MHT CET 2020 Question Paper aglasem.com

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Test Date:	05/10/2020
Test Time:	9:00 AM - 12:00 PM
Subject:	PCB

Section : **Physics**

Q.1 The period of revolution of communication satellite is 24 hours. The period of satellite in an orbit at a distance three times that of the earth's radius above its surface will be

Ans

✗ 1. 4 days

✗ 2. 16 days

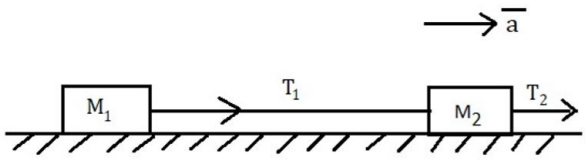
✗ 3. 24 hours

✓ 4. 8 days

Question Type : **MCQ**
Question ID : **37135113109**
Option 1 ID : **37135152434**
Option 2 ID : **37135152436**
Option 3 ID : **37135152433**
Option 4 ID : **37135152435**
Status : **Answered**
Chosen Option : **1**

Q.2

Two masses M_1 and M_2 are accelerated uniformly on frictionless surface as shown in figure. The ratio of the tensions $\left(\frac{T_1}{T_2}\right)$ is



Ans

✗ 1. $\frac{M_2}{M_1}$

✗ 2. $\frac{M_1}{M_2}$

✓ 3. $\frac{M_1}{(M_1+M_2)}$

✗ 4. $\frac{(M_1+M_2)}{M_2}$

Question Type : **MCQ**
Question ID : **37135113133**
Option 1 ID : **37135152530**
Option 2 ID : **37135152529**
Option 3 ID : **37135152532**
Option 4 ID : **37135152531**
Status : **Answered**
Chosen Option : **3**

Q.3 In a transverse progressive wave of amplitude 'a', the maximum particle velocity is six times its wave velocity. The wavelength of wave is

Ans

✗ 1. $6\pi a$

✗ 2. $3\pi a$

✗ 3. $\frac{\pi a}{6}$

✓ 4. $\frac{\pi a}{3}$

Question Type : **MCQ**
Question ID : **37135113150**
Option 1 ID : **37135152600**
Option 2 ID : **37135152598**
Option 3 ID : **37135152599**
Option 4 ID : **37135152597**
Status : **Answered**
Chosen Option : **1**

Q.4 When a surface 1 cm thick is illuminated by light of wavelength 'λ', the stopping potential is 'V_0'. When the same surface is illuminated by light of wavelength '3λ', the stopping potential is $\frac{V_0}{6}$. The threshold wavelength for the metallic surface is

Ans

✓ 1. 5λ

✗ 2. 2λ

✗ 3. 3λ

✗ 4. 4λ

Question Type : **MCQ**
Question ID : **37135113140**
Option 1 ID : **37135152557**
Option 2 ID : **37135152560**
Option 3 ID : **37135152559**
Option 4 ID : **37135152558**
Status : **Answered**
Chosen Option : **3**

Q.5 A cord is wound round the circumference of a wheel of radius 'r'. The axis of the wheel is horizontal and moment of inertia about it is 'I'. A block of mass 'm' is attached to free end of the cord, initially at rest. When the wheel rotates and the block moves vertically downwards through distance 'h', the angular velocity of the wheel will be

(Neglect the mass of cord. g = acceleration due to gravity)

Ans

✗ 1. $\left(\frac{2gh}{I+mr}\right)^{\frac{1}{2}}$

✓ 2. $\left(\frac{2mgh}{I+mr^2}\right)^{\frac{1}{2}}$

✗ 3. $\left(\frac{2mgh}{I+2m}\right)^{\frac{1}{2}}$

✗ 4. $(2gh)^{\frac{1}{2}}$

Question Type : **MCQ**
Question ID : **37135113125**
Option 1 ID : **37135152497**
Option 2 ID : **37135152498**
Option 3 ID : **37135152499**
Option 4 ID : **37135152500**
Status : **Answered**
Chosen Option : **3**

Q.6 Light rays are incident from air on a block of glass (Refractive Index = 1·5). The reflected and refracted rays are perpendicular to each other. The ratio of the wavelengths of the refracted and reflected light is

Ans

✔ 1. 0·66

✘ 2. 0·11

✘ 3. 0·44

✘ 4. 0·22

Question Type : **MCQ**
Question ID : **37135113104**
Option 1 ID : **37135152413**
Option 2 ID : **37135152416**
Option 3 ID : **37135152414**
Option 4 ID : **37135152415**
Status : **Answered**
Chosen Option : **3**

Q.7 A sonometer wire of length L between the two bridges vibrates in 3rd harmonic. Antinodes are formed at

Ans

✘ 1. $\frac{L}{4}, L, \frac{7L}{4}$

✘ 2. $\frac{L}{2}, L, \frac{3L}{2}$

✘ 3. $\frac{L}{3}, \frac{2L}{3}, \frac{5L}{3}$

✔ 4. $\frac{L}{4}, \frac{3L}{4}, \frac{5L}{4}$

Question Type : **MCQ**
Question ID : **37135113120**
Option 1 ID : **37135152479**
Option 2 ID : **37135152477**
Option 3 ID : **37135152478**
Option 4 ID : **37135152480**
Status : **Answered**
Chosen Option : **2**

Q.8 A ball at rest falls vertically on ground from a height of 5m. The coefficient of restitution is 0·4. The maximum height of the ball after the first rebound is [$g = 10\ m/s^2$]

Ans

✔ 1. 0·8 m

✗ 2. 0·6 m

✗ 3. 0·2 m

✗ 4. 0·4 m

Question Type : **MCQ**
Question ID : **37135113144**
Option 1 ID : **37135152573**
Option 2 ID : **37135152574**
Option 3 ID : **37135152576**
Option 4 ID : **37135152575**
Status : **Answered**
Chosen Option : **3**

Q.9 In parallel plate capacitor, electric field between the plates is 'E'. If the charge on the plates is 'Q', then the force on each plate is

Ans

✗ 1. QE

✓ 2. $\frac{QE}{2}$

✗ 3. QE^2

✗ 4. $\frac{QE^2}{2}$

Question Type : **MCQ**
Question ID : **37135113145**
Option 1 ID : **37135152578**
Option 2 ID : **37135152577**
Option 3 ID : **37135152580**
Option 4 ID : **37135152579**
Status : **Answered**
Chosen Option : **2**

Q.10 Average kinetic energy of H_2 molecule at 300K is 'E'. At the same temperature, average kinetic energy of O_2 molecule will be

Ans

✗ 1. $\frac{E}{2}$

✓ 2. E

✗ 3. $\frac{E}{4}$

✗ 4. $\frac{E}{8}$

Question Type : **MCQ**
Question ID : **37135113111**
Option 1 ID : **37135152442**
Option 2 ID : **37135152441**
Option 3 ID : **37135152443**
Option 4 ID : **37135152444**
Status : **Answered**
Chosen Option : **3**

Q.11 A wire having a diameter of 3 mm is stretched by an external force to produce a longitudinal strain of 3×10^{-3}. If the Poisson's ratio of the wire is 0·4, the change in its diameter is

Ans

✗ 1. $3{\cdot}2 \times 10^{-6}$ mm

✓ 2. $3{\cdot}6 \times 10^{-3}$ mm

✗ 3. $1{\cdot}2 \times 10^{-6}$ mm

✗ 4. $1{\cdot}2 \times 10^{-3}$ mm

Question Type : **MCQ**
Question ID : **37135113105**
Option 1 ID : **37135152420**
Option 2 ID : **37135152419**
Option 3 ID : **37135152418**
Option 4 ID : **37135152417**
Status : **Answered**
Chosen Option : **2**

Q.12 A body situated on earth's surface at its equator becomes weightless when the rotational kinetic energy of the earth reaches a critical value which is given by (M and R be the mass and radius of earth respectively)

Ans

✗ 1. $\frac{MgR}{4}$

✓ 2. $\frac{MgR}{5}$

✗ 3. $\frac{MgR}{2}$

✗ 4. $\frac{MgR}{3}$

Question Type : **MCQ**
Question ID : **37135113135**
Option 1 ID : **37135152539**
Option 2 ID : **37135152540**
Option 3 ID : **37135152537**
Option 4 ID : **37135152538**
Status : **Answered**
Chosen Option : **1**

Q.13 The product of magnetic susceptibility (χ) and absolute temperature (T) is constant for a

Ans

✗ 1. ferromagnetic material.

✗ 2. diamagnetic and ferromagnetic material.

✗ 3. diamagnetic material.

✓ 4. paramagnetic material.

Question Type : **MCQ**
Question ID : **37135113149**
Option 1 ID : **37135152595**
Option 2 ID : **37135152596**
Option 3 ID : **37135152594**
Option 4 ID : **37135152593**
Status : **Answered**
Chosen Option : **3**

Q.14 In a semiconductor, the number of holes and number of free electrons are represented as 'n_h' and 'n_e' respectively. Which one of the following statements is TRUE for the semiconductor?

Ans

✓ 1. In an intrinsic semiconductor, $n_e = n_h$

✗ 2. In an extrinsic semiconductor, $n_h = n_e$.

✗ 3. In an intrinsic semiconductor, $n_e > n_h$.

✗ 4. In an intrinsic semiconductor, $n_h > n_e$.

