Section: Physics

Q.1 Two springs of equal length and equal area of cross-section are suspended from rigid support and loaded with same mass. Young's modulus of two springs is in the ratio 4:3. When the springs are stretched through some distance and released, they will oscillate with periods 'T_1' and 'T_2'. The ratio $T_1 : T_2$ is

Ans

✗ 1. $2 : \sqrt{3}$

✗ 2. 3:4

✗ 3. 4:3

✓ 4. $\sqrt{3} : 2$

Question Type : **MCQ**
Question ID : **37135113932**
Option 1 ID : **37135155728**
Option 2 ID : **37135155725**
Option 3 ID : **37135155726**
Option 4 ID : **37135155727**
Status : **Answered**
Chosen Option : **1**

Q.2

Rate of radiation by a black body is 'R' at temperature 'T'. Another body has same area but emissivity is 0·2 and temperature '3T'. Its rate of radiation is

Ans

✗ 1. $(8{\cdot}1)\ R$

✓ 2. $(16{\cdot}2)\ R$

✗ 3. $(24{\cdot}3)\ R$

✗ 4. $(32{\cdot}4)\ R$

Question Type : **MCQ**
Question ID : **37135113949**
Option 1 ID : **37135155793**
Option 2 ID : **37135155794**
Option 3 ID : **37135155795**
Option 4 ID : **37135155796**
Status : **Answered**
Chosen Option : **2**

Q.3

In an LCR circuit, inductive reactance is 30Ω and capacitive reactance 30Ω. The resistance was found to be 40Ω. The probable impedance of the combination is

Ans

✗ 1. $60\ \Omega$

✗ 2. $20\ \Omega$

✗ 3. $100\ \Omega$

✓ 4. $40\ \Omega$

Question Type : **MCQ**
Question ID : **37135113916**
Option 1 ID : **37135155663**
Option 2 ID : **37135155661**
Option 3 ID : **37135155664**
Option 4 ID : **37135155662**
Status : **Answered**
Chosen Option : **4**

Q.4

A metal surface is irradiated by radiations whose wavelength is 'λ'. If the work function of the metal surface is negligibly small, then the de-Broglie wavelength of emitted electrons will be

[c = velocity of light, m = mass of electron, h = Planck's constant]

Ans

✔ 1. $\left[\frac{h\lambda}{2mc}\right]^{1/2}$

✘ 2. $\left[\frac{h\lambda}{2mc}\right]^{1/3}$

✘ 3. $\left[\frac{2hc}{\lambda}\right]^{1/2}$

✘ 4. $\left[\frac{hc}{2m\lambda}\right]^{1/3}$

Question Type : **MCQ**
Question ID : **37135113941**
Option 1 ID : **37135155762**
Option 2 ID : **37135155761**
Option 3 ID : **37135155763**
Option 4 ID : **37135155764**
Status : **Answered**
Chosen Option : **1**

Q.5 In a transistor, doping level in base is increased slightly, the collector current and base current respectively

Ans

✗ 1.

increases slightly, decreases slightly.

✓ 2.

decreases slightly, increases slightly.

✗ 3.

increases slightly, increases slightly.

✗ 4.

decreases slightly, decreases slightly.

Question Type : **MCQ**
Question ID : **37135113902**
Option 1 ID : **37135155606**
Option 2 ID : **37135155605**
Option 3 ID : **37135155608**
Option 4 ID : **37135155607**
Status : **Answered**
Chosen Option : **2**

Q.6 When an unknown resistance 'X' is connected in the left gap of a meter bridge and a known resistance 'R' in the right gap, null point is obtained at 40 cm from left end. If a 2Ω resistance is connected in series with 'X' the null point shifts towards right by 10 cm, with same resistance in right gap. The value of 'X' must be

Ans

✗ 1. $1\ \Omega$

✓ 2. $4\ \Omega$

✗ 3. $2\ \Omega$

✗ 4. $3\ \Omega$

Question Type : **MCQ**
Question ID : **37135113947**
Option 1 ID : **37135155785**
Option 2 ID : **37135155788**
Option 3 ID : **37135155786**
Option 4 ID : **37135155787**
Status : **Answered**
Chosen Option : **2**

Q.7 A bullet of mass 20 gram is fired from a gun of mass 2·5 kg with a speed of 750 m/s. The magnitude of recoil velocity of the gun is

Ans

✗ 1. 12 m/s

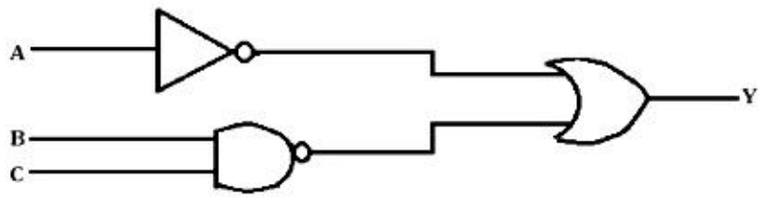
✗ 2. 3 m/s

✓ 3. 6 m/s

✗ 4. 18 m/s

Question Type : **MCQ**
Question ID : **37135113945**
Option 1 ID : **37135155779**
Option 2 ID : **37135155777**
Option 3 ID : **37135155778**
Option 4 ID : **37135155780**
Status : **Answered**
Chosen Option : **1**

Q.8 Logic circuit shows the inputs A, B and C. The output Y is '0' (zero) when



Ans

✗ 1. $A = 1, B = 0, C = 1$

✗ 2. $A = 1, B = 1, C = 0$

✓ 3. $A = 1, B = 1, C = 1$

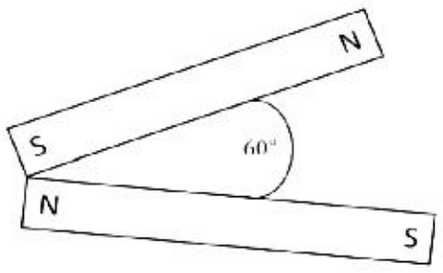
✗ 4. $A = 0, B = 1, C = 1$

Question Type : **MCQ**
Question ID : **37135113929**
Option 1 ID : **37135155713**
Option 2 ID : **37135155716**
Option 3 ID : **37135155715**
Option 4 ID : **37135155714**
Status : **Answered**
Chosen Option : **2**

Q.9

Imagine two bar magnets having same magnetic dipole moment 'M', are inclined with each other as shown in figure. Their resultant magnetic moment will be

[$\cos 120° = -\frac{1}{2}, \cos 60° = \frac{1}{2}$]



Ans

✗ 1. $\frac{M}{2}$

✓ 2. M

✗ 3. $\sqrt{2}\,M$

✗ 4. $\sqrt{3}\,M$

Question Type : **MCQ**
Question ID : **37135113910**
Option 1 ID : **37135155640**
Option 2 ID : **37135155639**
Option 3 ID : **37135155637**
Option 4 ID : **37135155638**
Status : **Answered**
Chosen Option : **1**

Q.10 A stationary sound wave has a frequency of 165 Hz. If the speed of sound in air is 330 m/s, then the distance between a node and the adjacent antinode is

Ans

1. 80 cm

2. 50 cm

3. 2 cm

4. 20 cm

Question Type : MCQ
Question ID : 37135113919
Option 1 ID : 37135155676
Option 2 ID : 37135155675
Option 3 ID : 37135155673
Option 4 ID : 37135155674
Status : Answered
Chosen Option : 2

Q.11 A particle is performing vertical circular motion. The difference in tension at lowest and highest point is

Ans

1. 2 mg

2. 6 mg

3. 8 mg

4. 4 mg

Question Type : MCQ
Question ID : 37135113934
Option 1 ID : 37135155733
Option 2 ID : 37135155735
Option 3 ID : 37135155736
Option 4 ID : 37135155734
Status : Answered
Chosen Option : 2

Q.12 The relative magnetic permeability (μ_r)of a substance is related to its susceptibility (χ) as

Ans

✗ 1. $\mu_r = 1 - \chi^2$

✗ 2. $\mu_r = 1 + \chi^2$

✓ 3. $\mu_r = 1 + \chi$

✗ 4. $\mu_r = 1 - \chi$

Question Type : **MCQ**
Question ID : **37135113923**
Option 1 ID : **37135155691**
Option 2 ID : **37135155692**
Option 3 ID : **37135155690**
Option 4 ID : **37135155689**
Status : **Answered**
Chosen Option : **3**

Q.13 A spring produces extension 'x' by applying a force 'F' N. A body of mass 'm' suspended from spring oscillates vertically with a period 'T'. The mass of the suspended body is (neglect mass of spring)

Ans

✗ 1. $\frac{2T^2F}{\pi^2x}$

✓ 2. $\frac{T^2F}{4\pi^2x}$

✗ 3. $\frac{T^2F}{\pi^2x}$

✗ 4. $\frac{T^2F}{2\pi^2x}$

Question Type : **MCQ**
Question ID : **37135113950**
Option 1 ID : **37135155800**
Option 2 ID : **37135155798**
Option 3 ID : **37135155799**
Option 4 ID : **37135155797**
Status : **Answered**
Chosen Option : **2**

Q.14

A galvanometer having a resistance of 18Ω is shunted by a wire of resistance 2Ω. If the total current passing through the combination is 2 A, then current through shunt will be

Ans

1. ✔ 1·8 A

2. ✗ 0·9 A

3. ✗ 12 A

4. ✗ 12·2 A

Question Type : **MCQ**
Question ID : **37135113908**
Option 1 ID : **37135155631**
Option 2 ID : **37135155632**
Option 3 ID : **37135155630**
Option 4 ID : **37135155629**
Status : **Answered**
Chosen Option : **1**

Q.15

The magnetic field developed due to current carrying coil at its centre is 'B'. If the new coil of two turns is prepared from the above coil and same current is passed, then the magnetic field at the centre of the new coil will be

Ans

✗ 1. $\frac{B}{2}$

✓ 2. $4B$

✗ 3. $\frac{B}{4}$

✗ 4. $2B$

Question Type : **MCQ**
Question ID : **37135113920**
Option 1 ID : **37135155678**
Option 2 ID : **37135155680**
Option 3 ID : **37135155677**
Option 4 ID : **37135155679**
Status : **Answered**
Chosen Option : **4**

Q.16

When a light ray is incident on a prism at an angle of 45°, the minimum deviation is obtained. If refractive index of material of prism is $\sqrt{2}$, then angle of prism will be

[$\sin\frac{\pi}{4}=\frac{1}{\sqrt{2}}$, $\sin 30^\circ = \cos 60^\circ = \frac{1}{2}$]

Ans

✗ 1. 30°

✗ 2. 75°

✗ 3. 45°

✓ 4. 60°

Question Type : **MCQ**
Question ID : **37135113940**
Option 1 ID : **37135155757**
Option 2 ID : **37135155760**
Option 3 ID : **37135155758**
Option 4 ID : **37135155759**
Status : **Answered**
Chosen Option : **3**

Q.17

The moduli of elasticity for a substance are Young's modulus, Bulk modulus and Modulus of rigidity. All the three moduli of elasticity are possessed by

Ans

✗ 1. gases and liquids.

✗ 2. solids and liquids.

✓ 3. solids only.

✗ 4. solids and gases.

Question Type : **MCQ**
Question ID : **37135113913**
Option 1 ID : **37135155652**
Option 2 ID : **37135155649**
Option 3 ID : **37135155650**
Option 4 ID : **37135155651**
Status : **Answered**
Chosen Option : **2**

Q.18 A light of wavelength 'λ' and intensity 'I' falls on photosensitive material. If 'N' photoelectrons are emitted, each with kinetic energy E, then

Ans

✔ 1. $E \propto \frac{1}{\lambda}, N \propto I$

✗ 2. $E \propto I, N \propto I$

✗ 3. $E \propto I, N \propto \frac{1}{\lambda}$

✗ 4. $E \propto I, N \propto \lambda$

Question Type : **MCQ**
Question ID : **37135113926**
Option 1 ID : **37135155704**
Option 2 ID : **37135155701**
Option 3 ID : **37135155703**
Option 4 ID : **37135155702**
Status : **Answered**
Chosen Option : **1**

Q.19 A mass M moving with velocity v along x axis collides and sticks to another mass 2M which is moving along Y axis with velocity 3v. After collision, the velocity of the combination is

Ans

✗ 1. $\frac{v}{3}\hat{i} - 2v\hat{j}$

✗ 2. $\frac{2v}{3}\hat{i} + \hat{j}$

✗ 3. $v\hat{i} + \frac{v}{3}\hat{j}$

✓ 4. $\frac{v}{3}\hat{i} + 2v\hat{j}$

Question Type : **MCQ**
Question ID : **37135113930**
Option 1 ID : **37135155718**
Option 2 ID : **37135155719**
Option 3 ID : **37135155720**
Option 4 ID : **37135155717**
Status : **Answered**
Chosen Option : **1**

Q.20 A resonance tube closed at one end is of height 1·5 m. A tuning fork of frequency 340 Hz is vibrating above the tube. Water is poured in the tube gradually. The minimum height of water for which resonance is obtained is

(Neglect end correction. Speed of sound in air = 340 m/s)

Ans

✗ 1. 5 cm

✗ 2. 125 cm

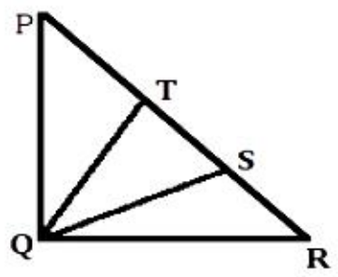
✗ 3. 150 cm

✓ 4. 25 cm

Question Type : **MCQ**
Question ID : **37135113942**
Option 1 ID : **37135155768**
Option 2 ID : **37135155766**
Option 3 ID : **37135155765**
Option 4 ID : **37135155767**
Status : **Answered**
Chosen Option : **3**

Q.21 Figure shows triangular lamina which can rotate about different axis of rotation.

Moment of inertia is maximum about the axis



Ans

✗ 1. QS

✓ 2. QR

✗ 3. PQ

✗ 4. PR

Question Type : **MCQ**
Question ID : **37135113922**
Option 1 ID : **37135155688**
Option 2 ID : **37135155685**
Option 3 ID : **37135155686**
Option 4 ID : **37135155687**
Status : **Answered**
Chosen Option : **2**

Q.22

In the case of earth, mean radius is 'R', acceleration due to gravity on the surface is 'g', angular speed about its own axis is 'ω'. What will be the radius of the orbit of a geostationary satellite?

