ID : **37135150877**
Option 2 ID : **37135150880**
Option 3 ID : **37135150878**
Option 4 ID : **37135150879**
Status : **Answered**
Chosen Option : **2**

Q.24 A mass 'm' suspended from a spring stretches it by 5cm when on the surface of the earth . The mass is then taken on to a height of 1600 km above earth's surface and again suspended from the same spring. At this altitude the extension of the spring is (Radius of earth = 6400 km)

Ans

✗ 1. 6·4 cm

✗ 2. 1·6 cm

✓ 3. 3·2 cm

✗ 4. 0·8 cm

Question Type : **MCQ**
Question ID : **37135112750**
Option 1 ID : **37135151000**
Option 2 ID : **37135150998**
Option 3 ID : **37135150999**
Option 4 ID : **37135150997**
Status : **Answered**
Chosen Option : **1**

Q.25 The electron in the hydrogen atom is moving with a speed of 2×10^6 m/s in an orbit of radius 0·5 Å. The magnetic moment of the revolving electron is

Ans

✗ 1. 15×10^{-24} Am^2

✗ 2. 11×10^{-24} Am^2

✗ 3. 6×10^{-24} Am^2

✓ 4. 8×10^{-24} Am^2

Question Type : **MCQ**
Question ID : **37135112748**
Option 1 ID : **37135150992**
Option 2 ID : **37135150991**
Option 3 ID : **37135150989**
Option 4 ID : **37135150990**
Status : **Answered**
Chosen Option : **4**

Q.26 In resonance tube, the first and second resonance are heard when water level is 24·1 cm and 74·1 cm respectively, below the open end of the tube. The inner diameter of the tube is

Ans

✗ 1. 5 cm

✓ 2. 3 cm

✗ 3. 4 cm

✗ 4. 2 cm

Question Type : **MCQ**
Question ID : **37135112703**
Option 1 ID : **37135150812**
Option 2 ID : **37135150810**
Option 3 ID : **37135150811**
Option 4 ID : **37135150809**
Status : **Answered**
Chosen Option : **3**

Q.27 A ring and a disc roll on horizontal surface without slipping with same linear velocity. If both have same mass and total kinetic energy of the ring is 4 J then total kinetic energy of the disc is

Ans

✗ 1. 2 J

✗ 2. 6 J

✗ 3. 8 J

✓ 4. 3 J

Question Type : **MCQ**
Question ID : **37135112716**
Option 1 ID : **37135150861**
Option 2 ID : **37135150863**
Option 3 ID : **37135150864**
Option 4 ID : **37135150862**
Status : **Answered**
Chosen Option : **2**

Q.28 A positively charged particle (q) travelling at 30° with respect to the direction of magnetic field of strength $2{\cdot}4 \times 10^{-6}$ T experiences a force of $4{\cdot}8 \times 10^{-19}$ N. The speed of charged particle will be

[$q = 1{\cdot}6 \times 10^{-19}$ C, $\sin 30° = \frac{1}{2}$, $\cos 30° = \sqrt{3}/2$]

Ans

1. 5×10^6 m/s.
2. $2{\cdot}5 \times 10^6$ m/s.
3. 2×10^6 m/s.
4. $7{\cdot}5 \times 10^6$ m/s.

Question Type : **MCQ**
Question ID : **37135112741**
Option 1 ID : **37135150962**
Option 2 ID : **37135150963**
Option 3 ID : **37135150964**
Option 4 ID : **37135150961**
Status : **Answered**
Chosen Option : **2**

Q.29

In suspended type of moving coil galvanometer

Ans

✗ 1. coil is stationary.

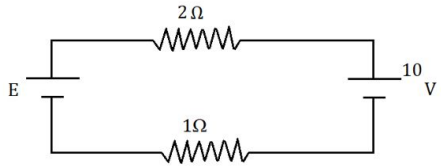
✓ 2. magnet is stationary.

✗ 3. magnet and coil are stationary.

✗ 4. magnet and coil are moving.

Question Type : **MCQ**
Question ID : **37135112715**
Option 1 ID : **37135150858**
Option 2 ID : **37135150857**
Option 3 ID : **37135150860**
Option 4 ID : **37135150859**
Status : **Answered**
Chosen Option : **1**

Q.30 A current of 3 A flows through the following circuit in anticlockwise direction as well as in clockwise direction. The value of E respectively is



Ans

✗ 1. 3 V , 7 V

✗ 2. 4 V , 8 V

✗ 3. 6 V , 10 V

✓ 4. 1 V , 19 V

Question Type :	**MCQ**
Question ID :	**37135112704**
Option 1 ID :	**37135150816**
Option 2 ID :	**37135150814**
Option 3 ID :	**37135150813**
Option 4 ID :	**37135150815**
Status :	**Answered**
Chosen Option :	**4**

Q.31 The relation between force 'F' and density 'd' is $F \propto x/\sqrt{d}$. The dimensions of 'x' are

Ans

✔ 1. $[L^{-\frac{1}{2}} M^{\frac{3}{2}} T^{-2}]$

✘ 2. $[L^{-2} M^{\frac{3}{2}} T^{\frac{1}{2}}]$

✘ 3. $[L^{2} M^{\frac{1}{2}} T^{\frac{3}{2}}]$

✘ 4. $[L^{\frac{1}{2}} M^{\frac{3}{2}} T^{-2}]$

Question Type : **MCQ**
Question ID : **37135112705**
Option 1 ID : **37135150819**
Option 2 ID : **37135150820**
Option 3 ID : **37135150818**
Option 4 ID : **37135150817**
Status : **Answered**
Chosen Option : **1**

Q.32 In balanced metre bridge 5 Ω is connected in the left gap and R Ω in the right gap.

When R Ω is shunted with an equal resistance, the new balance point is at $1{\cdot}6\ \ell_1$

where 'ℓ_1' is the earlier balancing length. The value of 'ℓ_1' is

Ans

✔ 1. 25 cm

✘ 2. 40 cm

✘ 3. 35 cm

✘ 4. 30 cm

Question Type : **MCQ**
Question ID : **37135112734**
Option 1 ID : **37135150933**
Option 2 ID : **37135150936**
Option 3 ID : **37135150935**
Option 4 ID : **37135150934**
Status : **Answered**
Chosen Option : **1**

Q.33

Electric field intensity at a point outside uniformly charged thin infinite plane sheet is 'E_1'. The electric field intensity at a point near and outside the surface of a positively charged conductor of any shape is 'E_2'. The relation between magnitude of E_1 and E_2 is (assume air as the medium)

Ans

✗ 1. $E_1 = E_2$

✓ 2. $2E_1 = E_2$

✗ 3. $E_1 = 2E_2$

✗ 4. $E_1 = 4E_2$

Question Type : **MCQ**
Question ID : **37135112712**
Option 1 ID : **37135150845**
Option 2 ID : **37135150847**
Option 3 ID : **37135150846**
Option 4 ID : **37135150848**
Status : **Answered**
Chosen Option : **2**

Q.34 In communication with the help of antenna , the range covered (for the line of sight propagation) is initially 'd'. If the height of antenna is doubled , the range covered would become

Ans

✗ 1. $3\ d$

✓ 2. $\sqrt{2}\ d$

✗ 3. $4\ d$

✗ 4. $2\ d$

Question Type :	**MCQ**
Question ID :	**37135112710**
Option 1 ID :	**37135150839**
Option 2 ID :	**37135150837**
Option 3 ID :	**37135150840**
Option 4 ID :	**37135150838**
Status :	**Answered**
Chosen Option :	**2**

Q.35 A body of mass 'm' is moving along a circle of radius 'r' with linear speed 'V'. Now, to change the linear speed to $\frac{V}{2}$ and to move it along the circle of radius '4r', required change in the centripetal force of the body is

Ans

✔ 1. decrease by $\frac{15}{16}$

✘ 2. increase by $\frac{11}{16}$

✘ 3. increase by $\frac{9}{16}$

✘ 4. decrease by $\frac{5}{16}$

Question Type : **MCQ**
Question ID : **37135112726**
Option 1 ID : **37135150902**
Option 2 ID : **37135150901**
Option 3 ID : **37135150904**
Option 4 ID : **37135150903**
Status : **Answered**
Chosen Option : **1**

Q.36

Pascal's law is not applied in

Ans

✗ 1. a hydraulic jack.

✗ 2. hydraulic breaks.

✗ 3. a hydraulic press.

✓ 4. an autuomiser.

Question Type :	**MCQ**
Question ID :	**37135112722**
Option 1 ID :	**37135150888**
Option 2 ID :	**37135150887**
Option 3 ID :	**37135150886**
Option 4 ID :	**37135150885**
Status :	**Answered**
Chosen Option :	**4**

Q.37 A small mass 'm' is suspended at the end of a wire having (negligible mass) length 'L' and cross-sectional area 'A'. The frequency of oscillation for the S.H.M. along the vertical line is [Y = Young's modulus of material of the wire]

Ans

✗ 1. $\frac{1}{2\pi}\left[\frac{YAL}{m}\right]^{\frac{1}{2}}$

✓ 2. $\frac{1}{2\pi}\left[\frac{YA}{mL}\right]^{\frac{1}{2}}$

✗ 3. $\frac{1}{2\pi}\left[\frac{mA}{YL}\right]^{\frac{1}{2}}$

✗ 4. $\frac{1}{2\pi}\left[\frac{YL}{mA}\right]^{\frac{1}{2}}$

Question Type : **MCQ**
Question ID : **37135112746**
Option 1 ID : **37135150983**
Option 2 ID : **37135150981**
Option 3 ID : **37135150984**
Option 4 ID : **37135150982**
Status : **Answered**
Chosen Option : **3**

Q.38 A uniform wire has length 'L' and weight 'W'. One end of the wire is attached rigidly to a point in the roof and weight 'W_1' is suspended from its lower end. If 'A' is the cross-sectional area of the wire then the stress in the wire at a height $\frac{3L}{4}$ from its lower end is

Ans

✔ 1. $\frac{4W_1 + 3W}{4A}$

✘ 2. $\frac{3W_1 - 4W}{2A}$

✘ 3. $\frac{3W_1 + 4W}{2A}$

✘ 4. $\frac{4W_1 - 3W}{4A}$

Question Type : **MCQ**
Question ID : **37135112740**
Option 1 ID : **37135150960**
Option 2 ID : **37135150958**
Option 3 ID : **37135150957**
Option 4 ID : **37135150959**
Status : **Answered**
Chosen Option : **4**

Q.39 For an ideal gas, if the ratio of Molar specific heats $\gamma = 1{\cdot}4$, then the specific heat at constant pressure C_p , specific heat at constant volume C_v and corresponding molecule are respectively

Ans

✗ 1. $\frac{5}{2}R, \quad \frac{3}{2}R, \quad$ monoatomic.

✗ 2. $\frac{9}{2}R, \quad \frac{7}{2}R, \quad$ polyatomic.

✗ 3. $\frac{7}{2}R, \quad \frac{5}{2}R, \quad$ non-rigid diatomic.

✓ 4. $\frac{7}{2}R, \quad \frac{5}{2}R, \quad$ rigid diatomic.

