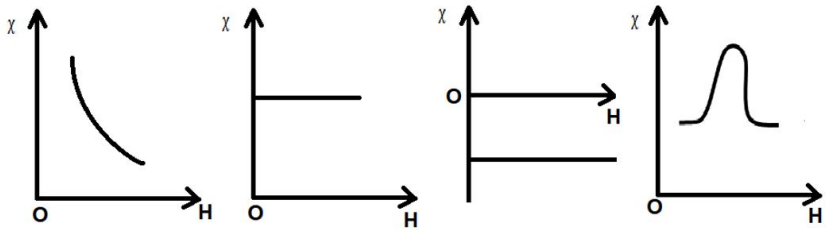
MHT CET 2020 Question Paper aglasem.com

Participant ID:	[redacted]
Participant Name:	
Test Center Name:	
Test Date:	06/10/2020
Test Time:	9:00 AM - 12:00 PM
Subject:	PCB

Section : **Physics**

Q.1 Which graph shows the variation of magnetic susceptibility (χ) with magnetising field (H) for a paramagnetic substance ?



(A) (B) (C) (D)

Ans

✗ 1. (A)

✗ 2. (C)

✓ 3. (B)

✗ 4. (D)

Question Type : **MCQ**
Question ID : **37135113527**
Option 1 ID : **37135154105**
Option 2 ID : **37135154107**
Option 3 ID : **37135154106**
Option 4 ID : **37135154108**
Status : **Answered**
Chosen Option : **2**

Q.2 A block of mass 'm' moving on a frictionless surface at speed 'V' collides elastically with a block of same mass, initially at rest. Now the first block moves at an angle 'θ' with its initial direction and has speed 'V_1'. The speed of the second block after collision is

Ans

✗ 1. $\sqrt{V^2 + V_1^2}$

✗ 2. $\sqrt{V - V_1}$

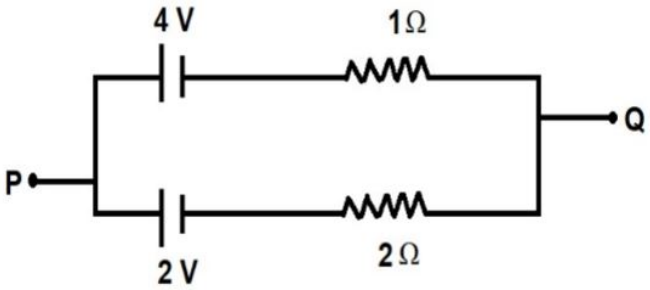
✓ 3. $\sqrt{V^2 - V_1^2}$

✗ 4. $\sqrt{V_1^2 - V^2}$

Question Type : **MCQ**
Question ID : **37135113506**
Option 1 ID : **37135154023**
Option 2 ID : **37135154024**
Option 3 ID : **37135154021**
Option 4 ID : **37135154022**
Status : **Answered**
Chosen Option : **3**

Q.3

In the following circuit, what is the voltage across PQ ?



Ans

1. $\frac{5}{3}$ V

2. $\frac{14}{3}$ V

3. $\frac{8}{3}$ V

4. $\frac{11}{3}$ V

Question Type : **MCQ**
Question ID : **37135113509**
Option 1 ID : **37135154036**
Option 2 ID : **37135154033**
Option 3 ID : **37135154035**
Option 4 ID : **37135154034**
Status : **Answered**
Chosen Option : **3**

Q.4 A charge ‘q’ is circulating with constant speed ‘V’ in a semi-circular loop of wire of radius ‘R’. The magnetic moment of this loop is

Ans

1. $\frac{qV\pi R}{2(\pi+2)}$

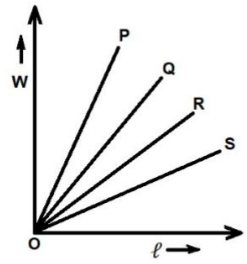
2. qVR

3. $\frac{qVR}{\pi+2}$

4. $\frac{qVR}{\pi}$

Question Type : **MCQ**
Question ID : **37135113514**
Option 1 ID : **37135154056**
Option 2 ID : **37135154053**
Option 3 ID : **37135154055**
Option 4 ID : **37135154054**
Status : **Answered**
Chosen Option : **1**

Q.5 Following graph shows the variation of load (w) versus elongation (ℓ) for four wires of the same length and material represented by lines OP, OQ, OR and OS. Which line represents the thickest wire?



Ans

✗ 1. line OQ

✓ 2. line OP

✗ 3. line OR

✗ 4. line OS

Question Type : **MCQ**
Question ID : **37135113539**
Option 1 ID : **37135154155**
Option 2 ID : **37135154156**
Option 3 ID : **37135154154**
Option 4 ID : **37135154153**
Status : **Answered**
Chosen Option : **2**

Q.6

The bob of a simple pendulum is released at time t = 0 from a position of small angular displacement. Its linear displacement is (l = length of simple pendulum and g = acceleration due to gravity, A = amplitude of S.H.M.)

Ans

1. $A \sin\left(\sqrt{\frac{l}{g}}\right) t$

2. $A \cos\left(\sqrt{\frac{g}{l}}\right) t$

3. $A \cos\left(\sqrt{\frac{l}{g}}\right) t$

4. $A \sin\left(\sqrt{\frac{g}{l}}\right) t$

Question Type : **MCQ**
Question ID : **37135113515**
Option 1 ID : **37135154058**
Option 2 ID : **37135154060**
Option 3 ID : **37135154057**
Option 4 ID : **37135154059**
Status : **Answered**
Chosen Option : **4**

Q.7 The sensitivity of a milliammeter of range 0 to 50 mA is x $\frac{\text{div}}{\text{mA}}$. If it is converted into an ammeter of range 500 mA by using a suitable shunt then the sensitivity will be

Ans

✗ 1. $\frac{x}{20}\ \frac{\text{div}}{\text{mA}}$

✗ 2. $\frac{x}{5}\ \frac{\text{div}}{\text{mA}}$

✗ 3. $\frac{x}{15}\ \frac{\text{div}}{\text{mA}}$

✓ 4. $\frac{x}{10}\ \frac{\text{div}}{\text{mA}}$

Question Type : **MCQ**
Question ID : **37135113511**
Option 1 ID : **37135154044**
Option 2 ID : **37135154041**
Option 3 ID : **37135154043**
Option 4 ID : **37135154042**
Status : **Answered**
Chosen Option : **4**

Q.8

Let the physical quantity be $x = \frac{a^2b^2}{c}$. If the percentage error in the measurement of a, b and c is 2%, 3% and 4% respectively then percentage error in the measurement of 'x' is

Ans

✔ 1. 14%

✘ 2. 7%

✘ 3. 28%

✘ 4. 21%

Question Type : **MCQ**
Question ID : **37135113501**
Option 1 ID : **37135154002**
Option 2 ID : **37135154001**
Option 3 ID : **37135154004**
Option 4 ID : **37135154003**
Status : **Answered**
Chosen Option : **2**

Q.9

The phase difference between the voltage and the current in an a.c. circuit is $\frac{\pi}{4}$.

If the frequency is 50 Hz then the phase difference is equivalent to a time of

Ans

✘ 1. $4 \cdot 5 \times 10^{-3}$s

✘ 2. $1 \cdot 5 \times 10^{-3}$s

✘ 3. $3 \cdot 5 \times 10^{-3}$s

✔ 4. $2 \cdot 5 \times 10^{-3}$s

Question Type : **MCQ**
Question ID : **37135113508**
Option 1 ID : **37135154032**
Option 2 ID : **37135154029**
Option 3 ID : **37135154031**
Option 4 ID : **37135154030**
Status : **Answered**
Chosen Option : **3**

Q.10

A particle of mass 4 gram moves along a circle of radius $\frac{10^2}{2\pi}$ cm with constant tangential acceleration. After beginning of the motion, by the end of second revolution, the kinetic energy of the particle becomes 18 x 10^{-5} J. Magnitude of tangential acceleration is

Ans

✗ 1. $2{\cdot}25 \times 10^{-6}\ m/s^2$

✗ 2. $2{\cdot}25 \times 10^{-5}\ m/s^2$

✓ 3. $2{\cdot}25 \times 10^{-4}\ m/s^2$

✗ 4. $2{\cdot}25 \times 10^{-3}\ m/s^2$

Question Type : **MCQ**
Question ID : **37135113532**
Option 1 ID : **37135154128**
Option 2 ID : **37135154126**
Option 3 ID : **37135154125**
Option 4 ID : **37135154127**
Status : **Answered**
Chosen Option : **3**

Q.11 In a series LCR circuit at resonance, the applied e.m.f. of the source and current in the circuit are

Ans

✗ 1. out of phse.

✗ 2. differ in phase by $\frac{\pi}{2}$ rad.

✓ 3. in phase.

✗ 4. differ in phase by $\frac{\pi}{4}$ rad.

Question Type : **MCQ**
Question ID : **37135113530**
Option 1 ID : **37135154118**
Option 2 ID : **37135154119**
Option 3 ID : **37135154117**
Option 4 ID : **37135154120**
Status : **Answered**
Chosen Option : **2**

Q.12 The length of antenna required to transmit the signals of frequency $1{\cdot}5 \times 10^8$ Hz is [velocity of light in air, $c = 3 \times 10^8$ m/s]

Ans

✓ 1. 50 cm

✗ 2. 40 cm

✗ 3. 50 m

✗ 4. 20 cm

Question Type : **MCQ**
Question ID : **37135113522**
Option 1 ID : **37135154085**
Option 2 ID : **37135154087**
Option 3 ID : **37135154086**
Option 4 ID : **37135154088**
Status : **Answered**
Chosen Option : **2**

Q.13 When a ray of light is refracted from one medium to another, then the wavelength changes from 6000 Å to 4000 Å. The critical angle for the interface will be

Ans

✗ 1. $\cos^{-1}\left(\frac{2}{3}\right)$

✗ 2. $\sin^{-1}\left(\frac{2}{\sqrt{3}}\right)$

✗ 3. $\cos^{-1}\left(\frac{2}{\sqrt{3}}\right)$

✓ 4. $\sin^{-1}\left(\frac{2}{3}\right)$

Question Type : **MCQ**
Question ID : **37135113519**
Option 1 ID : **37135154073**
Option 2 ID : **37135154074**
Option 3 ID : **37135154076**
Option 4 ID : **37135154075**
Status : **Answered**
Chosen Option : **3**

Q.14 If 'I' is the moment of inertia and 'L' is angular momentum of a rotating body, then $\frac{L^2}{2I}$ is its

Ans

✗ 1. linear momentum

✗ 2. torque

✗ 3. translational kinetic energy

✓ 4. rotational kinetic energy

Question Type : **MCQ**
Question ID : **37135113546**
Option 1 ID : **37135154181**
Option 2 ID : **37135154182**
Option 3 ID : **37135154184**
Option 4 ID : **37135154183**
Status : **Answered**
Chosen Option : **1**

Q.15 If the frequency of oscillation of a simple pendulum in simple harmonic motion is 'n', then frequency of oscillation of simple pendulum when length is 4 times is

Ans

✗ 1. $4\,n$

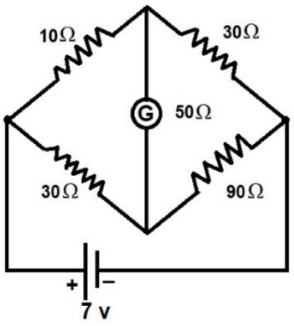
✗ 2. $2\,n$

✗ 3. n

✓ 4. $\frac{n}{2}$

Question Type : **MCQ**
Question ID : **37135113510**
Option 1 ID : **37135154040**
Option 2 ID : **37135154039**
Option 3 ID : **37135154037**
Option 4 ID : **37135154038**
Status : **Answered**
Chosen Option : **1**

Q.16 In the following circuit, the internal resistance of the cell is 5Ω, the current drawn from the cell will be



Ans

✗ 1. 0·4 A

✗ 2. 0·1 A

✓ 3. 0·2 A

✗ 4. 0·3 A

Question Type : **MCQ**
Question ID : **37135113516**
Option 1 ID : **37135154064**
Option 2 ID : **37135154061**
Option 3 ID : **37135154062**
Option 4 ID : **37135154063**
Status : **Answered**
Chosen Option : **3**

Q.17 The third overtone of a closed pipe is in unison with the second overtone of an open pipe. Hence the ratio of the length of the closed pipe to that of the open pipe is

Ans

✗ 1. $1:2$

✗ 2. $6:7$

✓ 3. $7:6$

✗ 4. $3:2$

Question Type : **MCQ**
Question ID : **37135113526**
Option 1 ID : **37135154103**
Option 2 ID : **37135154102**
Option 3 ID : **37135154101**
Option 4 ID : **37135154104**
Status : **Answered**
Chosen Option : **4**

Q.18 Two rings of radil R and nR made from the same wire have the ratio of moments of inertia about an axis passing through their centre and perpendular to the plane of the rings is 1 : 8. The value of n is

Ans

✗ 1. $\frac{1}{2}$

✗ 2. $2\sqrt{2}$

✓ 3. 2

✗ 4. 4

Question Type : **MCQ**
Question ID : **37135113550**
Option 1 ID : **37135154197**
Option 2 ID : **37135154199**
Option 3 ID : **37135154198**
Option 4 ID : **37135154200**
Status : **Answered**
Chosen Option : **2**

Q.19 The angle of polarisation for a medium is 60°. The critical angle for this will be $(\tan 60° = \sqrt{3})$

Ans

1. $\cos^{-1}(\sqrt{3})$
2. $\tan^{-1}(\sqrt{3})$
3. $\sin^{-1}(\sqrt{3})$
4. $\sin^{-1}\left(\frac{1}{\sqrt{3}}\right)$

Question Type : **MCQ**
Question ID : **37135113502**
Option 1 ID : **37135154006**
Option 2 ID : **37135154007**
Option 3 ID : **37135154005**
Option 4 ID : **37135154008**
Status : **Answered**
Chosen Option : **2**

Q.20 A particle of mass 'm' is rotating in a horizontal circle of radius 'r' with uniform velocity $\vec{V}$. The change in its momentum at two diametrically opposite points will be