Ans

✗ 1. $\left[\frac{\omega^2}{gR^2}\right]^{1/2}$

✓ 2. $\left[\frac{gR^2}{\omega^2}\right]^{1/3}$

✗ 3. $\left[\frac{gR^2}{\omega^2}\right]^{1/2}$

✗ 4. $\left[\frac{\omega^2}{gR^2}\right]^{1/3}$

Question Type : **MCQ**
Question ID : **37135113928**
Option 1 ID : **37135155710**
Option 2 ID : **37135155711**
Option 3 ID : **37135155709**
Option 4 ID : **37135155712**
Status : **Answered**
Chosen Option : **3**

Q.23

For a certain organ pipe, three successive resonant frequencies are heard as 300 Hz, 420 Hz and 540 Hz. If the speed of sound in air is 360 m/s, then the pipe is a

Ans

✗ 1.

open pipe of 1·5 m length.

✗ 2.

open pipe of 3 m length.

✗ 3. closed pipe of 3 m length.

✓ 4.

closed pipe of 1·5 m length.

Question Type : **MCQ**
Question ID : **37135113901**
Option 1 ID : **37135155604**
Option 2 ID : **37135155603**
Option 3 ID : **37135155601**
Option 4 ID : **37135155602**
Status : **Answered**
Chosen Option : **3**

Q.24 When a certain metallic surface is illuminated with monochromatic light of wavelength 'λ', the stopping potential for photoelectric effect is '$3V_o$'. If the same surface is illuminated with a light of wavelength '2λ', the stopping potential is found as 'V_o'. The threshold wavelength for this surface is

Ans

✗ 1. $\frac{\lambda}{4}$

✓ 2. 4λ

✗ 3. 6λ

✗ 4. $\frac{\lambda}{6}$

Question Type : **MCQ**
Question ID : **37135113906**
Option 1 ID : **37135155623**
Option 2 ID : **37135155622**
Option 3 ID : **37135155621**
Option 4 ID : **37135155624**
Status : **Answered**
Chosen Option : **3**

Q.25 Which one of following statements about the angle of contact (θ), is wrong?

Ans ✔ 1.

θ is not constant for particular solid - liquid pair.

✗ 2.

$\theta > 0°$ for pure water - glass pair.

✗ 3.

$\theta > 90°$ for mercury – glass pair.

✗ 4.

$\theta < 90°$ for kerosene - glass pair.

Question Type : **MCQ**
Question ID : **37135113907**
Option 1 ID : **37135155628**
Option 2 ID : **37135155626**
Option 3 ID : **37135155625**
Option 4 ID : **37135155627**
Status : **Answered**
Chosen Option : **1**

Q.26 A plane surface area 200 cm^2 is kept in a uniform electric field of intensity 200 N/C. If the angle between the normal to the surface and the field is 60°, then the electric flux through the surface is

$\left[\cos 60° = \frac{1}{2}\right]$

Ans

✗ 1. $4\ Nm^2/C$

✗ 2. $100\ Nm^2/C$

✓ 3. $2\ Nm^2/C$

✗ 4. $200\ Nm^2/C$

Question Type : **MCQ**
Question ID : **37135113918**
Option 1 ID : **37135155670**
Option 2 ID : **37135155671**
Option 3 ID : **37135155669**
Option 4 ID : **37135155672**
Status : **Answered**
Chosen Option : **2**

Q.27 The frequency of a tuning fork is 220 Hz and the velocity of sound in air is 330 m/s. When the tuning fork completes 80 vibrations, the distance travelled by the wave is

Ans

✗ 1. 100 m

✗ 2. 60 m

✗ 3. 53 m

✓ 4. 120 m

Question Type : **MCQ**
Question ID : **37135113924**
Option 1 ID : **37135155695**
Option 2 ID : **37135155694**
Option 3 ID : **37135155693**
Option 4 ID : **37135155696**
Status : **Answered**
Chosen Option : **4**

Q.28 What is the least radius of curve on a horizontal road, at which a vehicle can travel with a speed of 36 km/hr at an angle of inclination 45°?
[$g = 10 m/s^2$, $\tan 45° = 1$]

Ans

✓ 1. 10 m

✗ 2. 20 m

✗ 3. 25 m

✗ 4. 15 m

Question Type : **MCQ**
Question ID : **37135113903**
Option 1 ID : **37135155609**
Option 2 ID : **37135155611**
Option 3 ID : **37135155612**
Option 4 ID : **37135155610**
Status : **Answered**
Chosen Option : **1**

Q.29 Forces $\vec{P}$ and $\vec{Q}$ have resultant $\vec{R}$ whose magnitude is 40N. $\vec{R}$ makes an angle 45° with $\vec{P}$ as well as $\vec{Q}$. The magnitude of $\vec{P}$ is

$\left(\tan\frac{\pi}{4} = 1\right)$

Ans

✗ 1. $20\sqrt{5}$ N

✗ 2. $\sqrt{20}$ N

✓ 3. $20\sqrt{2}$ N

✗ 4. 20 N

Question Type : **MCQ**
Question ID : **37135113925**
Option 1 ID : **37135155699**
Option 2 ID : **37135155697**
Option 3 ID : **37135155700**
Option 4 ID : **37135155698**
Status : **Answered**
Chosen Option : **1**

Q.30 There are three needles 'N_1', 'N_2' and 'N_3' made of a ferromagnetic, a paramagnetic and a diamagnetic substance respectively. When a magnet is brought close to them, then it will

Ans

✗ 1.

attract N_2 strongly, N_1 and N_3 weakly.

✗ 2.

attract N_1 strongly, repel N_2 and N_3 weakly.

✗ 3.

attract N_1 strongly, N_2 and N_3 weakly.

✓ 4.

attract N_1 strongly and N_2 weakly, repel N_3 weakly.

Question Type : **MCQ**
Question ID : **37135113914**
Option 1 ID : **37135155655**
Option 2 ID : **37135155656**
Option 3 ID : **37135155653**
Option 4 ID : **37135155654**
Status : **Answered**
Chosen Option : **2**

Q.31 Time taken by sunlight to penetrate 2 mm through a glass slab is of the order

[Refractive index of glass = 1·5, velocity of light in air = 3×10^8 m/s]

Ans

✗ 1. 10^{-19} s

✓ 2. 10^{-11} s

✗ 3. 10^{5} s

✗ 4. 10^{-10} s

Question Type : **MCQ**
Question ID : **37135113931**
Option 1 ID : **37135155724**
Option 2 ID : **37135155723**
Option 3 ID : **37135155721**
Option 4 ID : **37135155722**
Status : **Answered**
Chosen Option : **4**

Q.32 A block of mass 1 kg is kept on ice surface. When velocity of 4 m/s is given to it, it stops by friction in 5 second. The coefficient of friction is [$g = 10$ m/s^2]

Ans

✗ 1. 0·06

✗ 2. 0·04

✗ 3. 0·02

✓ 4. 0·08

Question Type : **MCQ**
Question ID : **37135113948**
Option 1 ID : **37135155791**
Option 2 ID : **37135155790**
Option 3 ID : **37135155789**
Option 4 ID : **37135155792**
Status : **Answered**
Chosen Option : **4**

Q.33

The resolving power of telescope depends on

Ans

✗ 1. length of telescope.

✗ 2. focal length of an objective.

✓ 3. diameter of the objective.

✗ 4. focal length of an eye piece.

Question Type : **MCQ**
Question ID : **37135113921**
Option 1 ID : **37135155683**
Option 2 ID : **37135155682**
Option 3 ID : **37135155684**
Option 4 ID : **37135155681**
Status : **Answered**
Chosen Option : **3**

Q.34

Force $F = P + Qt + \frac{1}{r+xs} + c \sin(\omega t + \phi)$ where x and t represent displacement and time respectively. The dimensions of the product 'cs' are

Ans

✗ 1. $[L^1M^0T^0]$

✗ 2. $[L^{-1}M^1T^0]$

✓ 3. $[L^{-1}M^0T^0]$

✗ 4. $[L^1M^{-1}T^1]$

Question Type : **MCQ**
Question ID : **37135113905**
Option 1 ID : **37135155617**
Option 2 ID : **37135155618**
Option 3 ID : **37135155619**
Option 4 ID : **37135155620**
Status : **Answered**
Chosen Option : **3**

Q.35

If a capillary tube is immersed vertically in water, rise of water in capillary is 'h_1'.

When the whole arrangement is taken to a depth 'd' in a mine, the water level rises to 'h_2'. The ratio $\frac{h_1}{h_2}$ is

(R = radius of earth)

Ans

✗ 1. $\left(1+\frac{d^2}{R^2}\right)$

✗ 2. $\left(1+\frac{d}{R}\right)$

✗ 3. $\left(1-\frac{d^2}{R^2}\right)$

✓ 4. $\left(1-\frac{d}{R}\right)$

Question Type : **MCQ**
Question ID : **37135113938**
Option 1 ID : **37135155752**
Option 2 ID : **37135155750**
Option 3 ID : **37135155751**
Option 4 ID : **37135155749**
Status : **Answered**
Chosen Option : **4**

Q.36 A radar of power 1 kW operating at frequency 10 GHz is located on a mountain top of height 500 m. The maximum distance upto which it can detect object located on the surface of the earth is

[Radius of earth = $6{\cdot}4 \times 10^6$ m)

Ans

✗ 1. 8 km

✓ 2. 80 km

✗ 3. 70 km

✗ 4. 56 km

Question Type : **MCQ**
Question ID : **37135113946**
Option 1 ID : **37135155781**
Option 2 ID : **37135155784**
Option 3 ID : **37135155783**
Option 4 ID : **37135155782**
Status : **Answered**
Chosen Option : **4**

Q.37

When lens of refractive index 'μ_1' is placed in liquid of refractive index 'μ_2', the lens looks to be disappeared only if

Ans

✗ 1. $2\mu_1 = \mu_2$

✗ 2. $\mu_1 = \frac{2\mu_2}{3}$

✓ 3. $\mu_1 = \mu_2$

✗ 4. $\mu_1 = \frac{3\mu_2}{2}$

Question Type : **MCQ**
Question ID : **37135113935**
Option 1 ID : **37135155737**
Option 2 ID : **37135155740**
Option 3 ID : **37135155738**
Option 4 ID : **37135155739**
Status : **Answered**
Chosen Option : **4**

Q.38

A simple pendulum oscillates with an angular amplitude 'θ'. If the maximum tension in the string is twice the minimum tension then 'θ' is

Ans

✗ 1. $\cos^{-1}(0{\cdot}25)$

✓ 2. $\cos^{-1}(0{\cdot}75)$

✗ 3. $\cos^{-1}(0{\cdot}10)$

✗ 4. $\cos^{-1}(0{\cdot}50)$

Question Type : **MCQ**
Question ID : **37135113909**
Option 1 ID : **37135155635**
Option 2 ID : **37135155633**
Option 3 ID : **37135155636**
Option 4 ID : **37135155634**
Status : **Answered**
Chosen Option : **1**

Q.39 The kinetic energy of a particle performing S.H.M. is $\frac{1}{n}$ times its potential energy.

If the amplitude of S.H.M. is 'A', then the displacement of the particle will be

Ans

1. $\sqrt{\frac{nA^2}{n+1}}$

2. $\frac{A}{n}$

3. nA

4. $\sqrt{\frac{(n+1)A^2}{n}}$

Question Type : **MCQ**
Question ID : **37135113944**
Option 1 ID : **37135155775**
Option 2 ID : **37135155776**
Option 3 ID : **37135155773**
Option 4 ID : **37135155774**
Status : **Answered**
Chosen Option : **4**

Q.40

For the weight of body of mass 5 kg to be zero on equator of the earth, angular velocity of the earth must be

[The radius of earth = 6400 km, acceleration due to gravity = $10 m/s^2$]

Ans

✗ 1. $\frac{1}{80}$ rad/s

✗ 2. $\frac{1}{400}$ rad/s

✓ 3. $\frac{1}{800}$ rad/s

✗ 4. $\frac{1}{1600}$ rad/s

Question Type : **MCQ**
Question ID : **37135113917**
Option 1 ID : **37135155665**
Option 2 ID : **37135155666**
Option 3 ID : **37135155667**
Option 4 ID : **37135155668**
Status : **Answered**
Chosen Option : **3**

Q.41

The ratio of areas of electron orbits for the second excited state to the first excited state in hydrogen atom, is

Ans

1. $\frac{4}{9}$

2. $\frac{16}{81}$

3. $\frac{81}{16}$

4. $\frac{9}{4}$

Question Type : **MCQ**
Question ID : **37135113912**
Option 1 ID : **37135155645**
Option 2 ID : **37135155648**
Option 3 ID : **37135155647**
Option 4 ID : **37135155646**
Status : **Answered**
Chosen Option : **3**

Q.42 A uniform disc of mass 4 kg has radius of 0·4 m. Its moment of inertia about an axis passing through a point on its circumference and perpendicular to its plane is

Ans

✗ 1. $0{\cdot}16\ \text{kg-m}^2$

✗ 2. $0{\cdot}32\ \text{kg-m}^2$

✗ 3. $0{\cdot}64\ \text{kg-m}^2$

✓ 4. $0{\cdot}96\ \text{kg-m}^2$

Question Type : **MCQ**
Question ID : **37135113911**
Option 1 ID : **37135155641**
Option 2 ID : **37135155642**
Option 3 ID : **37135155643**
Option 4 ID : **37135155644**
Status : **Answered**
Chosen Option : **2**

Q.43 An electron moves in a circular orbit of radius 'r' with uniform speed 'v'. It produces magnetic field 'B' at the centre of circle. The magnetic field 'B' is proportional to

Ans

✗ 1. $\frac{1}{vr^2}$

✗ 2. $\frac{r^2}{v}$

✓ 3. $\frac{v}{r^2}$

✗ 4. vr^2

Question Type : **MCQ**
Question ID : **37135113943**
Option 1 ID : **37135155770**
Option 2 ID : **37135155772**
Option 3 ID : **37135155771**
Option 4 ID : **37135155769**
Status : **Answered**
Chosen Option : **3**