Question Type : **MCQ**
Question ID : **37135112739**
Option 1 ID : **37135150953**
Option 2 ID : **37135150956**
Option 3 ID : **37135150954**
Option 4 ID : **37135150955**
Status : **Answered**
Chosen Option : **4**

Q.40 The depth of an ocean is 2000m. The compressibility of water is $45 \times 10^{-11}\ m^2/N$ and density of water is $10^3\ kg/m^3$. At the bottom of the ocean, the fractional compression of water will be $(g = 10\ m/s^2)$

Ans

✗ 1. 6×10^{-3}

✗ 2. 10^{-3}

✓ 3. 9×10^{-3}

✗ 4. 3×10^{-3}

Question Type : **MCQ**
Question ID : **37135112747**
Option 1 ID : **37135150986**
Option 2 ID : **37135150988**
Option 3 ID : **37135150985**
Option 4 ID : **37135150987**
Status : **Answered**
Chosen Option : **3**

Q.41 An ideal gas occupies a volume 'V' at a pressure 'P' and absolute temperature T. The mass of each molecule is 'm'. If 'K_B' is the Boltzmann's constant, then the density of gas is given by expression

Ans

✗ 1. $\frac{K_B \cdot T}{P \cdot m}$

✗ 2. $\frac{3K_B \cdot T}{2P \cdot m}$

✗ 3. $\frac{P \cdot m}{2K_B \cdot T}$

✓ 4. $\frac{P \cdot m}{K_B \cdot T}$

Question Type : **MCQ**
Question ID : **37135112732**
Option 1 ID : **37135150928**
Option 2 ID : **37135150927**
Option 3 ID : **37135150926**
Option 4 ID : **37135150925**
Status : **Answered**
Chosen Option : **4**

Q.42 A body performs S.H.M. due to force 'F_1' , with time period 0.8 s. If force is changed to 'F_2' , it executes S.H.M. with time period 0.6 s. Now both the forces act simultaneously in the same direction on the same body. New periodic time is

Ans

✔ 1. 0·48 s

✘ 2. 0·24 s

✘ 3. 0·12 s

✘ 4. 0·36 s

Question Type : **MCQ**
Question ID : **37135112728**
Option 1 ID : **37135150912**
Option 2 ID : **37135150910**
Option 3 ID : **37135150909**
Option 4 ID : **37135150911**
Status : **Answered**
Chosen Option : **1**

Q.43 A smooth sphere of mass 'M' moving with velocity 'u' directly collides elastically with another sphere of mass 'm' at rest. After collision, their final velocities are V' and V respectively. The value of V is given by

Ans

✗ 1. $\frac{2u}{1+\frac{M}{m}}$

✗ 2. $\frac{2um}{M}$

✔ 3. $\frac{2u}{1+\frac{m}{M}}$

✗ 4. $\frac{2uM}{m}$

Question Type : **MCQ**
Question ID : **37135112744**
Option 1 ID : **37135150976**
Option 2 ID : **37135150974**
Option 3 ID : **37135150975**
Option 4 ID : **37135150973**
Status : **Answered**
Chosen Option : **1**

Q.44 What is the stopping potential, when a metal surface with work function 1·2 eV is illuminated with light of energy 3 eV ?

Ans

✗ 1. 2·0 V

✗ 2. 1·2 V

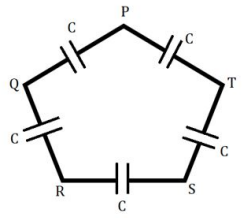
✗ 3. 1·4 V

✓ 4. 1·8 V

Question Type : **MCQ**
Question ID : **37135112702**
Option 1 ID : **37135150808**
Option 2 ID : **37135150805**
Option 3 ID : **37135150806**
Option 4 ID : **37135150807**
Status : **Answered**
Chosen Option : **4**

Q.45

Five capacitors each of capacitance 'C' are connected as shown in the figure. The ratio of equivalent capacitance between P and R and the equivalent capacitance between P and Q is



Ans

✔ 1. 2 : 3

✘ 2. 1 : 1

✘ 3. 3 : 1

✘ 4. 5 : 2

Question Type : **MCQ**
Question ID : **37135112706**
Option 1 ID : **37135150823**
Option 2 ID : **37135150824**
Option 3 ID : **37135150821**
Option 4 ID : **37135150822**
Status : **Answered**
Chosen Option : **1**

Q.46 When a beam of unpolarised monochromatic light is incident on a plane glass plate at a polarising angle, then which one of the following statements is correct?

Ans

✗ 1.
Reflected and refracted rays are completely polarised with their planes of polarisation perpendicular to each other.

✗ 2.
Reflected light is partially polarised but refracted light is plane polarised.

✗ 3.
Reflected and refracted rays are completely polarised with their planes of polarisation parallel to each other.

✓ 4.
Reflected light is plane polarised light but transmitted light is partially polarised.

Question Type : **MCQ**
Question ID : **37135112724**
Option 1 ID : **37135150894**
Option 2 ID : **37135150896**
Option 3 ID : **37135150893**
Option 4 ID : **37135150895**
Status : **Answered**
Chosen Option : **2**

Q.47 A note produces 4 beat/s with a tuning fork of frequency 510 Hz and 6 beat/s with a fork of frequency 512 Hz. The frequency of the note is

Ans

✔ 1. 506 Hz

✘ 2. 514 Hz

✘ 3. 518 Hz

✘ 4. 510 Hz

Question Type :	**MCQ**
Question ID :	**37135112749**
Option 1 ID :	**37135150996**
Option 2 ID :	**37135150994**
Option 3 ID :	**37135150993**
Option 4 ID :	**37135150995**
Status :	**Answered**
Chosen Option :	**1**

Q.48 According to Bohr's postulate, the centripetal force (F) necessary for the electron of mass 'm' in a hydrogen atom to revolve in n^{th} circular orbit round the nucleus , as the centre , is given by

[e = charge on electron , h = Planck's constant , ϵ_0 = permittivity of free space]

Ans

✗ 1. $\frac{\pi m^2 e^6}{4\,\epsilon_0^3\, h^4 n^2}$

✓ 2. $\frac{\pi m^2 e^6}{4\,\epsilon_0^3\, h^4 n^4}$

✗ 3. $\frac{\pi m^2 e^4}{4\,\epsilon_0^2\, h^4 n^4}$

✗ 4. $\frac{\pi m e^4}{8\,\epsilon_0^2\, h^2 n^2}$

Question Type : **MCQ**
Question ID : **37135112745**
Option 1 ID : **37135150979**
Option 2 ID : **37135150977**
Option 3 ID : **37135150978**
Option 4 ID : **37135150980**
Status : **Answered**
Chosen Option : **4**

Q.49 A fix number of spherical drops of a liquid of radius 'r' coalesce to form a large drop of radius 'R' and volume 'V'. If 'T' is the surface tension then energy

Ans

✗ 1. is neither released nor absorbed.

✓ 2. $3\,VT\left(\frac{1}{r}-\frac{1}{R}\right)$ is released.

✗ 3. $4\,VT\left(\frac{1}{r}-\frac{1}{R}\right)$ is released.

✗ 4. $3\,VT\left(\frac{1}{r}-\frac{1}{R}\right)$ is absorbed.

Question Type :	**MCQ**
Question ID :	**37135112717**
Option 1 ID :	**37135150868**
Option 2 ID :	**37135150867**
Option 3 ID :	**37135150866**
Option 4 ID :	**37135150865**
Status :	**Answered**
Chosen Option :	**3**

Q.50 A microscope will have maximum resoving power , if to illuminate the specimen, it uses light of

Ans

✗ 1. red colour.

✗ 2. green colour.

✗ 3. yellow colour.

✓ 4. blue colour.



Question Type : **MCQ**
Question ID : **37135112736**
Option 1 ID : **37135150941**
Option 2 ID : **37135150943**
Option 3 ID : **37135150942**
Option 4 ID : **37135150944**
Status : **Answered**
Chosen Option : **1**

Section : **Chemistry**

Q.1 Which of the following metals reacts with dilute H_2SO_4 ?

Ans

✓ 1. Fe

✗ 2. Bi

✗ 3. Cu

✗ 4. Hg

Question Type : **MCQ**
Question ID : **37135112753**
Option 1 ID : **37135151010**
Option 2 ID : **37135151011**
Option 3 ID : **37135151009**
Option 4 ID : **37135151012**
Status : **Answered**
Chosen Option : **1**

Q.2 Which of the following is NOT a tranquilizer?

Ans

✗ 1. Iproniazid

✗ 2. Serotonin

✗ 3. Veronal

✓ 4. Prontosil

Question Type : **MCQ**
Question ID : **37135112776**
Option 1 ID : **37135151104**
Option 2 ID : **37135151102**
Option 3 ID : **37135151101**
Option 4 ID : **37135151103**
Status : **Answered**
Chosen Option : **3**

Q.3 Which of the following elements is refined by zone refining?

Ans

✓ 1. Gallium

✗ 2. Bismuth

✗ 3. Copper

✗ 4. Zinc

Question Type : **MCQ**
Question ID : **37135112769**
Option 1 ID : **37135151073**
Option 2 ID : **37135151076**
Option 3 ID : **37135151074**
Option 4 ID : **37135151075**
Status : **Answered**
Chosen Option : **1**

Q.4 Which of the following equations shows the relationship between heat of reaction at constant pressure and heat of reaction at constant volume if the temperature is not constant ?

Ans

✗ 1. $\Delta H - \Delta n = \Delta URT$

✓ 2. $\Delta H - \Delta U = \Delta nRT$

✗ 3. $\Delta H = \Delta nRT$

✗ 4. $\Delta H = \Delta U - RT$

Question Type : **MCQ**
Question ID : **37135112794**
Option 1 ID : **37135151176**
Option 2 ID : **37135151173**
Option 3 ID : **37135151174**
Option 4 ID : **37135151175**
Status : **Answered**
Chosen Option : **2**

Q.5 The rate of first order reaction A → B is $6{\cdot}3 \times 10^{-6}$ Ms^{-1}. if [A]= 0·3 M, what is the rate constant of the reaction?

Ans

✓ 1. $2{\cdot}1 \times 10^{-5}\ s^{-1}$

✗ 2. $1{\cdot}2 \times 10^{-5}\ s^{-1}$

✗ 3. $1{\cdot}3 \times 10^{-5}\ s^{-1}$

✗ 4. $1{\cdot}6 \times 10^{-5}\ s^{-1}$

Question Type : **MCQ**
Question ID : **37135112781**
Option 1 ID : **37135151123**
Option 2 ID : **37135151121**
Option 3 ID : **37135151122**
Option 4 ID : **37135151124**
Status : **Answered**
Chosen Option : **1**

Q.6 Which among the following oxides of nitrogen, the nitrogen atom contains one unpaired electron?

Ans

✗ 1. N_2O_4

✓ 2. NO_2

✗ 3. N_2O_5

✗ 4. N_2O_3

Question Type : **MCQ**
Question ID : **37135112763**
Option 1 ID : **37135151051**
Option 2 ID : **37135151049**
Option 3 ID : **37135151052**
Option 4 ID : **37135151050**
Status : **Answered**
Chosen Option : **2**

Q.7 Which among the following compounds is obtained when benzene is treated with CO and HCl in presence of catalyst anhydrous $AlCl_3$ and Cu_2Cl_2 under high pressure?

Ans

✗ 1. Toluene

✗ 2. Benzoic acid

✓ 3. Benzaldehyde

✗ 4. Acetophenone

Question Type : **MCQ**
Question ID : **37135112796**
Option 1 ID : **37135151184**
Option 2 ID : **37135151183**
Option 3 ID : **37135151181**
Option 4 ID : **37135151182**
Status : **Answered**
Chosen Option : **2**

Q.8 Which among the following is a first oxidation product of butan-2-ol ?

Ans

✗ 1. Butanal

✗ 2. Butanoic acid

✗ 3. Propanoic acid and CO_2

✓ 4. Butan-2-one

Question Type : **MCQ**
Question ID : **37135112786**
Option 1 ID : **37135151141**
Option 2 ID : **37135151142**
Option 3 ID : **37135151144**
Option 4 ID : **37135151143**
Status : **Answered**
Chosen Option : **4**

Q.9 Which among the following polymers is an example of addition polymer?

Ans

✗ 1. Dacron

✗ 2. Ureaformaldehyde polymer

✗ 3. Nylon-6

✓ 4. Polythene

Question Type : **MCQ**
Question ID : **37135112790**
Option 1 ID : **37135151159**
Option 2 ID : **37135151160**
Option 3 ID : **37135151158**
Option 4 ID : **37135151157**
Status : **Answered**
Chosen Option : **1**

Q.10 Which of the following compounds is obtained when $C_2H_5NH_2$ is treated with excess $(CH_3CO)_2O$ in presence of pyridine ?

Ans

✔ 1. $C_2H_5N(COCH_3)_2$

✘ 2. $(C_2H_5)_2\ NH$

✘ 3. C_2H_5COOH

✘ 4. $C_2H_5NHCOCH_3$

Question Type : **MCQ**
Question ID : **37135112779**
Option 1 ID : **37135151116**
Option 2 ID : **37135151114**
Option 3 ID : **37135151113**
Option 4 ID : **37135151115**
Status : **Answered**
Chosen Option : **1**

Q.11 Dumas method is used for estimation of

Ans

✔ 1. nitrogen

✘ 2. sulphur

✘ 3. oxygen

✘ 4. carbon

Question Type : **MCQ**
Question ID : **37135112762**
Option 1 ID : **37135151046**
Option 2 ID : **37135151048**
Option 3 ID : **37135151047**
Option 4 ID : **37135151045**
Status : **Answered**
Chosen Option : **1**

Q.12 Which of the following is NOT correct in hybridisation?