Ans

1. $m\vec{V}$
2. $3m\vec{V}$
3. $-2m\vec{V}$
4. $-m\vec{V}$

Question Type : **MCQ**
Question ID : **37135113544**
Option 1 ID : **37135154174**
Option 2 ID : **37135154176**
Option 3 ID : **37135154175**
Option 4 ID : **37135154173**
Status : **Answered**
Chosen Option : **3**

Q.21 In hydrogen atom, during the transition of electron from n^{th} outer orbit to first Bohr orbit, a photon of wavelength 'λ' is emitted. The value of 'n' is [R = Rydberg's constant]

Ans

✔ 1. $\sqrt{\frac{\lambda R}{\lambda R-1}}$

✘ 2. $\sqrt{\frac{\lambda R-1}{\lambda R}}$

✘ 3. $\sqrt{\lambda R\,(\lambda R-1)}$

✘ 4. $\sqrt{\lambda(R-1)}$

Question Type : **MCQ**
Question ID : **37135113517**
Option 1 ID : **37135154067**
Option 2 ID : **37135154066**
Option 3 ID : **37135154065**
Option 4 ID : **37135154068**
Status : **Answered**
Chosen Option : **2**

Q.22 Two identical wires of same length are vibrating in unison with a tuning fork, under same tension. The length of one wire is decreased by 1 cm and it produces 3 beats per second with the tuning fork. The length of other wire is increased by 1 cm and it produces 2 beats per second with the tuning fork. If the original length of wire is 67 cm, the frequency of the tuning fork is

Ans

✔ 1. 167 Hz

✘ 2. 166 Hz

✘ 3. 165 Hz

✘ 4. 168 Hz

Question Type : **MCQ**
Question ID : **37135113529**
Option 1 ID : **37135154115**
Option 2 ID : **37135154114**
Option 3 ID : **37135154113**
Option 4 ID : **37135154116**
Status : **Answered**
Chosen Option : **2**

Q.23

The surface density of charge on the surface of a charged conductor in air is 0·885 $\frac{\mu C}{m^2}$. The outward force per unit area of charged conductor is $\left(\epsilon_o = 8 \cdot 85 \times 10^{-12} \frac{C^2}{N-m^2}\right)$

Ans

1. $5 \times 10^{-3} \frac{N}{m^2}$

2. $4 \cdot 425 \times 10^{-2} \frac{N}{m^2}$

3. $5 \times 10^{-2} \frac{N}{m^2}$

4. $8 \cdot 85 \times 10^{-2} \frac{N}{m^2}$

Question Type : **MCQ**
Question ID : **37135113507**
Option 1 ID : **37135154028**
Option 2 ID : **37135154026**
Option 3 ID : **37135154025**
Option 4 ID : **37135154027**
Status : **Answered**
Chosen Option : **2**

Q.24 An electron moving with initial velocity $\vec{V} = V_0\hat{i}$ is moving in a magnetic field $\vec{B} = B_0\hat{j}$ then its de-Broglie wavelength

Ans

✗ 1. increases with time.

✗ 2. first increases and then decreases.

✗ 3. decreases with time.

✓ 4. remains constant.

Question Type : **MCQ**
Question ID : **37135113503**
Option 1 ID : **37135154009**
Option 2 ID : **37135154010**
Option 3 ID : **37135154012**
Option 4 ID : **37135154011**
Status : **Answered**
Chosen Option : **1**

Q.25 The r.m.s. velocity of hydrogen molecules at tempreature T is seven times the r.m.s. velocity of nitrogen molecules at 300 K. This temperature T is
(Molecular weights of hydrogen and nitrogen are 2 and 28 respectively)

Ans

✓ 1. 1050 K

✗ 2. 1700 K

✗ 3. 1350 K

✗ 4. 2100 K

Question Type : **MCQ**
Question ID : **37135113505**
Option 1 ID : **37135154020**
Option 2 ID : **37135154018**
Option 3 ID : **37135154019**
Option 4 ID : **37135154017**
Status : **Answered**
Chosen Option : **2**

Q.26 Light of frequency 2 times the threshold frequency is incident on a photo sensitive material. If the frequency is made $\frac{1}{3}^{rd}$ and intensity is doubled then the photocurrent will

Ans

1. be doubled

2. be zero

3. be $\frac{1}{3}^{rd}$

4. be tripled

Question Type : **MCQ**
Question ID : **37135113537**
Option 1 ID : **37135154146**
Option 2 ID : **37135154147**
Option 3 ID : **37135154148**
Option 4 ID : **37135154145**
Status : **Answered**
Chosen Option : **1**

Q.27 A circular disc 'X' of radius 'R' made from iron plate of thickness 't' has moment of inertia 'I_x' about an axis passing through the centre of disc and perpendicular to its plane. Another disc 'Y' of radius '3R' made from an iron plate of thickness $\left(\frac{t}{3}\right)$ has moment of inertia 'I_y' about the axis same as that of disc X. The relation between I_x and I_y is

Ans

1. $I_y = 9\,I_x$

2. $I_y = I_x$

3. $I_y = 27\,I_x$

4. $I_y = 3I_x$

Question Type : **MCQ**
Question ID : **37135113520**
Option 1 ID : **37135154079**
Option 2 ID : **37135154077**
Option 3 ID : **37135154080**
Option 4 ID : **37135154078**
Status : **Answered**
Chosen Option : **4**

Q.28 A wooden block is placed on a rough horizontal surface. It is given a velocity 'u' m/s and coefficient of friction between the block and the surface is 'μ'. The distance covered by the block before coming to rest is (g = acceleration due to gravity)

Ans

✗ 1. $\frac{u^2}{\mu g}$

✓ 2. $\frac{u^2}{2\mu g}$

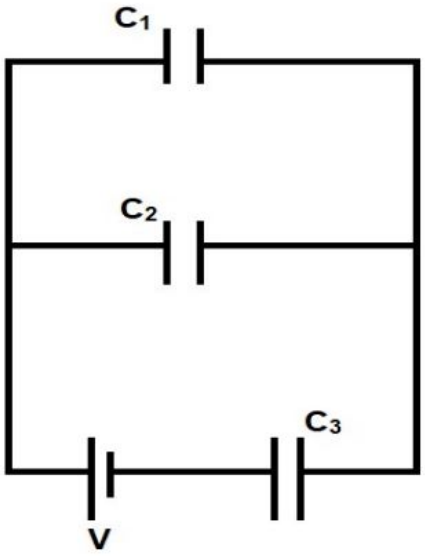
✗ 3. $\frac{u}{\mu g}$

✗ 4. $\frac{u}{\mu^2 g}$

Question Type : **MCQ**
Question ID : **37135113533**
Option 1 ID : **37135154131**
Option 2 ID : **37135154129**
Option 3 ID : **37135154130**
Option 4 ID : **37135154132**
Status : **Answered**
Chosen Option : **2**

Q.29

In the figure shown, the voltage across C_3 will be



Ans

1. $\frac{C_1V}{C_1+C_2+C_3}$

2. $\frac{C_3V}{C_1+C_2+C_3}$

3. $\frac{C_2V}{C_1+C_2+C_3}$

4. $\frac{(C_1+C_2)V}{C_1+C_2+C_3}$

Question Type : **MCQ**
Question ID : **37135113521**
Option 1 ID : **37135154082**
Option 2 ID : **37135154084**
Option 3 ID : **37135154083**
Option 4 ID : **37135154081**
Status : **Answered**
Chosen Option : **2**

Q.30 To what depth must a rubber ball be taken in deep sea so that its volume is decreased by 0·2%. The bulk modulus of rubber is $9{\cdot}8 \times 10^8$ N/m^2 and the density of sea water is 10^3 kg/m^3 ? (g = $9 \cdot 8$ m/s^2)

Ans

✔ 1. 200 m

✘ 2. 100 m

✘ 3. 50 m

✘ 4. 25 m

Question Type : **MCQ**
Question ID : **37135113518**
Option 1 ID : **37135154069**
Option 2 ID : **37135154070**
Option 3 ID : **37135154071**
Option 4 ID : **37135154072**
Status : **Answered**
Chosen Option : **1**

Q.31 Two wires carrying currents I and 2I (in opposite directions) are parallel to each other. Third wire carrying current I is placed midway between the two wires and anti-parallel to a wire carrying current I. Force due to magnetic field on third wire will be

Ans

✘ 1. towards a wire carrying current I.

✘ 2. perpendicular to plane of currents.

✘ 3. zero.

✔ 4. towards a wire carrying current 2I.

Question Type : **MCQ**
Question ID : **37135113512**
Option 1 ID : **37135154046**
Option 2 ID : **37135154048**
Option 3 ID : **37135154047**
Option 4 ID : **37135154045**
Status : **Answered**
Chosen Option : **4**

Q.32

Length of an organ pipe open at both ends is 34 cm. If velocity of sound is 340 m/s, then the frequency of 2nd overtone is

Ans

1. 2400 Hz
2. 1000 Hz
3. 1500 Hz
4. 2000 Hz

Question Type : **MCQ**
Question ID : **37135113513**
Option 1 ID : **37135154052**
Option 2 ID : **37135154049**
Option 3 ID : **37135154050**
Option 4 ID : **37135154051**
Status : **Answered**
Chosen Option : **1**

Q.33

If number of turns in moving coil galvanometer becomes half, then the deflection for the same current will become

Ans

1. half.
2. double.
3. four times.
4. same.

Question Type : **MCQ**
Question ID : **37135113549**
Option 1 ID : **37135154194**
Option 2 ID : **37135154195**
Option 3 ID : **37135154196**
Option 4 ID : **37135154193**
Status : **Answered**
Chosen Option : **1**

Q.34

A particle starting from mean position oscillates simple harmonically with period 4 s. After what time will its kinetic energy be 75% of the total energy ?

$\left(\cos 30° = \frac{\sqrt{3}}{2}\right)$

Ans

1. $\frac{1}{3}$ s

2. $\frac{1}{2}$ s

3. $\frac{1}{5}$ s

4. $\frac{1}{4}$ s

Question Type : **MCQ**
Question ID : **37135113534**
Option 1 ID : **37135154134**
Option 2 ID : **37135154133**
Option 3 ID : **37135154136**
Option 4 ID : **37135154135**
Status : **Answered**
Chosen Option : **4**

Q.35 In a semiconductor diode, the barrier potential offers opposition to only

Ans

1. majority carriers in both regions.

2. holes in the p-region.

3. minority carriers in both regions.

4. free electrons in the n-region.

Question Type : **MCQ**
Question ID : **37135113535**
Option 1 ID : **37135154137**
Option 2 ID : **37135154140**
Option 3 ID : **37135154138**
Option 4 ID : **37135154139**
Status : **Answered**
Chosen Option : **1**

Q.36 A block of mass 'm' collides with another stationary block of mass '2m'. The lighter block comes to rest after collision. If the velocity of first block is 'u', then the value of coefficient of restitution is

Ans

1. 0·4

2. 0·8

3. 0·5

4. 0·6

Question Type : **MCQ**
Question ID : **37135113531**
Option 1 ID : **37135154121**
Option 2 ID : **37135154124**
Option 3 ID : **37135154122**
Option 4 ID : **37135154123**
Status : **Answered**
Chosen Option : **2**

Q.37

A large number of liquid drops each of radius 'r' coalesce to form a big drop of radius 'R'. The energy released in the process in converted into kinetic energy of the big drop. The speed of the big drop is (T = surface tension of liquid, ϱ = density of liquid)

Ans

✗ 1. $\left[\frac{6T}{\varrho}\left(\frac{1}{r}+\frac{1}{R}\right)\right]^{\frac{1}{2}}$

✗ 2. $\left[\frac{3T}{\varrho}\left(\frac{1}{r}+\frac{1}{R}\right)\right]^{\frac{1}{2}}$

✓ 3. $\left[\frac{6T}{\varrho}\left(\frac{1}{r}-\frac{1}{R}\right)\right]^{\frac{1}{2}}$

✗ 4. $\left[\frac{3T}{\varrho}\left(\frac{1}{r}-\frac{1}{R}\right)\right]^{\frac{1}{2}}$

Question Type : **MCQ**
Question ID : **37135113504**
Option 1 ID : **37135154016**
Option 2 ID : **37135154014**
Option 3 ID : **37135154015**
Option 4 ID : **37135154013**
Status : **Answered**
Chosen Option : **2**

Q.38 A thin lens of glass of refractive index 1·5 has focal length 24 cm in air. It is now immersed in a liquid of refractive index $\frac{9}{8}$. Its new focal length is

Ans

1. ✗ 72 cm
2. ✗ 54 cm
3. ✓ 36 cm
4. ✗ 18 cm

Question Type : **MCQ**
Question ID : **37135113536**
Option 1 ID : **37135154144**
Option 2 ID : **37135154143**
Option 3 ID : **37135154142**
Option 4 ID : **37135154141**
Status : **Answered**
Chosen Option : **2**

Q.39 A vector $\vec{P}$ has components along X and Y axis having magnitude 2 units and 4 units respectively. A vector along negative X – axis, $\vec{Q}$ has magnitude 6 units. Then vector $(\vec{P} - \vec{Q})$ is

Ans

1. ✓ $4(2\hat{i} + \hat{j})$
2. ✗ $-4(2\hat{i} - \hat{j})$
3. ✗ $4(2\hat{i} - \hat{j})$
4. ✗ $-4(2\hat{i} + \hat{j})$

Question Type : **MCQ**
Question ID : **37135113523**
Option 1 ID : **37135154091**
Option 2 ID : **37135154090**
Option 3 ID : **37135154092**
Option 4 ID : **37135154089**
Status : **Answered**
Chosen Option : **3**

Q.40

In a biprism experiment, red light of wavelength 6500 Å was used. It was then replaced by green light of wavelegth 5200 Å. The value of n for which $(n + 1)^{th}$ green bright band would coincide with n^{th} red bright band for the same setting is

Ans

✗ 1. $n = 5$

✗ 2. $n = 3$

✓ 3. $n = 4$

✗ 4. $n = 2$

Question Type : **MCQ**
Question ID : **37135113545**
Option 1 ID : **37135154177**
Option 2 ID : **37135154179**
Option 3 ID : **37135154178**
Option 4 ID : **37135154180**
Status : **Answered**
Chosen Option : **3**

Q.41

The wave described by $y = 0{\cdot}35 \sin(2\pi t - 10\pi x)$, where x and y are in metre and t in second, is a wave travelling along the