Q.44

S.I. Unit of emissive power of a body at a given temperature is

Ans

✔ 1. $\frac{J}{m^2 s}$

✘ 2. $\frac{J}{m^2}$

✘ 3. $\frac{J}{s}$

✘ 4. $\frac{W}{m}$

Question Type : **MCQ**
Question ID : **37135113927**
Option 1 ID : **37135155707**
Option 2 ID : **37135155706**
Option 3 ID : **37135155705**
Option 4 ID : **37135155708**
Status : **Answered**
Chosen Option : **1**

Q.45 Two coherent light sources of intensity ratio 'n' are employed in an interference experiment. The ratio of the intensities of the maxima and minima in the interference pattern is ($I_1 > I_2$)

Ans

✗ 1. $\left(\frac{n+1}{n-1}\right)^2$

✓ 2. $\left(\frac{\sqrt{n}+1}{\sqrt{n}-1}\right)^2$

✗ 3. $\frac{\sqrt{n}+1}{\sqrt{n}-1}$

✗ 4. $\frac{n+1}{n-1}$

Question Type : **MCQ**
Question ID : **37135113933**
Option 1 ID : **37135155730**
Option 2 ID : **37135155732**
Option 3 ID : **37135155731**
Option 4 ID : **37135155729**
Status : **Answered**
Chosen Option : **1**

Q.46 For three non-zero vectors $\overline{A}$, $\overline{B}$ and $\overline{C}$, $\overline{A}+\overline{B}=\overline{C}$ and $A^2+B^2=C^2$, then the angle between $\overline{A}$ and $\overline{B}$ will be

Ans

✔ 1. 90°

✘ 2. 180°

✘ 3. 30°

✘ 4. 60°

Question Type : **MCQ**
Question ID : **37135113915**
Option 1 ID : **37135155659**
Option 2 ID : **37135155660**
Option 3 ID : **37135155657**
Option 4 ID : **37135155658**
Status : **Answered**
Chosen Option : **1**

Q.47 In potentiometer experiment, the balancing length with cell E_1 of unknown e.m.f. is ℓ_1 cm. By shunting the cell E_1 with resistance 'R' which is equal to internal resistance (r)of the cell E_1, the balancing length ℓ_2 is

Ans

✗ 1. ℓ_1

✗ 2. $\frac{\ell_1}{4}$

✓ 3. $\frac{\ell_1}{2}$

✗ 4. $2\ell_1$

Question Type : **MCQ**
Question ID : **37135113904**
Option 1 ID : **37135155615**
Option 2 ID : **37135155616**
Option 3 ID : **37135155613**
Option 4 ID : **37135155614**
Status : **Answered**
Chosen Option : **2**

Q.48

A capacitor of unknown capacitance is connected across a battery of 'V' volt. The charge stored in it is 'Q' coulomb. When potential across the capacitor is reduced by V' volt, the charge stored in it becomes Q' coulomb. The potential V is

Ans

✗ 1. $\frac{QV'}{(Q+Q')}$

✗ 2. $\frac{(Q+Q')}{QV'}$

✗ 3. $\frac{(Q-Q')}{QV'}$

✓ 4. $\frac{QV'}{(Q-Q')}$

Question Type : **MCQ**
Question ID : **37135113936**
Option 1 ID : **37135155743**
Option 2 ID : **37135155744**
Option 3 ID : **37135155742**
Option 4 ID : **37135155741**
Status : **Answered**
Chosen Option : **1**

Q.49

Two bodies rotate with kinetic energies 'E_1' and 'E_2'. Moment of inertia about their axis of rotation is 'I_1' and 'I_2'. If $I_1 = \frac{I_2}{3}$ and $E_1 = 27\ E_2$ then the ratio of the angular momenta L_1 to L_2 is

Ans

✔ 1. 3:1

✘ 2. 1:3

✘ 3. 1:9

✘ 4. 9:1

Question Type : **MCQ**
Question ID : **37135113939**
Option 1 ID : **37135155755**
Option 2 ID : **37135155756**
Option 3 ID : **37135155754**
Option 4 ID : **37135155753**
Status : **Answered**
Chosen Option : **2**

Q.50 A resistance of 100Ω, inductor of self-inductance $\left(\frac{4}{\pi^2}\right)$ H and a capacitor of unknown capacitance are connected in series to an a.c. source of 200V and 50 Hz. When the current and voltage are in phase, the capacitance and power dissipated is respectively

Ans

✔ 1. $2{\cdot}5 \times 10^{-5}$ F, 400 W

✗ 2. $1{\cdot}5 \times 10^{-5}$ F, 200 W

✗ 3. $2{\cdot}0 \times 10^{-5}$ F, 100 W

✗ 4. $3{\cdot}0 \times 10^{-5}$ F, 50 W

Question Type : **MCQ**
Question ID : **37135113937**
Option 1 ID : **37135155745**
Option 2 ID : **37135155746**
Option 3 ID : **37135155747**
Option 4 ID : **37135155748**
Status : **Answered**
Chosen Option : **2**

Section : Chemistry

Q.1

If ΔH° and ΔS° for the reaction $N_2O_{4(g)} \longrightarrow 2NO_{2(g)}$ is 57·24 kJ and 175·8 $JK^{-1}mol^{-1}$ respectively. What is the value of ΔG° for this reaction at 298 K ?

Ans

✗ 1. 57·24 kJ

✗ 2. − 17·58 kJ

✗ 3. − 4·85 kJ

✓ 4. 4·85 kJ

Question Type : **MCQ**
Question ID : **37135113966**
Option 1 ID : **37135155864**
Option 2 ID : **37135155862**
Option 3 ID : **37135155861**
Option 4 ID : **37135155863**
Status : **Answered**
Chosen Option : **3**

Q.2

Which cation from following does NOT form colourless compound ?
(Atomic number - Cu = 29, Ti = 22, Zn = 30, Sc = 21)

Ans

✗ 1. Sc^{3+}

✗ 2. Cu^{+1}

✓ 3. Ti^{3+}

✗ 4. Zn^{2+}

Question Type : **MCQ**
Question ID : **37135113986**
Option 1 ID : **37135155944**
Option 2 ID : **37135155941**
Option 3 ID : **37135155942**
Option 4 ID : **37135155943**
Status : **Answered**
Chosen Option : **3**

Q.3 Which of the following properties is NOT a colligative property ?

Ans

✗ 1. elevation in boiling point.

✗ 2. Osmotic pressure.

✓ 3. vapour pressure of solvent.

✗ 4. depression in freezing point .

Question Type : **MCQ**
Question ID : **37135113992**
Option 1 ID : **37135155966**
Option 2 ID : **37135155965**
Option 3 ID : **37135155968**
Option 4 ID : **37135155967**
Status : **Answered**
Chosen Option : **3**

Q.4

Which among the following groups has lowest priority in assigning R, S convention ?

Ans

✗ 1. $-COOH$

✗ 2. $-CONH_2$

✗ 3. $-CH_2\text{-}OH$

✓ 4. $-CN$

Question Type : **MCQ**
Question ID : **37135113962**
Option 1 ID : **37135155846**
Option 2 ID : **37135155845**
Option 3 ID : **37135155848**
Option 4 ID : **37135155847**
Status : **Answered**
Chosen Option : **2**

Q.5

Which of the following set of compounds does NOT demonstrate the law of multiple proportion ?

Ans

✔ 1. H_2O, CO_2, CH_4

✗ 2. H_2O, H_2O_2

✗ 3. SO_2, SO_3

✗ 4. NO, NO_2

Question Type : **MCQ**
Question ID : **37135113955**
Option 1 ID : **37135155820**
Option 2 ID : **37135155819**
Option 3 ID : **37135155818**
Option 4 ID : **37135155817**
Status : **Answered**
Chosen Option : **1**

Q.6

Which of following has intramolecular hydrogen bonding ?

Ans

✗ 1. Ethyl alcohol

✗ 2. Ammonia

✓ 3. O-nitrophenol

✗ 4. Hydrofluoric acid

Question Type : **MCQ**
Question ID : **37135113981**
Option 1 ID : **37135155922**
Option 2 ID : **37135155924**
Option 3 ID : **37135155923**
Option 4 ID : **37135155921**
Status : **Answered**
Chosen Option : **1**

Q.7

Which of the following is a Wolff-Kishner reduction ?

Ans ✗ 1.

$$-CO- + 4\,[H] \xrightarrow[\Delta]{Zn-Hg/conc.HCl} -CH_2- + H_2O$$

✗ 2.

$$-COCl \xrightarrow[pd-BaSO_4]{H_2} -CHO + HCl$$

✗ 3.

$$-C\equiv N + 2\,[H] \xrightarrow[dil\ HCl]{SnCl_2} -CH=NH.HCl \xrightarrow{H_3O^+} -CHO + NH_4Cl$$

✓ 4.

$$>C=O \xrightarrow[-H_2O]{H_2N-NH_2} >C=N-NH_2 \xrightarrow[\Delta]{KOH/\ ethylene\ glycol} >CH_2 + N_2$$

Question Type : **MCQ**
Question ID : **37135113957**
Option 1 ID : **37135155825**
Option 2 ID : **37135155826**
Option 3 ID : **37135155827**
Option 4 ID : **37135155828**
Status : **Answered**
Chosen Option : **2**

Q.8

Identify the mineral of iron from following

Ans

✗ 1. Willemite

✗ 2. Calamine

✓ 3. Siderite

✗ 4. Magnesite

Question Type : **MCQ**
Question ID : **37135113963**
Option 1 ID : **37135155850**
Option 2 ID : **37135155849**
Option 3 ID : **37135155852**
Option 4 ID : **37135155851**
Status : **Answered**
Chosen Option : **3**

Q.9

Which of the following oxyacids of sulphur contain S-O-S linkage ?

Ans

✗ 1. $H_2S_2O_4$

✓ 2. $H_2S_2O_5$

✗ 3. $H_2S_2O_3$

✗ 4. $H_2S_2O_2$

Question Type : **MCQ**
Question ID : **37135113958**
Option 1 ID : **37135155830**
Option 2 ID : **37135155831**
Option 3 ID : **37135155832**
Option 4 ID : **37135155829**
Status : **Answered**
Chosen Option : **3**

Q.10

Isochor is the graph plotted between

Ans

✗ 1.

temperature on X - axis and volume on Y -axis at constant pressure.

✓ 2.

temperature on X - axis and pressure on Y - axis at constant volume.

✗ 3.

pressure on X - axis and volume on Y -axis at constant temperature.

✗ 4.

reciprocal of volume on X - axis and pressure on Y - axis at constant temperature.

Question Type : **MCQ**
Question ID : **37135113961**
Option 1 ID : **37135155842**
Option 2 ID : **37135155841**
Option 3 ID : **37135155843**
Option 4 ID : **37135155844**
Status : **Answered**
Chosen Option : **2**

Q.11

For the reaction,

$C_2H_5OH_{(l)} + 3\ O_{2(g)} \longrightarrow 2CO_{2(g)} + 3H_2O_{(l)}$

Which among the following is true ?

Ans

✗ 1. $\Delta H = \Delta U + 2\ RT$

✗ 2. $\Delta H = \Delta U - 2\ RT$

✓ 3. $\Delta H = \Delta U - RT$

✗ 4. $\Delta H = \Delta U + RT$

Question Type : **MCQ**
Question ID : **37135113951**
Option 1 ID : **37135155803**
Option 2 ID : **37135155804**
Option 3 ID : **37135155801**
Option 4 ID : **37135155802**
Status : **Answered**
Chosen Option : **3**

Q.12 van't Hoff factor for $K_3[Fe(CN)_6]$ is 3·333. What is it's percentage dissociation in water?

Ans

✔ 1. 77·7 %

✗ 2. 70 %

✗ 3. 83 %

✗ 4. 58 %

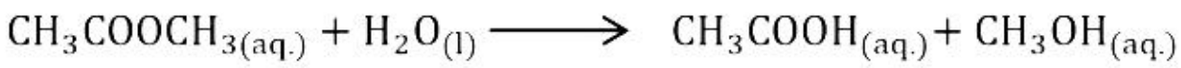
Question Type : **MCQ**
Question ID : **37135113998**
Option 1 ID : **37135155992**
Option 2 ID : **37135155991**
Option 3 ID : **37135155989**
Option 4 ID : **37135155990**
Status : **Answered**
Chosen Option : **1**

Q.13

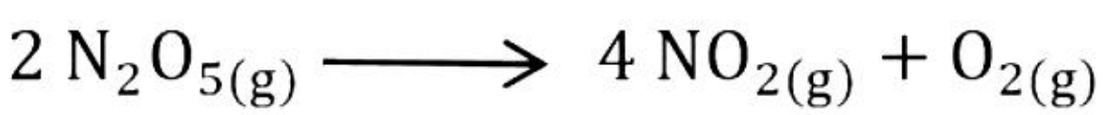
Which among the following is an example of pseudo first order reaction ?

Ans

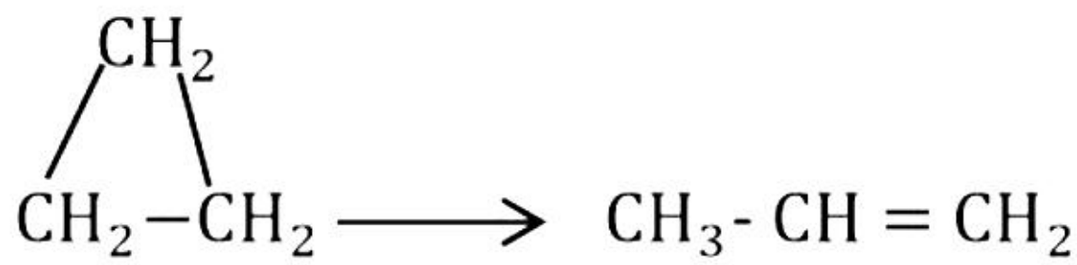
✔ 1.



✗ 2.



✗ 3.



✗ 4.

Question Type :	MCQ
Question ID :	37135113969
Option 1 ID :	37135155873
Option 2 ID :	37135155875
Option 3 ID :	37135155876
Option 4 ID :	37135155874
Status :	Answered
Chosen Option :	4

Q.14

Which mineral among following contains zinc ?