Ans

✗ 1. There should be very little difference in energy of involving orbitals

✓ 2. The shape of hybrid orbitals is same as that of atomic orbitals

✗ 3. The number of hybrid gbitals formed is equal to number of atomic orbitals involved in hybridisation

✗ 4. Orbitals of an atom only undergo hybridisation

Question Type : **MCQ**
Question ID : **37135112791**
Option 1 ID : **37135151162**
Option 2 ID : **37135151164**
Option 3 ID : **37135151163**
Option 4 ID : **37135151161**
Status : **Answered**
Chosen Option : **2**

Q.13 An element crystallises in bcc structure. The number of unit cells of an element in 4 g of it is (given at mass=40)

Ans

✓ 1. $\frac{0{\cdot}1 \times N_A}{2}$

✗ 2. $2 \times 0 \cdot 1N_A$

✗ 3. $0 \cdot 1N_A$

✗ 4. $2 \times N_A$

Question Type : **MCQ**
Question ID : **37135112788**
Option 1 ID : **37135151151**
Option 2 ID : **37135151150**
Option 3 ID : **37135151149**
Option 4 ID : **37135151152**
Status : **Answered**
Chosen Option : **2**

Q.14 In Merck's method, H_2O_2 is obtained from

Ans

✗ 1. $BaO_2 + H_2SO_4$

✓ 2. $Na_2O_2 + H_2SO_4$

✗ 3. $BaO_2 + H_3PO_4$

✗ 4. $BaO_2 + H_2O + CO_2$

Question Type : **MCQ**
Question ID : **37135112782**
Option 1 ID : **37135151125**
Option 2 ID : **37135151126**
Option 3 ID : **37135151128**
Option 4 ID : **37135151127**
Status : **Answered**
Chosen Option : **2**

Q.15 What is the melting point of zinc?

Ans

✗ 1. 473 K

✗ 2. 1193 K

✗ 3. 423 K

✓ 4. 692 K

Question Type : **MCQ**
Question ID : **37135112780**
Option 1 ID : **37135151119**
Option 2 ID : **37135151117**
Option 3 ID : **37135151120**
Option 4 ID : **37135151118**
Status : **Answered**
Chosen Option : **4**

Q.16 van't Hoff factor (i) for centimolal solution of $K_3[Fe(CN)_6]$ is 3·333. What is it's percentage dissociation?

Ans

✗ 1. 80 %

✗ 2. 70 %

✗ 3. 33·33 %

✓ 4. 77·7 %

Question Type : **MCQ**
Question ID : **37135112756**
Option 1 ID : **37135151024**
Option 2 ID : **37135151022**
Option 3 ID : **37135151021**
Option 4 ID : **37135151023**
Status : **Answered**
Chosen Option : **4**

Q.17 The H-H bond energy is 430 kJ mol^{-1} and Cl-Cl bond energy is 240 kJ mol^{-1}. $\Delta_f H$ for HCl is- 90kJ. Then H-Cl bond energy is

Ans

✗ 1. 360 kJ mol^{-1}

✗ 2. 213 kJ mol^{-1}

✗ 3. 180 kJ mol^{-1}

✓ 4. 425 kJ mol^{-1}

Question Type : **MCQ**
Question ID : **37135112797**
Option 1 ID : **37135151186**
Option 2 ID : **37135151187**
Option 3 ID : **37135151185**
Option 4 ID : **37135151188**
Status : **Answered**
Chosen Option : **4**

Q.18 Which of the following compounds is used to avoid oxidation in food?

Ans

✗ 1. O- hydroxy benzoic acid

✗ 2. Acetyl salicylic acid

✗ 3. Ethyl Salicylate

✓ 4. Butylated Hydroxy Anisole

Question Type : **MCQ**
Question ID : **37135112784**
Option 1 ID : **37135151133**
Option 2 ID : **37135151134**
Option 3 ID : **37135151136**
Option 4 ID : **37135151135**
Status : **Answered**
Chosen Option : **3**

Q.19 The volume of 400 cm^3 chlorine gas at 400 mm of Hg is decreased to 200 cm^3 at constant temperature. What is the new pressure of gas?

Ans

✓ 1. 800 mm of Hg

✗ 2. 200 mm of Hg

✗ 3. 1600 mm of Hg

✗ 4. 600 mm of Hg

Question Type : **MCQ**
Question ID : **37135112764**
Option 1 ID : **37135151055**
Option 2 ID : **37135151053**
Option 3 ID : **37135151056**
Option 4 ID : **37135151054**
Status : **Answered**
Chosen Option : **1**

Q.20 Identify the polymer from following, that contains amide linkage

Ans

✗ 1. Terylene

✗ 2. PHBV

✓ 3. Nylon-6,6

✗ 4. Dextron

Question Type : **MCQ**
Question ID : **37135112800**
Option 1 ID : **37135151197**
Option 2 ID : **37135151200**
Option 3 ID : **37135151198**
Option 4 ID : **37135151199**
Status : **Answered**
Chosen Option : **3**

Q.21 Which of the following solution will have highest freezing point depression?

Ans

✗ 1. 1 M glucose

✗ 2. 1 M sucrose

✗ 3. 1 M urea

✓ 4. 1 M KCl

Question Type : **MCQ**
Question ID : **37135112768**
Option 1 ID : **37135151070**
Option 2 ID : **37135151072**
Option 3 ID : **37135151069**
Option 4 ID : **37135151071**
Status : **Answered**
Chosen Option : **3**

Q.22 What is the bond length of C – H bond in alkanes?

Ans

✗ 1. 154 pm

✗ 2. 120 pm

✗ 3. 133 pm

✓ 4. 112 pm

Question Type : **MCQ**
Question ID : **37135112751**
Option 1 ID : **37135151001**
Option 2 ID : **37135151004**
Option 3 ID : **37135151003**
Option 4 ID : **37135151002**
Status : **Answered**
Chosen Option : **1**

Q.23 What is molecular formula of allyl bromide ?

Ans

✗ 1. C_2H_4Br

✗ 2. C_2H_3Br

✓ 3. C_3H_5Br

✗ 4. C_3H_6Br

Question Type : **MCQ**
Question ID : **37135112766**
Option 1 ID : **37135151062**
Option 2 ID : **37135151061**
Option 3 ID : **37135151063**
Option 4 ID : **37135151064**
Status : **Answered**
Chosen Option : **3**

Q.24 Which of following regents is used to avoid further oxidation of aldehydes?

Ans

✔ 1. $C_5H_5NH^+CrO_3Cl$

✘ 2. $K_2Cr_2O_7/dil.\ H_2SO_4$

✘ 3. $dil.\ HNO_3$

✘ 4. CrO_3

Question Type : **MCQ**
Question ID : **37135112757**
Option 1 ID : **37135151026**
Option 2 ID : **37135151025**
Option 3 ID : **37135151027**
Option 4 ID : **37135151028**
Status : **Answered**
Chosen Option : **1**

Q.25 Copper crystallises as face centered cubic lattice, with edge length of unit cell 361 pm. Calculate the radius of copper atom.

Ans

✘ 1. $108 \cdot 6\ pm$

✔ 2. $127 \cdot 65\ pm$

✘ 3. $181 \cdot 6\ pm$

✘ 4. $157 \cdot 6\ pm$

Question Type : **MCQ**
Question ID : **37135112798**
Option 1 ID : **37135151189**
Option 2 ID : **37135151190**
Option 3 ID : **37135151192**
Option 4 ID : **37135151191**
Status : **Answered**
Chosen Option : **1**

Q.26 Which of the following statements is NOT true for glyceraldehyde?

Ans

✗ 1. It is a sugar molecule.

✗ 2. It is optically active.

✓ 3. It contains two asymmetric carbon atoms.

✗ 4. It has carbonyl and hydroxyl group.

Question Type :	**MCQ**
Question ID :	**37135112773**
Option 1 ID :	**37135151092**
Option 2 ID :	**37135151090**
Option 3 ID :	**37135151091**
Option 4 ID :	**37135151089**
Status :	**Answered**
Chosen Option :	**3**

Q.27 Aniline reacts with bromine water at room temperature to give

Ans

✗ 1. 3- Bromoaniline

✗ 2. 2- Bromoaniline

✗ 3. 4- Bromoaniline

✓ 4. 2,4,6 – tribromoaniline

Question Type :	**MCQ**
Question ID :	**37135112758**
Option 1 ID :	**37135151030**
Option 2 ID :	**37135151029**
Option 3 ID :	**37135151031**
Option 4 ID :	**37135151032**
Status :	**Answered**
Chosen Option :	**1**

Q.28 Which among the following electrical properties has SI unit siemens per meter,

Ans

✗ 1. Conductance

✓ 2. Conductivity

✗ 3. Resistance

✗ 4. Resistivity

Question Type : **MCQ**
Question ID : **37135112765**
Option 1 ID : **37135151059**
Option 2 ID : **37135151060**
Option 3 ID : **37135151057**
Option 4 ID : **37135151058**
Status : **Answered**
Chosen Option : **1**

Q.29 Identify the product 'B' in following reaction.

$$\text{2 , 2-Dichloropropane} \xrightarrow[\Delta]{\text{aq.KOH}} A \xrightarrow[\text{ii) H+}]{\text{i) Mg,Benzene}} B$$

Ans

✗ 1. Propanal

✗ 2. Propanone

✗ 3. Isopropyl magnesium chloride

✓ 4. Pinacol

Question Type : **MCQ**
Question ID : **37135112799**
Option 1 ID : **37135151195**
Option 2 ID : **37135151194**
Option 3 ID : **37135151193**
Option 4 ID : **37135151196**
Status : **Answered**
Chosen Option : **2**

Q.30 Which of the following is the strongest reducing agent?

Ans

✗ 1. Na

✗ 2. Mg

✓ 3. Li

✗ 4. Ca

Question Type : **MCQ**
Question ID : **37135112774**
Option 1 ID : **37135151095**
Option 2 ID : **37135151094**
Option 3 ID : **37135151096**
Option 4 ID : **37135151093**
Status : **Answered**
Chosen Option : **3**

Q.31 Which of the following elements has six unpaired electrons in observed electronic configuration?

Ans

✗ 1. Fe (Z=26)

✓ 2. Cr (Z=24)

✗ 3. Cu (Z=29)

✗ 4. Mn (Z=25)

Question Type : **MCQ**
Question ID : **37135112770**
Option 1 ID : **37135151080**
Option 2 ID : **37135151079**
Option 3 ID : **37135151078**
Option 4 ID : **37135151077**
Status : **Answered**
Chosen Option : **2**

Q.32 Aluminium crystallises in face centred cubic structure, having atomic radius 125 pm. The edge length of the unit cell of aluminium is

Ans

✗ 1. 253·5 pm

✓ 2. 353·5 pm

✗ 3. 465·0 pm

✗ 4. 250·0 pm

Question Type : **MCQ**
Question ID : **37135112759**
Option 1 ID : **37135151036**
Option 2 ID : **37135151033**
Option 3 ID : **37135151034**
Option 4 ID : **37135151035**
Status : **Answered**
Chosen Option : **2**

Q.33 Which of the following statements is true for pyran?

Ans

✗ 1. It is saturated aliphatic compound

✗ 2. It is homocyclic compound

✓ 3. It is heterocyclic with oxygen atom in ring

✗ 4. Molecular formula of pyran is C_5H_5S

Question Type : **MCQ**
Question ID : **37135112760**
Option 1 ID : **37135151037**
Option 2 ID : **37135151038**
Option 3 ID : **37135151039**
Option 4 ID : **37135151040**
Status : **Answered**
Chosen Option : **1**

Q.34 Which of the following is NOT found in hybridization?