Ans

✗ 1.

negative x-direction with amplitude 0·35 m and wavelength $\lambda = 0{\cdot}5$ m

✗ 2.

negative x-direction with frequency π Hz and wavelength $\lambda = 0{\cdot}5$ m

✗ 3.

positive x-direction with frequency 1 Hz and amplitude 3·5 m

✓ 4.

positive x-direction with frequency 1 Hz and wavelength $\lambda = 0{\cdot}2$ m

Question Type : **MCQ**
Question ID : **37135113540**
Option 1 ID : **37135154157**
Option 2 ID : **37135154159**
Option 3 ID : **37135154158**
Option 4 ID : **37135154160**
Status : **Answered**
Chosen Option : **3**

Q.42

The excess pressure inside a soap bubble of volume 'V' is three times the excess pressure inside a second soap bubble of volume 'V_1'. The value of $\left(\frac{V_1}{V}\right)$ is

Ans

1. $1:3$
2. $9:1$
3. $1:9$
4. $3:1$

Question Type : **MCQ**
Question ID : **37135113542**
Option 1 ID : **37135154166**
Option 2 ID : **37135154168**
Option 3 ID : **37135154167**
Option 4 ID : **37135154165**
Status : **Answered**
Chosen Option : **3**

Q.43

The gravitational potential energy of a rocket of mass 200 kg at a distance 10^6 m from the centre of the earth is 3×10^8 J . The weight of the rocket at a distance 10^8 m from the centre of the earth is

Ans

1. $1{\cdot}5 \times 10^{-2}$ N
2. 3×10^{-2} N
3. 6×10^{-2} N
4. $4{\cdot}5 \times 10^{-2}$ N

Question Type : **MCQ**
Question ID : **37135113528**
Option 1 ID : **37135154109**
Option 2 ID : **37135154110**
Option 3 ID : **37135154112**
Option 4 ID : **37135154111**
Status : **Answered**
Chosen Option : **1**

Q.44 A transistor is connected in C-E mode. If collector current is 72 x 10^{-5} A and $\propto = 0{\cdot}96$, then base current will be

Ans

✔ 1. $30\ \mu A$

✘ 2. $26\ \mu A$

✘ 3. $28\ \mu A$

✘ 4. $24\ \mu A$

Question Type : **MCQ**
Question ID : **37135113524**
Option 1 ID : **37135154096**
Option 2 ID : **37135154094**
Option 3 ID : **37135154095**
Option 4 ID : **37135154093**
Status : **Answered**
Chosen Option : **3**

Q.45 The radiations of energies 1eV and 2·5 eV are incident on a metal surface having work function 0·5 eV. The ratio of the maximum velocities of the emitted photo-electrons is

Ans

✘ 1. 1 : 1

✔ 2. 1 : 2

✘ 3. 1 : 3

✘ 4. 1 : 4

Question Type : **MCQ**
Question ID : **37135113548**
Option 1 ID : **37135154189**
Option 2 ID : **37135154192**
Option 3 ID : **37135154190**
Option 4 ID : **37135154191**
Status : **Answered**
Chosen Option : **3**

Q.46 In Young's double slit experiment, for wavelength λ_1 the n^{th} bright fringe is obtained at a point P on the screen. Keeping the same setting, source of light is replaced by wavelength λ_2 and now $(n+1)^{th}$ bright fringe is obtained at the same point P on the screen. The value of n is

Ans

✗ 1. $\frac{\lambda_1-\lambda_2}{\lambda_2}$

✗ 2. $\frac{\lambda_1}{\lambda_1-\lambda_2}$

✗ 3. $\frac{\lambda_1-\lambda_2}{\lambda_1}$

✓ 4. $\frac{\lambda_2}{\lambda_1-\lambda_2}$

Question Type : **MCQ**
Question ID : **37135113541**
Option 1 ID : **37135154164**
Option 2 ID : **37135154161**
Option 3 ID : **37135154163**
Option 4 ID : **37135154162**
Status : **Answered**
Chosen Option : **4**

Q.47 Magnetic induction at a point along the axis of a bar magnet is equal to magnetic induction at a point along the equator. Ratio of the distance along the axis to distance along equator is

Ans

1. $\sqrt{2}:1$

2. $2:1$

3. $\sqrt[3]{2}:1$

4. $1:\sqrt{2}$

Question Type : **MCQ**
Question ID : **37135113543**
Option 1 ID : **37135154170**
Option 2 ID : **37135154171**
Option 3 ID : **37135154169**
Option 4 ID : **37135154172**
Status : **Answered**
Chosen Option : **4**

Q.48

Two vessels separately contain two ideal gases A and B at the same temperature. The pressure of A is twice that of B. Under such conditions, the density of A is found to be 1·5 times the density of B. The ratio of molecular weights of A and B is

Ans

1. 2

2. $\frac{3}{4}$

3. $\frac{1}{2}$

4. $\frac{2}{3}$

Question Type : **MCQ**
Question ID : **37135113547**
Option 1 ID : **37135154188**
Option 2 ID : **37135154187**
Option 3 ID : **37135154185**
Option 4 ID : **37135154186**
Status : **Answered**
Chosen Option : **4**

Q.49

Which one of the following is a unit vector ?

Ans

✔ 1. $(\cos\theta)\,\hat{i} + (\sin\theta)\,\hat{j}$

✘ 2. $\frac{1}{\sqrt{3}}(\hat{i} + \hat{j})$

✘ 3. $2\hat{i} - 3\hat{j}$

✘ 4. $(\sin\theta)\,\hat{i} - (2\cos\theta)\,\hat{j}$

Question Type : **MCQ**
Question ID : **37135113525**
Option 1 ID : **37135154099**
Option 2 ID : **37135154098**
Option 3 ID : **37135154097**
Option 4 ID : **37135154100**
Status : **Answered**
Chosen Option : **1**

Q.50

The length of the seconds pendulum is 1 m on the earth. If the mass and diameter of the planet is half that of the earth then the length of the seconds pendulum on the planet will be

Ans

✘ 1. 0·5 m

✘ 2. 1 m

✘ 3. 1·5 m

✔ 4. 2 m

Question Type : **MCQ**
Question ID : **37135113538**
Option 1 ID : **37135154149**
Option 2 ID : **37135154150**
Option 3 ID : **37135154151**
Option 4 ID : **37135154152**
Status : **Answered**
Chosen Option : **3**

Section : **Chemistry**

Q.1 Which among the following changes occurs at 900 K in blast furnace for extraction of iron ?

Ans

✗ 1. Reduction of ore by C

✓ 2. Reduction of ore by CO

✗ 3. Ore loses moisture

✗ 4. Limestone decomposes

Question Type : **MCQ**
Question ID : **37135113575**
Option 1 ID : **37135154300**
Option 2 ID : **37135154298**
Option 3 ID : **37135154297**
Option 4 ID : **37135154299**
Status : **Answered**
Chosen Option : **2**

Q.2 Which among the following is a tear gas ?

Ans

✗ 1. $COCl_2$

✗ 2. CCl_2F_2

✗ 3. $ClC_2H_4-S-C_2H_4Cl$

✓ 4. $CCl_3\ NO_2$

Question Type : **MCQ**
Question ID : **37135113588**
Option 1 ID : **37135154349**
Option 2 ID : **37135154351**
Option 3 ID : **37135154350**
Option 4 ID : **37135154352**
Status : **Answered**
Chosen Option : **4**

Q.3 Identify the product obtained when 3, 5 – dinitrobenzoic acid is heated with thionyl chloride ?

Ans

✗ 1. 3, 5 – Dinitrobenzyl chloride

✗ 2. 3, 5 – Dichlorobenzyl chloride

✓ 3. 3, 5 – Dinitrobenzoyl chloride

✗ 4. 3 – Chloro – 5 – nitrobenzoic acid

Question Type : **MCQ**
Question ID : **37135113598**
Option 1 ID : **37135154391**
Option 2 ID : **37135154390**
Option 3 ID : **37135154392**
Option 4 ID : **37135154389**
Status : **Answered**
Chosen Option : **1**

Q.4 Which of the following compounds is obtained as valuable byproduct in preparation of phenol from cumene ?

Ans

✗ 1. Propanal

✗ 2. Propan – 1–ol

✗ 3. Propan – 2–ol

✓ 4. Propanone

Question Type : **MCQ**
Question ID : **37135113563**
Option 1 ID : **37135154251**
Option 2 ID : **37135154249**
Option 3 ID : **37135154250**
Option 4 ID : **37135154252**
Status : **Answered**
Chosen Option : **4**

Q.5 The number of moles of ammonia present in 5·6 dm^3 of it's volume at S.T.P. is ?

Ans

✗ 1. 0·75

✗ 2. 1·0

✗ 3. 0·50

✔ 4. 0·25

Question Type : **MCQ**
Question ID : **37135113576**
Option 1 ID : **37135154303**
Option 2 ID : **37135154304**
Option 3 ID : **37135154302**
Option 4 ID : **37135154301**
Status : **Answered**
Chosen Option : **3**

Q.6 Heat of formation of H_2O is –270 kJ mol^{-1}. How much water can be decomposed by 675 kJ of heat ?

Ans

✔ 1. 45 g

✗ 2. 40 g

✗ 3. 27 g

✗ 4. 33 g

Question Type : **MCQ**
Question ID : **37135113571**
Option 1 ID : **37135154284**
Option 2 ID : **37135154283**
Option 3 ID : **37135154281**
Option 4 ID : **37135154282**
Status : **Answered**
Chosen Option : **3**

Q.7 Aniline on reaction with Bromine water at room temperature gives

Ans

1. p – bromoaniline
2. 2, 4, 6 – Tribromoaniline
3. m – bromoaniline
4. o – bromoaniline

Question Type : **MCQ**
Question ID : **37135113561**
Option 1 ID : **37135154242**
Option 2 ID : **37135154244**
Option 3 ID : **37135154243**
Option 4 ID : **37135154241**
Status : **Answered**
Chosen Option : **3**

Q.8 What is the value of dipole moment for HCl molecule ?

Ans

1. 1·91 D
2. 1·03 D
3. 1·85 D
4. 3·33 D

Question Type : **MCQ**
Question ID : **37135113579**
Option 1 ID : **37135154316**
Option 2 ID : **37135154314**
Option 3 ID : **37135154313**
Option 4 ID : **37135154315**
Status : **Answered**
Chosen Option : **3**

Q.9 The volume of given mass of a gas at 'x' K is 2 dm^3. What is the new volume of gas at constant pressure, if temperature is increased to 10 x K ?

Ans

✔ 1. $20\ dm^3$

✘ 2. $(1/4)dm^3$

✘ 3. $4\ dm^3$

✘ 4. $(1/20)dm^3$

Question Type : **MCQ**
Question ID : **37135113568**
Option 1 ID : **37135154270**
Option 2 ID : **37135154271**
Option 3 ID : **37135154269**
Option 4 ID : **37135154272**
Status : **Answered**
Chosen Option : **1**

Q.10 Which of the following is a property of co ordination compound and not of double salt ?

Ans

✘ 1.
These dissociate into their constituent ions when dissolved in water.

✔ 2.
These show entirely different properties from their constituent ions.

✘ 3.
These lose their identity in aqueous solution.

✘ 4.
Aqueous solution of these gives the tests of all constituent ions.

Question Type : **MCQ**
Question ID : **37135113578**
Option 1 ID : **37135154310**
Option 2 ID : **37135154309**
Option 3 ID : **37135154311**
Option 4 ID : **37135154312**
Status : **Answered**
Chosen Option : **4**

Q.11 Which of the following compounds forms a colloidal solution when dissolved in water ?

Ans

✗ 1. Glucose

✗ 2. Ammonium chloride

✗ 3. Common salt

✓ 4. Starch

Question Type : **MCQ**
Question ID : **37135113565**
Option 1 ID : **37135154258**
Option 2 ID : **37135154259**
Option 3 ID : **37135154257**
Option 4 ID : **37135154260**
Status : **Answered**
Chosen Option : **3**

Q.12 What is the symbol of an element having atomic number 113 ?

Ans

✓ 1. Uut

✗ 2. Uup

✗ 3. Uub

✗ 4. Uuu

Question Type : **MCQ**
Question ID : **37135113560**
Option 1 ID : **37135154239**
Option 2 ID : **37135154240**
Option 3 ID : **37135154237**
Option 4 ID : **37135154238**
Status : **Answered**
Chosen Option : **4**

Q.13 Which of the following polymers is used to obtain adhesives ?

Ans

1. Neoprene rubber
2. Buna – N
3. Buna – S
4. Melamine

Question Type : **MCQ**
Question ID : **37135113591**
Option 1 ID : **37135154362**
Option 2 ID : **37135154361**
Option 3 ID : **37135154363**
Option 4 ID : **37135154364**
Status : **Answered**
Chosen Option : **2**

Q.14 How many donor groups are present in dimethyl glyoximato ?

Ans

1. Three
2. Two
3. Four
4. One

Question Type : **MCQ**
Question ID : **37135113552**
Option 1 ID : **37135154207**
Option 2 ID : **37135154206**
Option 3 ID : **37135154208**
Option 4 ID : **37135154205**
Status : **Answered**
Chosen Option : **1**

Q.15 A metallic element has a cubic lattice with edge length of unit cell $2A^{\circ}$. Calculate the number of unit cells in 200 g of the metal, if density of metal is 2·5 g cm^{-3} ?

Ans

✗ 1. $6{\cdot}25 \times 10^{25}$

✗ 2. $6{\cdot}40 \times 10^{25}$

✔ 3. $1{\cdot}0 \times 10^{25}$

✗ 4. $10{\cdot}0 \times 10^{25}$

Question Type : **MCQ**
Question ID : **37135113593**
Option 1 ID : **37135154371**
Option 2 ID : **37135154372**
Option 3 ID : **37135154369**
Option 4 ID : **37135154370**
Status : **Answered**
Chosen Option : **2**

Q.16 The conductivity of 0·01 M salt solution is $1{\cdot}061 \times 10^{-4}$ S cm^{-1}. What is molar conductivity of the solution ?