Ans

✔ 1. Willemite

✗ 2. Corundum

✗ 3. Azurite

✗ 4. Malachite

Question Type : **MCQ**
Question ID : **37135113953**
Option 1 ID : **37135155810**
Option 2 ID : **37135155809**
Option 3 ID : **37135155812**
Option 4 ID : **37135155811**
Status : **Answered**
Chosen Option : **1**

Q.15

Which among the following reaction produces lime water ?

Ans

✗ 1. $CaO + 2\ NH_4Cl \xrightarrow{\Delta} CaCL_2 + 2\ NH_3 + H_2O$

✗ 2. $CaO + SiO_2 \longrightarrow CaSiO_3$

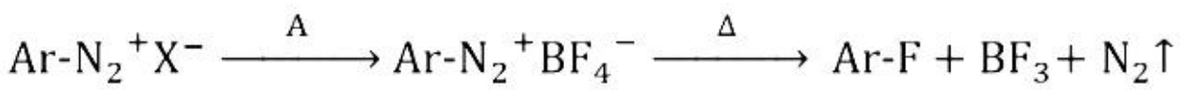
✗ 3. $CaO + CO_2 \longrightarrow CaCO_3$

✓ 4. $CaO + H_2O \longrightarrow Ca(OH)_2$

Question Type : **MCQ**
Question ID : **37135113988**
Option 1 ID : **37135155949**
Option 2 ID : **37135155951**
Option 3 ID : **37135155952**
Option 4 ID : **37135155950**
Status : **Answered**
Chosen Option : **4**

Q.16

In the following reaction the reagent A is,



Ans

✗ 1. hydrofluoric acid

✗ 2. borontrifluoride

✗ 3. boric acid

✓ 4. fluoroboric acid

Question Type : **MCQ**
Question ID : **37135113982**
Option 1 ID : **37135155925**
Option 2 ID : **37135155927**
Option 3 ID : **37135155928**
Option 4 ID : **37135155926**
Status : **Answered**
Chosen Option : **1**

Q.17

In case of substituted aniline the group which decreases the basic strength is

Ans

✗ 1. $-NH_2$

✗ 2. $-OCH_3$

✓ 3. $-NO_2$

✗ 4. $-CH_3$

Question Type : **MCQ**
Question ID : **37135113978**
Option 1 ID : **37135155911**
Option 2 ID : **37135155909**
Option 3 ID : **37135155912**
Option 4 ID : **37135155910**
Status : **Answered**
Chosen Option : **4**

Q.18

Which of the following is NOT dihydric phenol ?

Ans

1. Quinol

2. Catechol

3. Phloroglucinol

4. Resorcinol

Question Type : **MCQ**
Question ID : **37135113965**
Option 1 ID : **37135155860**
Option 2 ID : **37135155857**
Option 3 ID : **37135155858**
Option 4 ID : **37135155859**
Status : **Answered**
Chosen Option : **3**

Q.19

Identify the product B in the following reaction

$$CH_3COOH + C_2H_5OH \xrightarrow[-H_2O]{H^+} A \xrightarrow[Ni]{H_2} B$$

Ans

1. Ethanol

2. Ethanol and propionic acid

3. Ethanol and propanol

4. Ethanol and ethanoic acid

Question Type : **MCQ**
Question ID : **37135113956**
Option 1 ID : **37135155821**
Option 2 ID : **37135155822**
Option 3 ID : **37135155823**
Option 4 ID : **37135155824**
Status : **Answered**
Chosen Option : **4**

Q.20 Which of the following substances is NOT used for food preservation ?

Ans

✔ 1. Alitame

✗ 2. Sodium benzoate

✗ 3. Propionic acid salts

✗ 4. Sorbic acid salts

Question Type : **MCQ**
Question ID : **37135113970**
Option 1 ID : **37135155880**
Option 2 ID : **37135155877**
Option 3 ID : **37135155879**
Option 4 ID : **37135155878**
Status : **Answered**
Chosen Option : **1**

Q.21

Identify the use of Buna-N.

Ans

✔ 1. In making soles of shoes.

✗ 2. To prepare bubble gums.

✗ 3. For making inner tubes of tyres.

✗ 4. To manufacture chemical containers.

Question Type : **MCQ**
Question ID : **37135113967**
Option 1 ID : **37135155865**
Option 2 ID : **37135155866**
Option 3 ID : **37135155868**
Option 4 ID : **37135155867**
Status : **Answered**
Chosen Option : **3**

Q.22

What is the number of atoms in $12{\cdot}08 \times 10^{23}$ unit cells if an element crystallises in bcc structure ?

Ans

✗ 1. $4{\cdot}838 \times 10^{24}$

✗ 2. $2{\cdot}08 \times 10^{22}$

✓ 3. $2{\cdot}416 \times 10^{24}$

✗ 4. $1{\cdot}208 \times 10^{23}$

Question Type : **MCQ**
Question ID : **37135113980**
Option 1 ID : **37135155919**
Option 2 ID : **37135155920**
Option 3 ID : **37135155918**
Option 4 ID : **37135155917**
Status : **Answered**
Chosen Option : **1**

Q.23

Why is bond order of Be_2 molecule zero ?
(Nb = bonding electrons, Na = antibonding electrons)

Ans

✗ 1. $N_b > N_a$

✗ 2. $N_b < N_a$

✗ 3. $\frac{N_b}{N_a} = \text{Zero}$

✓ 4. $N_b = N_a$

Question Type : **MCQ**
Question ID : **37135113975**
Option 1 ID : **37135155898**
Option 2 ID : **37135155899**
Option 3 ID : **37135155900**
Option 4 ID : **37135155897**
Status : **Answered**
Chosen Option : **2**

Q.24

Identify the coordinate complex having ambidentate ligand from following.

Ans

✗ 1. Diammine silver (I) Chloride

✓ 2. Sodium hexanitrito-N-cobaltate (III)

✗ 3. Tetraaquadichlorochromium (III) chloride

✗ 4. Barium tetrachlorocuprate (II)

Question Type : **MCQ**
Question ID : **37135113977**
Option 1 ID : **37135155906**
Option 2 ID : **37135155905**
Option 3 ID : **37135155908**
Option 4 ID : **37135155907**
Status : **Answered**
Chosen Option : **2**

Q.25

Which among the following polymers is otained first by formation of salt by neutralization and then by step growth polymerisation ?

Ans

✗ 1. Polyester

✗ 2. Nylon-6

✓ 3. Nylon-6, 6

✗ 4. Novolac

Question Type : **MCQ**
Question ID : **37135113960**
Option 1 ID : **37135155837**
Option 2 ID : **37135155838**
Option 3 ID : **37135155839**
Option 4 ID : **37135155840**
Status : **Answered**
Chosen Option : **1**

Q.26

Identify the increasing order of effective magnetic moment of following elements in their + 2 oxidation state.
{Fe (Z=26), Co (Z= 27), Ni (Z= 28), Cu (Z=29)}

Ans

✗ 1. $Fe < Co < Ni < Cu$

✓ 2. $Cu < Ni < Co < Fe$

✗ 3. $Cu < Co < Fe < Ni$

✗ 4. $Co < Cu < Fe < Ni$

Question Type : **MCQ**
Question ID : **37135113985**
Option 1 ID : **37135155938**
Option 2 ID : **37135155939**
Option 3 ID : **37135155940**
Option 4 ID : **37135155937**
Status : **Answered**
Chosen Option : **4**

Q.27

If a dilute solution of NaI is added to dilute solution of excess $AgNO_3$, then species adsorbed on AgI colloidal particles is

Ans

✗ 1. Na^+

✓ 2. Ag^+

✗ 3. I^-

✗ 4. NO_3^-

Question Type : **MCQ**
Question ID : **37135113971**
Option 1 ID : **37135155882**
Option 2 ID : **37135155881**
Option 3 ID : **37135155883**
Option 4 ID : **37135155884**
Status : **Answered**
Chosen Option : **2**

Q.28

0·224 g of an organic Compound on complete combustion gives 0·126 g of water. What is the percentage composition of hydrogen in compound ?

Ans

✔ 1. 6·25 %

✗ 2. 35 %

✗ 3. 12·50 %

✗ 4. 25 %

Question Type : **MCQ**
Question ID : **37135113993**
Option 1 ID : **37135155969**
Option 2 ID : **37135155972**
Option 3 ID : **37135155970**
Option 4 ID : **37135155971**
Status : **Answered**
Chosen Option : **1**

Q.29

Which among the following complexes carries no net charge ?

Ans

✗ 1. $[Ni(NH_3)_6]Cl_2$

✗ 2. $[Fe(H_2O)_6]Cl_3$

✗ 3. $K_2[H_gI_4]$

✓ 4. $[Pt(NH_3)_2Cl_2]$

Question Type : **MCQ**
Question ID : **37135113976**
Option 1 ID : **37135155901**
Option 2 ID : **37135155904**
Option 3 ID : **37135155903**
Option 4 ID : **37135155902**
Status : **Answered**
Chosen Option : **4**

Q.30

Which of the following compounds is obtained when benzene reacts with benzoyl chloride in presence of anhydrous $AlCl_3$?

Ans

✗ 1. Chlorobenzene

✗ 2. Benzaldehyde

✓ 3. Benzophenone

✗ 4. Acetophenone

Question Type : **MCQ**
Question ID : **37135113997**
Option 1 ID : **37135155988**
Option 2 ID : **37135155987**
Option 3 ID : **37135155986**
Option 4 ID : **37135155985**
Status : **Answered**
Chosen Option : **4**

Q.31

In the reaction $2SO_2 + O_2 \longrightarrow 2SO_3$ the rate of appearance of SO_3 is 4×10^{-4} M/s, the rate of disappearance of O_2 is

Ans

✗ 1. $1{\cdot}0 \times 10^{-4}$ M/s

✓ 2. $2{\cdot}0 \times 10^{-4}$ M/s

✗ 3. $6{\cdot}0 \times 10^{-4}$ M/s

✗ 4. $4{\cdot}0 \times 10^{-4}$ M/s

Question Type : **MCQ**
Question ID : **37135113991**
Option 1 ID : **37135155964**
Option 2 ID : **37135155963**
Option 3 ID : **37135155961**
Option 4 ID : **37135155962**
Status : **Answered**
Chosen Option : **2**

Q.32

Identify the product A in the following reaction.

$$(CH_3)_3C\text{-}OH \xrightarrow[573\ K]{Cu} A$$

Ans

✔ 1. 2-methylpropene

✗ 2. 2-methylpropanal

✗ 3. Butanal

✗ 4. Butanone

Question Type : **MCQ**
Question ID : **37135113964**
Option 1 ID : **37135155855**
Option 2 ID : **37135155854**
Option 3 ID : **37135155853**
Option 4 ID : **37135155856**
Status : **Answered**
Chosen Option : **1**

Q.33

What is the oxidation state of chlorine atom in chlorous acid ?

Ans

✔ 1. +3

✘ 2. +1

✘ 3. +2

✘ 4. -1

Question Type : **MCQ**
Question ID : **37135113989**
Option 1 ID : **37135155956**
Option 2 ID : **37135155954**
Option 3 ID : **37135155955**
Option 4 ID : **37135155953**
Status : **Answered**
Chosen Option : **3**

Q.34

Secondary nitroalkalnes react with nitrous acid to form

Ans

✗ 1. green solution

✓ 2. blue solution

✗ 3. yellow solution

✗ 4. red solution

Question Type : **MCQ**
Question ID : **37135113972**
Option 1 ID : **37135155887**
Option 2 ID : **37135155886**
Option 3 ID : **37135155888**
Option 4 ID : **37135155885**
Status : **Answered**
Chosen Option : **3**

Q.35

When dry cell is in use the change taking place at cathode is

Ans

✗ 1. Zn is oxidised

✗ 2. $Zn^{++}_{(aq.)}$ is reduced

✓ 3. $NH^{+}_{4(aq.)}$ ions are reduced

✗ 4. MnO_2 is oxidised

Question Type : **MCQ**
Question ID : **37135113973**
Option 1 ID : **37135155890**
Option 2 ID : **37135155892**
Option 3 ID : **37135155889**
Option 4 ID : **37135155891**
Status : **Answered**
Chosen Option : **2**

Q.36

What is the oxidation number of V in $V_2O_7^{4-}$ ion ?

Ans

1. +4

2. +3

3. +6

4. +5

Question Type : **MCQ**
Question ID : **37135113979**
Option 1 ID : **37135155915**
Option 2 ID : **37135155916**
Option 3 ID : **37135155914**
Option 4 ID : **37135155913**
Status : **Answered**
Chosen Option : **4**

Q.37 The number of asymmetric carbon atoms present in 2,3-dichloro-4-methyl pentane is

Ans

✗ 1. One

✗ 2. Three

✓ 3. Two

✗ 4. Four

Question Type : **MCQ**
Question ID : **37135113968**
Option 1 ID : **37135155869**
Option 2 ID : **37135155871**
Option 3 ID : **37135155870**
Option 4 ID : **37135155872**
Status : **Answered**
Chosen Option : **2**

Q.38

Which among the following crystal structures the edge length of unit cell is equal to twice the radius of one atom ?

Ans

✗ 1. End - centred Orthorhombic

✓ 2. Simple cubic

✗ 3. Face centred cubic

✗ 4. Body centred cubic

Question Type : **MCQ**
Question ID : **37135113983**
Option 1 ID : **37135155929**
Option 2 ID : **37135155932**
Option 3 ID : **37135155930**
Option 4 ID : **37135155931**
Status : **Answered**
Chosen Option : **2**

Q.39

Which of the following is an example of narrow spectrum antibiotics ?

Ans

✗ 1. Amoxicillin

✗ 2. Ampicillin

✗ 3. Chloramphenicol

✓ 4. Penicillin

Question Type : **MCQ**
Question ID : **37135113954**
Option 1 ID : **37135155815**
Option 2 ID : **37135155814**
Option 3 ID : **37135155816**
Option 4 ID : **37135155813**
Status : **Answered**
Chosen Option : **3**

Q.40

What is the total number of chain isomers exhibited by Hexane ?

Ans

✗ 1. 9

✗ 2. 3

✗ 3. 4

✓ 4. 5

Question Type : **MCQ**
Question ID : **37135113999**
Option 1 ID : **37135155996**
Option 2 ID : **37135155993**
Option 3 ID : **37135155994**
Option 4 ID : **37135155995**
Status : **Answered**
Chosen Option : **2**

Q.41

Which statement from following is NOT true about cellobiose ?