Question Type : **MCQ**
Question ID : **37135113136**
Option 1 ID : **37135152544**
Option 2 ID : **37135152542**
Option 3 ID : **37135152543**
Option 4 ID : **37135152541**
Status : **Answered**
Chosen Option : **1**

Q.15 Let 'R_1' and 'R_2' be radii of two mercury drops. A big mercury drop is formed from them under isothermal conditions. The radius of the resultant drop is

Ans

✗ 1. $R = \sqrt{R_1^2 - R_2^2}$

✓ 2. $R = (R_1^3 + R_2^3)^{\frac{1}{3}}$

✗ 3. $R = \frac{R_1 + R_2}{2}$

✗ 4. $R = \sqrt{R_1^2 + R_2^2}$

Question Type : **MCQ**
Question ID : **37135113122**
Option 1 ID : **37135152486**
Option 2 ID : **37135152487**
Option 3 ID : **37135152488**
Option 4 ID : **37135152485**
Status : **Answered**
Chosen Option : **3**

Q.16 Two vectors $\vec{P}$ and $\vec{Q}$ have equal magnitudes. If $|\vec{P} + \vec{Q}| = 5\,|\vec{P} - \vec{Q}|$, then angle between $\vec{P}$ and $\vec{Q}$ is

Ans

✔ 1. $\cos^{-1}\left(\frac{12}{13}\right)$

✘ 2. $\sin^{-1}\left(\frac{12}{13}\right)$

✘ 3. $\cos^{-1}\left(\frac{3}{5}\right)$

✘ 4. $\sin^{-1}\left(\frac{3}{5}\right)$

Question Type : **MCQ**
Question ID : **37135113118**
Option 1 ID : **37135152470**
Option 2 ID : **37135152469**
Option 3 ID : **37135152471**
Option 4 ID : **37135152472**
Status : **Answered**
Chosen Option : **3**

Q.17 A thin wire of length 'L' and uniform linear mass density 'm' is bent into a circular loop. The moment of inertia of this loop about the tangential axis and in the plane of the coil is

Ans

✗ 1. $\frac{3mL^3}{16\pi^2}$

✗ 2. $\frac{3mL^3}{4\pi^2}$

✓ 3. $\frac{3mL^3}{8\pi^2}$

✗ 4. $\frac{3mL^3}{2\pi^2}$

Question Type : **MCQ**
Question ID : **37135113141**
Option 1 ID : **37135152562**
Option 2 ID : **37135152563**
Option 3 ID : **37135152564**
Option 4 ID : **37135152561**
Status : **Answered**
Chosen Option : **4**

Q.18 If v_n and v_p are orbital velocities in n^{th} and p^{th} orbit respectively, then the ratio $v_p : v_n$ is

Ans

✗ 1. $\frac{p^2}{n^2}$

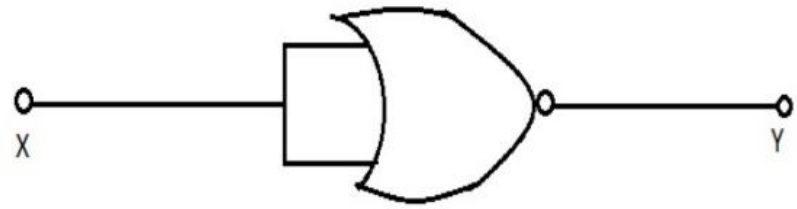
✓ 2. $\frac{n}{p}$

✗ 3. $\frac{n^2}{p^2}$

✗ 4. $\frac{p}{n}$

Question Type : **MCQ**
Question ID : **37135113106**
Option 1 ID : **37135152422**
Option 2 ID : **37135152423**
Option 3 ID : **37135152424**
Option 4 ID : **37135152421**
Status : **Answered**
Chosen Option : **1**

Q.19 The gate represented in the given figure is



Ans

✔ 1. NOT

✗ 2. AND

✗ 3. OR

✗ 4. NOR

Question Type : **MCQ**
Question ID : **37135113117**
Option 1 ID : **37135152467**
Option 2 ID : **37135152465**
Option 3 ID : **37135152466**
Option 4 ID : **37135152468**
Status : **Answered**
Chosen Option : **2**

Q.20 The energy stored per unit volume is 0·3 J/m^3 when a wire is stretched by 0·125 cm. When it is stretched by 0·75 cm, the increase in potential energy per unit volume stored in the wire is

Ans

✗ 1. $10{\cdot}3\ J/m^3$

✗ 2. $10{\cdot}1\ J/m^3$

✔ 3. $10{\cdot}5\ J/m^3$

✗ 4. $10{\cdot}8\ J/m^3$

Question Type : **MCQ**
Question ID : **37135113137**
Option 1 ID : **37135152547**
Option 2 ID : **37135152548**
Option 3 ID : **37135152546**
Option 4 ID : **37135152545**
Status : **Answered**
Chosen Option : **3**

Q.21 The magnifying power of simple microscope is inversely proportional to its focal length (f) and it is maximum when image is formed at
[D = Distance of distinct vision (DDV).]

Ans

✗ 1. a distance greater than DDV.

✓ 2. DDV

✗ 3. a distance less than DDV.

✗ 4. infinity.

Question Type : **MCQ**
Question ID : **37135113128**
Option 1 ID : **37135152510**
Option 2 ID : **37135152511**
Option 3 ID : **37135152512**
Option 4 ID : **37135152509**
Status : **Answered**
Chosen Option : **3**

Q.22 A vector $\overrightarrow{F_1}$ is a unit vector along the positive direction of x - axis and $\overrightarrow{F_2}$ is of magnitude 4. If the vector product of $\overrightarrow{F_1}$ and $\overrightarrow{F_2}$ is zero, then $\overrightarrow{F_2}$ is

Ans

✗ 1. $4\hat{j}$

✗ 2. $2\sqrt{3}\,\hat{i} - 2\hat{j}$

✗ 3. $2\,\hat{i} + 2\sqrt{3}\,\hat{j}$

✓ 4. $-4\hat{i}$

Question Type : **MCQ**
Question ID : **37135113113**
Option 1 ID : **37135152449**
Option 2 ID : **37135152450**
Option 3 ID : **37135152451**
Option 4 ID : **37135152452**
Status : **Answered**
Chosen Option : **4**

Q.23 The average force applied on the walls of a closed container depends as 'T^x', where 'T' is the temperature of an ideal gas. The value of 'x' is

Ans

✔ 1. 1

✗ 2. zero

✗ 3. 2

✗ 4. 3

Question Type : **MCQ**
Question ID : **37135113132**
Option 1 ID : **37135152526**
Option 2 ID : **37135152525**
Option 3 ID : **37135152527**
Option 4 ID : **37135152528**
Status : **Answered**
Chosen Option : **3**

Q.24 A given metal wire has length 1m, linear density $0{\cdot}6\frac{kg}{m}$ and uniform cross-sectional area 10^{-7} m^2 is fixed at both ends. The temperature of wire is decreased by 40°C. The fundamental frequency of the transverse wave is [$Y = 2 \times 10^{11} \frac{N}{m^2}$, coefficient of linear expansion of metal is $= 1{\cdot}2 \times 10^{-5}$ / °C]

Ans

✗ 1. 0·5 Hz

✔ 2. 2 Hz

✗ 3. 1 Hz

✗ 4. 2·5 Hz

Question Type : **MCQ**
Question ID : **37135113143**
Option 1 ID : **37135152569**
Option 2 ID : **37135152571**
Option 3 ID : **37135152570**
Option 4 ID : **37135152572**
Status : **Answered**
Chosen Option : **3**

Q.25 For a photocell, the work function is 'ϕ' and the stopping potential is 'V_s'.
The wavelength of the incident radiation can be expressed as

Ans

✗ 1. $\frac{hc}{e\phi+V_s}$

✓ 2. $\frac{hc}{\phi+eV_s}$

✗ 3. $\frac{hc}{\phi-eV_s}$

✗ 4. $\frac{hc}{\phi}$

Question Type : **MCQ**
Question ID : **37135113121**
Option 1 ID : **37135152483**
Option 2 ID : **37135152484**
Option 3 ID : **37135152482**
Option 4 ID : **37135152481**
Status : **Answered**
Chosen Option : **3**

Q.26 If the length and diameter of a wire are decreased, then for the same tension the natural frequency of stretched wire will

Ans

✗ 1. decrease.

✗ 2. not change.

✗ 3. become zero.

✓ 4. increase.

Question Type : **MCQ**
Question ID : **37135113116**
Option 1 ID : **37135152461**
Option 2 ID : **37135152464**
Option 3 ID : **37135152463**
Option 4 ID : **37135152462**
Status : **Answered**
Chosen Option : **2**

Q.27 When a capillary is dipped vertically in water, rise of water in capillary is 'h'. The angle of contact is zero. Now the tube is depressed so that its length above the water surface is $^{h}/_{2}$. The new apparent angle of contact is [cos 0° = 1]

Ans

✗ 1. $\sin^{-1}(0{\cdot}5)$

✗ 2. $\sin^{-1}(0{\cdot}7)$

✓ 3. $\cos^{-1}(0{\cdot}5)$

✗ 4. $\cos^{-1}(0{\cdot}7)$

Question Type : **MCQ**
Question ID : **37135113127**
Option 1 ID : **37135152505**
Option 2 ID : **37135152506**
Option 3 ID : **37135152508**
Option 4 ID : **37135152507**
Status : **Answered**
Chosen Option : **2**

Q.28 The vertical and horizontal components of earth's magnetic field at a place are 2×10^{-5} T and $2\sqrt{3} \times 10^{-5}$ T respectively. The angle of dip and resultant earth's magnetic field is

Ans

✗ 1. $\tan^{-1}(\sqrt{3}), 2 \times 10^{-10}$ T

✗ 2. $\tan^{-1}(\sqrt{3}), 2 \times 10^{-5}$ T

✗ 3. $\tan^{-1}\left(\frac{1}{\sqrt{3}}\right), 4 \times 10^{-10}$ T

✓ 4. $\tan^{-1}\left(\frac{1}{\sqrt{3}}\right), 4 \times 10^{-5}$ T

Question Type : **MCQ**
Question ID : **37135113108**
Option 1 ID : **37135152431**
Option 2 ID : **37135152430**
Option 3 ID : **37135152429**
Option 4 ID : **37135152432**
Status : **Answered**
Chosen Option : **2**

Q.29 The frequency of a particle performing linear S.H.M. is $\frac{7}{2\pi}$ Hz. The differential equation of S.H.M. is

Ans

✗ 1. $\frac{d^2x}{dt^2} + 14x = 0$

✗ 2. $\frac{d^2x}{dt^2} + 64x = 0$

✓ 3. $\frac{d^2x}{dt^2} + 49x = 0$

✗ 4. $\frac{d^2x}{dt^2} + 25x = 0$

Question Type : **MCQ**
Question ID : **37135113146**
Option 1 ID : **37135152581**
Option 2 ID : **37135152584**
Option 3 ID : **37135152583**
Option 4 ID : **37135152582**
Status : **Answered**
Chosen Option : **3**

Q.30 A motor cycle racer takes a round with speed 20 m/s on a curved road of radius 40 m. The leaning angle of motor cycle with vertical for safe turn is ($g = 10\ m/s^2$, $\tan 45° = 1$)

Ans

✗ 1. 75°

✓ 2. 45°

✗ 3. 60°

✗ 4. 30°

Question Type : **MCQ**
Question ID : **37135113114**
Option 1 ID : **37135152456**
Option 2 ID : **37135152454**
Option 3 ID : **37135152455**
Option 4 ID : **37135152453**
Status : **Answered**
Chosen Option : **3**

Q.31 Two parallel long wires 'A' and 'B' carry currents 'i_1' and 'i_2' ($i_2 < i_1$). When 'i_1' and 'i_2' are in the same direction, the magnetic field at a point midway between the wires is 10μT. If 'i_2' is reversed, then the field becomes 30 μT. The ratio of $\frac{i_1}{i_2}$ is

$\left[\frac{\mu_0}{4\pi} = 10^{-7}\text{Wb/Am}\right]$

Ans

✗ 1. 1

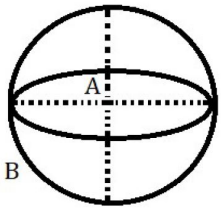
✓ 2. 2

✗ 3. 3

✗ 4. 4

Question Type : **MCQ**
Question ID : **37135113123**
Option 1 ID : **37135152489**
Option 2 ID : **37135152490**
Option 3 ID : **37135152491**
Option 4 ID : **37135152492**
Status : **Answered**
Chosen Option : **3**

Q.32 Two coils of wire A and B are placed mutually perpendicular as shown. When current is changed in any one coil,



Ans

✓ 1. no current will be induced in another coil.