Ans

✗ 1. $1{\cdot}061 \times 10^{-4}\ \Omega^{-1}cm^2mol^{-1}$

✗ 2. $1{\cdot}061\ \Omega^{-1}cm^2mol^{-1}$

✗ 3. $106{\cdot}1\ \Omega^{-1}cm^2mol^{-1}$

✔ 4. $10{\cdot}61\ \Omega^{-1}cm^2mol^{-1}$

Question Type : **MCQ**
Question ID : **37135113556**
Option 1 ID : **37135154221**
Option 2 ID : **37135154222**
Option 3 ID : **37135154224**
Option 4 ID : **37135154223**
Status : **Answered**
Chosen Option : **2**

Q.17 What is the highest oxidation state possessed by chlorine in it's oxyacids ?

Ans

✗ 1. +1

✗ 2. +3

✗ 3. +5

✔ 4. +7

Question Type : **MCQ**
Question ID : **37135113600**
Option 1 ID : **37135154397**
Option 2 ID : **37135154398**
Option 3 ID : **37135154399**
Option 4 ID : **37135154400**
Status : **Answered**
Chosen Option : **3**

Q.18 What is the number of carbon atoms present in the alkanes found in nature as coatings of green leaves ?

Ans

✔ 1. C_{29} to C_{31}

✗ 2. C_{15} to C_{18}

✗ 3. C_{11}

✗ 4. C_6 to C_8

Question Type : **MCQ**
Question ID : **37135113592**
Option 1 ID : **37135154366**
Option 2 ID : **37135154365**
Option 3 ID : **37135154368**
Option 4 ID : **37135154367**
Status : **Answered**
Chosen Option : **2**

Q.19 Which of the following is NOT having any food value ?

Ans

✔ 1. Saccharin

✘ 2. Cane Sugar

✘ 3. Fructose

✘ 4. Glucose

Question Type : **MCQ**
Question ID : **37135113557**
Option 1 ID : **37135154225**
Option 2 ID : **37135154227**
Option 3 ID : **37135154228**
Option 4 ID : **37135154226**
Status : **Answered**
Chosen Option : **3**

Q.20 Identify the number of carbon atoms and number of oxygen atoms respectively present in pyran molecule

Ans

✘ 1. 5 and 2

✘ 2. 6 and 1

✘ 3. 4 and 2

✔ 4. 5 and 1

Question Type : **MCQ**
Question ID : **37135113569**
Option 1 ID : **37135154275**
Option 2 ID : **37135154273**
Option 3 ID : **37135154274**
Option 4 ID : **37135154276**
Status : **Answered**
Chosen Option : **3**

Q.21 An element crystallises with bcc structure with atomic radius 17·32 nm. What is the edge length of unit cell ?

Ans

✗ 1. 29 nm

✗ 2. 33 nm

✗ 3. 64 nm

✓ 4. 40 nm

Question Type : **MCQ**
Question ID : **37135113572**
Option 1 ID : **37135154285**
Option 2 ID : **37135154286**
Option 3 ID : **37135154288**
Option 4 ID : **37135154287**
Status : **Answered**
Chosen Option : **3**

Q.22 What is freezing point of a solution containing 1·8 g glucose dissolved in 1000 g of water (K_f of water = 1·86 K Kg mol^{-1} and at. mass C=12, H=1, O=16)

Ans

✗ 1. $0{\cdot}0186^{\circ}C$

✗ 2. $-0{\cdot}0093^{\circ}C$

✓ 3. $-0{\cdot}0186^{\circ}C$

✗ 4. $-0{\cdot}0372^{\circ}C$

Question Type : **MCQ**
Question ID : **37135113589**
Option 1 ID : **37135154354**
Option 2 ID : **37135154355**
Option 3 ID : **37135154353**
Option 4 ID : **37135154356**
Status : **Answered**
Chosen Option : **2**

Q.23 Which type of overlap is involved in formation of C–H bond in ethene molecule ?

Ans

✗ 1. $sp^2 - p$

✗ 2. $sp - s$

✗ 3. $sp^3 - s$

✓ 4. $sp^2 - s$

Question Type : **MCQ**
Question ID : **37135113554**
Option 1 ID : **37135154216**
Option 2 ID : **37135154215**
Option 3 ID : **37135154213**
Option 4 ID : **37135154214**
Status : **Answered**
Chosen Option : **1**

Q.24 Which of the following aromatic acids has less acidic strength than benzoic acid ?

Ans

✗ 1. o – nitrobenzoic acid

✓ 2. p – methoxy benzoic acid

✗ 3. m – nitrobenzoic acid

✗ 4. o – chloro benzoic acid

Question Type : **MCQ**
Question ID : **37135113585**
Option 1 ID : **37135154338**
Option 2 ID : **37135154337**
Option 3 ID : **37135154340**
Option 4 ID : **37135154339**
Status : **Answered**
Chosen Option : **2**

Q.25 $6{\cdot}022 \times 10^{21}$ molecules of glucose are present in 100 mL of it's aqueous solution, what is the concentration of this solution ?

Ans

✗ 1. $1{\cdot}0\ M$

✓ 2. $0{\cdot}1\ M$

✗ 3. $0{\cdot}001\ M$

✗ 4. $0{\cdot}01\ M$

Question Type : **MCQ**
Question ID : **37135113599**
Option 1 ID : **37135154396**
Option 2 ID : **37135154395**
Option 3 ID : **37135154393**
Option 4 ID : **37135154394**
Status : **Answered**
Chosen Option : **3**

Q.26 When will be the reaction becomes spontaneous at all temperatures ?

Ans

✓ 1. $\Delta H = -ve\ ,\quad \Delta S = +ve,\quad \Delta G = -ve$

✗ 2. $\Delta H = +ve \text{ or } -ve,\quad \Delta S = 0,\quad \Delta G = 0$

✗ 3. $\Delta H = -ve\ ,\quad \Delta S = -ve,\quad \Delta G = -ve \text{ or } +ve$

✗ 4. $\Delta H = +ve\ ,\quad \Delta S = -ve,\quad \Delta G = +ve$

Question Type : **MCQ**
Question ID : **37135113584**
Option 1 ID : **37135154336**
Option 2 ID : **37135154333**
Option 3 ID : **37135154335**
Option 4 ID : **37135154334**
Status : **Answered**
Chosen Option : **4**

Q.27 Resistance of 0·1 M KCl solution in a conductivity cell is 300 ohm and conductivity is 0·013 S cm^{-1}. What is cell constant ?

Ans

✗ 1. $4{\cdot}5\ cm^{-1}$

✗ 2. $3{\cdot}0\ cm^{-1}$

✗ 3. $1{\cdot}5\ cm^{-1}$

✓ 4. $3{\cdot}9\ cm^{-1}$

Question Type : **MCQ**
Question ID : **37135113597**
Option 1 ID : **37135154388**
Option 2 ID : **37135154386**
Option 3 ID : **37135154385**
Option 4 ID : **37135154387**
Status : **Answered**
Chosen Option : **2**

Q.28 In the laboratory hydrogen chloride is prepared by heating

Ans

✓ 1.
sodium chloride and concentrated sulphuric acid

✗ 2.
bleaching powder and concentrated sulphuric acid

✗ 3.
potassium chlorate and concentrated sulphuric acid

✗ 4.
bleaching powder and ammonia solution

Question Type : **MCQ**
Question ID : **37135113596**
Option 1 ID : **37135154382**
Option 2 ID : **37135154383**
Option 3 ID : **37135154381**
Option 4 ID : **37135154384**
Status : **Answered**
Chosen Option : **2**

Q.29 What is the site of action of antihistamine ?

Ans

1. Small intestine
2. Stomach wall
3. Liver
4. Large intestine

Question Type : **MCQ**
Question ID : **37135113586**
Option 1 ID : **37135154342**
Option 2 ID : **37135154343**
Option 3 ID : **37135154341**
Option 4 ID : **37135154344**
Status : **Answered**
Chosen Option : **3**

Q.30 What is the mass of solute (molar mass 39) in 156 g of benzene, if mole fraction of solute in benzene is 0·2 ? (at.wt C=12, H=1)

Ans

1. 15·8 g
2. 19·5 g
3. 22·4 g
4. 10 g

Question Type : **MCQ**
Question ID : **37135113558**
Option 1 ID : **37135154230**
Option 2 ID : **37135154231**
Option 3 ID : **37135154232**
Option 4 ID : **37135154229**
Status : **Answered**
Chosen Option : **3**

Q.31 A sample of gas absorbs 4000kJ of heat and surrounding does 2000 J of work on sample, what is the value of ΔU ?

Ans

✗ 1. 4000 kJ

✗ 2. 2000 kJ

✓ 3. 4002 kJ

✗ 4. 6000 kJ

Question Type : **MCQ**
Question ID : **37135113581**
Option 1 ID : **37135154322**
Option 2 ID : **37135154321**
Option 3 ID : **37135154323**
Option 4 ID : **37135154324**
Status : **Answered**
Chosen Option : **4**

Q.32 Hydroxide of which alkali metal is used in manufacture of soft soap ?

Ans

✗ 1. Lithium

✗ 2. Caesium

✓ 3. Potassium

✗ 4. Sodium

Question Type : **MCQ**
Question ID : **37135113551**
Option 1 ID : **37135154203**
Option 2 ID : **37135154204**
Option 3 ID : **37135154201**
Option 4 ID : **37135154202**
Status : **Answered**
Chosen Option : **2**

Q.33 Which of the following is NOT an electrophile ?

Ans

✗ 1. H^+

✗ 2. $AlCl_3$

✗ 3. NO_2^+

✔ 4. K^+

Question Type : **MCQ**
Question ID : **37135113562**
Option 1 ID : **37135154246**
Option 2 ID : **37135154248**
Option 3 ID : **37135154247**
Option 4 ID : **37135154245**
Status : **Answered**
Chosen Option : **2**

Q.34 What is the colour of solution obtained when 2– Nitropropane react with nitrous acid ?

Ans

✗ 1. yellow

✗ 2. red

✔ 3. blue

✗ 4. green

Question Type : **MCQ**
Question ID : **37135113594**
Option 1 ID : **37135154376**
Option 2 ID : **37135154373**
Option 3 ID : **37135154374**
Option 4 ID : **37135154375**
Status : **Answered**
Chosen Option : **3**

Q.35 Which of the following compounds is NOT isomeric with ethoxy ethane ?

Ans

✗ 1. 1– Methoxy propane

✓ 2. 2– Methyl butan – 2–ol

✗ 3. 2– Methoxy propane

✗ 4. 2– Methyl propan – 2–ol

Question Type : **MCQ**
Question ID : **37135113555**
Option 1 ID : **37135154217**
Option 2 ID : **37135154220**
Option 3 ID : **37135154218**
Option 4 ID : **37135154219**
Status : **Answered**
Chosen Option : **3**

Q.36 Identify major product 'B' in following reaction ?

$$\text{But–2–ene} \xrightarrow[\text{Peroxide}]{\text{HBr}} \text{A} \xrightarrow[\Delta]{\text{AgCN}} \text{B}$$

Ans

✓ 1. n–butyl isocyanide

✗ 2. n– butyl cyanide

✗ 3. sec. butyl isocyanide

✗ 4. isobutyl cyanide

Question Type : **MCQ**
Question ID : **37135113574**
Option 1 ID : **37135154293**
Option 2 ID : **37135154294**
Option 3 ID : **37135154296**
Option 4 ID : **37135154295**
Status : **Answered**
Chosen Option : **4**

Q.37 The edge length of bcc type of unit cell of metal is 5 A°. What is the radius of metal atom if it's density is 2 g/cc ?

Ans

✗ 1. 176·8 pm

✗ 2. 232·5 pm

✓ 3. 216·5 pm

✗ 4. 246·5 pm

Question Type : **MCQ**
Question ID : **37135113564**
Option 1 ID : **37135154253**
Option 2 ID : **37135154255**
Option 3 ID : **37135154254**
Option 4 ID : **37135154256**
Status : **Answered**
Chosen Option : **2**

Q.38 Which among the following compounds is used as catalyst in Rasching method for preparation of phenol ?

Ans

✗ 1. Calcium Sulphate

✓ 2. Calcium phosphate

✗ 3. Calcium chloride

✗ 4. Calcium carbonate

Question Type : **MCQ**
Question ID : **37135113583**
Option 1 ID : **37135154332**
Option 2 ID : **37135154331**
Option 3 ID : **37135154329**
Option 4 ID : **37135154330**
Status : **Answered**
Chosen Option : **4**

Q.39 Mg_3N_2 reacts with water to produce

Ans

✔ 1. $Mg(OH)_2$ and NH_3

✘ 2. $Mg(OH)_2$ and N_2O

✘ 3. $MgO + NH_3$

✘ 4. $MgO + NH_4OH$

Question Type : **MCQ**
Question ID : **37135113587**
Option 1 ID : **37135154345**
Option 2 ID : **37135154346**
Option 3 ID : **37135154348**
Option 4 ID : **37135154347**
Status : **Answered**
Chosen Option : **2**

Q.40 The time required to decompose SO_2Cl_2 to half of it's initial amount is 60 minutes. Calculate rate constant for this first order reaction ?

Ans

✘ 1. $1{\cdot}551 \times 10^{-2}\ min^{-1}$

✘ 2. $4{\cdot}158 \times 10^{-2}\ min^{-1}$

✔ 3. $1{\cdot}155 \times 10^{-2}\ min^{-1}$

✘ 4. $2{\cdot}651 \times 10^{-2}\ min^{-1}$

Question Type : **MCQ**
Question ID : **37135113582**
Option 1 ID : **37135154328**
Option 2 ID : **37135154326**
Option 3 ID : **37135154325**
Option 4 ID : **37135154327**
Status : **Answered**
Chosen Option : **2**

Q.41 Identify reducing agent in following reaction ?

$$CH_{4(g)} + O_{2(g)} \longrightarrow CO_{2(g)} + 2H_2O_{(\ell)}$$

Ans

✗ 1. $O_{2(g)}$

✗ 2. $H_2O_{(\ell)}$

✓ 3. $CH_{4(g)}$

✗ 4. $CO_{2(g)}$

Question Type : **MCQ**
Question ID : **37135113595**
Option 1 ID : **37135154378**
Option 2 ID : **37135154380**
Option 3 ID : **37135154377**
Option 4 ID : **37135154379**
Status : **Answered**
Chosen Option : **4**

Q.42 Which of the following compounds is NOT a carbonyl compound ?