Ans

✗ 1. Formation of σ bonds

✗ 2. Mixing and recasting of atomic orbitals

✗ 3. Excitation of electrons

✓ 4. Loss and gain of electron

Question Type : **MCQ**
Question ID : **37135112792**
Option 1 ID : **37135151168**
Option 2 ID : **37135151166**
Option 3 ID : **37135151165**
Option 4 ID : **37135151167**
Status : **Answered**
Chosen Option : **4**

Q.35 When slaked lime is passed through excess CO_2, it forms

Ans

✗ 1. $CaCO_3$

✗ 2. $CaCl_2$

✓ 3. $Ca(HCO_3)_2$

✗ 4. Ca_2HCO_3

Question Type : **MCQ**
Question ID : **37135112771**
Option 1 ID : **37135151081**
Option 2 ID : **37135151082**
Option 3 ID : **37135151083**
Option 4 ID : **37135151084**
Status : **Answered**
Chosen Option : **3**

Q.36 What is the number of moles of silver chloride precipitated when excess of aqueous silver nitrate is treated with $[Co(NH_3)_4Cl_2]Cl$?

Ans

✔ 1. 1·0 mole

✘ 2. 3·0 mole

✘ 3. 2·0 mole

✘ 4. 4·0 mole

Question Type : **MCQ**
Question ID : **37135112793**
Option 1 ID : **37135151172**
Option 2 ID : **37135151170**
Option 3 ID : **37135151171**
Option 4 ID : **37135151169**
Status : **Answered**
Chosen Option : **1**

Q.37 What is oxidation state of iron in potassium ferrate?

Ans

✘ 1. +3

✘ 2. +4

✔ 3. +6

✘ 4. +2

Question Type : **MCQ**
Question ID : **37135112783**
Option 1 ID : **37135151130**
Option 2 ID : **37135151131**
Option 3 ID : **37135151132**
Option 4 ID : **37135151129**
Status : **Answered**
Chosen Option : **1**

Q.38 Which among the following is NOT an octahedral complex?

Ans

✗ 1. $[Ir(C_2O_4)_2Cl_2]^{3-}$

✗ 2. $[CoCl_2(en)_2]^{+}$

✗ 3. $[Co(en)_2\ (NO_3)_2]^{+}$

✓ 4. $[Pt\ (NH_3)_2Cl_2]$

Question Type : **MCQ**
Question ID : **37135112785**
Option 1 ID : **37135151139**
Option 2 ID : **37135151137**
Option 3 ID : **37135151138**
Option 4 ID : **37135151140**
Status : **Answered**
Chosen Option : **4**

Q.39 What is the number of hydroxyl groups present in lactic acid?

Ans

✗ 1. Zero

✗ 2. Three

✗ 3. Two

✓ 4. One

Question Type : **MCQ**
Question ID : **37135112775**
Option 1 ID : **37135151097**
Option 2 ID : **37135151100**
Option 3 ID : **37135151099**
Option 4 ID : **37135151098**
Status : **Answered**
Chosen Option : **2**

Q.40 Which of the following alcohols is NOT having $C_{SP^3} - OH$ bond ?

Ans

✗ 1. Phenylmethanol

✗ 2. 2 – Methyl propan – 2 – ol

✗ 3. Propan – 2 – ol

✓ 4. Vinyl alcohol

Question Type : **MCQ**
Question ID : **37135112767**
Option 1 ID : **37135151067**
Option 2 ID : **37135151066**
Option 3 ID : **37135151065**
Option 4 ID : **37135151068**
Status : **Answered**
Chosen Option : **4**

Q.41 0·0210 M solution of N_2O_5 is allowed to decompose at 43°C. How long will it take to reduce to 0·0150M ? (Given $k = 6{\cdot}0 \times 10^{-4}\ sec^{-1}$)

Ans

✗ 1. 5600 sec

✗ 2. 360·0 sec

✓ 3. 560·0 sec

✗ 4. 3364 sec

Question Type : **MCQ**
Question ID : **37135112761**
Option 1 ID : **37135151042**
Option 2 ID : **37135151043**
Option 3 ID : **37135151041**
Option 4 ID : **37135151044**
Status : **Answered**
Chosen Option : **4**

Q.42 How many tertiary carbon atoms and primary carbon atoms respectively are present in 2-iodo-3, 3- dimethyl pentane?

Ans

✗ 1. 2, 4

✓ 2. 0, 4

✗ 3. 2, 3

✗ 4. 1, 3

Question Type : **MCQ**
Question ID : **37135112754**
Option 1 ID : **37135151016**
Option 2 ID : **37135151015**
Option 3 ID : **37135151014**
Option 4 ID : **37135151013**
Status : **Answered**
Chosen Option : **2**

Q.43 What is the standard emf of following cell?

$$Ni_{(s)} \left| Ni^{2+}_{(aq)} \right\| Au^{3+}_{(aq)} \left| Au\ (s) \right.$$

$$(1M) \qquad (1M)$$

if $E^{\circ}_{Ni} = -0{\cdot}25V$, $E^{\circ}_{Au} = 1{\cdot}50V$

Ans

✗ 1. $-1{\cdot}25V$

✓ 2. $1{\cdot}75V$

✗ 3. $1{\cdot}25V$

✗ 4. $-1{\cdot}75V$

Question Type : **MCQ**
Question ID : **37135112755**
Option 1 ID : **37135151019**
Option 2 ID : **37135151018**
Option 3 ID : **37135151017**
Option 4 ID : **37135151020**
Status : **Answered**
Chosen Option : **4**

Q.44 What is the quantity of gold chloride obtained when 4·5 g gold and 2·1 g chlorine when sealed in a tube and heated at 150° C? (At.masses of Au = 196·97, Cl =35·45 u)

Ans

✗ 1. 4·5 g

✗ 2. 4·8 g

✓ 3. 6·07 g

✗ 4. 20·7 g

Question Type : **MCQ**
Question ID : **37135112752**
Option 1 ID : **37135151007**
Option 2 ID : **37135151008**
Option 3 ID : **37135151005**
Option 4 ID : **37135151006**
Status : **Answered**
Chosen Option : **3**

Q.45 Identify the product B in following conversion.

$$\text{Chlorobenzene} + H_2O \xrightarrow[\text{Pressure}]{\text{Cu,673K}} A \xrightarrow[373\ K]{\text{conc.}H_2SO_4} B$$

Ans

✓ 1. 4 – Hydroxybenzene sulphonic acid

✗ 2. Benzene sulphonic acid

✗ 3. 3 – Hydroxybenzene sulphonic acid

✗ 4. 2 – Hydroxybenzene sulphonic acid

Question Type : **MCQ**
Question ID : **37135112777**
Option 1 ID : **37135151108**
Option 2 ID : **37135151105**
Option 3 ID : **37135151107**
Option 4 ID : **37135151106**
Status : **Answered**
Chosen Option : **3**

Q.46 If $C_{(s)} + O_{2_{(g)}} \rightarrow CO_{2_{(g)}}$ $\Delta H = -396$ kJ mol^{-1}, calculate heat liberated during formation of $0{\cdot}154$ kg of CO_2 ?

Ans

✔ 1. $1386{\cdot}0$ kJ

✘ 2. $346{\cdot}5$ kJ

✘ 3. $693{\cdot}0$ kJ

✘ 4. $1039{\cdot}5$ kJ

Question Type : **MCQ**
Question ID : **37135112787**
Option 1 ID : **37135151148**
Option 2 ID : **37135151145**
Option 3 ID : **37135151146**
Option 4 ID : **37135151147**
Status : **Answered**
Chosen Option : **1**

Q.47 What products are expected from the disproportionation reaction of orthophosphorus acid?

Ans

✘ 1. $H_3PO_3 + PH_3$

✔ 2. $H_3PO_4 + PH_3$

✘ 3. $PH_3 + P_2O_5$

✘ 4. $H_3PO_3 + P_2O_5$

Question Type : **MCQ**
Question ID : **37135112772**
Option 1 ID : **37135151088**
Option 2 ID : **37135151085**
Option 3 ID : **37135151087**
Option 4 ID : **37135151086**
Status : **Answered**
Chosen Option : **2**

Q.48 $6{\cdot}022 \times 10^{20}$ molecules of urea are present in 100 mL of it's solution. The concentration of solution is

Ans

✗ 1. 0·10 M

✗ 2. 0·02 M

✓ 3. 0·01 M

✗ 4. 0·001 M

Question Type : **MCQ**
Question ID : **37135112778**
Option 1 ID : **37135151112**
Option 2 ID : **37135151111**
Option 3 ID : **37135151110**
Option 4 ID : **37135151109**
Status : **Answered**
Chosen Option : **3**

Q.49 Pumice stone is an example of

Ans

✗ 1. Solid sol

✗ 2. Emulsion

✗ 3. Aerosol

✓ 4. Solid foam

Question Type : **MCQ**
Question ID : **37135112795**
Option 1 ID : **37135151179**
Option 2 ID : **37135151177**
Option 3 ID : **37135151178**
Option 4 ID : **37135151180**
Status : **Answered**
Chosen Option : **4**

Q.50 Which of the following nitroalkane does not react with nitrous acid?

Ans

✔ 1. 2- Methyl – 2 – nitropropane

✗ 2. 2- Nitropropane

✗ 3. Nitroethane

✗ 4. 1- Nitropropane

Question Type : **MCQ**
Question ID : **37135112789**
Option 1 ID : **37135151156**
Option 2 ID : **37135151155**
Option 3 ID : **37135151153**
Option 4 ID : **37135151154**
Status : **Answered**
Chosen Option : **1**

Section : **Biology**

Q.1 Match the Column- I with Column-II and select the correct option.

Column – I	Column – II
A. Fibrinogen	i) contractions in female reproductive tract
B. Fructose	ii) prevent fungal infection
C. Prostaglandins	iii) coagulation of semen
D. *Lactobacilli* in vagina	iv) source of energy

Ans

✗ 1.
A- (ii), B- (iii), C-(iv), D-(i)

✗ 2.
A- (i), B- (ii), C-(iii), D-(iv)

✓ 3.
A- (iii), B- (iv), C-(i), D-(ii)

✗ 4.
A- (iv), B- (i), C-(ii), D-(iii)

Question Type : **MCQ**
Question ID : **37135112879**
Option 1 ID : **37135151514**
Option 2 ID : **37135151513**
Option 3 ID : **37135151515**
Option 4 ID : **37135151516**
Status : **Answered**
Chosen Option : **1**

Q.2 Which one of the following molecule is NOT needed during translation in protein synthesis?

Ans

✗ 1. m- RNA

✓ 2. DNA

✗ 3. r- RNA

✗ 4. t- RNA

Question Type : **MCQ**
Question ID : **37135112813**
Option 1 ID : **37135151250**
Option 2 ID : **37135151249**
Option 3 ID : **37135151251**
Option 4 ID : **37135151252**
Status : **Answered**
Chosen Option : **2**

Q.3 The process of non-cyclic photophosphorylation occurs in_____.

Ans

✗ 1. aerobic conditions, high CO_2 conc. and low light intensity.

✗ 2. anaerobic conditions, high CO_2 conc. and enough light intensity.

✓ 3. aerobic conditions, high CO_2 conc. and enough light intensity.

✗ 4. aerobic conditions, low CO_2 conc. and enough light intensity.

Question Type : **MCQ**
Question ID : **37135112817**
Option 1 ID : **37135151267**
Option 2 ID : **37135151265**
Option 3 ID : **37135151268**
Option 4 ID : **37135151266**
Status : **Answered**
Chosen Option : **3**

Q.4 Renin is secreted by the cells of _____.

Ans

✔ 1. JG apparatus

✘ 2. collecting tubule

✘ 3. collecting duct

✘ 4. PCT

Question Type : **MCQ**
Question ID : **37135112892**
Option 1 ID : **37135151568**
Option 2 ID : **37135151567**
Option 3 ID : **37135151566**
Option 4 ID : **37135151565**
Status : **Answered**
Chosen Option : **4**

Q.5 A molecule of chlorophyll which acts as reaction centre in pigment system – II is _____.

Ans

✘ 1. P – 650

✘ 2. P – 700

✘ 3. P – 673

✔ 4. P – 680

Question Type : **MCQ**
Question ID : **37135112840**
Option 1 ID : **37135151360**
Option 2 ID : **37135151357**
Option 3 ID : **37135151359**
Option 4 ID : **37135151358**
Status : **Answered**
Chosen Option : **1**

Q.6 How many base pairs are present in a segment of m-RNA having 100 nucleotides?