✗ 2. magnetic field will be perpendicular to plane of another coil.

✗ 3. magnetic flux linked with another coil is maximum.

✗ 4. current induced in another coil is maximum.

Question Type : **MCQ**
Question ID : **37135113147**
Option 1 ID : **37135152585**
Option 2 ID : **37135152588**
Option 3 ID : **37135152586**
Option 4 ID : **37135152587**
Status : **Answered**
Chosen Option : **3**

Q.33 A thin prism 'P' of angle 4° made up of glass of refractive index 1·48 is combined with another prism 'Q' made up of glass of refractive index 1·64 to produce dispersion without deviation. The angle of prism 'Q' is

Ans

✗ 1. $5°$

✓ 2. $3°$

✗ 3. $6°$

✗ 4. $4°$

Question Type : **MCQ**
Question ID : **37135113139**
Option 1 ID : **37135152554**
Option 2 ID : **37135152556**
Option 3 ID : **37135152553**
Option 4 ID : **37135152555**
Status : **Answered**
Chosen Option : **3**

Q.34 The magnetic moment of a circular coil carrying current (I), having radius (r) and number of turns (n) is proportional to

Ans

✗ 1. r

✗ 2. $\frac{1}{r}$

✓ 3. r^2

✗ 4. $\frac{1}{r^2}$

Question Type : **MCQ**
Question ID : **37135113110**
Option 1 ID : **37135152439**
Option 2 ID : **37135152438**
Option 3 ID : **37135152440**
Option 4 ID : **37135152437**
Status : **Answered**
Chosen Option : **3**

Q.35 A galvanometer of resistance 20Ω gives a full scale deflection when a current of 0·04 A is passed through it. To convert it into an ammeter of range 20A, the resistance that must be connected in series with the coil of the galvanometer is (Galvanometer is shunted by 0·05 Ω)

Ans

✗ 1. $5{\cdot}94\ \Omega$

✓ 2. $4{\cdot}95\ \Omega$

✗ 3. $12{\cdot}62\ \Omega$

✗ 4. $9{\cdot}45\ \Omega$

Question Type : **MCQ**
Question ID : **37135113142**
Option 1 ID : **37135152566**
Option 2 ID : **37135152565**
Option 3 ID : **37135152568**
Option 4 ID : **37135152567**
Status : **Answered**
Chosen Option : **3**

Q.36 A parallel monochromatic beam of light is incident normally on a narrow slit. A diffraction pattern is formed on a screen placed perpendicular to the direction of incident beam. At the first maximum of the diffraction pattern, the phase difference between the rays coming from the edges of the slit is

Ans

✗ 1. $\frac{\pi}{4}$ rad.

✓ 2. 2π rad.

✗ 3. $\frac{\pi}{2}$ rad.

✗ 4. π rad.

Question Type : **MCQ**
Question ID : **37135113138**
Option 1 ID : **37135152549**
Option 2 ID : **37135152552**
Option 3 ID : **37135152550**
Option 4 ID : **37135152551**
Status : **Answered**
Chosen Option : **3**

Q.37

The pressure at the bottom of a tank containing liquid does not depend upon the

Ans

✔ 1. area of bottom surface.

✗ 2. acceleration due to gravity.

✗ 3. density of liquid.

✗ 4. height of liquid column.

Question Type : **MCQ**
Question ID : **37135113148**
Option 1 ID : **37135152591**
Option 2 ID : **37135152589**
Option 3 ID : **37135152590**
Option 4 ID : **37135152592**
Status : **Answered**
Chosen Option : **1**

Q.38

Which of the following molecules is a polar molecule?

Ans

✗ 1. Oxygen (O_2)

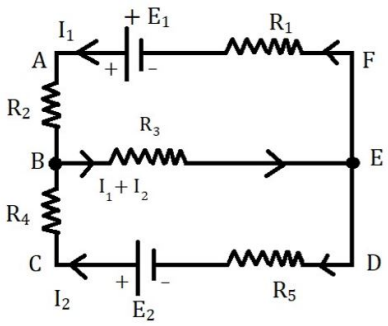
✗ 2. Hydrogen (H_2)

✗ 3. Carbon dioxide (CO_2)

✔ 4. Hydrogen Chloride (HCl)

Question Type : **MCQ**
Question ID : **37135113119**
Option 1 ID : **37135152473**
Option 2 ID : **37135152474**
Option 3 ID : **37135152475**
Option 4 ID : **37135152476**
Status : **Answered**
Chosen Option : **4**

Q.39 In the given electrical network, the correct equation for the loop 'ABEFA' is



Ans

✔ 1.

$$E_1 - I_1(R_1 + R_2 + R_3) - I_2R_3 = 0$$

✗ 2.

$$E_1 - I_1(R_1 - R_2 + R_3) + I_2R_3 = 0$$

✗ 3.

$$E_1 - I_1(R_1 + R_2 + R_3) + I_2R_3 = 0$$

✗ 4.

$$-E_1 + I_1(R_1 + R_2 + R_3) - I_2R_3 = 0$$

Question Type : **MCQ**
Question ID : **37135113129**
Option 1 ID : **37135152516**
Option 2 ID : **37135152513**
Option 3 ID : **37135152515**
Option 4 ID : **37135152514**
Status : **Answered**
Chosen Option : **1**

Q.40 A charged particle carrying a charge 'q' and moving with velocity 'v', enters into a solenoid carrying a current 'I', along its axis. If 'B' is the magnetic induction along the axis of solenoid, then the force 'F' acting on the charged particle will be

Ans

✔ 1. $F = 0$

✗ 2. $F = qvB$

✗ 3. $F < qvB$

✗ 4. $F > qvB$

Question Type : **MCQ**
Question ID : **37135113134**
Option 1 ID : **37135152534**
Option 2 ID : **37135152533**
Option 3 ID : **37135152535**
Option 4 ID : **37135152536**
Status : **Answered**
Chosen Option : **2**

Q.41 A cube of mass 'M' and side 'L' is fixed on the horizontal surface. Modulus of rigidity of the material of cube is 'η'. A force is applied perpendicular to one of the side faces. When the force is removed, cube executes small oscillations. The time period is

Ans

✗ 1. $\frac{2\pi\eta L}{M}$

✗ 2. $\frac{M}{2\pi\eta L}$

✓ 3. $2\pi\sqrt{\frac{M}{\eta L}}$

✗ 4. $2\pi\sqrt{\frac{\eta L}{M}}$

Question Type : **MCQ**
Question ID : **37135113130**
Option 1 ID : **37135152519**
Option 2 ID : **37135152520**
Option 3 ID : **37135152518**
Option 4 ID : **37135152517**
Status : **Answered**
Chosen Option : **1**

Q.42 A body attached to a spring oscillates in horizontal plane with frequency 'n'. Its total energy is 'E'. If the velocity in the mean position is 'v', then the spring constant is

Ans

✗ 1. $\frac{E\pi^2 n^2}{v^2}$

✗ 2. $\frac{4E\pi^2 n^2}{v^2}$

✓ 3. $\frac{8E\pi^2 n^2}{v^2}$

✗ 4. $\frac{2E\pi^2 n^2}{v^2}$

Question Type : **MCQ**
Question ID : **37135113101**
Option 1 ID : **37135152404**
Option 2 ID : **37135152402**
Option 3 ID : **37135152401**
Option 4 ID : **37135152403**
Status : **Answered**
Chosen Option : **3**

Q.43 Two waves given as $y_1 = 10\sin\omega t$ cm and $y_2 = 10\sin(\omega t + \frac{\pi}{3})$ cm are superimposed.

What is the amplitude of the resultant wave?

$\left[\cos\frac{\pi}{3} = \frac{1}{2}\right]$

Ans

✗ 1. $10\sqrt{2}$ cm

✗ 2. $5\sqrt{3}$ cm

✓ 3. $10\sqrt{3}$ cm

✗ 4. 10 cm

Question Type : **MCQ**
Question ID : **37135113124**
Option 1 ID : **37135152494**
Option 2 ID : **37135152495**
Option 3 ID : **37135152496**
Option 4 ID : **37135152493**
Status : **Answered**
Chosen Option : **3**

Q.44 In the equation $P = \left(\frac{C+S}{D}\right)$, P and S represent pressure and distance respectively.