Ans

✗ 1. Propanamide

✓ 2. Ethoxy ethane

✗ 3. Acetamide

✗ 4. Acetyl chloride

Question Type : **MCQ**
Question ID : **37135113570**
Option 1 ID : **37135154280**
Option 2 ID : **37135154279**
Option 3 ID : **37135154278**
Option 4 ID : **37135154277**
Status : **Answered**
Chosen Option : **1**

Q.43 Which among the following statements is true for amylose ?

Ans

✗ 1. Glucopyranose are linked by 1 ⟶ 4 β glycosidic bonds.

✗ 2. It has branching to large extent

✗ 3. It constitute about 80 % starch

✓ 4. It is water soluble

Question Type : **MCQ**
Question ID : **37135113559**
Option 1 ID : **37135154235**
Option 2 ID : **37135154236**
Option 3 ID : **37135154233**
Option 4 ID : **37135154234**
Status : **Answered**
Chosen Option : **3**

Q.44 Which among the following alkyl halids is optically active ?

Ans

✗ 1. isobutyl chloride

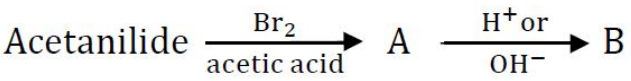
✗ 2. tert. butyl bromide

✓ 3. sec. butyl iodide

✗ 4. n butyl bromide

Question Type : **MCQ**
Question ID : **37135113577**
Option 1 ID : **37135154307**
Option 2 ID : **37135154308**
Option 3 ID : **37135154306**
Option 4 ID : **37135154305**
Status : **Answered**
Chosen Option : **3**

Q.45 Identify 'A' and 'B' in following reaction respectively



Ans

✗ 1.
4–bromoaniline and 4–Bromoacetanilide

✓ 2.
p–Bromoacetanilide and p–Bromoaniline

✗ 3.
Aniline and p–Bromoacetanilide

✗ 4. Aniline and p–Bromoaniline

Question Type : **MCQ**
Question ID : **37135113566**
Option 1 ID : **37135154264**
Option 2 ID : **37135154263**
Option 3 ID : **37135154261**
Option 4 ID : **37135154262**
Status : **Answered**
Chosen Option : **2**

Q.46 What is the temperature needed for decomposition of lime stone in blast furnace for extraction of iron ?

Ans

✗ 1. 1500 K

✗ 2. 2000 K

✓ 3. 1200 K

✗ 4. 500 K

Question Type : **MCQ**
Question ID : **37135113553**
Option 1 ID : **37135154211**
Option 2 ID : **37135154212**
Option 3 ID : **37135154209**
Option 4 ID : **37135154210**
Status : **Answered**
Chosen Option : **2**

Q.47 The rate constant for the first order reaction is $1{\cdot}15 \times 10^{-3}\ s^{-1}$. How long will 5 g of the reactant take to reduce to 3 g ?

Ans

✗ 1. 424 sec

✗ 2. 414 sec

✗ 3. 434 sec

✓ 4. 444 sec

Question Type : **MCQ**
Question ID : **37135113567**
Option 1 ID : **37135154266**
Option 2 ID : **37135154265**
Option 3 ID : **37135154267**
Option 4 ID : **37135154268**
Status : **Answered**
Chosen Option : **3**

Q.48 Which of the following compounds is used to prepare orlon ?

Ans

✗ 1. $CH_2 = C(CH_3)_2$

✗ 2. $HOOC\text{–}(CH_2)_4 - COOH$

✓ 3. $CH_2 = CH\text{–}CN$

✗ 4. $H_2C = CH\text{–}CH = CH_2$

Question Type : **MCQ**
Question ID : **37135113580**
Option 1 ID : **37135154319**
Option 2 ID : **37135154320**
Option 3 ID : **37135154317**
Option 4 ID : **37135154318**
Status : **Answered**
Chosen Option : **2**

Q.49 The common name of 1–bromo –3, 3–dimethyl butane is

Ans

✗ 1. tert–pentyl bromide

✗ 2. isobutyl bromide

✓ 3. neo hexyl bromide

✗ 4. n–hexyl bromide

Question Type : **MCQ**
Question ID : **37135113573**
Option 1 ID : **37135154291**
Option 2 ID : **37135154289**
Option 3 ID : **37135154292**
Option 4 ID : **37135154290**
Status : **Answered**
Chosen Option : **2**

Q.50 Identify the formula of lanthanoid oxide formed when lanthanoid (Ln) is burnt in oxygen

Ans

✗ 1. LnO

✓ 2. Ln_2O_3

✗ 3. Ln_2O

✗ 4. LnO_2

Question Type : **MCQ**
Question ID : **37135113590**
Option 1 ID : **37135154359**
Option 2 ID : **37135154360**
Option 3 ID : **37135154357**
Option 4 ID : **37135154358**
Status : **Answered**
Chosen Option : **4**

Section : **Biology**

Q.1 Which one of the following groups of drugs is called cannabinoids?

Ans

✔ 1. Marijuana, hashish, charas

✘ 2. Morphine, heroin, LSD

✘ 3. Heroin, hashish, cocaine

✘ 4. Barbiturates, amphetamines, benzodiazepines

Question Type : **MCQ**
Question ID : **37135113692**
Option 1 ID : **37135154768**
Option 2 ID : **37135154767**
Option 3 ID : **37135154765**
Option 4 ID : **37135154766**
Status : **Answered**
Chosen Option : **4**

Q.2 Which one of the following plants does NOT propagate by epiphyllous buds?

Ans

✔ 1. *Oxalis*

✘ 2. *Kalanchoe*

✘ 3. *Bryophyllum*

✘ 4. *Begonia*

Question Type : **MCQ**
Question ID : **37135113623**
Option 1 ID : **37135154491**
Option 2 ID : **37135154492**
Option 3 ID : **37135154489**
Option 4 ID : **37135154490**
Status : **Answered**
Chosen Option : **3**

Q.3 Mendel collected 1064 seeds from a cross between tall and dwarf garden pea plants. From this 787 grew tall and 277 grew dwarf. This represents _____cross.

Ans

✗ 1. dihybrid

✗ 2. trihybrid

✗ 3. test

✓ 4. monohybrid

Question Type :	**MCQ**
Question ID :	**37135113631**
Option 1 ID :	**37135154522**
Option 2 ID :	**37135154523**
Option 3 ID :	**37135154524**
Option 4 ID :	**37135154521**
Status :	**Answered**
Chosen Option :	**1**

Q.4 Deficiency of which of the following hormones leads to infertility in male and female human beings?

Ans

✗ 1. LTH

✓ 2. FSH

✗ 3. ACTH

✗ 4. TSH

Question Type : **MCQ**
Question ID : **37135113673**
Option 1 ID : **37135154692**
Option 2 ID : **37135154689**
Option 3 ID : **37135154691**
Option 4 ID : **37135154690**
Status : **Answered**
Chosen Option : **2**

Q.5 Which of the following statements is CORRECT?

Ans

✗ 1.

Louis Pasteur proved the theory of spontaneous generation.

✗ 2.

Theory of abiogenesis is the oldest theory.

✓ 3.

Theory of biogenesis satisfactorily explains the continuity of life.

✗ 4.

Panspermia theory is also called autobiogenesis.

Question Type : **MCQ**
Question ID : **37135113698**
Option 1 ID : **37135154791**
Option 2 ID : **37135154789**
Option 3 ID : **37135154792**
Option 4 ID : **37135154790**
Status : **Answered**
Chosen Option : **3**

Q.6 Formation of prothrombinase is initiated by _____.

Ans

✗ 1.

prothrombin

✓ 2.

thromboplastin

✗ 3.

fibrinogen

✗ 4.

heparin

Question Type : **MCQ**
Question ID : **37135113652**
Option 1 ID : **37135154606**
Option 2 ID : **37135154608**
Option 3 ID : **37135154605**
Option 4 ID : **37135154607**
Status : **Answered**
Chosen Option : **1**

Q.7 Which of the following reactions cause the conversion of pyruvate into acetyl Co-A?

Ans ✔ 1.

Oxidative decarboxylation

✘ 2.

Oxidative dephosphorylation

✘ 3.

Oxidative phosphorylation

✘ 4.

Oxidative dehydration

Question Type : **MCQ**
Question ID : **37135113610**
Option 1 ID : **37135154437**
Option 2 ID : **37135154440**
Option 3 ID : **37135154439**
Option 4 ID : **37135154438**
Status : **Answered**
Chosen Option : **3**

Q.8 During replication, the bacteriophage attaches to _____ of bacterial cell.

Ans

✗ 1. flagellum

✓ 2. receptors on cell wall

✗ 3. genetic material

✗ 4. plasmid

Question Type : **MCQ**
Question ID : **37135113625**
Option 1 ID : **37135154499**
Option 2 ID : **37135154500**
Option 3 ID : **37135154497**
Option 4 ID : **37135154498**
Status : **Answered**
Chosen Option : **4**

Q.9

Which of the following tissues originate from all the three germ layers?

Ans

1. Muscular

2. Epithelial

3. Nervous

4. Connective

Question Type : **MCQ**
Question ID : **37135113676**
Option 1 ID : **37135154702**
Option 2 ID : **37135154703**
Option 3 ID : **37135154704**
Option 4 ID : **37135154701**
Status : **Answered**
Chosen Option : **2**

Q.10 The acid which gets accumulated during night in CAM plants is _____.

Ans

1. PEPA

2. oxaloacetic

3. pyruvic

4. malic

Question Type : **MCQ**
Question ID : **37135113607**
Option 1 ID : **37135154426**
Option 2 ID : **37135154425**
Option 3 ID : **37135154428**
Option 4 ID : **37135154427**
Status : **Answered**
Chosen Option : **3**

Q.11 In a fully turgid cell, the wall pressure is _____.

Ans

✗ 1. inversely proportional to TP

✗ 2. less than TP

✓ 3. equal to TP

✗ 4. greater than TP

Question Type : **MCQ**
Question ID : **37135113632**
Option 1 ID : **37135154528**
Option 2 ID : **37135154526**
Option 3 ID : **37135154527**
Option 4 ID : **37135154525**
Status : **Answered**
Chosen Option : **4**

Q.12 Tehri dam project is located in _____.

Ans

1. Kerala

2. Madhya Pradesh

3. Uttar Pradesh

4. Maharashtra

Question Type : **MCQ**
Question ID : **37135113671**
Option 1 ID : **37135154684**
Option 2 ID : **37135154681**
Option 3 ID : **37135154683**
Option 4 ID : **37135154682**
Status : **Answered**
Chosen Option : **3**

Q.13 Which one of the following organism brings about the fermentation of gram flour in the dhokla dough?

Ans

✗ 1. *Streptomyces erythreus*

✗ 2. *Saccharomyces cerevisiae*

✗ 3. *Rhizopus arrhizus*

✓ 4. *Lactobacillus*

Question Type : **MCQ**
Question ID : **37135113649**
Option 1 ID : **37135154596**
Option 2 ID : **37135154593**
Option 3 ID : **37135154595**
Option 4 ID : **37135154594**
Status : **Answered**
Chosen Option : **4**

Q.14 The differences between parents and offspring, among offsprings of the same parents and individuals of the same species are called_____.

Ans

✗ 1. heredity

✗ 2. allelism

✓ 3. variations

✗ 4. homology

Question Type : **MCQ**
Question ID : **37135113642**
Option 1 ID : **37135154565**
Option 2 ID : **37135154568**
Option 3 ID : **37135154566**
Option 4 ID : **37135154567**
Status : **Answered**
Chosen Option : **3**

Q.15

Degradation of haemoglobin occurs in the _____.

Ans

1. liver

2. heart

3. bone marrow

4. kidney

Question Type : **MCQ**
Question ID : **37135113677**
Option 1 ID : **37135154706**
Option 2 ID : **37135154707**
Option 3 ID : **37135154708**
Option 4 ID : **37135154705**
Status : **Answered**
Chosen Option : **3**

Q.16 The correct sequence of developmental stages of embryo in angiosperms is _____.

Ans

✔ 1. octant⟶globular⟶heart shaped⟶horse shoe shaped

✘ 2. globular⟶octant⟶heart shaped⟶horse shoe shaped

✘ 3. octant⟶heart shaped⟶horse shoe shaped⟶globular

✘ 4. octant⟶horse shoe shaped⟶heart shaped⟶globular

Question Type : **MCQ**
Question ID : **37135113611**
Option 1 ID : **37135154441**
Option 2 ID : **37135154442**
Option 3 ID : **37135154443**
Option 4 ID : **37135154444**
Status : **Answered**
Chosen Option : **3**

Q.17 Plants bearing small, inconspicuous flowers lacking fragrance, nectar and producing large number of smooth walled pollen grains, is characterstic of _____.

Ans

✘ 1. chiropterophily

✘ 2. entomophily

✔ 3. anemophily

✘ 4. ornithophily

Question Type : **MCQ**
Question ID : **37135113616**
Option 1 ID : **37135154464**
Option 2 ID : **37135154462**
Option 3 ID : **37135154463**
Option 4 ID : **37135154461**
Status : **Answered**
Chosen Option : **2**

Q.18

Which one of the following is a tetrose sugar?

Ans

1. Ribose

2. Glyceraldehyde

3. Glucose

4. Erythrose

Question Type : **MCQ**
Question ID : **37135113638**
Option 1 ID : **37135154550**
Option 2 ID : **37135154552**
Option 3 ID : **37135154551**
Option 4 ID : **37135154549**
Status : **Answered**
Chosen Option : **1**

Q.19 The pCO_2 of alveolar blood is _____ mmHg.

Ans

✗ 1. 30

✗ 2. 104

✓ 3. 45

✗ 4. 90

Question Type : **MCQ**
Question ID : **37135113693**
Option 1 ID : **37135154769**
Option 2 ID : **37135154772**
Option 3 ID : **37135154770**
Option 4 ID : **37135154771**
Status : **Answered**
Chosen Option : **2**

Q.20 A person has lost his memory in an accident. The part of brain most likely to be injured is _____.