Ans

✗ 1. 100

✗ 2. 50

✓ 3. 00

✗ 4. 25

Question Type : **MCQ**
Question ID : **37135112806**
Option 1 ID : **37135151221**
Option 2 ID : **37135151222**
Option 3 ID : **37135151224**
Option 4 ID : **37135151223**
Status : **Answered**
Chosen Option : **2**

Q.7 Following are prokaryotic cells EXCEPT_____.

Ans

✗ 1. *Anabaena*

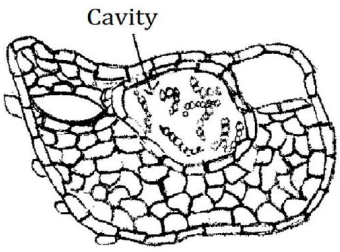
✗ 2. *Streptococcus*

✗ 3. *Nostoc*

✓ 4. *Paramoecium*

Question Type : **MCQ**
Question ID : **37135112876**
Option 1 ID : **37135151502**
Option 2 ID : **37135151501**
Option 3 ID : **37135151503**
Option 4 ID : **37135151504**
Status : **Answered**
Chosen Option : **3**

Q.8 The figure given below is T.S. of *Azolla* leaf, the filaments present in the cavity of the leaf are of _____.



T.S of Azolla leaf

Ans

✗ 1. *Nostoc*

✗ 2. *Tolypothrix*

✓ 3. *Anabaena*

✗ 4. *Oscillatoria*

Question Type : **MCQ**
Question ID : **37135112843**
Option 1 ID : **37135151370**
Option 2 ID : **37135151372**
Option 3 ID : **37135151371**
Option 4 ID : **37135151369**
Status : **Answered**
Chosen Option : **4**

Q.9 The average life span of blood platelets is _____ days.

Ans

✗ 1. 3 – 4

✗ 2. 1 – 3

✗ 3. 11 – 15

✔ 4. 5 – 10

Question Type : **MCQ**
Question ID : **37135112853**
Option 1 ID : **37135151411**
Option 2 ID : **37135151412**
Option 3 ID : **37135151409**
Option 4 ID : **37135151410**
Status : **Answered**
Chosen Option : **1**

Q.10 What will be the genotype of a carrier individual who shows sickle cell anaemic trait?

Ans

✗ 1. Hb^B Hb^B

✔ 2. Hb^A Hb^S

✗ 3. Hb^S Hb^S

✗ 4. Hb^A Hb^A

Question Type : **MCQ**
Question ID : **37135112838**
Option 1 ID : **37135151352**
Option 2 ID : **37135151351**
Option 3 ID : **37135151350**
Option 4 ID : **37135151349**
Status : **Answered**
Chosen Option : **2**

Q.11 Specialized cells that are sensitive to vibration, pain and tension are called_____.

Ans

✔ 1. Proprioceptors

✘ 2. Baroreceptors

✘ 3. statoacoustic receptors

✘ 4. frigidoreceptors

Question Type : **MCQ**
Question ID : **37135112870**
Option 1 ID : **37135151480**
Option 2 ID : **37135151479**
Option 3 ID : **37135151478**
Option 4 ID : **37135151477**
Status : **Answered**
Chosen Option : **3**

Q.12 Fructose is contributed to the semen by _____.

Ans

✔ 1. seminal vesicles

✘ 2. testis

✘ 3. prostate gland

✘ 4. Cowper's gland

Question Type : **MCQ**
Question ID : **37135112852**
Option 1 ID : **37135151406**
Option 2 ID : **37135151405**
Option 3 ID : **37135151407**
Option 4 ID : **37135151408**
Status : **Answered**
Chosen Option : **4**

Q.13 What is true about C_4 plants _____.

Ans

✔ 1. C_3 pathway reactions take place in bundle sheath chloroplast and C_4 pathway reactions in mesophyll chloroplast.

✘ 2. Both reactions occur in mesophyll chloroplast.

✘ 3. Both reactions occur in bundle sheath chloroplast.

✘ 4. C_3 pathway reaction take place in mesophyll chloroplast and C_4 pathway reactions in bundle sheath chloroplast.

Question Type : **MCQ**
Question ID : **37135112823**
Option 1 ID : **37135151289**
Option 2 ID : **37135151291**
Option 3 ID : **37135151292**
Option 4 ID : **37135151290**
Status : **Answered**
Chosen Option : **1**

Q.14 Proteins attached with a prosthetic group are called _____ proteins.

Ans

✘ 1. structural

✘ 2. simple

✘ 3. contractile

✔ 4. conjugated

Question Type : **MCQ**
Question ID : **37135112805**
Option 1 ID : **37135151217**
Option 2 ID : **37135151220**
Option 3 ID : **37135151219**
Option 4 ID : **37135151218**
Status : **Answered**
Chosen Option : **2**

Q.15 The shortest phase of cardiac cycle is _____.

Ans

✗ 1. joint cardiac diastole

✗ 2. ventricular systole

✗ 3. atrial diastole

✓ 4. atrial systole

Question Type : **MCQ**
Question ID : **37135112866**
Option 1 ID : **37135151464**
Option 2 ID : **37135151463**
Option 3 ID : **37135151461**
Option 4 ID : **37135151462**
Status : **Answered**
Chosen Option : **3**

Q.16 Match the Column – I with Column-II and select the correct option

Column- I	Column- II
a) Female banded Krait	i) Humulin
b) Pancreas from dog	ii) DNA sample
c) Hair root of human	iii) Insulin extracted and purified
d) *E. coli*	iv) DNA probe

Ans

✗ 1. a- i, b-ii, c-iv, d-iii

✗ 2. a- ii, b-i, c-iii, d-iv

✗ 3. a- iii, b-iv, c-ii, d-i

✓ 4. a- iv, b-iii, c-ii, d-i

Question Type : **MCQ**
Question ID : **37135112890**
Option 1 ID : **37135151560**
Option 2 ID : **37135151557**
Option 3 ID : **37135151558**
Option 4 ID : **37135151559**
Status : **Answered**
Chosen Option : **4**

Q.17 Which one of the following is NOT characteristics of plasmid?

Ans

✗ 1. Help bacteria survive and reproduce under unfavourable conditions

✗ 2. Double stranded

✗ 3. Self-replicating

✓ 4. Heredity material of bacterium

Question Type : **MCQ**
Question ID : **37135112804**
Option 1 ID : **37135151216**
Option 2 ID : **37135151215**
Option 3 ID : **37135151214**
Option 4 ID : **37135151213**
Status : **Answered**
Chosen Option : **1**

Q.18 The subaerial branch which creeps horizontally on soil and helps in vegetative propagation is called_____.

Ans

✓ 1. runner

✗ 2. offset

✗ 3. stolon

✗ 4. sucker

Question Type : **MCQ**
Question ID : **37135112836**
Option 1 ID : **37135151342**
Option 2 ID : **37135151341**
Option 3 ID : **37135151343**
Option 4 ID : **37135151344**
Status : **Answered**
Chosen Option : **2**

Q.19 Who postulated three laws that are known as Mendel's Law of Inheritance based on Mendel's findings?

Ans

✗ 1. Hugo De Vries

✓ 2. Karl Correns

✗ 3. Johannsen

✗ 4. Erich Tschermak

Question Type : **MCQ**
Question ID : **37135112848**
Option 1 ID : **37135151389**
Option 2 ID : **37135151391**
Option 3 ID : **37135151392**
Option 4 ID : **37135151390**
Status : **Answered**
Chosen Option : **3**

Q.20 In angiospermic flowers, the filament of stamen is attached to the anther by ____.

Ans

✗ 1. placenta

✗ 2. hilum

✗ 3. funicle

✓ 4. connective

Question Type : **MCQ**
Question ID : **37135112807**
Option 1 ID : **37135151226**
Option 2 ID : **37135151225**
Option 3 ID : **37135151228**
Option 4 ID : **37135151227**
Status : **Answered**
Chosen Option : **4**

Q.21 The dead leucocytes are destroyed in the following organs / fluid EXCEPT ____.

Ans

✔ 1. spleen

✘ 2. lymph node

✘ 3. blood

✘ 4. liver

Question Type : **MCQ**
Question ID : **37135112882**
Option 1 ID : **37135151525**
Option 2 ID : **37135151526**
Option 3 ID : **37135151528**
Option 4 ID : **37135151527**
Status : **Answered**
Chosen Option : **1**

Q.22 A 22 year old girl is about to face interview. She is restless, is sweating and her heart beats have increased. These symptoms are due to increased secretion mainly of _____.

Ans

✘ 1. thymosins

✔ 2. catecholamines

✘ 3. aldosterone

✘ 4. androgens

Question Type : **MCQ**
Question ID : **37135112888**
Option 1 ID : **37135151552**
Option 2 ID : **37135151549**
Option 3 ID : **37135151550**
Option 4 ID : **37135151551**
Status : **Answered**
Chosen Option : **2**

Q.23 Water present in the form of hydrated oxides of silicon and aluminium in soil is called _____water.

Ans

✗ 1. gravitational

✗ 2. capillary

✗ 3. hygroscopic

✓ 4. combined

Question Type : **MCQ**
Question ID : **37135112839**
Option 1 ID : **37135151353**
Option 2 ID : **37135151356**
Option 3 ID : **37135151355**
Option 4 ID : **37135151354**
Status : **Answered**
Chosen Option : **3**

Q.24 With reference to agricultural crop, which of the following are considered as critical elements?

Ans

✗ 1. Mg, Fe, Zn

✗ 2. C, H, O

✓ 3. N, P, K

✗ 4. Mn, Cl, Ca

Question Type : **MCQ**
Question ID : **37135112811**
Option 1 ID : **37135151244**
Option 2 ID : **37135151241**
Option 3 ID : **37135151243**
Option 4 ID : **37135151242**
Status : **Answered**
Chosen Option : **4**

Q.25 Lemurs are found in_____.

Ans
1. Central America
2. East Indies
3. Madagascar
4. South Africa

Question Type : **MCQ**
Question ID : **37135112873**
Option 1 ID : **37135151491**
Option 2 ID : **37135151489**
Option 3 ID : **37135151490**
Option 4 ID : **37135151492**
Status : **Answered**
Chosen Option : **1**

Q.26 Match the correct phenotype and genotype of *Drosophila* for their wing sizes.

Phenotype	Genotype
i) Normal wings	a) vgno
ii) Nicked wings	b) vg
iii) Notched wings	c) Vg^{+}
iv) Strap wings	d) vgst
v) Vestigeal wing	e) vgni

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

Question Type : **MCQ**
Question ID : **37135112801**
Option 1 ID : **37135151204**
Option 2 ID : **37135151203**
Option 3 ID : **37135151202**
Option 4 ID : **37135151201**
Status : **Answered**
Chosen Option : **2**

Q.27 Cretaceous, Jurassic and Triassic periods are included in the ____era.

Ans

✗ 1. Palaeozoic

✓ 2. Mesozoic

✗ 3. Proterozoic

✗ 4. Cenozoic

Question Type : **MCQ**
Question ID : **37135112857**
Option 1 ID : **37135151427**
Option 2 ID : **37135151426**
Option 3 ID : **37135151428**
Option 4 ID : **37135151425**
Status : **Answered**
Chosen Option : **3**

Q.28 Gargi constructed m-RNA in laboratory. Which of the following codons will she have as initiating and terminating the m-RNA respectively.

Ans

✓ 1. AUG-UAG

✗ 2. GUG-UAC

✗ 3. UAC-AUG

✗ 4. AUG-UCA

Question Type : **MCQ**
Question ID : **37135112829**
Option 1 ID : **37135151315**
Option 2 ID : **37135151314**
Option 3 ID : **37135151313**
Option 4 ID : **37135151316**
Status : **Answered**
Chosen Option : **4**

Q.29 With reference to human beings, find out the mis-match pair.

Ans

✗ 1.
Insemination — Discharge of semen into the vagina of a female.

✓ 2.
Implantation — Setting of zygote in the endometrium uterus.

✗ 3.
Menopause —Total arrest of menstrual cycle forever.

✗ 4.
Menarche—Begining of menstrual cycle for the first time in life.