The dimensions of $\left(\frac{D}{C}\right)$ are

Ans

✗ 1. $[L^1M^1T^2]$

✓ 2. $[L^1M^{-1}T^2]$

✗ 3. $[L^1M^0T^{-1}]$

✗ 4. $[L^0M^1T^1]$

Question Type : **MCQ**
Question ID : **37135113103**
Option 1 ID : **37135152409**
Option 2 ID : **37135152411**
Option 3 ID : **37135152410**
Option 4 ID : **37135152412**
Status : **Answered**
Chosen Option : **3**

Q.45 In meter bridge experiment, null point was obtained at a distance 'ℓ' from left end. The values of resistances in the left and right gaps are doubled and then interchanged. The new position of null point is

Ans

✔ 1. $(100 - \ell)$

✘ 2. $\left(100 - \frac{\ell}{4}\right)$

✘ 3. $\left(100 - \frac{\ell}{2}\right)$

✘ 4. $(100 - 2\ell)$

Question Type : **MCQ**
Question ID : **37135113115**
Option 1 ID : **37135152459**
Option 2 ID : **37135152460**
Option 3 ID : **37135152458**
Option 4 ID : **37135152457**
Status : **Answered**
Chosen Option : **3**

Q.46 A sample of radioactive element contains 8×10^{16} active nuclei. The half-life of the element is 15 days. The number of nuclei decayed after 60 days is

Ans

✘ 1. $0{\cdot}5 \times 10^{16}$

✘ 2. 2×10^{16}

✔ 3. $7{\cdot}5 \times 10^{16}$

✘ 4. 4×10^{16}

Question Type : **MCQ**
Question ID : **37135113126**
Option 1 ID : **37135152501**
Option 2 ID : **37135152502**
Option 3 ID : **37135152504**
Option 4 ID : **37135152503**
Status : **Answered**
Chosen Option : **3**

Q.47 At any instant, the magnitude of the centripetal force on a particle of mass 'm' performing circular motion is given by
(ω = angular velocity and v = linear velocity of the particle)

Ans

✗ 1. $\frac{m^2\omega^2}{v}$

✗ 2. $\frac{m\omega^2}{v}$

✗ 3. $\frac{mv^2}{\omega}$

✓ 4. $m\omega v$

Question Type : **MCQ**
Question ID : **37135113131**
Option 1 ID : **37135152521**
Option 2 ID : **37135152523**
Option 3 ID : **37135152524**
Option 4 ID : **37135152522**
Status : **Answered**
Chosen Option : **4**

Q.48 A flywheel of mass 2 kg has radius of gyration 0·5m. If it makes 10 r.p.s. then its rotational kinetic energy will be

Ans

✓ 1. $100\pi^2$ J

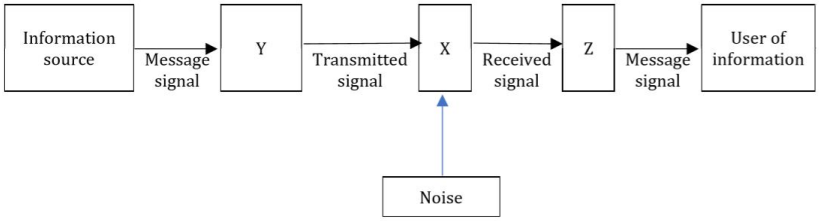
✗ 2. $50\pi^2$ J

✗ 3. $100\pi^2$ erg

✗ 4. $50\pi^2$ erg

Question Type : **MCQ**
Question ID : **37135113107**
Option 1 ID : **37135152426**
Option 2 ID : **37135152428**
Option 3 ID : **37135152425**
Option 4 ID : **37135152427**
Status : **Answered**
Chosen Option : **3**

Q.49 In the block diagram of generalised communication system, the element labelled as 'x' is



Ans

✗ 1. Receiver

✗ 2. Transmitter

✓ 3. Channel

✗ 4. Amplifier

Question Type : **MCQ**
Question ID : **37135113112**
Option 1 ID : **37135152446**
Option 2 ID : **37135152445**
Option 3 ID : **37135152447**
Option 4 ID : **37135152448**
Status : **Answered**
Chosen Option : **1**

Q.50 The coefficient of mutual induction is 2 H and induced e.m.f. across secondary is 2 kV. Current in the primary is reduced from 6 A to 3 A. The time required for the change of current is

Ans

✗ 1. 6×10^{-3} s

✗ 2. 5×10^{-3} s

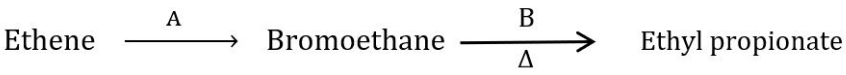
✓ 3. 3×10^{-3} s

✗ 4. 4×10^{-3} s

Question Type : **MCQ**
Question ID : **37135113102**
Option 1 ID : **37135152408**
Option 2 ID : **37135152407**
Option 3 ID : **37135152405**
Option 4 ID : **37135152406**
Status : **Answered**
Chosen Option : **3**

Section : **Chemistry**

Q.1 Identify A and B respectively in the following conversion



Ans

✗ 1. $Br_2/AlBr_3$, C_2H_5ONa

✗ 2. $Br_2/AlBr_3$, $C_2H_5COO\ Ag$

✗ 3. HBr , C_2H_5ONa

✓ 4. HBr , C_2H_5COOAg

Question Type : **MCQ**
Question ID : **37135113191**
Option 1 ID : **37135152762**
Option 2 ID : **37135152764**
Option 3 ID : **37135152761**
Option 4 ID : **37135152763**
Status : **Answered**
Chosen Option : **4**

Q.2

The most basic hydride of group 15 elements is

Ans

✔ 1. NH_3

✗ 2. PH_3

✗ 3. SbH_3

✗ 4. AsH_3

Question Type : **MCQ**
Question ID : **37135113163**
Option 1 ID : **37135152651**
Option 2 ID : **37135152650**
Option 3 ID : **37135152649**
Option 4 ID : **37135152652**
Status : **Answered**
Chosen Option : **3**

Q.3

IUPAC name of pinacol is

Ans

✗ 1. 2,3-dimethyl butane-1,4-diol

✗ 2. 2,2-dimethyl butane-1,3-diol

✓ 3. 2,3-dimethyl butane-2,3-diol

✗ 4. 2,3-dimethyl butane-1,3-diol

Question Type : **MCQ**
Question ID : **37135113179**
Option 1 ID : **37135152713**
Option 2 ID : **37135152715**
Option 3 ID : **37135152716**
Option 4 ID : **37135152714**
Status : **Answered**
Chosen Option : **3**

Q.4

When 46 g of ethyl alcohol is dissolved in 162 g of water, the mole fraction of ethyl alcohol and water respectively is

Ans

✗ 1. 0·9 , 0·1

✗ 2. 0·78 , 0·22

✓ 3. 0·1 , 0·9

✗ 4. 0·22 , 0·78

Question Type : **MCQ**
Question ID : **37135113180**
Option 1 ID : **37135152718**
Option 2 ID : **37135152720**
Option 3 ID : **37135152717**
Option 4 ID : **37135152719**
Status : **Answered**
Chosen Option : **2**

Q.5

What is the position of an element in long form of periodic table if the expected electronic configuration is $[Kr]4d^9 5s^2$?

Ans

✗ 1. Group – 6, period – 5

✗ 2. Group – 9, period – 5

✗ 3. Group – 5, period – 6

✓ 4. Group – 11, period – 5

Question Type : **MCQ**
Question ID : **37135113177**
Option 1 ID : **37135152706**
Option 2 ID : **37135152708**
Option 3 ID : **37135152705**
Option 4 ID : **37135152707**
Status : **Answered**
Chosen Option : **4**

Q.6

The compound used in Holme's signals is

Ans

✗ 1. Ne

✓ 2. PH_3

✗ 3. H_2Se

✗ 4. P_4O_{10}

Question Type : **MCQ**
Question ID : **37135113182**
Option 1 ID : **37135152727**
Option 2 ID : **37135152728**
Option 3 ID : **37135152726**
Option 4 ID : **37135152725**
Status : **Answered**
Chosen Option : **1**

Q.7

A 5 % solution of cane sugar (molar mass 342) is isotonic with 1 % solution of non electrolyte substance X, the molar mass of substance X is

Ans

✗ 1. $34{\cdot}2\ g\ mol^{-1}$

✗ 2. $171{\cdot}2\ g\ mol^{-1}$

✗ 3. $136{\cdot}8\ g\ mol^{-1}$

✓ 4. $68{\cdot}4\ g\ mol^{-1}$

Question Type : **MCQ**
Question ID : **37135113164**
Option 1 ID : **37135152655**
Option 2 ID : **37135152654**
Option 3 ID : **37135152656**
Option 4 ID : **37135152653**
Status : **Answered**
Chosen Option : **3**

Q.8

0·4 g of an organic compound in Dumas method gives 22·4 mL of nitrogen collected at S. T. P. What is the percentage of nitrogen in the compound ?

Ans

✗ 1. 13·67 %

✓ 2. 7·0 %

✗ 3. 8·5 %

✗ 4. 10·0 %

Question Type : **MCQ**
Question ID : **37135113154**
Option 1 ID : **37135152616**
Option 2 ID : **37135152613**
Option 3 ID : **37135152614**
Option 4 ID : **37135152615**
Status : **Answered**
Chosen Option : **4**

Q.9

According to radius ratio rule if 'R' is radius of anion and 'r' is the radius of cation then for an atom to occupy octahedral hole, the possible relation between R and r is

Ans

✗ 1. $r = 2{\cdot}25\ R$

✓ 2. $r = 0{\cdot}514\ R$

✗ 3. $r = 0{\cdot}225\ R$

✗ 4. $r = 0{\cdot}314\ R$

Question Type : **MCQ**
Question ID : **37135113174**
Option 1 ID : **37135152696**
Option 2 ID : **37135152693**
Option 3 ID : **37135152694**
Option 4 ID : **37135152695**
Status : **Answered**
Chosen Option : **2**

Q.10

Molecular formula C_2H_7N represents

Ans

✗ 1. only 2° amine

✓ 2. 1° amine and 2° amine

✗ 3. only 1° amine

✗ 4. 2° amine and 3° amine

Question Type : **MCQ**
Question ID : **37135113173**
Option 1 ID : **37135152691**
Option 2 ID : **37135152690**
Option 3 ID : **37135152689**
Option 4 ID : **37135152692**
Status : **Answered**
Chosen Option : **2**

Q.11

Which of the following is obtained on dry distillation of equimolar mixture of calcium acetate and calcium propionate ?

Ans

✗ 1. Ethyl propyl ketone

✗ 2. Propionaldehyde

✗ 3. Acetaldehyde

✓ 4. Ethyl methyl ketone

Question Type : **MCQ**
Question ID : **37135113157**
Option 1 ID : **37135152628**
Option 2 ID : **37135152626**
Option 3 ID : **37135152625**
Option 4 ID : **37135152627**
Status : **Answered**
Chosen Option : **4**

Q.12

Which of the following solution is called as Lucas reagent ?

Ans

✗ 1.

Concentrated carbolic acid with zinc chloride.

✓ 2.

Concentrated hydrochloric acid with zinc chloride.

✗ 3.

Concentrated sulphuric acid with zinc sulphate.

✗ 4.

Concentrated nitric acid with zinc nitrate.