Ans

✗ 1. It is also a reducing sugar.

✗ 2.

It is obtained by partial hydrolysis of cellulose.

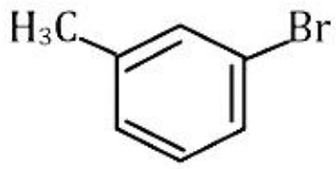
✓ 3.

In this C-l of one β-D-glucopyranose is linked to C-2 of another β-D-glucopyranose.

✗ 4. It is a diasaccharide.

Question Type : **MCQ**
Question ID : **37135114000**
Option 1 ID : **37135155997**
Option 2 ID : **37135155999**
Option 3 ID : **37135156000**
Option 4 ID : **37135155998**
Status : **Answered**
Chosen Option : **3**

Q.42

The organic compound  belongs to

Ans

✗ 1. benzylic halide

✗ 2. allylic halide

✗ 3. vinylic halide

✓ 4. aryl halide

Question Type : **MCQ**
Question ID : **37135113952**
Option 1 ID : **37135155807**
Option 2 ID : **37135155806**
Option 3 ID : **37135155805**
Option 4 ID : **37135155808**
Status : **Answered**
Chosen Option : **2**

Q.43

Which among the following elements when added to silicon forms P - type semiconductor ?

Ans

✗ 1. Sb

✗ 2. Bi

✓ 3. B

✗ 4. As

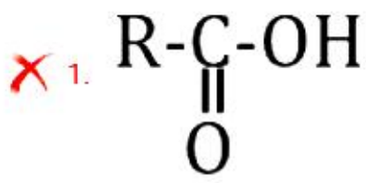
Question Type : **MCQ**
Question ID : **37135113974**
Option 1 ID : **37135155894**
Option 2 ID : **37135155895**
Option 3 ID : **37135155896**
Option 4 ID : **37135155893**
Status : **Answered**
Chosen Option : **3**

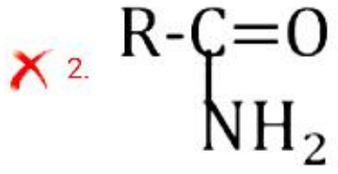
Q.44

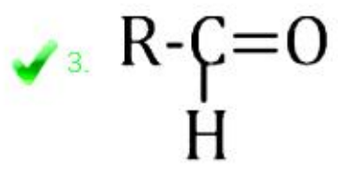
Identify B in the following reaction

$$R\text{-}C\equiv N \xrightarrow{SnCl_2/\ HCl\ dil.} A \xrightarrow{H_3O^+} B + NH_4Cl$$

Ans

1. 

2. 

3. 

4. $RCH_2\text{-}NH_2$

Question Type : **MCQ**
Question ID : **37135113987**
Option 1 ID : **37135155948**
Option 2 ID : **37135155947**
Option 3 ID : **37135155945**
Option 4 ID : **37135155946**
Status : **Answered**
Chosen Option : **3**

Q.45

Calculate the strength of 10 volume solution of hydrogen peroxide ?

Ans

✔ 1. $30{\cdot}35\ g\ L^{-1}$

✗ 2. $60{\cdot}71\ g\ L^{-1}$

✗ 3. $45{\cdot}51\ g\ L^{-1}$

✗ 4. $15{\cdot}175\ g\ L^{-1}$

Question Type : **MCQ**
Question ID : **37135113984**
Option 1 ID : **37135155934**
Option 2 ID : **37135155936**
Option 3 ID : **37135155935**
Option 4 ID : **37135155933**
Status : **Answered**
Chosen Option : **2**

Q.46

In 2 hours, a certain current liberates 0·504 g hydrogen. How many grams of copper can be deposited by the same current flowing for the same time in a $CuSO_4$ solution ?
(molar mass of Cu = 63·5 g mol^{-1}, H_2 = 2·0 g mol^{-1})

Ans

✗ 1. 31·8 g

✗ 2. 32 g

✗ 3. 63·5 g

✓ 4. 16·0 g

Question Type : **MCQ**
Question ID : **37135113995**
Option 1 ID : **37135155978**
Option 2 ID : **37135155980**
Option 3 ID : **37135155977**
Option 4 ID : **37135155979**
Status : **Answered**
Chosen Option : **4**

Q.47

What type of solution is obtained when benzoic acid is added in Benzene ?

Ans

✗ 1. solid in solid

✗ 2. liquid in liquid

✗ 3. liquid in solid

✓ 4. Solid in liquid

Question Type : **MCQ**
Question ID : **37135113990**
Option 1 ID : **37135155960**
Option 2 ID : **37135155959**
Option 3 ID : **37135155958**
Option 4 ID : **37135155957**
Status : **Answered**
Chosen Option : **2**

Q.48

Which of the following noble gas molecules is more polarised by water ?

Ans

✔ 1. Krypton

✘ 2. Helium

✘ 3. Argon

✘ 4. Neon

Question Type : **MCQ**
Question ID : **37135113994**
Option 1 ID : **37135155976**
Option 2 ID : **37135155973**
Option 3 ID : **37135155975**
Option 4 ID : **37135155974**
Status : **Answered**
Chosen Option : **2**

Q.49

Which among the following observations suggests that glucose also exists in cyclic form ?

Ans ✗ 1.

Acetylation of glucose obtains glucose penta acetate.

✓ 2.

Glucose does not undergo condensation with 2, 4 dinitro-phenylhydrazine.

✗ 3.

Prolong heating of glucose with HI yields n-hexane.

✗ 4.

Hydroxylamine reacts with glucose to form glucose oxime.

Question Type : **MCQ**
Question ID : **37135113996**
Option 1 ID : **37135155982**
Option 2 ID : **37135155984**
Option 3 ID : **37135155983**
Option 4 ID : **37135155981**
Status : **Answered**
Chosen Option : **2**

Q.50

Which of the following is an extensive property ?

Ans

✗ 1. Specific heat

✓ 2. Volume

✗ 3. Density

✗ 4. Surface tension

Question Type : **MCQ**
Question ID : **37135113959**
Option 1 ID : **37135155833**
Option 2 ID : **37135155836**
Option 3 ID : **37135155835**
Option 4 ID : **37135155834**
Status : **Answered**
Chosen Option : **1**

Section : Biology

Q.1 Self-incompatibility is observed in _____.

Ans

✔ 1. Orchids

✗ 2. *Callistemon*

✗ 3. *Salvia*

✗ 4. *Cestrum*

Question Type : **MCQ**
Question ID : **37135114022**
Option 1 ID : **37135156085**
Option 2 ID : **37135156088**
Option 3 ID : **37135156086**
Option 4 ID : **37135156087**
Status : **Answered**
Chosen Option : **1**

Q.2 Which one of the following does NOT show hypogeal germination?

Ans

✗ 1. Pea

✔ 2. Tamarind

✗ 3. Groundnut

✗ 4. Gram

Question Type : **MCQ**
Question ID : **37135114045**
Option 1 ID : **37135156177**
Option 2 ID : **37135156179**
Option 3 ID : **37135156178**
Option 4 ID : **37135156180**
Status : **Answered**
Chosen Option : **3**

Q.3 The mycorrhiza in relationship with land plants is a_____.

Ans
✔ 1. fungus

✗ 2. protozoan

✗ 3. bacterium

✗ 4. virus

Question Type : **MCQ**
Question ID : **37135114056**
Option 1 ID : **37135156223**
Option 2 ID : **37135156224**
Option 3 ID : **37135156221**
Option 4 ID : **37135156222**
Status : **Answered**
Chosen Option : **1**

Q.4 Select the correct match from the following.

Ans ✗ 1.
Hair root from human ---- Extracted and purified insulin

✗ 2.
Escherichia coli ---- smallest genome

✔ 3.
Female banded krait ---- DNA probe

✗ 4.
Pancreas from dog ---- Humulin

Question Type : **MCQ**
Question ID : **37135114099**
Option 1 ID : **37135156395**
Option 2 ID : **37135156396**
Option 3 ID : **37135156393**
Option 4 ID : **37135156394**
Status : **Answered**
Chosen Option : **3**

Q.5 Match the pairs of proteins and their types in Column-I and Column-II. Choose the correct option.

Column-I	Column-II
a) Structural	i) Immunoglobulin
b) Contractile	ii) Myoglobin
c) Transport	iii) Keratin
d) Defensive	iv) Myosin

Ans

✗ 1. a- (i), b-(ii), c- (iii), d-(iv)

✗ 2. a- (i), b-(iv), c- (ii), d-(iii)

✗ 3. a- (iv), b-(iii), c- (ii), d-(i)

✓ 4. a- (iii), b-(iv), c- (ii), d-(i)

Question Type : **MCQ**
Question ID : **37135114006**
Option 1 ID : **37135156022**
Option 2 ID : **37135156024**
Option 3 ID : **37135156023**
Option 4 ID : **37135156021**
Status : **Answered**
Chosen Option : **4**

Q.6 During proton pump (chemiosmosis) for synthesis of $NADPH_2$ from NADP _____ are required.

Ans

✗ 1. only protons

✗ 2. only electrons

✗ 3. neither protons nor electrons

✓ 4. protons along with electrons

Question Type : **MCQ**
Question ID : **37135114040**
Option 1 ID : **37135156157**
Option 2 ID : **37135156158**
Option 3 ID : **37135156160**
Option 4 ID : **37135156159**
Status : **Answered**
Chosen Option : **2**

Q.7 During glycolysis, both oxidation and phosphorylation reactions occur during conversion of _____.

Ans

✗ 1. PEPA to Pyruvate

✗ 2. 2-PGA to PEPA

✗ 3. DHAP to PGAL

✓ 4. PGAL to 1,3 -di PGA

Question Type : **MCQ**
Question ID : **37135114037**
Option 1 ID : **37135156148**
Option 2 ID : **37135156147**
Option 3 ID : **37135156145**
Option 4 ID : **37135156146**
Status : **Answered**
Chosen Option : **2**

Q.8 In which one of the following processes are the bacteria *Nitrosomonas, Nitrosococcus* and *Nitrobacter* involved?

Ans

✗ 1. Denitrification

✗ 2. Deamination

✗ 3. Eutrophication

✓ 4. Nitrification

Question Type : **MCQ**
Question ID : **37135114008**
Option 1 ID : **37135156032**
Option 2 ID : **37135156029**
Option 3 ID : **37135156030**
Option 4 ID : **37135156031**
Status : **Answered**
Chosen Option : **1**

Q.9 In human beings, how much quantity of semen is contributed by the prostate gland?

Ans

✗ 1. 60 %

✓ 2. 30 %

✗ 3. 80 %

✗ 4. 10 %

Question Type : **MCQ**
Question ID : **37135114067**
Option 1 ID : **37135156266**
Option 2 ID : **37135156267**
Option 3 ID : **37135156265**
Option 4 ID : **37135156268**
Status : **Answered**
Chosen Option : **3**

Q.10 Which of the following is the first cell of human life?

Ans

✗ 1. Oosphere

✗ 2. 1st polar body

✗ 3. Oospore

✓ 4. Synkaryon

Question Type : **MCQ**
Question ID : **37135114089**
Option 1 ID : **37135156355**
Option 2 ID : **37135156353**
Option 3 ID : **37135156354**
Option 4 ID : **37135156356**
Status : **Answered**
Chosen Option : **3**

Q.11 The blood pressure will be minimum in the _____.

Ans

✗ 1. systemic aorta

✗ 2. pulmonary artery

✓ 3. renal vein

✗ 4. coronary artery

Question Type : **MCQ**
Question ID : **37135114057**
Option 1 ID : **37135156225**
Option 2 ID : **37135156226**
Option 3 ID : **37135156227**
Option 4 ID : **37135156228**
Status : **Answered**
Chosen Option : **3**

Q.12 The monitoring stations established by NEERI have reported that Chembur-Trombay area in Mumbai has highest _____in air.

Ans

✗ 1. hydrocarbons

✗ 2. carbon monoxide

✗ 3. suspended particulate matter

✓ 4. sulphur di-oxide

Question Type : **MCQ**
Question ID : **37135114097**
Option 1 ID : **37135156388**
Option 2 ID : **37135156386**
Option 3 ID : **37135156385**
Option 4 ID : **37135156387**
Status : **Answered**
Chosen Option : **1**

Q.13 Point mutation is _____.

Ans

✓ 1. sudden change in the chemical make up of a gene.

✗ 2. alteration in allele frequency.

✗ 3. changes in gene arrangement in chromosome.

✗ 4. gradual, continuous change in genetic make up.

Question Type : **MCQ**
Question ID : **37135114090**
Option 1 ID : **37135156357**
Option 2 ID : **37135156359**
Option 3 ID : **37135156358**
Option 4 ID : **37135156360**
Status : **Answered**
Chosen Option : **1**

Q.14 How many oxidation steps are involved in aerobic respiration during acetylation and Krebs cycle?

Ans

✗ 1. Two

✗ 2. Four

✗ 3. Three

✓ 4. Five

Question Type : **MCQ**
Question ID : **37135114011**
Option 1 ID : **37135156044**
Option 2 ID : **37135156042**
Option 3 ID : **37135156043**
Option 4 ID : **37135156041**
Status : **Answered**
Chosen Option : **3**

Q.15 Match the plant structure in Column-I with the process occurring in it from Column-II and select the correct option.

Column-I	Column-II
i) Stomata	a) Absorption
ii) Hydathode	b) Transpiration
iii) Root hair	c) Guttation
iv) Tracheary elements	d) Translocation

Ans

✗ 1.

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

✗ 2.

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

✓ 3.

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

✗ 4.

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

Question Type : **MCQ**
Question ID : **37135114017**
Option 1 ID : **37135156066**
Option 2 ID : **37135156068**
Option 3 ID : **37135156067**
Option 4 ID : **37135156065**
Status : **Answered**
Chosen Option : **1**

Q.16 These blood corpuscles are also called polymorphs_____.

Ans

✔ 1. Neutrophils

✗ 2. Monocytes

✗ 3. Basophils

✗ 4. Eosinophils

Question Type : **MCQ**
Question ID : **37135114082**
Option 1 ID : **37135156326**
Option 2 ID : **37135156328**
Option 3 ID : **37135156327**
Option 4 ID : **37135156325**
Status : **Answered**
Chosen Option : **1**

Q.17 The foliar buds for vegetative propagation are produced on the surface of leaf in _____.