Ans

✗ 1. Rhombencephalon

✗ 2. Rhinencephalon

✓ 3. Telencephalon

✗ 4. Mesencephalon

Question Type : **MCQ**
Question ID : **37135113679**
Option 1 ID : **37135154716**
Option 2 ID : **37135154713**
Option 3 ID : **37135154714**
Option 4 ID : **37135154715**
Status : **Answered**
Chosen Option : **2**

Q.21 Which one of the following genotype will show darkest kernel in wheat?

Ans

1. AAbb

2. AABb

3. AABB

4. AaBb

Question Type : **MCQ**
Question ID : **37135113624**
Option 1 ID : **37135154495**
Option 2 ID : **37135154494**
Option 3 ID : **37135154493**
Option 4 ID : **37135154496**
Status : **Answered**
Chosen Option : **4**

Q.22 In anaerobic respiration, from one glucose molecule at how many steps ATP formation takes place?

Ans

1. Two steps

2. Four steps

3. Single step

4. Three steps

Question Type : **MCQ**
Question ID : **37135113617**
Option 1 ID : **37135154466**
Option 2 ID : **37135154468**
Option 3 ID : **37135154465**
Option 4 ID : **37135154467**
Status : **Answered**
Chosen Option : **1**

Q.23 In complete photorespiration process, the cell organelles involved are _____.

Ans

✗ 1.

chloroplast, mitochondria

✗ 2.

chloroplast, peroxisome

✗ 3.

ribosome, peroxisome, mitochondria

✓ 4.

chloroplast, peroxisome, mitochondria

Question Type : **MCQ**
Question ID : **37135113612**
Option 1 ID : **37135154445**
Option 2 ID : **37135154446**
Option 3 ID : **37135154448**
Option 4 ID : **37135154447**
Status : **Answered**
Chosen Option : **4**

Q.24 Multicellular heterotrophs are placed in how many kingdoms by R. H. Whittaker?

Ans

✗ 1.

4

✗ 2.

3

✗ 3.

1

✓ 4.

2

Question Type :	**MCQ**
Question ID :	**37135113645**
Option 1 ID :	**37135154580**
Option 2 ID :	**37135154579**
Option 3 ID :	**37135154577**
Option 4 ID :	**37135154578**
Status :	**Answered**
Chosen Option :	**2**

Q.25 Tissue injury causing redness, swelling, pain and production of heat and fever are localized manifestations of _____ response.

Ans

✗ 1. physiological

✗ 2. anatomical

✓ 3. inflammatory

✗ 4. cellular

Question Type : **MCQ**
Question ID : **37135113687**
Option 1 ID : **37135154748**
Option 2 ID : **37135154745**
Option 3 ID : **37135154747**
Option 4 ID : **37135154746**
Status : **Answered**
Chosen Option : **1**

Q.26

Malleus bone of ear is attached to _____.

Ans

1. tympanic membrane

2. membranous labyrinth

3. oval window of internal ear

4. Eustachian tube

Question Type :	**MCQ**
Question ID :	**37135113666**
Option 1 ID :	**37135154663**
Option 2 ID :	**37135154664**
Option 3 ID :	**37135154661**
Option 4 ID :	**37135154662**
Status :	**Answered**
Chosen Option :	**3**

Q.27 Which one of the following food chain starts with dead decaying organic matter?

Ans ✗ 1.

Aquatic

✗ 2. Desert

✗ 3. Grazing

✓ 4. Detritus

Question Type : **MCQ**
Question ID : **37135113635**
Option 1 ID : **37135154537**
Option 2 ID : **37135154538**
Option 3 ID : **37135154540**
Option 4 ID : **37135154539**
Status : **Answered**
Chosen Option : **1**

Q.28 The bundle of nerve fibres is covered by__A__ and several bundles are covered by__B__

to form the nerve.

Ans ✗ 1.

A – endoneurium B - perineurium

✓ 2.

A – perineurium, B - epineurium

✗ 3.

A – endoneurium, B - epineurium

✗ 4.

A – epineurium, B - perineurium

Question Type : **MCQ**
Question ID : **37135113696**
Option 1 ID : **37135154783**
Option 2 ID : **37135154782**
Option 3 ID : **37135154784**
Option 4 ID : **37135154781**
Status : **Answered**
Chosen Option : **2**

Q.29 Select the CORRECT match of cell organelle and its function.

Ans

✗ 1.

Leucoplast – site for photosynthesis

✗ 2.

Smooth endoplasmic reticulum – extracellular digestion

✗ 3.

Sphaerosome – storage and synthesis of proteins

✓ 4.

Vacuole – osmoregulation and excretion

Question Type : **MCQ**
Question ID : **37135113678**
Option 1 ID : **37135154712**
Option 2 ID : **37135154711**
Option 3 ID : **37135154710**
Option 4 ID : **37135154709**
Status : **Answered**
Chosen Option : **4**

Q.30 The hormone NOT secreted by pars distalis of pituitary gland is _____.

Ans

✔ 1. vasopressin

✗ 2. somatotropin

✗ 3. prolactin

✗ 4. corticotropin

Question Type : **MCQ**
Question ID : **37135113653**
Option 1 ID : **37135154611**
Option 2 ID : **37135154609**
Option 3 ID : **37135154612**
Option 4 ID : **37135154610**
Status : **Answered**
Chosen Option : **4**

Q.31 Which one of the following pair does NOT show commensalism?

Ans

✗ 1.

Sea-anemones - crab

✗ 2.

Shark – Remora fish

✗ 3.

Barnacles -whale

✓ 4.

Cow-bacteria

Question Type : **MCQ**
Question ID : **37135113665**
Option 1 ID : **37135154659**
Option 2 ID : **37135154660**
Option 3 ID : **37135154658**
Option 4 ID : **37135154657**
Status : **Answered**
Chosen Option : **4**

Q.32 One of the following is an example of complete sex linkage.

Ans

✗ 1.

Total colour blindness

✗ 2.

Retinitis pigmentosa

✓ 3. Myopia

✗ 4. Nephritis

Question Type : **MCQ**
Question ID : **37135113674**
Option 1 ID : **37135154693**
Option 2 ID : **37135154694**
Option 3 ID : **37135154695**
Option 4 ID : **37135154696**
Status : **Answered**
Chosen Option : **2**

Q.33

On land, plants get carbon from_____.

Ans

✗ 1.

carbonate rocks in the surroundings

✗ 2.

supplements added to the soil

✗ 3.

the CO_2 dissolved in soil water

✓ 4.

fixation of atmospheric CO_2 during photosynthesis

Question Type : **MCQ**
Question ID : **37135113629**
Option 1 ID : **37135154514**
Option 2 ID : **37135154516**
Option 3 ID : **37135154513**
Option 4 ID : **37135154515**
Status : **Answered**
Chosen Option : **4**

Q.34 Which one of the following characteristics is common between DNA and RNA?

Ans

✗ 1. Pentose sugar

✓ 2. Purines

✗ 3. Non-genetic

✗ 4. Pyrimidines

Question Type : **MCQ**
Question ID : **37135113613**
Option 1 ID : **37135154449**
Option 2 ID : **37135154450**
Option 3 ID : **37135154451**
Option 4 ID : **37135154452**
Status : **Answered**
Chosen Option : **3**

Q.35 Methane, ammonia and hydrogen were respectively mixed in the ratio of _____ in Urey and Miller's experiment.

Ans

✗ 1. 2 : 1 : 2

✗ 2. 2 : 2 : 1

✗ 3. 1 : 2 : 1

✓ 4. 1 : 2 : 2

Question Type : **MCQ**
Question ID : **37135113680**
Option 1 ID : **37135154718**
Option 2 ID : **37135154719**
Option 3 ID : **37135154720**
Option 4 ID : **37135154717**
Status : **Answered**
Chosen Option : **3**

Q.36 In human beings, during oogenesis, Meiosis-I results into _____.

Ans

✓ 1. a haploid large-sized secondary oocyte and a haploid smaller polar body

✗ 2. a haploid large-sized primary oocyte and a haploid smaller polar body.

✗ 3. a diploid large-sized primary oocyte and a haploid small-sized polar body

✗ 4. a haploid large-sized secondary oocyte and a diploid smaller polar body

Question Type : **MCQ**
Question ID : **37135113672**
Option 1 ID : **37135154687**
Option 2 ID : **37135154685**
Option 3 ID : **37135154688**
Option 4 ID : **37135154686**
Status : **Answered**
Chosen Option : **3**

Q.37 Which of the following does NOT take place during inspiration?

Ans

✗ 1.

Intercostal muscles contract

✓ 2.

Muscles of diaphragm relax

✗ 3.

Ribs are pulled outward

✗ 4.

Volume of thoracic cavity increases

Question Type : **MCQ**
Question ID : **37135113668**
Option 1 ID : **37135154670**
Option 2 ID : **37135154671**
Option 3 ID : **37135154669**
Option 4 ID : **37135154672**
Status : **Answered**
Chosen Option : **4**

Q.38 What is ‘after birth’?

Ans ✗ 1.

Changes taking place in the reproductive system of mother after the delivery.

✗ 2.

Changes taking place in the ovary of female baby.

✗ 3.

Excessive bleeding taking place from mother’s womb after the parturition.

✓ 4.

A collective mass of placenta, umbilical cord and foetal membranes.

Question Type : **MCQ**
Question ID : **37135113691**
Option 1 ID : **37135154762**
Option 2 ID : **37135154761**
Option 3 ID : **37135154764**
Option 4 ID : **37135154763**
Status : **Answered**
Chosen Option : **3**

Q.39 Study the Column-I, II and III select the CORRECT option by referring given code.

I	II	III
Neutrophils	**a**	phagocytic
Eosinophils	3%	**b**
c	25-33%	synthesis of antibodies
Basophils	0-5%	**d**

a b c d

Ans

✔ 1.

54-62% Secrete antihistamine Lymphocytes Secrete heparin

✘ 2.

30-38% Phagocytic Platelets Non-phagocytic

✘ 3.

20-25% Non-phagocytic Erythrocytes Non-phagocytic

✘ 4.

43-49% Secrete histamine Monocytes Phagocytic

Question Type : **MCQ**
Question ID : **37135113690**
Option 1 ID : **37135154757**
Option 2 ID : **37135154759**
Option 3 ID : **37135154760**
Option 4 ID : **37135154758**
Status : **Answered**
Chosen Option : **3**

Q.40 The best method to expose lethal genes is _____.

Ans

✗ 1.

outcrossing

✗ 2.

inducing mutation

✓ 3.

inbreeding

✗ 4.

inducing heterozygosity

Question Type : **MCQ**
Question ID : **37135113656**
Option 1 ID : **37135154621**
Option 2 ID : **37135154623**
Option 3 ID : **37135154622**
Option 4 ID : **37135154624**
Status : **Answered**
Chosen Option : **1**

Q.41 The facultative absorption of water in the DCT and collecting duct takes place due to the secretion of _____.

Ans

✗ 1. TCT

✗ 2. ACTH

✗ 3. PTH

✓ 4. ADH

Question Type : **MCQ**
Question ID : **37135113686**
Option 1 ID : **37135154744**
Option 2 ID : **37135154741**
Option 3 ID : **37135154742**
Option 4 ID : **37135154743**
Status : **Answered**
Chosen Option : **4**

Q.42 In biogas plant, the organic acids like acetic acid is converted to biogas by the enzymes of _____.

Ans

✔ 1. *Methanococcus* and *Methanobacillus*

✗ 2. *Clostridium* and *Pseudomonas*

✗ 3. *Azotobacter* and *Azospirillum*

✗ 4. *Bacillus subtilis*

Question Type : **MCQ**
Question ID : **37135113602**
Option 1 ID : **37135154405**
Option 2 ID : **37135154406**
Option 3 ID : **37135154408**
Option 4 ID : **37135154407**
Status : **Answered**
Chosen Option : **1**

Q.43 Vernalization increases the resistance of plants for diseases caused by _____.

Ans

✗ 1. Bacteria

✗ 2. Viroids

✗ 3. Viruses

✓ 4. Fungi

Question Type : **MCQ**
Question ID : **37135113626**
Option 1 ID : **37135154501**
Option 2 ID : **37135154504**
Option 3 ID : **37135154503**
Option 4 ID : **37135154502**
Status : **Answered**
Chosen Option : **3**

Q.44 Which one of the following is the functional unit of nature?

Ans

1. Ecosystem

2. Food chain

3. Ecology

4. Food web

Question Type : **MCQ**
Question ID : **37135113648**
Option 1 ID : **37135154590**
Option 2 ID : **37135154591**
Option 3 ID : **37135154589**
Option 4 ID : **37135154592**
Status : **Answered**
Chosen Option : **3**

Q.45 Number of turns of Calvin cycle required for synthesis of one glucose molecule is _____.

Ans

✗ 1. one

✗ 2. four

✗ 3. two

✓ 4. six

Question Type :	**MCQ**
Question ID :	**37135113620**
Option 1 ID :	**37135154477**
Option 2 ID :	**37135154479**
Option 3 ID :	**37135154478**
Option 4 ID :	**37135154480**
Status :	**Answered**
Chosen Option :	**2**

Q.46

Number of linkage groups in honey bees is _____.

Ans

1. 8

2. 32

3. 24

4. 16

Question Type : **MCQ**
Question ID : **37135113669**
Option 1 ID : **37135154673**
Option 2 ID : **37135154676**
Option 3 ID : **37135154675**
Option 4 ID : **37135154674**
Status : **Answered**
Chosen Option : **2**

Q.47 Genetic markers of DNA fingerprinting technique are _____.

Ans

✗ 1.

RFLP

✗ 2.

TGF-B

✗ 3. TPA

✓ 4.

VNTRs

Question Type : **MCQ**
Question ID : **37135113697**
Option 1 ID : **37135154786**
Option 2 ID : **37135154788**
Option 3 ID : **37135154787**
Option 4 ID : **37135154785**
Status : **Answered**
Chosen Option : **4**

Q.48 Mycorrhiza shows symbiotic association between_____.

Ans

✗ 1.

coralloid roots of *Cycas* and cyanobacteria

✗ 2.

roots of lower leguminous plants and fungi

✗ 3.

roots of grasses and bacteria

✓ 4.

roots of higher plants and fungi

Question Type : **MCQ**
Question ID : **37135113615**
Option 1 ID : **37135154457**
Option 2 ID : **37135154458**
Option 3 ID : **37135154460**
Option 4 ID : **37135154459**
Status : **Answered**
Chosen Option : **1**

Q.49 At the time of DNA replication, the initiator protein breaks _____ bonds.