Question Type : **MCQ**
Question ID : **37135113194**
Option 1 ID : **37135152776**
Option 2 ID : **37135152774**
Option 3 ID : **37135152773**
Option 4 ID : **37135152775**
Status : **Answered**
Chosen Option : **2**

Q.13

Which among the following substituent groups increases the acidic strength of aromatic carboxylic acids ?

Ans

✗ 1. $-OH$

✗ 2. $-CH_3$

✗ 3. $-NH_2$

✓ 4. $-NO_2$

Question Type : **MCQ**
Question ID : **37135113165**
Option 1 ID : **37135152658**
Option 2 ID : **37135152657**
Option 3 ID : **37135152660**
Option 4 ID : **37135152659**
Status : **Answered**
Chosen Option : **1**

Q.14

During electrolysis of aqueous NaCl, the product obtained at cathode is

Ans

✗ 1. $O_{2(g)}$

✗ 2. $Cl_{2(g)}$

✗ 3. $H_2O_{(g)}$

✓ 4. $H_{2(g)}$

Question Type : **MCQ**
Question ID : **37135113158**
Option 1 ID : **37135152631**
Option 2 ID : **37135152629**
Option 3 ID : **37135152632**
Option 4 ID : **37135152630**
Status : **Answered**
Chosen Option : **2**

Q.15

For zero order reaction, when $[A]_t$ is plotted against time (t), the slope of the straight line obtained is equal to

Ans

✔ 1. $-k$

✘ 2. k

✘ 3. $[A]_0$

✘ 4. $-kt$

Question Type : **MCQ**
Question ID : **37135113169**
Option 1 ID : **37135152675**
Option 2 ID : **37135152674**
Option 3 ID : **37135152673**
Option 4 ID : **37135152676**
Status : **Answered**
Chosen Option : **3**

Q.16

How many moles of fructose and galactose respectively are obtained on hydrolysis of 1 mole stachyose ?

Ans

✘ 1. 1 , 1

✘ 2. 2 , 2

✘ 3. 3 , 1

✔ 4. 1 , 2

Question Type : **MCQ**
Question ID : **37135113175**
Option 1 ID : **37135152697**
Option 2 ID : **37135152698**
Option 3 ID : **37135152699**
Option 4 ID : **37135152700**
Status : **Answered**
Chosen Option : **1**

Q.17

In colloidal dispersion of starch maximum possible size of starch particle is

Ans

✗ 1. 0·1 nm

✗ 2. 1 nm

✗ 3. greater than 10^3 nm

✓ 4. 10^3 nm

Question Type : **MCQ**
Question ID : **37135113167**
Option 1 ID : **37135152665**
Option 2 ID : **37135152666**
Option 3 ID : **37135152668**
Option 4 ID : **37135152667**
Status : **Answered**
Chosen Option : **3**

Q.18

Which among the following is NOT paramagnetic in nature ?

Ans

✓ 1. Benzene

✗ 2. Oxygen

✗ 3. Fe^{3+}

✗ 4. Cu^{2+}

Question Type : **MCQ**
Question ID : **37135113160**
Option 1 ID : **37135152640**
Option 2 ID : **37135152639**
Option 3 ID : **37135152638**
Option 4 ID : **37135152637**
Status : **Answered**
Chosen Option : **1**

Q.19

What is the product X obtained in the following reaction ?

$$C_6H_5N_2Cl \xrightarrow[\Delta]{\text{i) } HBF_4 \text{ ii) } NaNO_2/Cu} X + N_2 + NaBF_4$$

Ans

✗ 1. $C_6H_5NH_2$

✓ 2. $C_6H_5NO_2$

✗ 3. C_6H_5Cl

✗ 4. C_6H_5F

Question Type : **MCQ**
Question ID : **37135113159**
Option 1 ID : **37135152636**
Option 2 ID : **37135152635**
Option 3 ID : **37135152633**
Option 4 ID : **37135152634**
Status : **Answered**
Chosen Option : **2**

Q.20 The electronic configuration of Be_2 molecule according MOT is

Ans

✗ 1. $(\sigma\ 1s^2)\ (\sigma^*\ 1s)^2,\ \sigma\ 2s^2, \sigma^*\ 2s^0$

✓ 2. $(\sigma\ 1s)^2\ (\sigma^*\ 1s)^2,\ \sigma\ 2s^2, \sigma^*\ 2s^2$

✗ 3. $(\sigma\ 1s^2)\ (\sigma^*\ 1s)^2,\ \sigma\ 2s^1, \sigma^*\ 2s^2$

✗ 4. $(\sigma\ 1s^2)\ (\sigma^*\ 1s)^1,\ \sigma\ 2s^2, \sigma^*\ 2s^2$

Question Type : **MCQ**
Question ID : **37135113162**
Option 1 ID : **37135152648**
Option 2 ID : **37135152645**
Option 3 ID : **37135152647**
Option 4 ID : **37135152646**
Status : **Answered**
Chosen Option : **2**

Q.21

Which among the following pairs of percentage of carbon and the property of cast iron is true ?

Ans

✗ 1. 0·2 to 2·0 % C , forms steel alloy

✗ 2. 0·2 to 2·0 % C , very soft

✓ 3. 4·0 % C , hard and brittle

✗ 4. Less than 0·2 % C , very soft

Question Type : **MCQ**
Question ID : **37135113178**
Option 1 ID : **37135152709**
Option 2 ID : **37135152712**
Option 3 ID : **37135152710**
Option 4 ID : **37135152711**
Status : **Answered**
Chosen Option : **3**

Q.22

Which of the following is an intensive property ?

Ans

✗ 1. Mass

✓ 2. Melting point

✗ 3. Internal energy

✗ 4. Volume

Question Type : **MCQ**
Question ID : **37135113172**
Option 1 ID : **37135152686**
Option 2 ID : **37135152685**
Option 3 ID : **37135152688**
Option 4 ID : **37135152687**
Status : **Answered**
Chosen Option : **2**

Q.23

Alkyl chloride when treated with sodium iodide in presence of dry acetone forms alkyl iodide. What is the name of this reaction ?

Ans

✗ 1. Swarts reaction

✗ 2. Wurtz reaction

✗ 3. Wurtz - Fittig reaction

✓ 4. Finkelstein reaction

Question Type : **MCQ**
Question ID : **37135113196**
Option 1 ID : **37135152783**
Option 2 ID : **37135152781**
Option 3 ID : **37135152782**
Option 4 ID : **37135152784**
Status : **Answered**
Chosen Option : **4**

Q.24

At constant temperature and pressure when 8 volumes of dihydrogen gas react with 4 volumes of dioxygen, the mass of water vapour produced is

Ans

✗ 1. 36 g

✗ 2. 72 g

✗ 3. 162 g

✓ 4. 144 g

Question Type : **MCQ**
Question ID : **37135113189**
Option 1 ID : **37135152753**
Option 2 ID : **37135152754**
Option 3 ID : **37135152756**
Option 4 ID : **37135152755**
Status : **Answered**
Chosen Option : **3**

Q.25

Identify 'A' in the following reaction.

$$CH_3\text{-}CH_2\text{-}CH{=}CH\text{-}NO_2 \xrightarrow{A} CH_3\text{-}NO_2 + CH_3\text{-}CH_2\text{-}CH{=}O$$

Ans

✗ 1. $K_2Cr_2O_7$

✗ 2. KM_nO_4

✓ 3. H_3O^+

✗ 4. $LiAlH_4$

Question Type : **MCQ**
Question ID : **37135113186**
Option 1 ID : **37135152743**
Option 2 ID : **37135152741**
Option 3 ID : **37135152742**
Option 4 ID : **37135152744**
Status : **Answered**
Chosen Option : **3**

Q.26 A first order reaction is 50 % completed in 16 minutes. The percentage of reactant that will react in 32 minutes is

Ans

✗ 1. 100 %

✗ 2. 12·5 %

✗ 3. 25 %

✓ 4. 75 %

Question Type : **MCQ**
Question ID : **37135113192**
Option 1 ID : **37135152767**
Option 2 ID : **37135152768**
Option 3 ID : **37135152765**
Option 4 ID : **37135152766**
Status : **Answered**
Chosen Option : **1**

Q.27

Which of the following reagents can bring about following conversion ?

But-1-ene $\longrightarrow$ Butan-2-ol

Ans

✗ 1. H_2O_2

✗ 2. KOH aqueous

✓ 3. (i) cold Conc · H_2SO_4 , (ii) H_2O

✗ 4. B_2H_6

Question Type :	**MCQ**
Question ID :	**37135113170**
Option 1 ID :	**37135152677**
Option 2 ID :	**37135152680**
Option 3 ID :	**37135152678**
Option 4 ID :	**37135152679**
Status :	**Answered**
Chosen Option :	**3**

Q.28

What type of isomerism is present between

(I) $[Cr(H_2O)_6]Cl_3$ and

(II) $[Cr(H_2O)_5Cl]Cl_2 \cdot H_2O$?

Ans

✗ 1. Ionisation

✗ 2. Coordination

✓ 3. Hydrate

✗ 4. Linkage

Question Type : **MCQ**
Question ID : **37135113168**
Option 1 ID : **37135152669**
Option 2 ID : **37135152671**
Option 3 ID : **37135152672**
Option 4 ID : **37135152670**
Status : **Answered**
Chosen Option : **1**

Q.29

Identify the correct statement from the following.

Ans ✔ 1.

Vapour pressure of a solution containing a non volatile solute is always less than vapour pressure of pure solvent.

✘ 2.

Liquids having greater intermolecular forces have lower boiling points.

✘ 3.

Boiling point of pure solvent is always greater than boiling point of it's solution containing a non volatile solute.

✘ 4.

Vapour pressure of a solution containing a non volatile solute is always greater than vapour pressure of pure solvent.

Question Type : **MCQ**
Question ID : **37135113193**
Option 1 ID : **37135152772**
Option 2 ID : **37135152769**
Option 3 ID : **37135152770**
Option 4 ID : **37135152771**
Status : **Answered**
Chosen Option : **1**

Q.30

Which among the following polymers is used to obtain bullet proof vests and helmets ?

Ans

✗ 1. Dynel

✗ 2. Glyptal

✗ 3. Nomex

✓ 4. Kevlar

Question Type : **MCQ**
Question ID : **37135113161**
Option 1 ID : **37135152644**
Option 2 ID : **37135152643**
Option 3 ID : **37135152641**
Option 4 ID : **37135152642**
Status : **Answered**
Chosen Option : **4**

Q.31

Which metal from following has highest tendency to undergo oxidation ?