Ans

✔ 1. *Begonia*

✗ 2. *Bryophyllum*

✗ 3. *Kalanchoe*

✗ 4. *Bignonia*

Question Type : **MCQ**
Question ID : **37135114038**
Option 1 ID : **37135156152**
Option 2 ID : **37135156150**
Option 3 ID : **37135156149**
Option 4 ID : **37135156151**
Status : **Answered**
Chosen Option : **2**

Q.18 PCR is NOT used in_____.

Ans
✔ 1. lytic cycle

✗ 2. DNA finger printing

✗ 3. DNA cloning

✗ 4. gene amplification

Question Type : **MCQ**
Question ID : **37135114034**
Option 1 ID : **37135156134**
Option 2 ID : **37135156133**
Option 3 ID : **37135156136**
Option 4 ID : **37135156135**
Status : **Answered**
Chosen Option : **1**

Q.19 Coccidiosis is a disease related to _____.

Ans
✗ 1. sericulture

✔ 2. poultry

✗ 3. apiculture

✗ 4. fish hatchery

Question Type : **MCQ**
Question ID : **37135114093**
Option 1 ID : **37135156372**
Option 2 ID : **37135156370**
Option 3 ID : **37135156369**
Option 4 ID : **37135156371**
Status : **Answered**
Chosen Option : **2**

Q.20 The oxygenated blood is brought to the left atrium by _____pulmonary veins.

Ans

✗ 1. 3

✓ 2. 4

✗ 3. 5

✗ 4. 2

Question Type : **MCQ**
Question ID : **37135114077**
Option 1 ID : **37135156306**
Option 2 ID : **37135156307**
Option 3 ID : **37135156308**
Option 4 ID : **37135156305**
Status : **Answered**
Chosen Option : **4**

Q.21 Polysome is a group of _____.

Ans

✓ 1. ribosomes

✗ 2. plastids

✗ 3. microbodies

✗ 4. lysosomes

Question Type : **MCQ**
Question ID : **37135114079**
Option 1 ID : **37135156316**
Option 2 ID : **37135156315**
Option 3 ID : **37135156314**
Option 4 ID : **37135156313**
Status : **Answered**
Chosen Option : **4**

Q.22 During implantation, the cells of _____secrete lytic enzymes and destroy endometrial cells.

Ans

✔ 1. syncytiotrophoblast

✗ 2. corona radiata

✗ 3. embryonic disc

✗ 4. cytotrophoblast

Question Type : **MCQ**
Question ID : **37135114053**
Option 1 ID : **37135156210**
Option 2 ID : **37135156212**
Option 3 ID : **37135156211**
Option 4 ID : **37135156209**
Status : **Answered**
Chosen Option : **4**

Q.23 Characteristic three successive free nuclear mitotic divisions are involved in the development of _____in angiosperms.

Ans

✔ 1. female gametophyte

✗ 2. embryo

✗ 3. male gametophyte

✗ 4. endosperm

Question Type : **MCQ**
Question ID : **37135114026**
Option 1 ID : **37135156101**
Option 2 ID : **37135156104**
Option 3 ID : **37135156102**
Option 4 ID : **37135156103**
Status : **Answered**
Chosen Option : **1**

Q.24 A student of biology would suggest which one of the following agricultural practices to control biomagnification of toxic elements in the ecosystem?

Ans

✗ 1.
Mixed cropping and use of fertilizers in large amount.

✓ 2.
Organic farming and use of biopesticides and biofertilizers.

✗ 3.
Crop rotation and use of NPK fertilizers.

✗ 4.
Jhum cultivation and use of chemical fertilizers and bio pesticides.

Question Type : **MCQ**
Question ID : **37135114015**
Option 1 ID : **37135156057**
Option 2 ID : **37135156058**
Option 3 ID : **37135156059**
Option 4 ID : **37135156060**
Status : **Answered**
Chosen Option : **2**

Q.25 Colour of B- carotene is _____.

Ans

✗ 1. blue green

✗ 2. yellow

✗ 3. yellow green

✓ 4. orange

Question Type : **MCQ**
Question ID : **37135114044**
Option 1 ID : **37135156175**
Option 2 ID : **37135156174**
Option 3 ID : **37135156176**
Option 4 ID : **37135156173**
Status : **Answered**
Chosen Option : **4**

Q.26 How many ATP molecules are generated when one molecule of reduced coenzyme $NADH_2$ is reoxidised during respiratory chain?

Ans

✗ 1. Two

✗ 2. Four

✗ 3. One

✓ 4. Three

Question Type : **MCQ**
Question ID : **37135114018**
Option 1 ID : **37135156070**
Option 2 ID : **37135156072**
Option 3 ID : **37135156069**
Option 4 ID : **37135156071**
Status : **Answered**
Chosen Option : **4**

Q.27 *Lantana camara* is a _____ species.

Ans

✗ 1. endangered

✗ 2. rare

✓ 3. exotic

✗ 4. vulnerable

Question Type : **MCQ**
Question ID : **37135114098**
Option 1 ID : **37135156389**
Option 2 ID : **37135156391**
Option 3 ID : **37135156392**
Option 4 ID : **37135156390**
Status : **Answered**
Chosen Option : **2**

Q.28 Identify the correct statement for suspension culture.

Ans

✗ 1.

This does not need sub-culturing at all.

✗ 2.

The callus transferred in liquid nutrient medium remains intact even after agitation.

✓ 3.

This culture grows much faster than callus culture.

✗ 4.

Agitation of the medium is not necessary.

Question Type : **MCQ**
Question ID : **37135114036**
Option 1 ID : **37135156144**
Option 2 ID : **37135156141**
Option 3 ID : **37135156143**
Option 4 ID : **37135156142**
Status : **Answered**
Chosen Option : **3**

Q.29 A membrane that allows the passage of solvent molecules but not the passage of solute molecules is called _____membrane.

Ans

✗ 1. differentially permeable

✗ 2. impermeable

✗ 3. freely permeable

✓ 4. semi-permeable

Question Type : **MCQ**
Question ID : **37135114047**
Option 1 ID : **37135156185**
Option 2 ID : **37135156188**
Option 3 ID : **37135156186**
Option 4 ID : **37135156187**
Status : **Answered**
Chosen Option : **4**

Q.30 Which one of the following is NOT a characteristic of garden pea plants?

Ans

✗ 1. They show many varieties with contrasting characters.

✗ 2. They are self-pollinating.

✓ 3. They show many intermediate characters.

✗ 4. They are annual plants.

Question Type : **MCQ**
Question ID : **37135114009**
Option 1 ID : **37135156035**
Option 2 ID : **37135156034**
Option 3 ID : **37135156036**
Option 4 ID : **37135156033**
Status : **Answered**
Chosen Option : **3**

Q.31 In angiosperms, the endosperm is classified on the basis of which one of the following criteria?

Ans

✓ 1. Development

✗ 2. Position

✗ 3. Ploidy

✗ 4. Function

Question Type : **MCQ**
Question ID : **37135114019**
Option 1 ID : **37135156073**
Option 2 ID : **37135156076**
Option 3 ID : **37135156075**
Option 4 ID : **37135156074**
Status : **Answered**
Chosen Option : **1**

Q.32 Ophthalmic, maxillary and mandibular nerves are branches of _____cranial nerve.

Ans

✗ 1. Facial

✗ 2. Vestibulocochlear

✗ 3. Glossopharyngeal

✓ 4. Trigeminal

Question Type : **MCQ**
Question ID : **37135114078**
Option 1 ID : **37135156310**
Option 2 ID : **37135156311**
Option 3 ID : **37135156309**
Option 4 ID : **37135156312**
Status : **Answered**
Chosen Option : **3**

Q.33 TPA gene is used for _____in gene therapy.

Ans

✗ 1. wound healing

✗ 2. treating haemophiliacs

✗ 3. treating pituitary dwarfism

✓ 4. reversing blood clots

Question Type : **MCQ**
Question ID : **37135114080**
Option 1 ID : **37135156317**
Option 2 ID : **37135156320**
Option 3 ID : **37135156319**
Option 4 ID : **37135156318**
Status : **Answered**
Chosen Option : **4**

Q.34 In the process of clotting, enzyme prothrombinase requires _____ ions to convert prothrombin to thrombin.

Ans
1. Ca^{++}

2. Mn^{++}

3. Mg^{++}

4. Na^{++}

Question Type : **MCQ**
Question ID : **37135114068**
Option 1 ID : **37135156270**
Option 2 ID : **37135156271**
Option 3 ID : **37135156269**
Option 4 ID : **37135156272**
Status : **Answered**
Chosen Option : **1**

Q.35 Nucleoid is _____.

Ans
1. chromatin material of eukaryotic cells.

2. nuclear sap of eukaryotic cells.

3. prokaryotic chromosome associated with proteins.

4. spherical, acidophilic body present within distinct nucleus.

Question Type : **MCQ**
Question ID : **37135114076**
Option 1 ID : **37135156302**
Option 2 ID : **37135156304**
Option 3 ID : **37135156303**
Option 4 ID : **37135156301**
Status : **Answered**
Chosen Option : **3**

Q.36 Which of the parents with following blood groups CANNOT have a child with blood group A?

Ans

✗ 1. A and B (heterozygous)

✓ 2. O and B

✗ 3. AB and A (heterozygous)

✗ 4. O and AB

Question Type : **MCQ**
Question ID : **37135114021**
Option 1 ID : **37135156082**
Option 2 ID : **37135156084**
Option 3 ID : **37135156083**
Option 4 ID : **37135156081**
Status : **Answered**
Chosen Option : **2**

Q.37 Oligodendrocytes are types of _____.

Ans

✗ 1. plasma cells

✗ 2. epithelial cells

✓ 3. neuroglial cells

✗ 4. goblet cells

Question Type : **MCQ**
Question ID : **37135114091**
Option 1 ID : **37135156364**
Option 2 ID : **37135156361**
Option 3 ID : **37135156362**
Option 4 ID : **37135156363**
Status : **Answered**
Chosen Option : **4**

Q.38 Which fossil of human ancestor had cranial capacity of 1450 c.c.?

Ans

✗ 1. *Homo erectus erectus*

✗ 2. *Homo habilis*

✓ 3. *Homo neanderthalensis*

✗ 4. *Homo sapiens fossilis*

Question Type : **MCQ**
Question ID : **37135114058**
Option 1 ID : **37135156230**
Option 2 ID : **37135156229**
Option 3 ID : **37135156231**
Option 4 ID : **37135156232**
Status : **Answered**
Chosen Option : **2**

Q.39 Which one of the following is a non-endospermic seed?

Ans

✓ 1. Gram

✗ 2. Maize

✗ 3. Castor

✗ 4. Sunflower

Question Type : **MCQ**
Question ID : **37135114033**
Option 1 ID : **37135156131**
Option 2 ID : **37135156130**
Option 3 ID : **37135156132**
Option 4 ID : **37135156129**
Status : **Answered**
Chosen Option : **1**

Q.40 The newly selected plants obtained by hybridization are grown in natural fields for at least _____ successive seasons.

Ans

✗ 1. 4

✓ 2. 3

✗ 3. 1

✗ 4. 2

Question Type : **MCQ**
Question ID : **37135114024**
Option 1 ID : **37135156093**
Option 2 ID : **37135156094**
Option 3 ID : **37135156096**
Option 4 ID : **37135156095**
Status : **Answered**
Chosen Option : **2**

Q.41 *Bacillus thuringiensis* is a soil bacterium that produces a _____ with insecticidal properties.

Ans

✗ 1. polysaccharide

✗ 2. hormone

✓ 3. protein

✗ 4. lipid

Question Type : **MCQ**
Question ID : **37135114028**
Option 1 ID : **37135156111**
Option 2 ID : **37135156110**
Option 3 ID : **37135156109**
Option 4 ID : **37135156112**
Status : **Answered**
Chosen Option : **3**

Q.42 In human beings, the foetal placenta is derived from_____.

Ans

✗ 1. allantois

✓ 2. chorion

✗ 3. primary yolk sac

✗ 4. amnion

Question Type : **MCQ**
Question ID : **37135114063**
Option 1 ID : **37135156252**
Option 2 ID : **37135156250**
Option 3 ID : **37135156251**
Option 4 ID : **37135156249**
Status : **Answered**
Chosen Option : **3**

Q.43 Select the correct statement about the mesosome in bacterial cell. It _____.

Ans

✗ 1. stores organic inclusions.

✓ 2. is believed to be involved in the replication of DNA.

✗ 3. brings about photosynthesis by stored pigments such as bacteriochlorophyll and carotenoids.

✗ 4. is infolding of cell wall that provides mechanical support.

Question Type : **MCQ**
Question ID : **37135114095**
Option 1 ID : **37135156379**
Option 2 ID : **37135156380**
Option 3 ID : **37135156378**
Option 4 ID : **37135156377**
Status : **Answered**
Chosen Option : **1**

Q.44 Lateral ventricles of cerebral hemispheres communicate with third ventricle through_____.

Ans

✗ 1. foramen ovale

✓ 2. foramen of Monro

✗ 3. foramen magnum

✗ 4. hypophyseal fossa

Question Type : **MCQ**
Question ID : **37135114069**
Option 1 ID : **37135156276**
Option 2 ID : **37135156275**
Option 3 ID : **37135156273**
Option 4 ID : **37135156274**
Status : **Answered**
Chosen Option : **3**

Q.45 The auricle (external ear) in man is made up of _____.

Ans

✗ 1. calcified cartilage

✓ 2. elastic cartilage

✗ 3. hyaline cartilage

✗ 4. brown adipose tissue

Question Type : **MCQ**
Question ID : **37135114055**
Option 1 ID : **37135156217**
Option 2 ID : **37135156220**
Option 3 ID : **37135156219**
Option 4 ID : **37135156218**
Status : **Answered**
Chosen Option : **2**

Q.46 Match the correct numbers regarding the inheritance of human skin colour.