Question Type : **MCQ**
Question ID : **37135112884**
Option 1 ID : **37135151536**
Option 2 ID : **37135151534**
Option 3 ID : **37135151533**
Option 4 ID : **37135151535**
Status : **Answered**
Chosen Option : **1**

Q.30 Which of the following is NOT involved in glycolysis?

Ans

✗ 1. Release of water

✗ 2. Utilization of ATP

✗ 3. Formation of ATP

✓ 4. Release of CO_2

Question Type : **MCQ**
Question ID : **37135112808**
Option 1 ID : **37135151230**
Option 2 ID : **37135151232**
Option 3 ID : **37135151229**
Option 4 ID : **37135151231**
Status : **Answered**
Chosen Option : **2**

Q.31 In a population of an organism, allele 'A' has the frequency of 0.7 and allele 'a' has the frequency of 0.3. What is the frequency of homozygous dominant allele?

Ans

✔ 1. 0.49

✘ 2. 0.14

✘ 3. 1.4

✘ 4. 4.9

Question Type : **MCQ**
Question ID : **37135112881**
Option 1 ID : **37135151522**
Option 2 ID : **37135151524**
Option 3 ID : **37135151523**
Option 4 ID : **37135151521**
Status : **Answered**
Chosen Option : **3**

Q.32 Mortality of a region is assessed by _____ of individuals per unit area per unit time.

Ans

✘ 1. births

✘ 2. immigration

✘ 3. emigration

✔ 4. deaths

Question Type : **MCQ**
Question ID : **37135112878**
Option 1 ID : **37135151512**
Option 2 ID : **37135151510**
Option 3 ID : **37135151509**
Option 4 ID : **37135151511**
Status : **Answered**
Chosen Option : **4**

Q.33 In ornithophilous plants, flowers lack_____.

Ans

✗ 1. sticky pollen grains

✗ 2. nectar

✗ 3. bright colour

✓ 4. fragrance

Question Type : **MCQ**
Question ID : **37135112818**
Option 1 ID : **37135151272**
Option 2 ID : **37135151271**
Option 3 ID : **37135151269**
Option 4 ID : **37135151270**
Status : **Answered**
Chosen Option : **1**

Q.34 Match the process in Column – I with its explanation in Column-II and select the correct option.

Column – I	Column – II
i) Symport	a) shrinking of protoplasm in a plant cell when placed in hypertonic solution.
ii) Facilitated diffusion	b) transport of two types of molecules in same direction across cell membrane.
iii) Antiport	c) selective transport of molecules across the membrane through proteins.
iv) Plasmolysis	d) transport of two types of molecules in opposite direction across cell membrane.

Ans

1. (i) -a, (ii)-d, (iii)-c, (iv)-b

2. (i) -b, (ii)-c, (iii)-d, (iv)-a

3. (i) -b, (ii)-a, (iii)-c, (iv)-d

4. (i) -b, (ii)-c, (iii)-a, (iv)-d

Question Type : **MCQ**
Question ID : **37135112830**
Option 1 ID : **37135151320**
Option 2 ID : **37135151318**
Option 3 ID : **37135151319**
Option 4 ID : **37135151317**
Status : **Answered**
Chosen Option : **2**

Q.35 *Hydra* and yeast reproduce asexually by_____.

Ans

✗ 1. binary fission

✓ 2. budding

✗ 3. zoospores

✗ 4. conidia

Question Type : **MCQ**
Question ID : **37135112831**
Option 1 ID : **37135151321**
Option 2 ID : **37135151322**
Option 3 ID : **37135151323**
Option 4 ID : **37135151324**
Status : **Answered**
Chosen Option : **2**

Q.36 Taq polymerase isolated from *Thermus aquaticus* can withstand temperature up to_____.

Ans

✗ 1. 84° C

✗ 2. 91° C

✓ 3. 94° C

✗ 4. 60° C

Question Type : **MCQ**
Question ID : **37135112809**
Option 1 ID : **37135151235**
Option 2 ID : **37135151234**
Option 3 ID : **37135151233**
Option 4 ID : **37135151236**
Status : **Answered**
Chosen Option : **4**

Q.37 Internal valves are present in the _____.

Ans

✗ 1. arterioles

✓ 2. lymphatic vessels

✗ 3. vascular capillaries

✗ 4. lymph capillaries

Question Type : **MCQ**
Question ID : **37135112889**
Option 1 ID : **37135151555**
Option 2 ID : **37135151556**
Option 3 ID : **37135151554**
Option 4 ID : **37135151553**
Status : **Answered**
Chosen Option : **1**

Q.38 Select the INCORRECT statement.

Ans ✗ 1.

Female bird is heterogametic.

✗ 2.

Holandric genes are present on non-homologous region of Y chromosome.

✓ 3.

Queen bee and worker bees have haploid number of chromosomes.

✗ 4.

Father is responsible for sex of the child in human beings.

Question Type : **MCQ**
Question ID : **37135112894**
Option 1 ID : **37135151575**
Option 2 ID : **37135151576**
Option 3 ID : **37135151573**
Option 4 ID : **37135151574**
Status : **Answered**
Chosen Option : **2**

Q.39 Excessive haemolysis of R.B.C.s with over production of bilirubin and abnormal function of _____ is observed in Jaundice.

Ans

✗ 1. lungs

✗ 2. heart

✓ 3. liver

✗ 4. stomach

Question Type : **MCQ**
Question ID : **37135112900**
Option 1 ID : **37135151598**
Option 2 ID : **37135151597**
Option 3 ID : **37135151599**
Option 4 ID : **37135151600**
Status : **Answered**
Chosen Option : **3**

Q.40 Empirical formula of chlorophyll -a is _____.

Ans

✗ 1. $C_{55}H_{72}O_4N_5Mg$

✗ 2. $C_{72}H_{55}O_5N_4Mg$

✗ 3. $C_{55}H_{70}O_5N_4Mg$

✓ 4. $C_{55}H_{72}O_5N_4Mg$

Question Type : **MCQ**
Question ID : **37135112845**
Option 1 ID : **37135151380**
Option 2 ID : **37135151377**
Option 3 ID : **37135151378**
Option 4 ID : **37135151379**
Status : **Answered**
Chosen Option : **4**

Q.41 Select the correct statement.

Ans
✗ 1. The ovum secretes antifertilizin.

✓ 2. The sperm secretes antifertilizin.

✗ 3. The zygote secretes fertilizin.

✗ 4. The sperm secretes fertilizin.

Question Type : **MCQ**
Question ID : **37135112862**
Option 1 ID : **37135151446**
Option 2 ID : **37135151447**
Option 3 ID : **37135151448**
Option 4 ID : **37135151445**
Status : **Answered**
Chosen Option : **1**

Q.42 Breasts are the modified ____glands.

Ans
✗ 1. sebaceous

✗ 2. ceruminous

✓ 3. sweat

✗ 4. vestibular

Question Type : **MCQ**
Question ID : **37135112872**
Option 1 ID : **37135151485**
Option 2 ID : **37135151488**
Option 3 ID : **37135151486**
Option 4 ID : **37135151487**
Status : **Answered**
Chosen Option : **2**

Q.43 Proximal convoluted tubule differs from distal convoluted tubule being lined by __.

Ans

✗ 1. squamous cells with few microvilli

✗ 2. squamous cells with many microvilli

✗ 3. cuboidal cells with few microvilli

✓ 4. cuboidal cells with many microvilli

Question Type : **MCQ**
Question ID : **37135112877**
Option 1 ID : **37135151508**
Option 2 ID : **37135151505**
Option 3 ID : **37135151506**
Option 4 ID : **37135151507**
Status : **Answered**
Chosen Option : **3**

Q.44 Which one of the following is cause of inflammation of cornea, called snow blindness cataract?

Ans

✗ 1. The gamma rays

✗ 2. High dose of cosmic rays

✓ 3. High dose of UV-B rays

✗ 4. The infrared rays

Question Type : **MCQ**
Question ID : **37135112816**
Option 1 ID : **37135151263**
Option 2 ID : **37135151261**
Option 3 ID : **37135151262**
Option 4 ID : **37135151264**
Status : **Answered**
Chosen Option : **4**

Q.45 Gaurav visited a zoo where he saw tiger, lion, camel, musk deer, red fox, one-horned rhinoceros, great Indian bustard and peacock. He wanted to report the endangered species from the above list. The number will be _____.

Ans

✗ 1. 3

✓ 2. 4

✗ 3. 5

✗ 4. 8

Question Type : **MCQ**
Question ID : **37135112898**
Option 1 ID : **37135151592**
Option 2 ID : **37135151591**
Option 3 ID : **37135151590**
Option 4 ID : **37135151589**
Status : **Answered**
Chosen Option : **3**

Q.46 Which one of the following is a heteropolysaccharide?

Ans

✗ 1. Cellulose

✗ 2. Starch

✗ 3. Glycogen

✓ 4. Hyaluronic acid

Question Type : **MCQ**
Question ID : **37135112844**
Option 1 ID : **37135151376**
Option 2 ID : **37135151373**
Option 3 ID : **37135151374**
Option 4 ID : **37135151375**
Status : **Answered**
Chosen Option : **2**

Q.47 Which one of the following animal has longer loop of Henle?

Ans

✔ 1. Camel

✘ 2. Rat

✘ 3. Monkey

✘ 4. Labeo

Question Type : **MCQ**
Question ID : **37135112868**
Option 1 ID : **37135151472**
Option 2 ID : **37135151471**
Option 3 ID : **37135151470**
Option 4 ID : **37135151469**
Status : **Answered**
Chosen Option : **3**

Q.48 Wine and beer are produced without _____.

Ans

✔ 1. distillation

✘ 2. malting

✘ 3. fermentation

✘ 4. mashing

Question Type : **MCQ**
Question ID : **37135112850**
Option 1 ID : **37135151400**
Option 2 ID : **37135151399**
Option 3 ID : **37135151397**
Option 4 ID : **37135151398**
Status : **Answered**
Chosen Option : **4**

Q.49 Which one of the following blood vessels carries oxygenated blood?

Ans

✗ 1. coronary sinus

✓ 2. coronary artery

✗ 3. pulmonary artery

✗ 4. coronary vein

Question Type : **MCQ**
Question ID : **37135112861**
Option 1 ID : **37135151443**
Option 2 ID : **37135151442**
Option 3 ID : **37135151444**
Option 4 ID : **37135151441**
Status : **Answered**
Chosen Option : **1**

Q.50 Which one of the following lichens are used to obtain usnic acid?

Ans

✓ 1. *Usnea* and *Cladonia*

✗ 2. *Evernia* and *Ramalina*

✗ 3. *Rocella* and *Lassalia*

✗ 4. *Usnea* and *Citraia*

Question Type : **MCQ**
Question ID : **37135112819**
Option 1 ID : **37135151276**
Option 2 ID : **37135151273**
Option 3 ID : **37135151274**
Option 4 ID : **37135151275**
Status : **Answered**
Chosen Option : **2**

Q.51 The _____brings about dilation of blood vessels?

Ans

✔ 1. histamine

✘ 2. gastrin

✘ 3. elastin

✘ 4. heparin

Question Type : **MCQ**
Question ID : **37135112875**
Option 1 ID : **37135151499**
Option 2 ID : **37135151498**
Option 3 ID : **37135151497**
Option 4 ID : **37135151500**
Status : **Answered**
Chosen Option : **3**

Q.52 Inflammation of alveoli, consolidation and exudation in lungs, are characteristics of _____disease.

Ans

✘ 1. Malaria

✘ 2. Amoebiasis

✘ 3. Filariasis

✔ 4. Pneumonia

Question Type : **MCQ**
Question ID : **37135112896**
Option 1 ID : **37135151581**
Option 2 ID : **37135151582**
Option 3 ID : **37135151584**
Option 4 ID : **37135151583**
Status : **Answered**
Chosen Option : **4**

Q.53 Select the correct statement with reference to AIDS.

Ans

✗ 1. It spreads through casual contact with HIV infected person.

✗ 2. It is easily curable.

✓ 3. Patients called non-progressors develop AIDS very slowly or never at all.

✗ 4. It is transmitted through insect bite.

Question Type : **MCQ**
Question ID : **37135112854**
Option 1 ID : **37135151413**
Option 2 ID : **37135151415**
Option 3 ID : **37135151416**
Option 4 ID : **37135151414**
Status : **Answered**
Chosen Option : **3**

Q.54 Grafting is NOT possible in monocots because they do not possess _____.