Ans

✓ 1. Mg

✗ 2. Ag

✗ 3. Al

✗ 4. Fe

Question Type : **MCQ**
Question ID : **37135113156**
Option 1 ID : **37135152624**
Option 2 ID : **37135152621**
Option 3 ID : **37135152623**
Option 4 ID : **37135152622**
Status : **Answered**
Chosen Option : **4**

Q.32 Which among the following elements has highest ionisation enthalpy and bears a diagonal relationship with aluminium ?

Ans

✗ 1. Magnesium

✓ 2. Beryllium

✗ 3. Calcium

✗ 4. Lithium

Question Type : **MCQ**
Question ID : **37135113198**
Option 1 ID : **37135152790**
Option 2 ID : **37135152789**
Option 3 ID : **37135152791**
Option 4 ID : **37135152792**
Status : **Answered**
Chosen Option : **2**

Q.33

Which of the following is cationic detergent ?

Ans ✔ 1.

n-hexadecyl trimethyl ammonium chloride

✗ 2. Pentaerythrityl stearate

✗ 3.

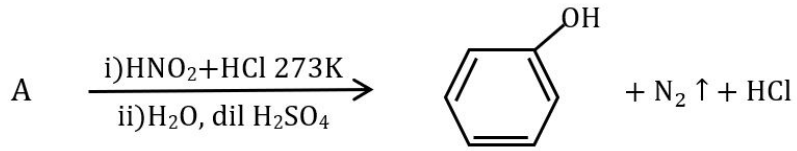
n-dodecyl benzene sulphonic acid

✗ 4. Sodium lauryl sulphate

Question Type : **MCQ**
Question ID : **37135113187**
Option 1 ID : **37135152748**
Option 2 ID : **37135152747**
Option 3 ID : **37135152745**
Option 4 ID : **37135152746**
Status : **Answered**
Chosen Option : **3**

Q.34

Identify compound 'A' in the following reaction.



Ans

✗ 1. Benzene

✗ 2. Chlorobenzene

✓ 3. Aniline

✗ 4. Cumene

Question Type : **MCQ**
Question ID : **37135113184**
Option 1 ID : **37135152735**
Option 2 ID : **37135152733**
Option 3 ID : **37135152736**
Option 4 ID : **37135152734**
Status : **Answered**
Chosen Option : **2**

Q.35

Strength of 20 volume solution of hydrogen peroxide is

Ans

✔ 1. 60·71 g/L

✘ 2. 6·8 g/L

✘ 3. 68 g/L

✘ 4. 6·071 g/L

Question Type : **MCQ**
Question ID : **37135113195**
Option 1 ID : **37135152779**
Option 2 ID : **37135152777**
Option 3 ID : **37135152778**
Option 4 ID : **37135152780**
Status : **Answered**
Chosen Option : **3**

Q.36 What type of geometry and magnetic behaviour is found in compound $[NiCl_4]^{2-}$?
(Atomic no. Ni = 28)

Ans

✗ 1. Square planar and Paramagnetic

✓ 2. Tetrahedral and paramagnetic

✗ 3. Pyramidal and diamagnetic

✗ 4. Square planar and paramagnetic

Question Type : **MCQ**
Question ID : **37135113155**
Option 1 ID : **37135152617**
Option 2 ID : **37135152619**
Option 3 ID : **37135152618**
Option 4 ID : **37135152620**
Status : **Answered**
Chosen Option : **2**

Q.37

Identify the compound having highest boiling point from following ?

Ans

✗ 1. Propanal

✗ 2. Methoxy ethane

✗ 3. Propane

✓ 4. Propan-1-ol

Question Type : **MCQ**
Question ID : **37135113199**
Option 1 ID : **37135152795**
Option 2 ID : **37135152796**
Option 3 ID : **37135152793**
Option 4 ID : **37135152794**
Status : **Answered**
Chosen Option : **4**

Q.38

Which among the following catalysts is used in manufacture of sulphuric acid by contact process ?

Ans

✗ 1. Ni

✗ 2. Fe with Mo

✓ 3. V_2O_5

✗ 4. MnO_2

Question Type : **MCQ**
Question ID : **37135113190**
Option 1 ID : **37135152759**
Option 2 ID : **37135152760**
Option 3 ID : **37135152758**
Option 4 ID : **37135152757**
Status : **Answered**
Chosen Option : **3**

Q.39 A balloon contains 2·27 L air and has a pressure of $1{\cdot}013 \times 10^5$ nm^{-2}. The balloon rises to a certain height and expands to volume of 4540 mL .
What is the final pressure of air in balloon ?

Ans

✗ 1. $2{\cdot}026 \times 10^2\ Nm^{-2}$

✗ 2. $4{\cdot}540 \times 10^4\ Nm^{-2}$

✗ 3. $5{\cdot}065 \times 10^{-4}\ Nm^{-2}$

✓ 4. $5{\cdot}065 \times 10^4\ Nm^{-2}$

Question Type : **MCQ**
Question ID : **37135113181**
Option 1 ID : **37135152723**
Option 2 ID : **37135152724**
Option 3 ID : **37135152721**
Option 4 ID : **37135152722**
Status : **Answered**
Chosen Option : **1**

Q.40

Heat of combustion of liquid benzene to carbon dioxide and water is -3266 kJ mol^{-1}. What is the amount of heat liberated when 780 mg of benzene is fully oxidised ? (At mass of C = 12 , H = 1)

Ans

✔ 1. 32·66 kJ

✗ 2. 326·6 kJ

✗ 3. 65·32 kJ

✗ 4. 16·33 kJ

Question Type : **MCQ**
Question ID : **37135113185**
Option 1 ID : **37135152737**
Option 2 ID : **37135152740**
Option 3 ID : **37135152739**
Option 4 ID : **37135152738**
Status : **Answered**
Chosen Option : **2**

Q.41 Total number of lone pairs of electron on oxygen atoms in carbondioxide are

Ans

✗ 1. 2

✗ 2. 3

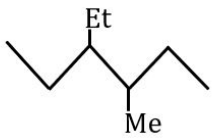
✓ 3. 4

✗ 4. 1

Question Type : **MCQ**
Question ID : **37135113153**
Option 1 ID : **37135152610**
Option 2 ID : **37135152611**
Option 3 ID : **37135152612**
Option 4 ID : **37135152609**
Status : **Answered**
Chosen Option : **3**

Q.42

What is the molar mass of a compound represented below ?



Ans

✔ 1. $128\ g\ mol^{-1}$

✗ 2. $108\ g\ mol^{-1}$

✗ 3. $120\ g\ mol^{-1}$

✗ 4. $126\ g\ mol^{-1}$

Question Type : **MCQ**
Question ID : **37135113200**
Option 1 ID : **37135152799**
Option 2 ID : **37135152798**
Option 3 ID : **37135152797**
Option 4 ID : **37135152800**
Status : **Answered**
Chosen Option : **1**

Q.43

Which among the following polymers is a heteropolymer ?

Ans

✗ 1. Nylon-6

✗ 2. Polythene

✓ 3. Buna-N

✗ 4. Polystyrene

Question Type : **MCQ**
Question ID : **37135113183**
Option 1 ID : **37135152729**
Option 2 ID : **37135152731**
Option 3 ID : **37135152730**
Option 4 ID : **37135152732**
Status : **Answered**
Chosen Option : **3**

Q.44 Which of the following formulae is used to find edge length of bcc unit cell ?

Ans

✗ 1. $\frac{\sqrt{3}}{4r}$

✗ 2. $\sqrt{8}\ r$

✓ 3. $\frac{4r}{\sqrt{3}}$

✗ 4. $\sqrt{\frac{4r}{3}}$

Question Type : **MCQ**
Question ID : **37135113188**
Option 1 ID : **37135152751**
Option 2 ID : **37135152749**
Option 3 ID : **37135152750**
Option 4 ID : **37135152752**
Status : **Answered**
Chosen Option : **3**

Q.45

What is the molecular formula of nitrogen sesquioxide ?

Ans

✗ 1. N_2O

✓ 2. N_2O_3

✗ 3. N_2O_5

✗ 4. N_2O_4

Question Type : **MCQ**
Question ID : **37135113151**
Option 1 ID : **37135152604**
Option 2 ID : **37135152601**
Option 3 ID : **37135152602**
Option 4 ID : **37135152603**
Status : **Answered**
Chosen Option : **2**

Q.46

Prolonged heating of glucose with HI to form n-Hexane, confirms

Ans

✗ 1. Presence of carbonyl group

✓ 2. Presence of all six carbon atoms in a straight chain

✗ 3. Presence of primary alcoholic group

✗ 4. Presence of aldehydic carbonyl group

Question Type :	**MCQ**
Question ID :	**37135113171**
Option 1 ID :	**37135152681**
Option 2 ID :	**37135152683**
Option 3 ID :	**37135152684**
Option 4 ID :	**37135152682**
Status :	**Answered**
Chosen Option :	**2**

Q.47

When will be change in Gibb's free energy always negative ?

Ans

✗ 1.

ΔH = positive, ΔS = negative at all temperatures.

✗ 2.

ΔH and ΔS both positive at low temperature.

✓ 3.

ΔH = negative, ΔS = positive, at all temperatures.

✗ 4.

ΔH and ΔS both negative at high temperature.

Question Type :	**MCQ**
Question ID :	**37135113197**
Option 1 ID :	**37135152788**
Option 2 ID :	**37135152786**
Option 3 ID :	**37135152787**
Option 4 ID :	**37135152785**
Status :	**Answered**
Chosen Option :	**3**

Q.48 The conductivity of NaI solution is $6{\cdot}0 \times 10^{-4}\Omega^{-1}\text{cm}^{-1}$ and molar conductivity is $120\ \Omega^{-1}\text{cm}^2\text{mol}^{-1}$. Calculate the concentration of NaI solution

Ans

✗ 1. $0{\cdot}05\ \text{M}$

✗ 2. $2 \times 10^{-2}\ \text{M}$

✓ 3. $0{\cdot}005\ \text{M}$

✗ 4. $7{\cdot}2 \times 10^{-3}\ \text{M}$

Question Type : **MCQ**
Question ID : **37135113152**
Option 1 ID : **37135152606**
Option 2 ID : **37135152608**
Option 3 ID : **37135152605**
Option 4 ID : **37135152607**
Status : **Answered**
Chosen Option : **2**

Q.49

Identify the oxidising agent in following reaction.