	Number of different types of gametes produced by mulattoes	Total number of different combinations in F_2 generation	Number of different phenotypes in F_2 generation
Ans ✗ 1.	64	8	7
✗ 2.	7	8	64
✓ 3.	8	64	7
✗ 4.	7	64	8

Question Type : **MCQ**
Question ID : **37135114027**
Option 1 ID : **37135156107**
Option 2 ID : **37135156108**
Option 3 ID : **37135156105**
Option 4 ID : **37135156106**
Status : **Answered**
Chosen Option : **3**

Q.47 During the reactions of HSK pathway in bundle sheath chloroplast, malate undergoes_____.

Ans
✓ 1. decarboxylation
✗ 2. reduction
✗ 3. phosphorylation
✗ 4. hydration

Question Type : **MCQ**
Question ID : **37135114025**
Option 1 ID : **37135156098**
Option 2 ID : **37135156097**
Option 3 ID : **37135156099**
Option 4 ID : **37135156100**
Status : **Answered**
Chosen Option : **1**

Q.48 Risk taking behavior in adolescents is thought to be caused by _____part of brain developing faster than other parts during this growth period.

Ans

✗ 1. frontal cortex

✗ 2. medulla oblongata

✗ 3. corpus callosum

✓ 4. amygdala

Question Type : **MCQ**
Question ID : **37135114092**
Option 1 ID : **37135156365**
Option 2 ID : **37135156366**
Option 3 ID : **37135156368**
Option 4 ID : **37135156367**
Status : **Answered**
Chosen Option : **4**

Q.49 Dihybrid ratio is a product of two monohybrid ratios. Which principle of statistics did Mendel apply here?

Ans

✗ 1. Standard deviation

✗ 2. Mode

✗ 3. Median

✓ 4. Probability

Question Type : **MCQ**
Question ID : **37135114014**
Option 1 ID : **37135156053**
Option 2 ID : **37135156054**
Option 3 ID : **37135156055**
Option 4 ID : **37135156056**
Status : **Answered**
Chosen Option : **1**

Q.50 Which gland in the male human being is homologous to the vestibular gland in the human female?

Ans

✗ 1. Bartholin's gland

✗ 2. Seminal vesicle

✗ 3. Prostate gland

✓ 4. Cowper's gland

Question Type : **MCQ**
Question ID : **37135114070**
Option 1 ID : **37135156277**
Option 2 ID : **37135156279**
Option 3 ID : **37135156278**
Option 4 ID : **37135156280**
Status : **Answered**
Chosen Option : **2**

Q.51 Which one of the following is a restriction enzyme?

Ans

✗ 1. RNA polymerase

✗ 2. DNA polymerase

✗ 3. Ligase

✓ 4. EcoR I

Question Type : **MCQ**
Question ID : **37135114049**
Option 1 ID : **37135156196**
Option 2 ID : **37135156194**
Option 3 ID : **37135156193**
Option 4 ID : **37135156195**
Status : **Answered**
Chosen Option : **4**

Q.52 Cancer characterized by a change in wart or mole on the skin is called_____.

Ans

✗ 1. Carcinoma

✗ 2. Sarcoma

✓ 3. Melanoma

✗ 4. Adenoma

Question Type : **MCQ**
Question ID : **37135114066**
Option 1 ID : **37135156264**
Option 2 ID : **37135156263**
Option 3 ID : **37135156261**
Option 4 ID : **37135156262**
Status : **Answered**
Chosen Option : **1**

Q.53 Which one of the following is dominant among the wing sizes in *Drosophila*?

Ans

✓ 1. Normal wings

✗ 2. Vestigeal wings

✗ 3. Notched wings

✗ 4. Nicked wings

Question Type : **MCQ**
Question ID : **37135114007**
Option 1 ID : **37135156027**
Option 2 ID : **37135156028**
Option 3 ID : **37135156026**
Option 4 ID : **37135156025**
Status : **Answered**
Chosen Option : **1**

Q.54 Column-I consists of names of fungi classes while Column-II consists of names of genera. Find out the correct option.

Column-I	Column-II
I. Phycomycetes	p. *Alternaria, Trichophyton*
II. Ascomycetes	q. *Agaricus, Puccinia*
III. Basidiomycetes	r. *Mucor, Rhizopus*
IV. Deuteromycetes	s. *Aspergillus, Penicillium*

Ans

✔ 1. I – r, II-s, III-q, IV-p

✗ 2. I – p, II-q, III-r, IV-s

✗ 3. I – q, II-r, III-s, IV-p

✗ 4. I – s, II-r, III-p, IV-q

Question Type : **MCQ**
Question ID : **37135114048**
Option 1 ID : **37135156192**
Option 2 ID : **37135156189**
Option 3 ID : **37135156190**
Option 4 ID : **37135156191**
Status : **Answered**
Chosen Option : **4**

Q.55 In honey bees, drones are produced by_____.

Ans

✗ 1. spermatogenesis

✗ 2. transgenesis

✔ 3. parthenogenesis

✗ 4. haemopoiesis

Question Type : **MCQ**
Question ID : **37135114051**
Option 1 ID : **37135156203**
Option 2 ID : **37135156202**
Option 3 ID : **37135156201**
Option 4 ID : **37135156204**
Status : **Answered**
Chosen Option : **3**

Q.56 Which phytohormone is useful for leaf expansion in leafy vegetable?

Ans

✗ 1. Cytokinins

✓ 2. Gibberellins

✗ 3. Ethylene

✗ 4. Auxins

Question Type : **MCQ**
Question ID : **37135114031**
Option 1 ID : **37135156123**
Option 2 ID : **37135156122**
Option 3 ID : **37135156124**
Option 4 ID : **37135156121**
Status : **Answered**
Chosen Option : **1**

Q.57 Which one of the following enzyme does NOT operate in Lac Operon?

Ans

✓ 1. DNAase

✗ 2. permease

✗ 3. β – galactosidase

✗ 4. transacetylase

Question Type : **MCQ**
Question ID : **37135114013**
Option 1 ID : **37135156052**
Option 2 ID : **37135156049**
Option 3 ID : **37135156050**
Option 4 ID : **37135156051**
Status : **Answered**
Chosen Option : **1**

Q.58 During anaerobic respiration, pyruvate undergoes decarboxylation in presence of enzyme pyruvate decarboxylase. Which of the following coenzymes and cofactors respectively are required in this reaction?

Ans

✗ 1. Acetyl Co-A and Mg^{++}

✗ 2. Acetyl Co-A and Zn^{++}

✗ 3. Co-enzyme Q and Mg^{++}

✓ 4. Thiamine pyrophosphate and Zn^{++}

Question Type : MCQ
Question ID : 37135114020
Option 1 ID : 37135156079
Option 2 ID : 37135156080
Option 3 ID : 37135156078
Option 4 ID : 37135156077
Status : Answered
Chosen Option : 1

Q.59 The acceptor of atmospheric CO_2 in C_3 plants is _____.

Ans

✗ 1. RUBP and PEPA

✓ 2. RUBP only

✗ 3. PEPA only

✗ 4. OAA or PEPA

Question Type : MCQ
Question ID : 37135114035
Option 1 ID : 37135156140
Option 2 ID : 37135156137
Option 3 ID : 37135156138
Option 4 ID : 37135156139
Status : Answered
Chosen Option : 2

Q.60 Finches of Galapagos islands differ from main land finches in size, colour and food habits. It is due to _____.

Ans

✔ 1. geographical isolation

✘ 2. reproductive isolation

✘ 3. ethological isolation

✘ 4. seasonal isolation

Question Type : **MCQ**
Question ID : **37135114088**
Option 1 ID : **37135156349**
Option 2 ID : **37135156350**
Option 3 ID : **37135156352**
Option 4 ID : **37135156351**
Status : **Answered**
Chosen Option : **1**

Q.61 Duct of Bellini is formed by joining _____collecting ducts.

Ans

✘ 1. 4-5

✔ 2. 7-8

✘ 3. 12-14

✘ 4. 9-11

Question Type : **MCQ**
Question ID : **37135114074**
Option 1 ID : **37135156293**
Option 2 ID : **37135156294**
Option 3 ID : **37135156296**
Option 4 ID : **37135156295**
Status : **Answered**
Chosen Option : **3**

Q.62 In DNA molecule at the 5' end there is a free _____.

Ans

✗ 1. oxygen

✗ 2. nitrogen

✓ 3. phosphate

✗ 4. hydroxyl

Question Type : **MCQ**
Question ID : **37135114041**
Option 1 ID : **37135156164**
Option 2 ID : **37135156162**
Option 3 ID : **37135156163**
Option 4 ID : **37135156161**
Status : **Answered**
Chosen Option : **3**

Q.63 Select the INCORRECT match.

Ans ✗ 1.

Urinary bladder -- transitional epithelium

✓ 2. Ureter –- detrusor muscle

✗ 3.

Column of Bertini –- in renal medulla

✗ 4. Kidneys – -retroperitoneal

Question Type : **MCQ**
Question ID : **37135114096**
Option 1 ID : **37135156381**
Option 2 ID : **37135156383**
Option 3 ID : **37135156384**
Option 4 ID : **37135156382**
Status : **Answered**
Chosen Option : **2**

Q.64 Spinal cord is a cylindrical tube with a narrow cavity, lined by ependymal cells.

This cavity is called _____.

Ans

✔ 1. central canal

✗ 2. neural canal

✗ 3. inguinal canal

✗ 4. central sulcus

Question Type : **MCQ**
Question ID : **37135114052**
Option 1 ID : **37135156208**
Option 2 ID : **37135156206**
Option 3 ID : **37135156207**
Option 4 ID : **37135156205**
Status : **Answered**
Chosen Option : **2**

Q.65 _____gives seeds protection against mechanical shock, dry conditions etc.

Ans

✔ 1. Testa

✗ 2. Tegmen

✗ 3. Scutellum

✗ 4. Endosperm

Question Type : **MCQ**
Question ID : **37135114002**
Option 1 ID : **37135156006**
Option 2 ID : **37135156007**
Option 3 ID : **37135156005**
Option 4 ID : **37135156008**
Status : **Answered**
Chosen Option : **1**

Q.66 India contributes _____% of total lac production in the world.

Ans

✗ 1. 95

✗ 2. 75

✓ 3. 85

✗ 4. 60

Question Type : **MCQ**
Question ID : **37135114054**
Option 1 ID : **37135156216**
Option 2 ID : **37135156214**
Option 3 ID : **37135156215**
Option 4 ID : **37135156213**
Status : **Answered**
Chosen Option : **3**

Q.67 In a pregnant woman, _____is the major source of progesterone during the first trimester.

Ans

✗ 1. corpus callosum

✗ 2. corpus albicans

✗ 3. placenta

✓ 4. corpus luteum

Question Type : **MCQ**
Question ID : **37135114072**
Option 1 ID : **37135156287**
Option 2 ID : **37135156286**
Option 3 ID : **37135156288**
Option 4 ID : **37135156285**
Status : **Answered**
Chosen Option : **2**

Q.68 A pollen grain is provided resistance from physical and biological decomposition by its _____.

Ans

✗ 1. intine made up of cellulose and pectin

✓ 2. exine composed of sporopollenin

✗ 3. exine composed of cellulose and pectin

✗ 4. intine made up of sporopollenin

Question Type : MCQ
Question ID : 37135114030
Option 1 ID : 37135156120
Option 2 ID : 37135156117
Option 3 ID : 37135156118
Option 4 ID : 37135156119
Status : Answered
Chosen Option : 2

Q.69 Which one of the following pyramid will be always inverted?

Ans

✗ 1. Pyramid of biomass on land

✗ 2. Pyramid of energy

✓ 3. Pyramid of biomass in sea

✗ 4. Pyramid of number

Question Type : MCQ
Question ID : 37135114023
Option 1 ID : 37135156090
Option 2 ID : 37135156092
Option 3 ID : 37135156091
Option 4 ID : 37135156089
Status : Answered
Chosen Option : 3

Q.70 The expelled excited electron form chlorophyll-a after photo excitation comes back to ground state in _____.

Ans

✗ 1. 10^{-9} minutes

✗ 2. 10^{-8} minutes

✗ 3. 10^{-8} hours

✓ 4. 10^{-9} seconds

Question Type : **MCQ**
Question ID : **37135114043**
Option 1 ID : **37135156170**
Option 2 ID : **37135156172**
Option 3 ID : **37135156171**
Option 4 ID : **37135156169**
Status : **Answered**
Chosen Option : **4**

Q.71 Occurrence of an extra chromosome in a diploid set of chromosome is called_____.

Ans

✗ 1. monosomy

✗ 2. polysome

✓ 3. trisomy

✗ 4. polyploidy

Question Type : **MCQ**
Question ID : **37135114061**
Option 1 ID : **37135156241**
Option 2 ID : **37135156242**
Option 3 ID : **37135156243**
Option 4 ID : **37135156244**
Status : **Answered**
Chosen Option : **3**

Q.72 Match the Column-I with Column-II and select the correct option.

Column-I	Column-II
A. Fibroblasts	i) Storage of fat
B. Mast cells	ii) Secretion of elastin fibres.
C. Macrophages	iii) Secretion of histamines.
D. Adipocytes	iv) Phagocytosis

Ans

✗ 1. A-iv, B-i, C-ii, D-iii

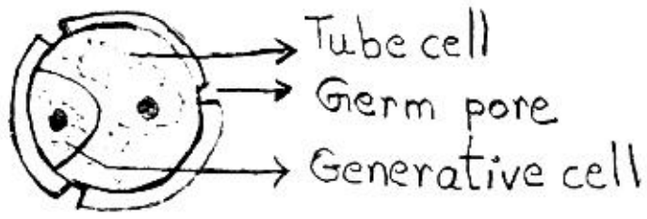
✓ 2. A-ii, B-iii, C-iv, D-i

✗ 3. A-i, B-ii, C-iii, D-iv

✗ 4. A-iii, B-ii, C-i, D-iv

Question Type : **MCQ**
Question ID : **37135114086**
Option 1 ID : **37135156343**
Option 2 ID : **37135156341**
Option 3 ID : **37135156344**
Option 4 ID : **37135156342**
Status : **Answered**
Chosen Option : **2**

Q.73 Which one of the following statements is correct about the diagram of a pollen grain given below?