Ans

✗ 1. glycosidic

✗ 2. peptide

✗ 3. phospho-di-ester

✓ 4. hydrogen

Question Type : **MCQ**
Question ID : **37135113637**
Option 1 ID : **37135154546**
Option 2 ID : **37135154547**
Option 3 ID : **37135154548**
Option 4 ID : **37135154545**
Status : **Answered**
Chosen Option : **3**

Q.50 Cross bridges between peripheral microtubules of cilia and flagella are made up of motor protein _____.

Ans

✗ 1. myosin

✗ 2. actin

✓ 3. dynein

✗ 4. keratin

Question Type : **MCQ**
Question ID : **37135113681**
Option 1 ID : **37135154722**
Option 2 ID : **37135154721**
Option 3 ID : **37135154724**
Option 4 ID : **37135154723**
Status : **Answered**
Chosen Option : **4**

Q.51 Identify the INCORRECT statement about water in the soil.

Ans

✗ 1.

Water present in the form of hydrated oxides of silicon and aluminium is called combined water.

✓ 2.

The hygroscopic and combined water is available to the plants for absorption.

✗ 3.

Water held between small, non-colloidal soil particles is called capillary water.

✗ 4.

Water which is held very tightly around soil particles by adhesive forces is called hygroscopic water.

Question Type : **MCQ**
Question ID : **37135113643**
Option 1 ID : **37135154569**
Option 2 ID : **37135154572**
Option 3 ID : **37135154571**
Option 4 ID : **37135154570**
Status : **Answered**
Chosen Option : **4**

Q.52 Non-cyclic photophosphorylation involves unidirectional flow of electrons from _____.

Ans

✗ 1.

PS-II ⟶ cytochromes ⟶ PS-I ⟶ NADP ⟶ photolysed water

✗ 2.

PS-II ⟶ PS-I ⟶ NADP ⟶ photolysed water

✓ 3.

photolysed water ⟶ PS-II ⟶ cytochromes ⟶ PS-I ⟶ NADP

✗ 4.

photolysed water ⟶ PS-I ⟶ PS-II ⟶ NADP

Question Type : **MCQ**
Question ID : **37135113636**
Option 1 ID : **37135154541**
Option 2 ID : **37135154544**
Option 3 ID : **37135154543**
Option 4 ID : **37135154542**
Status : **Answered**
Chosen Option : **3**

Q.53 A woman gave birth to a triplet. Of these, two are identical twins and third one is a female baby.

How many ova would have been fertilized?

Ans

1. 4

2. 3

3. 2

4. 1

Question Type : **MCQ**
Question ID : **37135113675**
Option 1 ID : **37135154700**
Option 2 ID : **37135154699**
Option 3 ID : **37135154698**
Option 4 ID : **37135154697**
Status : **Answered**
Chosen Option : **2**

Q.54

Chlorophyll-a is _____ in colour.

Ans

1. yellow

2. blue green

3. orange

4. yellow green

Question Type : **MCQ**
Question ID : **37135113627**
Option 1 ID : **37135154508**
Option 2 ID : **37135154506**
Option 3 ID : **37135154507**
Option 4 ID : **37135154505**
Status : **Answered**
Chosen Option : **1**

Q.55 Which one of the following codons will NOT pair with anticodon of t-RNA?

Ans

1. AUU

2. UAG

3. UUU

4. CUC

Question Type : **MCQ**
Question ID : **37135113644**
Option 1 ID : **37135154575**
Option 2 ID : **37135154576**
Option 3 ID : **37135154573**
Option 4 ID : **37135154574**
Status : **Answered**
Chosen Option : **2**

Q.56 Which phytohormone is called secondary hormone?

Ans

✗ 1. Cytokinins

✗ 2. Auxins

✗ 3. Gibberellins

✓ 4. Ethylene

Question Type : **MCQ**
Question ID : **37135113646**
Option 1 ID : **37135154583**
Option 2 ID : **37135154581**
Option 3 ID : **37135154582**
Option 4 ID : **37135154584**
Status : **Answered**
Chosen Option : **2**

Q.57 The enzyme phosphofructokinase and the co-factor Mg^{++} are involved during which of the following reactions of glycolysis?

Ans

✔ 1.

Phosphorylation-II

✘ 2.

Cleavage

✘ 3.

Isomerisation

✘ 4.

Phosphorylation-I

Question Type :	**MCQ**
Question ID :	**37135113647**
Option 1 ID :	**37135154587**
Option 2 ID :	**37135154588**
Option 3 ID :	**37135154586**
Option 4 ID :	**37135154585**
Status :	**Answered**
Chosen Option :	**2**

Q.58 Primary lesions called chancre are formed at the site of infection by _____.

Ans

1. *Diplococcus pneumoniae*

2. *Treponema pallidum*

3. *Salmonella typhi*

4. *Wuchereria bancrofti*

Question Type : **MCQ**
Question ID : **37135113667**
Option 1 ID : **37135154667**
Option 2 ID : **37135154666**
Option 3 ID : **37135154665**
Option 4 ID : **37135154668**
Status : **Answered**
Chosen Option : **4**

Q.59 In which of the following species of angiosperms, the process of double fertilization was discovered?

Ans

✗ 1. *Datura* and *Solanum*

✗ 2. *Michelia* and Papaya

✓ 3. *Lillium* and *Fritillaria*

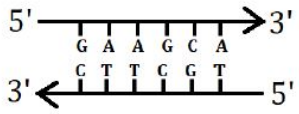
✗ 4. *Sida* and *Malva*

Question Type : **MCQ**
Question ID : **37135113619**
Option 1 ID : **37135154473**
Option 2 ID : **37135154476**
Option 3 ID : **37135154475**
Option 4 ID : **37135154474**
Status : **Answered**
Chosen Option : **2**

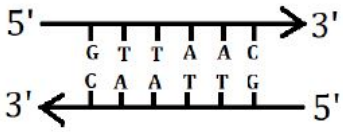
Q.60 In the following segments of DNA molecule, which one is a palindrome sequence?

Ans

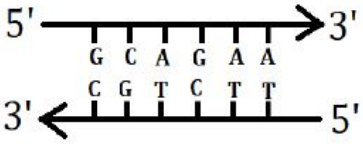
✗ 1.



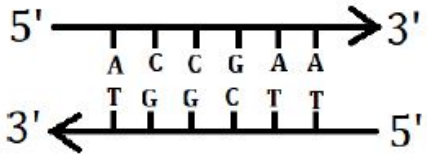
✓ 2.



✗ 3.



✗ 4.



Question Type : **MCQ**
Question ID : **37135113639**
Option 1 ID : **37135154553**
Option 2 ID : **37135154554**
Option 3 ID : **37135154555**
Option 4 ID : **37135154556**
Status : **Answered**
Chosen Option : **2**

Q.61 Pioneers of vegetation on rocks are _____.

Ans

✗ 1. Pteridophytes

✗ 2. Bryophytes

✗ 3. Gymnosperms

✓ 4. Lichens

Question Type : **MCQ**
Question ID : **37135113609**
Option 1 ID : **37135154435**
Option 2 ID : **37135154434**
Option 3 ID : **37135154436**
Option 4 ID : **37135154433**
Status : **Answered**
Chosen Option : **2**

Q.62 In conventional plant breeding, collection of germ plasm means

Ans

✗ 1. collection of genes from a particular crop plant.

✗ 2. gene library with collected genes of same variety of crop.

✗ 3. gene library with genome of different varieties of crop plants.

✓ 4. entire collection of plants/seeds with diverse alleles for all genes of a particular crop.

Question Type : **MCQ**
Question ID : **37135113640**
Option 1 ID : **37135154557**
Option 2 ID : **37135154559**
Option 3 ID : **37135154560**
Option 4 ID : **37135154558**
Status : **Answered**
Chosen Option : **3**

Q.63 Which one of the following regions of human body does NOT have maximum lymph nodes?

Ans

✗ 1. Neck

✗ 2. Armpit

✗ 3. Groin

✓ 4. Abdomen

Question Type : **MCQ**
Question ID : **37135113684**
Option 1 ID : **37135154733**
Option 2 ID : **37135154734**
Option 3 ID : **37135154735**
Option 4 ID : **37135154736**
Status : **Answered**
Chosen Option : **4**

Q.64 Column-I contains names of host plants while Column-II contains names of viral diseases. Find the correct option.

Column-I	Column-II
I)Banana	p) little leaf
II) Sugarcane	q) bunchy top
III) Papaya	r) leaf roll
IV) Potato	s) grassy shoot
V)Brinjal	t) leaf curl

Ans

✗ 1.

I) – q), II) - r), III) - s), IV) - t), V) - P)

✗ 2.

I) – q), II) - s), III) - r), IV) - t), V) – p)

✓ 3.

I) – q), II) – s), III) - t), IV) - r), V) – p)

✗ 4.

I) – q), II) - r), III) - p), IV) - s) V) – t)

Question Type : **MCQ**
Question ID : **37135113633**
Option 1 ID : **37135154530**
Option 2 ID : **37135154529**
Option 3 ID : **37135154531**
Option 4 ID : **37135154532**
Status : **Answered**
Chosen Option : **1**

Q.65 Thebesian valve guards the opening of _____.

Ans
✔ 1.

coronary sinus

✗ 2.

superior vena cava

✗ 3. coronary artery

✗ 4.

pulmonary vein

Question Type : **MCQ**
Question ID : **37135113659**
Option 1 ID : **37135154635**
Option 2 ID : **37135154633**
Option 3 ID : **37135154636**
Option 4 ID : **37135154634**
Status : **Answered**
Chosen Option : **3**

Q.66 Which one of the following is INCORRECT about saturated fatty acids?

Ans
✗ 1.

They do not have double bond between carbon atoms.

✔ 2.

They are not fully saturated with hydrogen atoms.

✗ 3.

Palmitic acid and stearic acid are saturated fatty acids.

✗ 4.

They contain maximum possible hydrogen atoms.

Question Type : **MCQ**
Question ID : **37135113608**
Option 1 ID : **37135154429**
Option 2 ID : **37135154431**
Option 3 ID : **37135154432**
Option 4 ID : **37135154430**
Status : **Answered**
Chosen Option : **2**

Q.67 Match the pollutant in Column-I with its source in Column-II and choose the correct option.

Column-I	Column-II
(i) High levels of Sulphur dioxide	(a) Natural pollutant
(ii) Endosulfan	(b) Agricultural practices
(iii) Pollen	(c) Automobile exhaust
(iv) Gaseous and particulate lead	(d) Electric power plants

Ans

✗ 1.

(i) – (d), (ii) – (a), (iii) – (b), (iv) – (c)

✓ 2.

(i) – (d), (ii) – (b), (iii) – (a), (iv) – (c)

✗ 3.

(i) – (d), (ii) – (c), (iii) – (a), (iv) – (b)

✗ 4.

(i) – (d), (ii) – (b), (iii) – (c), (iv) – (a)

Question Type : **MCQ**
Question ID : **37135113694**
Option 1 ID : **37135154776**
Option 2 ID : **37135154774**
Option 3 ID : **37135154775**
Option 4 ID : **37135154773**
Status : **Answered**
Chosen Option : **2**

Q.68 Mutation breeding was performed on moong beans to make it resistant to _____.

Ans

1. powdery mildew

2. black rot

3. leaf curl

4. curl blight

Question Type : **MCQ**
Question ID : **37135113604**
Option 1 ID : **37135154415**
Option 2 ID : **37135154414**
Option 3 ID : **37135154413**
Option 4 ID : **37135154416**
Status : **Answered**
Chosen Option : **1**

Q.69

Which one of the following is enriched with calcium?

Ans

1. Spinach

2. Carrot

3. Pumpkin

4. Mustard

Question Type : **MCQ**
Question ID : **37135113621**
Option 1 ID : **37135154482**
Option 2 ID : **37135154484**
Option 3 ID : **37135154483**
Option 4 ID : **37135154481**
Status : **Answered**
Chosen Option : **3**

Q.70 How many meiotic and mitotic divisions respectively are required to produce 960 male gametes in angiospermic plant?

Ans

1. 120 and 480

2. 120 and 960

3. 240 and 480

4. 240 and 960

Question Type : **MCQ**
Question ID : **37135113628**
Option 1 ID : **37135154510**
Option 2 ID : **37135154509**
Option 3 ID : **37135154511**
Option 4 ID : **37135154512**
Status : **Answered**
Chosen Option : **2**

Q.71 Mark the CORRECT sequence of phase in menstrual cycle.

Ans

✗ 1.

Menstrual phase⟶Proliferative phase⟶Luteal phase⟶ Ovulatory phase

✓ 2.

Menstrual phase⟶ Proliferative phase ⟶Ovulatory phase⟶ Luteal phase

✗ 3.

Luteal phase⟶Ovulatory phase⟶Menstrual phase⟶ Follicular phase

✗ 4.

Ovulation ⟶ Luteal phase⟶Follicular phase⟶ Menstrual phase

Question Type : **MCQ**
Question ID : **37135113683**
Option 1 ID : **37135154730**
Option 2 ID : **37135154731**
Option 3 ID : **37135154732**
Option 4 ID : **37135154729**
Status : **Answered**
Chosen Option : **2**

Q.72 Which among the following is NOT an artificial method of vegetative propagation in higher plants?

Ans

✗ 1. Grafting

✗ 2. Micropropagation

✗ 3. Budding

✓ 4. Fragmentation

Question Type : **MCQ**
Question ID : **37135113641**
Option 1 ID : **37135154561**
Option 2 ID : **37135154563**
Option 3 ID : **37135154562**
Option 4 ID : **37135154564**
Status : **Answered**
Chosen Option : **4**

Q.73

Bile salts _____ fats in duodenum.

Ans

1. assimilate

2. absorb

3. emulsify

4. regurgitate

Question Type : **MCQ**
Question ID : **37135113699**
Option 1 ID : **37135154794**
Option 2 ID : **37135154793**
Option 3 ID : **37135154795**
Option 4 ID : **37135154796**
Status : **Answered**
Chosen Option : **1**

Q.74

Mutation is _____.