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

Ans

✗ 1. $CH_{4(g)}$

✓ 2. $O_{2(g)}$

✗ 3. $CO_{2(g)}$

✗ 4. $H_2O_{(l)}$

Question Type : **MCQ**
Question ID : **37135113176**
Option 1 ID : **37135152701**
Option 2 ID : **37135152702**
Option 3 ID : **37135152703**
Option 4 ID : **37135152704**
Status : **Answered**
Chosen Option : **2**

Q.50

Which of the following is NOT an antiseptic ?

Ans

✗ 1. Bithional

✓ 2. Penicillin

✗ 3. Chloroxylenol

✗ 4. Iodine

Question Type : **MCQ**
Question ID : **37135113166**
Option 1 ID : **37135152664**
Option 2 ID : **37135152662**
Option 3 ID : **37135152661**
Option 4 ID : **37135152663**
Status : **Answered**
Chosen Option : **2**

Section : **Biology**

Q.1 How many among the sixteen offsprings produced in the F_2 generation will have parental combinations of two genes controlling wheat kernel colour?

Ans

✗ 1. Three

✗ 2. Four

✗ 3. One

✓ 4. Two

Question Type : **MCQ**
Question ID : **37135113217**
Option 1 ID : **37135152866**
Option 2 ID : **37135152865**
Option 3 ID : **37135152868**
Option 4 ID : **37135152867**
Status : **Answered**
Chosen Option : **4**

Q.2 In herbivorous animals, appendix helps in digestion of _____.

Ans

✔ 1. cellulose

✗ 2. glycogen

✗ 3. polypeptides

✗ 4. lactose

Question Type : **MCQ**
Question ID : **37135113257**
Option 1 ID : **37135153027**
Option 2 ID : **37135153026**
Option 3 ID : **37135153025**
Option 4 ID : **37135153028**
Status : **Answered**
Chosen Option : **1**

Q.3 One of the following cell organelles is involved in synthesis and storage of fat.

Ans

✗ 1. Glyoxysome

✗ 2. Peroxisome

✔ 3. Sphaerosome

✗ 4. Ribosome

Question Type : **MCQ**
Question ID : **37135113298**
Option 1 ID : **37135153191**
Option 2 ID : **37135153190**
Option 3 ID : **37135153189**
Option 4 ID : **37135153192**
Status : **Answered**
Chosen Option : **1**

Q.4 Eustachian valve guards the opening of _____.

Ans

✗ 1.
coronary sinus

✗ 2.
coronary artery

✓ 3.
inferior venacava

✗ 4.
superior venacava

Question Type : **MCQ**
Question ID : **37135113265**
Option 1 ID : **37135153059**
Option 2 ID : **37135153060**
Option 3 ID : **37135153057**
Option 4 ID : **37135153058**
Status : **Answered**
Chosen Option : **3**

Q.5 The gene transfer between unrelated plants is brought about by _____.

Ans

✗ 1.
cloning

✓ 2.
genetic engineering

✗ 3.
asexual reproduction

✗ 4.
sexual reproduction

Question Type : **MCQ**
Question ID : **37135113247**
Option 1 ID : **37135152988**
Option 2 ID : **37135152987**
Option 3 ID : **37135152986**
Option 4 ID : **37135152985**
Status : **Answered**
Chosen Option : **2**

Q.6 The applications of DNA finger printing technique are following EXCEPT _____.

Ans

✗ 1.
to establish parentage in disputed cases.

✓ 2.
to study chromosomal types.

✗ 3.
to settle insurance claims.

✗ 4.
to study phylogeny of organisms.

Question Type : **MCQ**
Question ID : **37135113294**
Option 1 ID : **37135153173**
Option 2 ID : **37135153176**
Option 3 ID : **37135153175**
Option 4 ID : **37135153174**
Status : **Answered**
Chosen Option : **3**

Q.7 The process of tubular secretion adds following substances to the renal fluid EXCEPT _____.

Ans

✗ 1.
hydrogen ions

✗ 2.
creatinine

✗ 3.
potassium ions

✓ 4.
sodium ions

Question Type : **MCQ**
Question ID : **37135113299**
Option 1 ID : **37135153194**
Option 2 ID : **37135153196**
Option 3 ID : **37135153195**
Option 4 ID : **37135153193**
Status : **Answered**
Chosen Option : **2**

Q.8 The sites of nitrogen fixation in blue green algae are_____.

Ans

✗ 1.
vegetative cells

✗ 2.
apical cells

✓ 3.
heterocysts

✗ 4.
basal cells

Question Type : **MCQ**
Question ID : **37135113225**
Option 1 ID : **37135152897**
Option 2 ID : **37135152900**
Option 3 ID : **37135152898**
Option 4 ID : **37135152899**
Status : **Answered**
Chosen Option : **3**

Q.9 On sensitization, activated B-lymphocytes multiply to form clone of specific __A__ which in turn produce __B__.

Ans

✗ 1.
A-cytotoxic T-cells, B-perforins

✓ 2.
A- plasma cells, B-antibodies

✗ 3.
A-plasma cells, B-antigens

✗ 4.
A- memory T-cells, B-lymphokines

Question Type : **MCQ**
Question ID : **37135113273**
Option 1 ID : **37135153091**
Option 2 ID : **37135153089**
Option 3 ID : **37135153092**
Option 4 ID : **37135153090**
Status : **Answered**
Chosen Option : **4**

Q.10 Pusa Shubhra a variety of cauliflower is produced to prevent _____.

Ans

✔ 1.
black rot

✘ 2.
leaf curl

✘ 3.
stripe rust

✘ 4.
Hill bunt

Question Type : **MCQ**
Question ID : **37135113222**
Option 1 ID : **37135152886**
Option 2 ID : **37135152887**
Option 3 ID : **37135152888**
Option 4 ID : **37135152885**
Status : **Answered**
Chosen Option : **1**

Q.11 The toxic substances released from *Bacillus thuringiensis* affects _____of insect larva.

Ans

✘ 1.
brain

✔ 2.
gut

✘ 3.
Malpighian tubules

✘ 4.
trachea

Question Type : **MCQ**
Question ID : **37135113248**
Option 1 ID : **37135152989**
Option 2 ID : **37135152990**
Option 3 ID : **37135152991**
Option 4 ID : **37135152992**
Status : **Answered**
Chosen Option : **2**

Q.12 Which one of the following is NOT needed to construct solenoid fibre?

Ans

✗ 1.
Nucleosome

✗ 2.
DNA molecule

✓ 3.
RNA molecule

✗ 4.
Basic proteins histones

Question Type : **MCQ**
Question ID : **37135113232**
Option 1 ID : **37135152928**
Option 2 ID : **37135152927**
Option 3 ID : **37135152926**
Option 4 ID : **37135152925**
Status : **Answered**
Chosen Option : **3**

Q.13 In Column – I there are names of viral diseases while in Column-II there are names of viruses. Find out INCORRECT pair.

Column – I		Column – II

Ans

✗ 1.
Yellow fever -- Flavi virus

✗ 2.
Swine flu -- H_1N_1 virus

✓ 3.
Small pox -- Morbilli virus

✗ 4.
AIDS -- Retro virus

Question Type : **MCQ**
Question ID : **37135113201**
Option 1 ID : **37135152801**
Option 2 ID : **37135152802**
Option 3 ID : **37135152804**
Option 4 ID : **37135152803**
Status : **Answered**
Chosen Option : **4**

Q.14 Highest taxonomic category is _____.

Ans

✗ 1.
species

✗ 2.
division

✗ 3.
genus

✓ 4.
kingdom

Question Type : **MCQ**
Question ID : **37135113242**
Option 1 ID : **37135152965**
Option 2 ID : **37135152967**
Option 3 ID : **37135152966**
Option 4 ID : **37135152968**
Status : **Answered**
Chosen Option : **4**

Q.15 At how many places, Co-A is used in aerobic respiration after glycolysis?

Ans

✗ 1.
Three

✗ 2.
Four

✗ 3.
One

✓ 4.
Two

Question Type : **MCQ**
Question ID : **37135113203**
Option 1 ID : **37135152811**
Option 2 ID : **37135152812**
Option 3 ID : **37135152809**
Option 4 ID : **37135152810**
Status : **Answered**
Chosen Option : **4**

Q.16 A gap present in upper jaw, between incisor and canine of ape is _____.

Ans

✔ 1.
diastema

✘ 2.
diapedesis

✘ 3.
diaphysis

✘ 4.
diarthrosis

Question Type : **MCQ**
Question ID : **37135113271**
Option 1 ID : **37135153083**
Option 2 ID : **37135153082**
Option 3 ID : **37135153081**
Option 4 ID : **37135153084**
Status : **Answered**
Chosen Option : **3**

Q.17 Increased blood pressure and heart rate, deposition of fats in eye sockets and weight loss are found in _____.

Ans

✘ 1.
Addison's disease

✔ 2.
Grave's disease

✘ 3.
bleeder's disease

✘ 4.
Cushing's disease

Question Type : **MCQ**
Question ID : **37135113281**
Option 1 ID : **37135153122**
Option 2 ID : **37135153121**
Option 3 ID : **37135153124**
Option 4 ID : **37135153123**
Status : **Answered**
Chosen Option : **4**

Q.18 What proportion of photosynthetically fixed CO_2 goes back to atmosphere, in C_3 plants by photorespiration?

Ans

✗ 1. $\frac{1}{6}$

✗ 2. $\frac{2}{3}$

✓ 3. $\frac{1}{4}$

✗ 4. $\frac{5}{6}$

Question Type : **MCQ**
Question ID : **37135113211**
Option 1 ID : **37135152842**
Option 2 ID : **37135152844**
Option 3 ID : **37135152841**
Option 4 ID : **37135152843**
Status : **Answered**
Chosen Option : **3**

Q.19 Cranial capacity of Java man is _____.

Ans

✗ 1. 1600 c.c.

✗ 2. 1450 c.c.

✗ 3. 1200 c.c.

✓ 4. 940 c.c.

Question Type : **MCQ**
Question ID : **37135113264**
Option 1 ID : **37135153056**
Option 2 ID : **37135153055**
Option 3 ID : **37135153054**
Option 4 ID : **37135153053**
Status : **Answered**
Chosen Option : **3**

Q.20 How many of the following statements is/are true?

i) Alleles are located on different loci.

ii) An allele individually controls a trait.

iii) An allelic pair controls two traits.

iv) An allelic pair controls a single trait.

Ans

✗ 1.

Two

✓ 2.

One

✗ 3.

Four

✗ 4.