Ans

✗ 1. It is of monocot

✓ 2. It is of dicot

✗ 3. It is single celled

✗ 4. It is 3- celled

Question Type : **MCQ**
Question ID : **37135114012**
Option 1 ID : **37135156045**
Option 2 ID : **37135156046**
Option 3 ID : **37135156047**
Option 4 ID : **37135156048**
Status : **Answered**
Chosen Option : **2**

Q.74 When GFR decreases, lungs secrete _____in renin-angiotensin mechanism.

Ans

✗ 1. angiotensin II

✗ 2. angiotensinogen

✗ 3. renin

✓ 4. angiotensin converting enzyme

Question Type : **MCQ**
Question ID : **37135114071**
Option 1 ID : **37135156284**
Option 2 ID : **37135156283**
Option 3 ID : **37135156281**
Option 4 ID : **37135156282**
Status : **Answered**
Chosen Option : **1**

Q.75 Select the correct statement.

Ans ✔ 1. Presence of non functional retinal cone cells lead to colour blindness.

✗ 2. Y- linked inheritance is criss-cross in human beings.

✗ 3. X-linked disorders very frequently appear in human females.

✗ 4. In human being carrier females are colour blind.

Question Type : **MCQ**
Question ID : **37135114083**
Option 1 ID : **37135156330**
Option 2 ID : **37135156332**
Option 3 ID : **37135156331**
Option 4 ID : **37135156329**
Status : **Answered**
Chosen Option : **3**

Q.76 Secretion of pancreatic enzymes and bile juice is stimulated by _____hormone.

Ans ✔ 1. cholecystokinin

✗ 2. coherin

✗ 3. secretin

✗ 4. gastrin

Question Type : **MCQ**
Question ID : **37135114075**
Option 1 ID : **37135156299**
Option 2 ID : **37135156300**
Option 3 ID : **37135156298**
Option 4 ID : **37135156297**
Status : **Answered**
Chosen Option : **2**

Q.77 A person involved in stone masonry work is likely to suffer from _____.

Ans

✗ 1. CO poisoning

✓ 2. silicosis

✗ 3. emphysema

✗ 4. asbestosis

Question Type : **MCQ**
Question ID : **37135114073**
Option 1 ID : **37135156292**
Option 2 ID : **37135156289**
Option 3 ID : **37135156290**
Option 4 ID : **37135156291**
Status : **Answered**
Chosen Option : **3**

Q.78 Polyribosomes are_____.

Ans

✗ 1. total number of ribosomes in the cell.

✗ 2. devoid of r-RNA.

✓ 3. number of ribosomes linked to m-RNA.

✗ 4. not capable of helping in the synthesis of polypeptide chain.

Question Type : **MCQ**
Question ID : **37135114032**
Option 1 ID : **37135156127**
Option 2 ID : **37135156126**
Option 3 ID : **37135156125**
Option 4 ID : **37135156128**
Status : **Answered**
Chosen Option : **4**

Q.79 How many chromosomes are usually found in the human secondary oocyte?

Ans

✗ 1. 22

✗ 2. 44

✗ 3. 46

✓ 4. 23

Question Type : **MCQ**
Question ID : **37135114060**
Option 1 ID : **37135156237**
Option 2 ID : **37135156239**
Option 3 ID : **37135156240**
Option 4 ID : **37135156238**
Status : **Answered**
Chosen Option : **4**

Q.80 Which one of the following is NOT a vector in genetic engineering?

Ans

✗ 1. Plasmid

✗ 2. Lambda phage

✗ 3. Cosmid

✓ 4. Mosquito

Question Type : **MCQ**
Question ID : **37135114001**
Option 1 ID : **37135156001**
Option 2 ID : **37135156003**
Option 3 ID : **37135156002**
Option 4 ID : **37135156004**
Status : **Answered**
Chosen Option : **4**

Q.81 In prokaryotes both transcription and translation take place in cytoplasm as there is no _____.

Ans

✗ 1. chromosome

✓ 2. nucleus

✗ 3. ATP

✗ 4. ribosome

Question Type : **MCQ**
Question ID : **37135114005**
Option 1 ID : **37135156020**
Option 2 ID : **37135156018**
Option 3 ID : **37135156019**
Option 4 ID : **37135156017**
Status : **Answered**
Chosen Option : **2**

Q.82 Which of the following sequences of Krebs cycle reactions is correct?

Ans

✗ 1. Cisaconitate → succinate → malate → fumarate

✗ 2. Oxaloacetate → malate → succinate → fumarate

✗ 3. Citrate → succinate → oxaloacetate → fumarate

✓ 4. Oxalosuccinate → ∝ - ketoglutarate → succinyl Co-A → succinate

Question Type : **MCQ**
Question ID : **37135114004**
Option 1 ID : **37135156015**
Option 2 ID : **37135156016**
Option 3 ID : **37135156013**
Option 4 ID : **37135156014**
Status : **Answered**
Chosen Option : **4**

Q.83

Select the mis-matched pair.

Ans

✗ 1.

Archaeopteryx ----- Long tail supported by caudal vertebrae, feathery exoskeleton.

✗ 2.

Human beings ---- Orthognathous face, dental arch rounded parabola.

✓ 3.

Lemur ----- Limbs with adhesive pads, long hind limbs with elongated tarsals.

✗ 4.

Gorilla ----- Slanting forehead, narrow and elongated pelvic girdle.

Question Type : **MCQ**
Question ID : **37135114094**
Option 1 ID : **37135156373**
Option 2 ID : **37135156376**
Option 3 ID : **37135156374**
Option 4 ID : **37135156375**
Status : **Answered**
Chosen Option : **2**

Q.84 _____is obtained from fermented grains of corn, wheat and barley.

Ans

✗ 1. Beer

✗ 2. Wine

✗ 3. Rum

✓ 4. Whisky

Question Type : **MCQ**
Question ID : **37135114042**
Option 1 ID : **37135156166**
Option 2 ID : **37135156168**
Option 3 ID : **37135156167**
Option 4 ID : **37135156165**
Status : **Answered**
Chosen Option : **1**

Q.85 Natality of a region is assessed by rate of _____ of individuals per unit area, per unit time.

Ans

✗ 1. emigration

✗ 2. death

✗ 3. immigration

✓ 4. births

Question Type : **MCQ**
Question ID : **37135114062**
Option 1 ID : **37135156246**
Option 2 ID : **37135156245**
Option 3 ID : **37135156247**
Option 4 ID : **37135156248**
Status : **Answered**
Chosen Option : **4**

Q.86 Mice are appropriate choice as transgenic animals for following reasons EXCEPT.

Ans

✓ 1. They do not normally exhibit super ovulation.

✗ 2. They are used to test safety of polio vaccine.

✗ 3. They have short generation time.

✗ 4. They exhibit polyembryony.

Question Type : **MCQ**
Question ID : **37135114059**
Option 1 ID : **37135156234**
Option 2 ID : **37135156236**
Option 3 ID : **37135156235**
Option 4 ID : **37135156233**
Status : **Answered**
Chosen Option : **2**

Q.87 Identify labels A and B in the following chemical reactions and select the correct option given below.

i) Pepsinogen (inactive enzyme)	A ⟶	Pepsin (active enzyme)
ii) Proteins	B ⟶ (acidic medium)	Peptones + Proteoses.

Ans

✗ 1. A-mucus, B-chymotrypsin

✗ 2. A- ptyalin, B- trypsin

✓ 3. A- HCl, B- pepsin

✗ 4. A- HCl, B- ptyalin

Question Type : MCQ
Question ID : 37135114100
Option 1 ID : 37135156400
Option 2 ID : 37135156397
Option 3 ID : 37135156398
Option 4 ID : 37135156399
Status : Answered
Chosen Option : 3

Q.88 Select the INCORRECT statement.

Ans

✗ 1. Capillary endothelium provides for exchange of substances in the tissues.

✗ 2. Capillaries originate from arterioles.

✓ 3. Pulmonary artery contains oxygenated blood.

✗ 4. Vein provides minimum frictional resistance to the blood flow.

Question Type : MCQ
Question ID : 37135114087
Option 1 ID : 37135156348
Option 2 ID : 37135156346
Option 3 ID : 37135156345
Option 4 ID : 37135156347
Status : Answered
Chosen Option : 1

Q.89 Prokaryotic organisms belong to kingdom.

Ans

✗ 1. Plantae

✗ 2. Animalia

✗ 3. Protista

✓ 4. Monera

Question Type : **MCQ**
Question ID : **37135114050**
Option 1 ID : **37135156199**
Option 2 ID : **37135156200**
Option 3 ID : **37135156198**
Option 4 ID : **37135156197**
Status : **Answered**
Chosen Option : **4**

Q.90 The algal partner of the lichen is called_____.

Ans

✗ 1. photobiont or mycobiont

✗ 2. phytobiont or mycorrhiza

✓ 3. phycobiont or photobiont

✗ 4. mycobiont or phycobiont

Question Type : **MCQ**
Question ID : **37135114016**
Option 1 ID : **37135156061**
Option 2 ID : **37135156063**
Option 3 ID : **37135156064**
Option 4 ID : **37135156062**
Status : **Answered**
Chosen Option : **1**

Q.91 Carbohydrate molecules are characterized by any one of the following groups EXCEPT_____.

Ans

✗ 1. aldehyde (CNO)

✗ 2. hydroxyl (OH)

✓ 3. carboxyl (COOH)

✗ 4. ketone (C=O)

Question Type : **MCQ**
Question ID : **37135114046**
Option 1 ID : **37135156181**
Option 2 ID : **37135156183**
Option 3 ID : **37135156184**
Option 4 ID : **37135156182**
Status : **Answered**
Chosen Option : **3**

Q.92 Which one of the following organism used as a biofertilizer is free living and never shows symbiosis?

Ans

✗ 1. *Mycorrhiza*

✓ 2. *Azotobacter*

✗ 3. *Anabaena*

✗ 4. *Rhizobium*

Question Type : **MCQ**
Question ID : **37135114029**
Option 1 ID : **37135156116**
Option 2 ID : **37135156115**
Option 3 ID : **37135156114**
Option 4 ID : **37135156113**
Status : **Answered**
Chosen Option : **2**

Q.93 Which among the following microbes are commonly employed in dairy industry?

Ans ✔ 1.

Lactobacillus, Streptomyces, Penicillium

✗ 2.

Saccharomyces, Streptomyces, Aspergillus

✗ 3.

Eremothecium, Rhizopus, Acetobacter

✗ 4.

Pseudomonas, Penicillium, Saccharomyces

Question Type : **MCQ**
Question ID : **37135114010**
Option 1 ID : **37135156040**
Option 2 ID : **37135156037**
Option 3 ID : **37135156038**
Option 4 ID : **37135156039**
Status : **Answered**
Chosen Option : **1**

Q.94 Which of the following does NOT take place during aerobic cellular respiration?

Ans ✗ 1. release of energy

✗ 2. utilization of O_2

✗ 3. oxidation of food

✔ 4. utilization of CO_2

Question Type : **MCQ**
Question ID : **37135114064**
Option 1 ID : **37135156255**
Option 2 ID : **37135156254**
Option 3 ID : **37135156253**
Option 4 ID : **37135156256**
Status : **Answered**
Chosen Option : **3**

Q.95 Upper surface of tongue bears many projections called_____.

Ans

✗ 1. folia

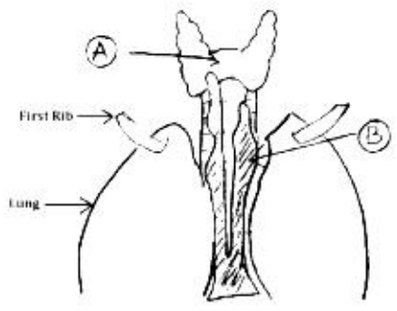
✗ 2. villi

✓ 3. papillae

✗ 4. cristae

Question Type : MCQ
Question ID : 37135114065
Option 1 ID : 37135156260
Option 2 ID : 37135156257
Option 3 ID : 37135156258
Option 4 ID : 37135156259
Status : Answered
Chosen Option : 3

Q.96 Considering the given diagram, select the correct option with respect to labels 'A' and 'B'.



Ans

✗ 1. Both 'A' and 'B' are exocrine glands.

✗ 2. 'A' helps to overcome emergency stress situations.

✗ 3. 'A' secretes parathormone

✓ 4. 'B' plays role in development of immune system.

Question Type : MCQ
Question ID : 37135114085
Option 1 ID : 37135156339
Option 2 ID : 37135156340
Option 3 ID : 37135156337
Option 4 ID : 37135156338
Status : Answered
Chosen Option : 3

Q.97 Which of the following is a fungal disease?

Ans
✗ 1. Malaria

✗ 2. Acute coryza

✓ 3. Ringworm infection

✗ 4. Ascariasis

Question Type : **MCQ**
Question ID : **37135114081**
Option 1 ID : **37135156324**
Option 2 ID : **37135156322**
Option 3 ID : **37135156323**
Option 4 ID : **37135156321**
Status : **Answered**
Chosen Option : **2**

Q.98 The most effective, cheapest and convenient method to protect plants from pathogens is _____.

Ans
✓ 1. producing resistant varieties

✗ 2. physical method

✗ 3. biological herbicides

✗ 4. chemical pesticides

Question Type : **MCQ**
Question ID : **37135114003**
Option 1 ID : **37135156012**
Option 2 ID : **37135156010**
Option 3 ID : **37135156011**
Option 4 ID : **37135156009**
Status : **Answered**
Chosen Option : **1**

Q.99 The saprophytes like bacteria, actinomycetes and fungi are.

Ans

✗ 1. pioneers in ecological succession.

✗ 2. climax communities in ecological succession.

✗ 3. macro-consumers in an ecosystem.

✓ 4. micro-consumers in an ecosystem.

Question Type : **MCQ**
Question ID : **37135114039**
Option 1 ID : **37135156155**
Option 2 ID : **37135156156**
Option 3 ID : **37135156153**
Option 4 ID : **37135156154**
Status : **Answered**
Chosen Option : **4**

Q.100 Which of the following is NOT a mesodermal derivative?

Ans

✓ 1. Liver

✗ 2. Dermis of skin

✗ 3. Cardiac muscles

✗ 4. Blood

Question Type : **MCQ**
Question ID : **37135114084**
Option 1 ID : **37135156334**
Option 2 ID : **37135156333**
Option 3 ID : **37135156335**
Option 4 ID : **37135156336**
Status : **Answered**
Chosen Option : **3**