Ans

1.

irreversible, gradual change in pre-existing form

2.

sudden change in genetic material

3.

non-inheritable gradual change

4.

small and continuous variations

Question Type :	**MCQ**
Question ID :	**37135113689**
Option 1 ID :	**37135154754**
Option 2 ID :	**37135154753**
Option 3 ID :	**37135154755**
Option 4 ID :	**37135154756**
Status :	**Answered**
Chosen Option :	**1**

Q.75 In human beings, the oviduct is supported by a double fold of peritoneum called _____.

Ans

✗ 1.

mesovarium

✗ 2.

mesometrium

✗ 3. tunica vaginalis

✓ 4.

mesosalpinx

Question Type :	**MCQ**
Question ID :	**37135113685**
Option 1 ID :	**37135154737**
Option 2 ID :	**37135154740**
Option 3 ID :	**37135154739**
Option 4 ID :	**37135154738**
Status :	**Answered**
Chosen Option :	**4**

Q.76 Following are all fungal diseases of poultry EXCEPT _____.

Ans

1. Aspergillosis

2. Pullorum

3. Thrush

4. Favus

Question Type : **MCQ**
Question ID : **37135113695**
Option 1 ID : **37135154777**
Option 2 ID : **37135154779**
Option 3 ID : **37135154780**
Option 4 ID : **37135154778**
Status : **Answered**
Chosen Option : **2**

Q.77 Helper T-lymphocytes perform following functions EXCEPT _____.

Ans

✗ 1.

Stimulation of B-lymphocytes

✗ 2.

Proliferation of other T-cells

✗ 3.

Attraction of macrophages

✓ 4.

Secretion of cell killing substances like perforins

Question Type : **MCQ**
Question ID : **37135113670**
Option 1 ID : **37135154677**
Option 2 ID : **37135154679**
Option 3 ID : **37135154678**
Option 4 ID : **37135154680**
Status : **Answered**
Chosen Option : **4**

Q.78 Which of the following group of cranial nerves control eye movements?

Ans

✗ 1. IV, V and VII

✗ 2. V, VII and IX

✗ 3. I, II and III

✓ 4. III, IV and VI

Question Type :	**MCQ**
Question ID :	**37135113663**
Option 1 ID :	**37135154650**
Option 2 ID :	**37135154651**
Option 3 ID :	**37135154649**
Option 4 ID :	**37135154652**
Status :	**Answered**
Chosen Option :	**2**

Q.79 Some seeds produce various structures like wings, pappus calyx, hooks etc. which help in their _____.

Ans

1. protection

2. dispersal

3. attraction

4. germination

Question Type : **MCQ**
Question ID : **37135113601**
Option 1 ID : **37135154401**
Option 2 ID : **37135154403**
Option 3 ID : **37135154404**
Option 4 ID : **37135154402**
Status : **Answered**
Chosen Option : **1**

Q.80 In a heterozygous tall pea plant, the possibility of 't' gamete fertilizing 'T' gamete during its selfing is ____%.

Ans

✗ 1. 100

✗ 2. 75

✗ 3. 25

✓ 4. 50

Question Type : **MCQ**
Question ID : **37135113618**
Option 1 ID : **37135154469**
Option 2 ID : **37135154470**
Option 3 ID : **37135154472**
Option 4 ID : **37135154471**
Status : **Answered**
Chosen Option : **1**

Q.81 The variation in temperatures in the three steps of PCR cycle is ____, _____ and _____ respectively.

Ans

✗ 1. 95^0C, 62^0C and 82^0C

✗ 2. 97^0C, 60^0C and 92^0C

✗ 3. 100^0C, 75^0C and 88^0C

✓ 4. 91^0C, 55^0C and 72^0C

Question Type : **MCQ**
Question ID : **37135113614**
Option 1 ID : **37135154455**
Option 2 ID : **37135154454**
Option 3 ID : **37135154453**
Option 4 ID : **37135154456**
Status : **Answered**
Chosen Option : **4**

Q.82 Presence of which hormone in urine confirms pregnancy?

Ans

✗ 1. Oxytocin

✗ 2. Progesterone

✓ 3. HCG

✗ 4. Estrogen

Question Type :	**MCQ**
Question ID :	**37135113662**
Option 1 ID :	**37135154648**
Option 2 ID :	**37135154647**
Option 3 ID :	**37135154645**
Option 4 ID :	**37135154646**
Status :	**Answered**
Chosen Option :	**3**

Q.83 Water reaches to the top of tress of more than 100 feet against gravity, which one of the following is the main phenomenon responsible for this?

Ans

✗ 1.

Exudation

✗ 2.

Guttation

✗ 3.

Root pressure

✓ 4.

Transpiration pull

Question Type : **MCQ**
Question ID : **37135113605**
Option 1 ID : **37135154420**
Option 2 ID : **37135154419**
Option 3 ID : **37135154417**
Option 4 ID : **37135154418**
Status : **Answered**
Chosen Option : **1**

Q.84 Genome of a cell can be manipulated by _____.

Ans

✗ 1.

cloning

✗ 2.

transcription

✓ 3.

r-DNA technology

✗ 4.

reverse transcription

Question Type : **MCQ**
Question ID : **37135113650**
Option 1 ID : **37135154600**
Option 2 ID : **37135154597**
Option 3 ID : **37135154599**
Option 4 ID : **37135154598**
Status : **Answered**
Chosen Option : **2**

Q.85 Chromosomal mechanism of sex determination in human beings is called _____.

Ans

✔ 1.

heterogamesis

✗ 2.

haemopoiesis

✗ 3.

transgenesis

✗ 4.

parthenogenesis

Question Type : **MCQ**
Question ID : **37135113658**
Option 1 ID : **37135154631**
Option 2 ID : **37135154630**
Option 3 ID : **37135154629**
Option 4 ID : **37135154632**
Status : **Answered**
Chosen Option : **1**

Q.86 A narrow dark line seen in Isotropic band of myofibril of a straited muscle fibre is called _____.

Ans

✗ 1.

M-line

✗ 2.

H- Zone

✓ 3.

Z-line

✗ 4. A-band

Question Type : **MCQ**
Question ID : **37135113655**
Option 1 ID : **37135154618**
Option 2 ID : **37135154619**
Option 3 ID : **37135154617**
Option 4 ID : **37135154620**
Status : **Answered**
Chosen Option : **2**

Q.87 Match Column-I and Column-II considering the inheritance pattern and ratio obtained in them.

Column-I	Column-II
a) Pleiotropy (sickle cell anaemia)	(i) 1:6:15:20:15:6:1
b) Polygenic inheritance (wheat kernel)	(ii) 1:2:1
c) Polygenic inheritance (human skin color)	(iii) 1:4:6:4:1
d) Co-dominance (coat colour in cattle)	(iv) 2:1

Ans

✔ 1.

a) – (iv), b) – (iii), c) – (i), d) – (ii)

✘ 2.

a) – (iv), b) – (ii), c) – (iii), d) – (i)

✘ 3.

a) – (iii), b) – (iv), c) – (ii), d) – (i)

✘ 4.

a) – (i), b) – (ii), c) – (iii), d) – (iv)

Question Type : **MCQ**
Question ID : **37135113603**
Option 1 ID : **37135154409**
Option 2 ID : **37135154410**
Option 3 ID : **37135154412**
Option 4 ID : **37135154411**
Status : **Answered**
Chosen Option : **2**

Q.88 All of the following animals are uricotelic EXCEPT _____.

Ans

✗ 1. crow

✗ 2. mosquito

✓ 3. scorpion

✗ 4. cobra

Question Type : **MCQ**
Question ID : **37135113682**
Option 1 ID : **37135154727**
Option 2 ID : **37135154728**
Option 3 ID : **37135154725**
Option 4 ID : **37135154726**
Status : **Answered**
Chosen Option : **3**

Q.89 Match the Column-I with Column-II and select the correct option.

Column-I	Column-II
a) DNA fragmentation	i) ssDNA gets embedded in nylon membrane
b) Electrophoresis	ii) sample DNA and probe DNA form double stranded DNA
c) Southern blotting	iii) DNA fragments move to positive pole
d) Hybridization	iv) fragments of DNA with variable length are formed

Ans

✗ 1.

a) - iv), b) - ii), c) - i), d) - iii)

✗ 2.

a) - iii), b) - ii), c) - iv), d) - i)

✗ 3.

a) - i), b) - ii), c) - iii), d) - iv)

✓ 4.

a) - iv), b) - iii), c) - i), d) - ii)

Question Type : **MCQ**
Question ID : **37135113651**
Option 1 ID : **37135154601**
Option 2 ID : **37135154604**
Option 3 ID : **37135154602**
Option 4 ID : **37135154603**
Status : **Answered**
Chosen Option : **4**

Q.90

Blood pressure will be maximum in _____.

Ans

✗ 1.

efferent renal arteriole

✗ 2.

coronary sinus

✓ 3.

pulmonary trunk

✗ 4.

renal artery

Question Type : **MCQ**
Question ID : **37135113661**
Option 1 ID : **37135154641**
Option 2 ID : **37135154644**
Option 3 ID : **37135154642**
Option 4 ID : **37135154643**
Status : **Answered**
Chosen Option : **4**

Q.91 During glycolysis, cleavage of fructose 1,6-diphosphate occurs in presence of enzyme _____.

Ans

✗ 1. Hexokinase

✓ 2. Aldolase

✗ 3. Phosphoglycero mutase

✗ 4. Phosphoglycero kinase

Question Type : **MCQ**
Question ID : **37135113622**
Option 1 ID : **37135154487**
Option 2 ID : **37135154485**
Option 3 ID : **37135154486**
Option 4 ID : **37135154488**
Status : **Answered**
Chosen Option : **1**

Q.92 Griffith in his experiment with *Diplococcus pneumoniae* discovered _____.

Ans

1. r-DNA

2. transformation

3. gene expression

4. reverse transcription

Question Type : **MCQ**
Question ID : **37135113634**
Option 1 ID : **37135154534**
Option 2 ID : **37135154535**
Option 3 ID : **37135154533**
Option 4 ID : **37135154536**
Status : **Answered**
Chosen Option : **3**

Q.93 Study of genes and genomes by DNA sequencing and its related analysis is called _____.

Ans

1. Hydroponics

2. Genomics

3. Biofortification

4. Systematics

Question Type : **MCQ**
Question ID : **37135113688**
Option 1 ID : **37135154750**
Option 2 ID : **37135154749**
Option 3 ID : **37135154751**
Option 4 ID : **37135154752**
Status : **Answered**
Chosen Option : **2**

Q.94 The sum total of genes of all individuals of interbreeding population is called _____.

Ans

✗ 1.

gene frequency

✗ 2.

genome

✓ 3.

gene pool

✗ 4.

gene flow

Question Type : **MCQ**
Question ID : **37135113664**
Option 1 ID : **37135154653**
Option 2 ID : **37135154655**
Option 3 ID : **37135154654**
Option 4 ID : **37135154656**
Status : **Answered**
Chosen Option : **1**

Q.95 Considering following chemical equation, guess what could be the nature of respiratory substrate?

$2\ C_{51}H_{98}O_6 + 145\ O_2 \longrightarrow 102\ CO_2 + 98H_2O + \text{Energy}$

Ans

✗ 1. Carbohydrate as well as protein

✓ 2. Fat

✗ 3. Protein

✗ 4. Carbohydrate

Question Type : **MCQ**
Question ID : **37135113630**
Option 1 ID : **37135154518**
Option 2 ID : **37135154520**
Option 3 ID : **37135154519**
Option 4 ID : **37135154517**
Status : **Answered**
Chosen Option : **1**

Q.96 Kwashiorkor is caused due to prolonged deficiency mainly of _____ in diet.

Ans

1. proteins

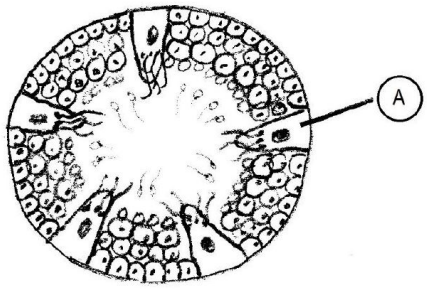
2. fats

3. vitamins and minerals

4. carbohydrates

Question Type : **MCQ**
Question ID : **37135113660**
Option 1 ID : **37135154639**
Option 2 ID : **37135154640**
Option 3 ID : **37135154638**
Option 4 ID : **37135154637**
Status : **Answered**
Chosen Option : **1**

Q.97 In the following diagram, what is A and its function?



Ans ✗ 1.

Sertoli cell; secretion of Testosterone.

✓ 2.

Sertoli cell, nutrition of maturing sperms.

✗ 3.

Follicular cell; secretion of Thyroxine.

✗ 4.

Leydig cell; secretion of Testosterone.

Question Type : **MCQ**
Question ID : **37135113654**
Option 1 ID : **37135154613**
Option 2 ID : **37135154616**
Option 3 ID : **37135154615**
Option 4 ID : **37135154614**
Status : **Answered**
Chosen Option : **2**

Q.98 Which one of the following is required for transmission of malarial parasite?

Ans

1. Honey bee

2. Housefly

3. Round worm

4. Mosquito

Question Type : **MCQ**
Question ID : **37135113657**
Option 1 ID : **37135154626**
Option 2 ID : **37135154625**
Option 3 ID : **37135154627**
Option 4 ID : **37135154628**
Status : **Answered**
Chosen Option : **2**

Q.99 Tubular and multinucleated alga is _____.

Ans

✗ 1. *Rhizopus*

✗ 2. *Anabaena*

✗ 3. *Parmelia*

✓ 4. *Vaucheria*

Question Type : **MCQ**
Question ID : **37135113700**
Option 1 ID : **37135154797**
Option 2 ID : **37135154799**
Option 3 ID : **37135154798**
Option 4 ID : **37135154800**
Status : **Answered**
Chosen Option : **1**

Q.100 On reaching the ovary, if pollen tube enters the ovule through integuments, then it is called _____.

Ans

✗ 1. chalazogamy

✓ 2. mesogamy

✗ 3. porogamy

✗ 4. siphonogamy

Question Type : **MCQ**
Question ID : **37135113606**
Option 1 ID : **37135154424**
Option 2 ID : **37135154423**
Option 3 ID : **37135154421**
Option 4 ID : **37135154422**
Status : **Answered**
Chosen Option : **1**