Ans

✗ 1. branches

✗ 2. buds

✗ 3. apical meristem

✓ 4. cambium

Question Type : **MCQ**
Question ID : **37135112802**
Option 1 ID : **37135151208**
Option 2 ID : **37135151207**
Option 3 ID : **37135151205**
Option 4 ID : **37135151206**
Status : **Answered**
Chosen Option : **2**

Q.55 Photosynthetic organisms which lack chlorophyll-a are ____.

Ans

✗ 1. vascular plants

✗ 2. algae

✓ 3. photosynthetic bacteria

✗ 4. bryophytes

Question Type : **MCQ**
Question ID : **37135112803**
Option 1 ID : **37135151210**
Option 2 ID : **37135151209**
Option 3 ID : **37135151211**
Option 4 ID : **37135151212**
Status : **Answered**
Chosen Option : **3**

Q.56 Which one of the following heavy metals in water is responsible to cause haemolysis, diarrhoea, abdominal and chest pain in humans?

Ans

✗ 1. Selenium

✗ 2. Arsenic

✓ 3. Mercury

✗ 4. Lead

Question Type : **MCQ**
Question ID : **37135112885**
Option 1 ID : **37135151538**
Option 2 ID : **37135151540**
Option 3 ID : **37135151539**
Option 4 ID : **37135151537**
Status : **Answered**
Chosen Option : **4**

Q.57 Match the Column-I with Column-II and select the correct option.

Column-I	Column-II
A. Tidal volume	i) 2500-3000 ml
B. Inspiratory reserve volume	ii) 1000 ml
C. Residual volume	iii) 4500 ml
D. Vital capacity	iv) 500 ml

Ans

✗ 1. A- iii, B-iv, C-i, D-ii

✗ 2. A- ii, B-iii, C-iv, D-i

✓ 3. A- iv, B-i, C-ii, D-iii

✗ 4. A- iv, B-ii, C-iii, D-i

Question Type : **MCQ**
Question ID : **37135112893**
Option 1 ID : **37135151572**
Option 2 ID : **37135151571**
Option 3 ID : **37135151570**
Option 4 ID : **37135151569**
Status : **Answered**
Chosen Option : **1**

Q.58 In the process of digestion, lipids present in oily and fried foods are digested and split into __ and _____.

Ans

✓ 1. fatty acids and glycerol

✗ 2. glucose and glycerol

✗ 3. fatty acids and amino acids

✗ 4. glucose and amino acids

Question Type : **MCQ**
Question ID : **37135112874**
Option 1 ID : **37135151496**
Option 2 ID : **37135151493**
Option 3 ID : **37135151495**
Option 4 ID : **37135151494**
Status : **Answered**
Chosen Option : **3**

Q.59 High aspartic acid, low nitrogen and sugar content in maize variety makes it resistant to _____.

Ans

✗ 1. leaf curl

✗ 2. black rot

✗ 3. stripe rust

✓ 4. stem borer

Question Type : **MCQ**
Question ID : **37135112812**
Option 1 ID : **37135151245**
Option 2 ID : **37135151248**
Option 3 ID : **37135151247**
Option 4 ID : **37135151246**
Status : **Answered**
Chosen Option : **3**

Q.60 Cartilage forming cells are called_____.

Ans

✗ 1. osteoblasts

✓ 2. chondroblasts

✗ 3. adipocytes

✗ 4. osteocytes

Question Type : **MCQ**
Question ID : **37135112863**
Option 1 ID : **37135151452**
Option 2 ID : **37135151450**
Option 3 ID : **37135151449**
Option 4 ID : **37135151451**
Status : **Answered**
Chosen Option : **4**

Q.61 Which phytohormone promotes seed germination in cereals by synthesizing amylase enzyme?

Ans

✔ 1. Gibberellin

✘ 2. Abscisic acid

✘ 3. Auxin

✘ 4. Cytokinin

Question Type : **MCQ**
Question ID : **37135112820**
Option 1 ID : **37135151277**
Option 2 ID : **37135151279**
Option 3 ID : **37135151278**
Option 4 ID : **37135151280**
Status : **Answered**
Chosen Option : **1**

Q.62 In recombinant DNA technology after the bacteriophage infects a bacterial cell, plaques are formed by the _____.

Ans

✘ 1. new colonies of bacterial cells

✘ 2. infecting bacteriophages

✔ 3. lysed bacterial cells

✘ 4. virions

Question Type : **MCQ**
Question ID : **37135112827**
Option 1 ID : **37135151308**
Option 2 ID : **37135151306**
Option 3 ID : **37135151307**
Option 4 ID : **37135151305**
Status : **Answered**
Chosen Option : **2**

Q.63 The number of carbon atoms per molecule of citric acid, oxaloacetic acid and pyruvic acid respectively are_____.

Ans

1. ✗ 4, 6 and 3
2. ✓ 6, 4 and 3
3. ✗ 6, 3 and 2
4. ✗ 4, 4 and 3

Question Type : **MCQ**
Question ID : **37135112815**
Option 1 ID : **37135151257**
Option 2 ID : **37135151260**
Option 3 ID : **37135151258**
Option 4 ID : **37135151259**
Status : **Answered**
Chosen Option : **3**

Q.64 Spinal cord is enclosed in ____ of vertebral column.

Ans

1. ✓ neural canal
2. ✗ Volkmann's canal
3. ✗ inguinal canal
4. ✗ central canal

Question Type : **MCQ**
Question ID : **37135112880**
Option 1 ID : **37135151518**
Option 2 ID : **37135151520**
Option 3 ID : **37135151519**
Option 4 ID : **37135151517**
Status : **Answered**
Chosen Option : **4**

Q.65 Majority of kidney stones are formed by_____.

Ans

✗ 1. uric acid

✗ 2. urea

✓ 3. calcium oxalate

✗ 4. cystine

Question Type : **MCQ**
Question ID : **37135112869**
Option 1 ID : **37135151475**
Option 2 ID : **37135151474**
Option 3 ID : **37135151473**
Option 4 ID : **37135151476**
Status : **Answered**
Chosen Option : **1**

Q.66 The product of syngamy in angiosperms is _____.

Ans

✗ 1. egg

✗ 2. PEN

✗ 3. oosphere

✓ 4. oospore

Question Type : **MCQ**
Question ID : **37135112814**
Option 1 ID : **37135151255**
Option 2 ID : **37135151256**
Option 3 ID : **37135151254**
Option 4 ID : **37135151253**
Status : **Answered**
Chosen Option : **2**

Q.67 The vector phage lambda is commonly used for gene transfer in _____.

Ans

✗ 1. plant cell

✗ 2. yeast

✓ 3. bacteria

✗ 4. insect

Question Type : **MCQ**
Question ID : **37135112849**
Option 1 ID : **37135151395**
Option 2 ID : **37135151393**
Option 3 ID : **37135151394**
Option 4 ID : **37135151396**
Status : **Answered**
Chosen Option : **3**

Q.68 What is the percentage of methane in biogas?

Ans

✗ 1. 15-45

✗ 2. 91-95

✗ 3. 85-90

✓ 4. 50-80

Question Type : **MCQ**
Question ID : **37135112828**
Option 1 ID : **37135151309**
Option 2 ID : **37135151312**
Option 3 ID : **37135151311**
Option 4 ID : **37135151310**
Status : **Answered**
Chosen Option : **4**

Q.69 Select the INCORRECT statement.

Ans

✗ 1. Hisardale is an example of cross-breeding experiment.

✗ 2. Genetic mother in MOET technique serves for multiple ovulation.

✓ 3. *Apis mellifera* and *Apis florea* are domesticated species of honey bee.

✗ 4. Layers management includes processes like culling and debeaking.

Question Type : **MCQ**
Question ID : **37135112871**
Option 1 ID : **37135151482**
Option 2 ID : **37135151483**
Option 3 ID : **37135151481**
Option 4 ID : **37135151484**
Status : **Answered**
Chosen Option : **1**

Q.70 The number of phenotypic and genotypic individuals produced during a typical Mendelian monohybrid cross will be _____ and _____ respectively.

Ans

✗ 1. 2 and 2

✗ 2. 3 and 2

✓ 3. 2 and 3

✗ 4. 3 and 3

Question Type : **MCQ**
Question ID : **37135112841**
Option 1 ID : **37135151364**
Option 2 ID : **37135151361**
Option 3 ID : **37135151362**
Option 4 ID : **37135151363**
Status : **Answered**
Chosen Option : **2**

Q.71 Norman Borlaug developed semi-dwarf varieties of wheat in _____.

Ans

✔ 1. Mexico

✘ 2. USA

✘ 3. Philippines

✘ 4. India

Question Type : **MCQ**
Question ID : **37135112825**
Option 1 ID : **37135151300**
Option 2 ID : **37135151297**
Option 3 ID : **37135151299**
Option 4 ID : **37135151298**
Status : **Answered**
Chosen Option : **3**

Q.72 Genetic material present in prokaryotes is _____.

Ans

✘ 1. nucleosome

✘ 2. nucleus

✘ 3. nucleolus

✔ 4. nucleoid

Question Type : **MCQ**
Question ID : **37135112891**
Option 1 ID : **37135151562**
Option 2 ID : **37135151561**
Option 3 ID : **37135151563**
Option 4 ID : **37135151564**
Status : **Answered**
Chosen Option : **4**

Q.73 In plant breeding, biofortification is a method_____.

Ans

✔ 1.
to increase the nutritional value of crop plants.

✘ 2.
to make the crop plants disease resistant.

✘ 3.
to improve the yield of the crop plant.

✘ 4.
to make the crop plants pest resistant.

Question Type : **MCQ**
Question ID : **37135112835**
Option 1 ID : **37135151339**
Option 2 ID : **37135151338**
Option 3 ID : **37135151337**
Option 4 ID : **37135151340**
Status : **Answered**
Chosen Option : **1**

Q.74 A man working in a furnace room suffered from asphyxiation. What should be the main reason?

Ans

✘ 1.
More O_2 level in the furnace room.

✔ 2.
CO poisoning due to high CO level in the furnace room.

✘ 3.
More O_2 as well as fumes in the furnace room.

✘ 4.
Less O_2 level in the furnace room.

Question Type : **MCQ**
Question ID : **37135112856**
Option 1 ID : **37135151421**
Option 2 ID : **37135151423**
Option 3 ID : **37135151424**
Option 4 ID : **37135151422**
Status : **Answered**
Chosen Option : **2**

Q.75 In Morgan's experiment on *Drosophila* cross between yellow bodied, white eyed female with wild type male gives _____% of parental gene combination in F_2 generation.

Ans

✗ 1. 37.2 %

✗ 2. 1.3 %

✗ 3. 62.8 %

✓ 4. 98.7 %

Question Type : **MCQ**
Question ID : **37135112864**
Option 1 ID : **37135151454**
Option 2 ID : **37135151453**
Option 3 ID : **37135151455**
Option 4 ID : **37135151456**
Status : **Answered**
Chosen Option : **3**

Q.76 The size of genome of *Methanococcus jannaschii* is _____

Ans

✗ 1. 1830 kb

✓ 2. 1660 kb

✗ 3. 569 kb

✗ 4. 12,500 kb

Question Type : **MCQ**
Question ID : **37135112860**
Option 1 ID : **37135151439**
Option 2 ID : **37135151438**
Option 3 ID : **37135151437**
Option 4 ID : **37135151440**
Status : **Answered**
Chosen Option : **4**

Q.77 Damage to VI cranial nerve in human, may affect the movements of _____.

Ans

✗ 1. neck

✗ 2. jaw

✗ 3. tongue

✓ 4. eye

Question Type : **MCQ**
Question ID : **37135112886**
Option 1 ID : **37135151541**
Option 2 ID : **37135151542**
Option 3 ID : **37135151544**
Option 4 ID : **37135151543**
Status : **Answered**
Chosen Option : **1**

Q.78 The enzymes needed for Krebs cycle are located in _____.

Ans

✗ 1. oxysomes of mitochondria

✓ 2. matrix of mitochondria

✗ 3. cytoplasm of cell

✗ 4. outer membrane of mitochondria

Question Type : **MCQ**
Question ID : **37135112842**
Option 1 ID : **37135151367**
Option 2 ID : **37135151366**
Option 3 ID : **37135151365**
Option 4 ID : **37135151368**
Status : **Answered**
Chosen Option : **2**

Q.79 Sexual reproduction is absent in the members of _____.

Ans

✔ 1. Deuteromycetes

✘ 2. Phycomycetes

✘ 3. Basidiomycetes

✘ 4. Ascomycetes

Question Type : **MCQ**
Question ID : **37135112834**
Option 1 ID : **37135151336**
Option 2 ID : **37135151333**
Option 3 ID : **37135151335**
Option 4 ID : **37135151334**
Status : **Answered**
Chosen Option : **3**

Q.80 Eukaryotic cells do NOT possess_____.

a) ribosomes

b) mesosomes

c) fimbriae

d) mitochondria

Ans

✘ 1. only b

✔ 2. b and c

✘ 3. a and b

✘ 4. only d

Question Type : **MCQ**
Question ID : **37135112855**
Option 1 ID : **37135151417**
Option 2 ID : **37135151420**
Option 3 ID : **37135151419**
Option 4 ID : **37135151418**
Status : **Answered**
Chosen Option : **4**

Q.81 An individual produced during a cross between two pure plants differing in two pairs of contrasting characters is always _____.

Ans

✗ 1. homozygous for the two selected traits.

✓ 2. heterozygous for the two selected traits.

✗ 3. heterozygous for none of the traits.

✗ 4. homozygous for one trait and heterozygous for other trait.

Question Type : **MCQ**
Question ID : **37135112810**
Option 1 ID : **37135151237**
Option 2 ID : **37135151238**
Option 3 ID : **37135151240**
Option 4 ID : **37135151239**
Status : **Answered**
Chosen Option : **1**

Q.82 Arrange the following events a,b,c,d of chemical evolution in correct sequence and select the option.

a) Transformation of heterotrophs into autotrophs.
b) Formation of amino acids, purines and pyrimidines.
c) Formation of protoproteins.
d) Heavy elements like iron and nickel form the solid core of earth.

Ans

✗ 1. c, a, b, d

✓ 2. d, b, c, a

✗ 3. a, c, d, b

✗ 4. b, d, a, c

Question Type : **MCQ**
Question ID : **37135112899**
Option 1 ID : **37135151594**
Option 2 ID : **37135151593**
Option 3 ID : **37135151595**
Option 4 ID : **37135151596**
Status : **Answered**
Chosen Option : **2**

Q.83 The uterus of a woman is attached to her body wall by a double fold of peritoneum called_____.

Ans

✗ 1. perimetrium

✓ 2. Mesometrium

✗ 3. mesosalpinx

✗ 4. myometrium

Question Type : **MCQ**
Question ID : **37135112867**
Option 1 ID : **37135151465**
Option 2 ID : **37135151467**
Option 3 ID : **37135151468**
Option 4 ID : **37135151466**
Status : **Answered**
Chosen Option : **3**

Q.84 Identify the set of plants bearing exalbuminous seeds.

Ans

✗ 1.
Castor, Bean, Pea, Sunflower

✗ 2.
Sunflower, Coconut, Maize, Wheat

✗ 3. Pea, Bean, Gram, Castor

✓ 4.
Pea, Bean, Gram, Ground-nut

Question Type : **MCQ**
Question ID : **37135112821**
Option 1 ID : **37135151282**
Option 2 ID : **37135151283**
Option 3 ID : **37135151284**
Option 4 ID : **37135151281**
Status : **Answered**
Chosen Option : **4**

Q.85 Net productivity is the rate of storage of organic matter which is not used by the consumer, it is expressed as_____.

Ans

✔ 1. production of Carbon $g/m^2/day$

✗ 2. Chl/g dry wt/unit area

✗ 3. Chl/g/ m^2/unit area

✗ 4. CO_2 fixed /g Chl/ hour

Question Type : **MCQ**
Question ID : **37135112832**
Option 1 ID : **37135151328**
Option 2 ID : **37135151325**
Option 3 ID : **37135151326**
Option 4 ID : **37135151327**
Status : **Answered**
Chosen Option : **1**

Q.86 The unfertilized human female gamete is usually about ____in diameter.

Ans

✗ 1. 60 µ

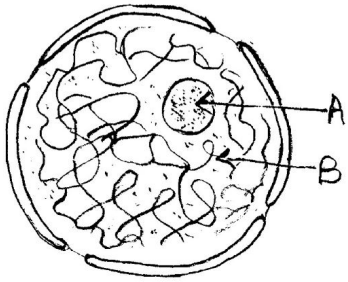
✗ 2. 70 µ

✗ 3. 40µ

✔ 4. 100 µ

Question Type : **MCQ**
Question ID : **37135112858**
Option 1 ID : **37135151430**
Option 2 ID : **37135151431**
Option 3 ID : **37135151429**
Option 4 ID : **37135151432**
Status : **Answered**
Chosen Option : **2**

Q.87 Identify labels A and B in the given diagram of nucleus and select the correct option.



Ans

✗ 1. A-central granule, B-cytoskeleton

✓ 2. A- nucleolus, B – chromatin network

✗ 3. A – cell sap, B- endoplasmic reticulum

✗ 4. A- nucleoid, B – axoneme

Question Type : **MCQ**
Question ID : **37135112897**
Option 1 ID : **37135151588**
Option 2 ID : **37135151587**
Option 3 ID : **37135151585**
Option 4 ID : **37135151586**
Status : **Answered**
Chosen Option : **1**

Q.88 Cerebral cortex is highly folded due to elevations and depressions on it. The elevations are called_____.

Ans

✗ 1. funiculi

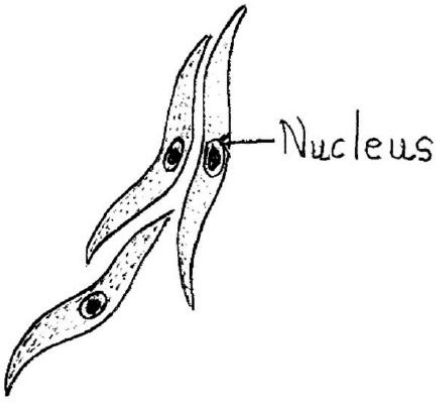
✗ 2. fovea

✓ 3. gyri

✗ 4. sulci

Question Type : **MCQ**
Question ID : **37135112883**
Option 1 ID : **37135151532**
Option 2 ID : **37135151531**
Option 3 ID : **37135151529**
Option 4 ID : **37135151530**
Status : **Answered**
Chosen Option : **4**

Q.89 These muscle fibres can be best described as _____.



Ans

✗ 1.
striated, voluntary and skeletal.

✗ 2.
unstriated, involuntary and skeletal.

✓ 3.
unstriated, involuntary and visceral.

✗ 4.
striated, voluntary and cardiac.

Question Type : **MCQ**
Question ID : **37135112895**
Option 1 ID : **37135151580**
Option 2 ID : **37135151579**
Option 3 ID : **37135151578**
Option 4 ID : **37135151577**
Status : **Answered**
Chosen Option : **1**

Q.90 DNAase is used to treat _____.

Ans
✔ 1. cystic fibrosis
✘ 2. haemophilia
✘ 3. pituitary dwarfism
✘ 4. burns

Question Type : **MCQ**
Question ID : **37135112851**
Option 1 ID : **37135151402**
Option 2 ID : **37135151401**
Option 3 ID : **37135151403**
Option 4 ID : **37135151404**
Status : **Answered**
Chosen Option : **2**

Q.91 Syphilis is caused by _____.

Ans
✔ 1. a spirochaete bacterium called *Treponema pallidum*
✘ 2. a spirochaete bacterium called *Neisseria gonorrhoeae*
✘ 3. a diplococcus bacterium called *Treponema pallidum*
✘ 4. a diplococcus bacterium called *Neisseria gonorrhoeae*

Question Type : **MCQ**
Question ID : **37135112887**
Option 1 ID : **37135151545**
Option 2 ID : **37135151547**
Option 3 ID : **37135151548**
Option 4 ID : **37135151546**
Status : **Answered**
Chosen Option : **3**

Q.92 Marijuana is obtained from ____ part of *Cannabis sativa.*

Ans

✗ 1. latex

✗ 2. leaf

✓ 3. inflorescence

✗ 4. root

Question Type : **MCQ**
Question ID : **37135112865**
Option 1 ID : **37135151457**
Option 2 ID : **37135151460**
Option 3 ID : **37135151458**
Option 4 ID : **37135151459**
Status : **Answered**
Chosen Option : **4**

Q.93 Which of the following compounds/intermediates of Krebs cycle do NOT undergo either decarboxylation or oxidation?

Ans

✗ 1. Isocitric acid

✗ 2. ∝ - ketoglutaric acid

✓ 3. Fumaric acid

✗ 4. Malic acid

Question Type : **MCQ**
Question ID : **37135112822**
Option 1 ID : **37135151285**
Option 2 ID : **37135151287**
Option 3 ID : **37135151288**
Option 4 ID : **37135151286**
Status : **Answered**
Chosen Option : **1**

Q.94 Viroids attack mainly _____.

Ans

✗ 1. plants, animals and bacteria

✗ 2. animals only

✗ 3. animals and plants

✓ 4. plants only

Question Type : **MCQ**
Question ID : **37135112846**
Option 1 ID : **37135151384**
Option 2 ID : **37135151382**
Option 3 ID : **37135151383**
Option 4 ID : **37135151381**
Status : **Answered**
Chosen Option : **2**

Q.95 In DNA molecule, pairing between two complementary nucleotides takes place by _____ bonds.

Ans

✗ 1. phospho-di-ester

✗ 2. peptide

✓ 3. hydrogen

✗ 4. glycosidic

Question Type : **MCQ**
Question ID : **37135112837**
Option 1 ID : **37135151345**
Option 2 ID : **37135151347**
Option 3 ID : **37135151346**
Option 4 ID : **37135151348**
Status : **Answered**
Chosen Option : **3**

Q.96 The breed of _____called Hisardale is developed in Punjab by cross -breeding technique.

Ans

✔ 1. sheep

✘ 2. donkey

✘ 3. horse

✘ 4. mule

Question Type : **MCQ**
Question ID : **37135112859**
Option 1 ID : **37135151433**
Option 2 ID : **37135151436**
Option 3 ID : **37135151435**
Option 4 ID : **37135151434**
Status : **Answered**
Chosen Option : **4**

Q.97 The RQ of fats and proteins is _____ respectively.

Ans

✔ 1. 0.7 and 0.9

✘ 2. 0.7 and 1.0

✘ 3. 0.9 and 0.7

✘ 4. 1.0 and 0.7

Question Type : **MCQ**
Question ID : **37135112833**
Option 1 ID : **37135151329**
Option 2 ID : **37135151332**
Option 3 ID : **37135151330**
Option 4 ID : **37135151331**
Status : **Answered**
Chosen Option : **1**

Q.98 The growth of lichens followed by mosses, herbs, shrubs and trees is an example of _____.

Ans

✗ 1. zonation

✓ 2. xerarch succession

✗ 3. stratification

✗ 4. hydrarch succession

Question Type : **MCQ**
Question ID : **37135112824**
Option 1 ID : **37135151293**
Option 2 ID : **37135151296**
Option 3 ID : **37135151294**
Option 4 ID : **37135151295**
Status : **Answered**
Chosen Option : **2**

Q.99 The term " Grand period of growth" was given by _____.

Ans

✗ 1. Gane

✗ 2. F.W.Went

✓ 3. Sachs

✗ 4. Kurosawa

Question Type : **MCQ**
Question ID : **37135112847**
Option 1 ID : **37135151388**
Option 2 ID : **37135151385**
Option 3 ID : **37135151387**
Option 4 ID : **37135151386**
Status : **Answered**
Chosen Option : **3**

Q.100 The layer of anther wall, which help in its dehiscence is _____.

Ans

✗ 1. epidermis

✓ 2. endothecium

✗ 3. tapetum

✗ 4. middle layers

Question Type :	**MCQ**
Question ID :	**37135112826**
Option 1 ID :	**37135151301**
Option 2 ID :	**37135151302**
Option 3 ID :	**37135151304**
Option 4 ID :	**37135151303**
Status :	**Answered**
Chosen Option :	**4**