Three

Question Type : **MCQ**
Question ID : **37135113244**
Option 1 ID : **37135152975**
Option 2 ID : **37135152976**
Option 3 ID : **37135152973**
Option 4 ID : **37135152974**
Status : **Answered**
Chosen Option : **2**

Q.21 Branching tree like processes of white matter called __A__ are located in __B__ of CNS.

Ans

✗ 1.

A – funiculi, B – spinal cord

✗ 2.

A – folia, B – medulla oblongata

✗ 3.

A – corpora striata , B – cerebrum

✓ 4.

A – arbor vitae, B - cerebellum

Question Type : **MCQ**
Question ID : **37135113260**
Option 1 ID : **37135153038**
Option 2 ID : **37135153039**
Option 3 ID : **37135153037**
Option 4 ID : **37135153040**
Status : **Answered**
Chosen Option : **4**

Q.22 Exudation of water from the cut end of basal part of stem is due to _____.

Ans

✗ 1.
osmotic pressure

✗ 2.
transpiration

✓ 3.
root pressure

✗ 4.
low temperature

Question Type : **MCQ**
Question ID : **37135113249**
Option 1 ID : **37135152995**
Option 2 ID : **37135152993**
Option 3 ID : **37135152994**
Option 4 ID : **37135152996**
Status : **Answered**
Chosen Option : **3**

Q.23 In *Kalanchoe,* vegetative reproduction takes place by_____.

Ans

✗ 1.
root tuber

✗ 2.
stem tuber

✗ 3.
floral buds

✓ 4.
epiphyllous buds

Question Type : **MCQ**
Question ID : **37135113206**
Option 1 ID : **37135152821**
Option 2 ID : **37135152822**
Option 3 ID : **37135152824**
Option 4 ID : **37135152823**
Status : **Answered**
Chosen Option : **3**

Q.24 Which one of the following is NOT a characteristic of genetic code?

Ans

✗ 1.
It is commaless.

✗ 2.
It is in triplets.

✗ 3.
It is degenerate.

✓ 4.
It is ambiguous.

Question Type : **MCQ**
Question ID : **37135113243**
Option 1 ID : **37135152969**
Option 2 ID : **37135152970**
Option 3 ID : **37135152972**
Option 4 ID : **37135152971**
Status : **Answered**
Chosen Option : **3**

Q.25 A pea plant with genotype YyRr is crossed with another pea plant with genotype yyrr. The expected phenotypic ratio of individuals formed will be_____.

Ans

✗ 1.
2:1:1

✗ 2.
1:2:1

✗ 3.
1:1:2

✓ 4.
1:1:1:1

Question Type : **MCQ**
Question ID : **37135113205**
Option 1 ID : **37135152818**
Option 2 ID : **37135152817**
Option 3 ID : **37135152820**
Option 4 ID : **37135152819**
Status : **Answered**
Chosen Option : **4**

Q.26 Generally lower pulse rate is observed in _____.

Ans

✔ 1.
males

✗ 2.
excitement

✗ 3.
standing position

✗ 4.
children

Question Type : **MCQ**
Question ID : **37135113259**
Option 1 ID : **37135153036**
Option 2 ID : **37135153034**
Option 3 ID : **37135153033**
Option 4 ID : **37135153035**
Status : **Answered**
Chosen Option : **1**

Q.27 Which one of the following is NOT an example of C_4 plant?

Ans

✗ 1.
Sugarcane

✔ 2.
Gram

✗ 3.
Amaranthus

✗ 4.
Maize

Question Type : **MCQ**
Question ID : **37135113207**
Option 1 ID : **37135152828**
Option 2 ID : **37135152827**
Option 3 ID : **37135152825**
Option 4 ID : **37135152826**
Status : **Answered**
Chosen Option : **3**

Q.28 A protein is a sequence of amino acids. The end of polypeptide chain of – NH_2 end and at - COOH end are respectively called _____.

Ans

✗ 1.
∝-terminal and β- terminal

✓ 2.
N-terminal and C- terminal

✗ 3.
C-terminal and N- terminal

✗ 4.
β -terminal and ∝- terminal

Question Type : **MCQ**
Question ID : **37135113238**
Option 1 ID : **37135152951**
Option 2 ID : **37135152949**
Option 3 ID : **37135152950**
Option 4 ID : **37135152952**
Status : **Answered**
Chosen Option : **1**

Q.29 Usually at which pH, the human sperms become motile?

Ans

✗ 1.
4.5 to 5.0

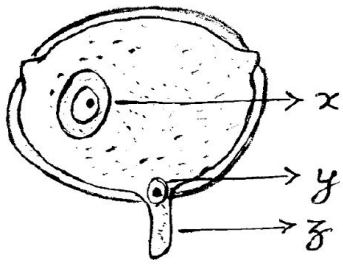
✓ 2.
6.0 to 6.5

✗ 3.
7.5 to 8.5

✗ 4.
4.0 to 4.5

Question Type : **MCQ**
Question ID : **37135113258**
Option 1 ID : **37135153030**
Option 2 ID : **37135153031**
Option 3 ID : **37135153032**
Option 4 ID : **37135153029**
Status : **Answered**
Chosen Option : **2**

Q.30 Choose the correct set of labellings in the given diagram.



Ans

✗ 1.
x-generative cell, y- pollen tube , z- tube nucleus

✓ 2.
x-generative cell, y- tube nucleus, z- pollen tube

✗ 3.
x- pollen tube, y- tube nucleus, z- generative cell

✗ 4.
x- tube nucleus, y- generative cell, z- pollen tube

Question Type : **MCQ**
Question ID : **37135113223**
Option 1 ID : **37135152889**
Option 2 ID : **37135152890**
Option 3 ID : **37135152891**
Option 4 ID : **37135152892**
Status : **Answered**
Chosen Option : **2**

Q.31 *Psilotum nudum* is a/an _____species.

Ans

✓ 1.
endangered

✗ 2.
rare

✗ 3.
extinct

✗ 4.
exotic

Question Type : **MCQ**
Question ID : **37135113278**
Option 1 ID : **37135153109**
Option 2 ID : **37135153112**
Option 3 ID : **37135153110**
Option 4 ID : **37135153111**
Status : **Answered**
Chosen Option : **4**

Q.32 The endocrine nature of kidney is indicated by secretion of _____.

Ans

✔ 1.
calcitriol

✗ 2.
aldosterone

✗ 3.
glucagon

✗ 4.
vasopressin

Question Type : **MCQ**
Question ID : **37135113268**
Option 1 ID : **37135153071**
Option 2 ID : **37135153069**
Option 3 ID : **37135153070**
Option 4 ID : **37135153072**
Status : **Answered**
Chosen Option : **2**

Q.33 The law of dominance is not universally applicable because in some organisms few characters are_____.

Ans

✗ 1.
completely dominant.

✗ 2.
both, dominant and recessive

✗ 3.
completely recessive.

✔ 4.
incompletely dominant.

Question Type : **MCQ**
Question ID : **37135113227**
Option 1 ID : **37135152905**
Option 2 ID : **37135152908**
Option 3 ID : **37135152906**
Option 4 ID : **37135152907**
Status : **Answered**
Chosen Option : **3**

Q.34 A single layer of cells that composes epicardium is called _____.

Ans

✗ 1.
endothelium

✓ 2.
mesothelium

✗ 3.
ependyma

✗ 4.
epidermis

Question Type : **MCQ**
Question ID : **37135113270**
Option 1 ID : **37135153080**
Option 2 ID : **37135153079**
Option 3 ID : **37135153077**
Option 4 ID : **37135153078**
Status : **Answered**
Chosen Option : **1**

Q.35 The pO_2 of alveolar blood is _____mmHg.

Ans

✗ 1.
90

✗ 2.
50

✗ 3.
104

✓ 4.
40

Question Type : **MCQ**
Question ID : **37135113283**
Option 1 ID : **37135153131**
Option 2 ID : **37135153130**
Option 3 ID : **37135153132**
Option 4 ID : **37135153129**
Status : **Answered**
Chosen Option : **3**

Q.36 The correct group of ureotelic animals is _____.

Ans

✗ 1.
frog, shark, *Labeo*

✗ 2.
land snail, toad, *Labeo*

✗ 3.
dog, *Labeo,* snake

✓ 4.
frog, turtle, rat

Question Type : **MCQ**
Question ID : **37135113262**
Option 1 ID : **37135153045**
Option 2 ID : **37135153048**
Option 3 ID : **37135153046**
Option 4 ID : **37135153047**
Status : **Answered**
Chosen Option : **4**

Q.37 Lymph contains all of the following components EXCEPT_____.

Ans

✓ 1.
platelets

✗ 2.
lymphocytes

✗ 3.
antibodies

✗ 4.
CO_2

Question Type : **MCQ**
Question ID : **37135113253**
Option 1 ID : **37135153010**
Option 2 ID : **37135153011**
Option 3 ID : **37135153012**
Option 4 ID : **37135153009**
Status : **Answered**
Chosen Option : **4**

Q.38 Smallest bacterial genome is seen in _____.

Ans

✗ 1. *Methanococcus jannaschii*

✓ 2. *Mycobacterium genitalium*

✗ 3. *Heamophilus influenzae*

✗ 4. *Saccharomyces cerevisiae*

Question Type : **MCQ**
Question ID : **37135113282**
Option 1 ID : **37135153127**
Option 2 ID : **37135153125**
Option 3 ID : **37135153126**
Option 4 ID : **37135153128**
Status : **Answered**
Chosen Option : **3**

Q.39 Which of the following steps involved in Calvin cycle is in sequential manner?

1) Carboxylation – reduction – regeneration – synthesis
2) Carboxylation – reduction – synthesis– regeneration
3) Reduction– carboxylation– synthesis– regeneration
4) Carboxylation – synthesis – regeneration – reduction

Ans

✓ 1. 2

✗ 2. 4

✗ 3. 1

✗ 4. 3

Question Type : **MCQ**
Question ID : **37135113218**
Option 1 ID : **37135152870**
Option 2 ID : **37135152872**
Option 3 ID : **37135152869**
Option 4 ID : **37135152871**
Status : **Answered**
Chosen Option : **3**

Q.40 c DNA library is mostly constructed for organisms like_____.

Ans

✔ 1. yeast

✘ 2. cyanobacteria

✘ 3. virus

✘ 4. bacteria

Question Type : **MCQ**
Question ID : **37135113228**
Option 1 ID : **37135152909**
Option 2 ID : **37135152911**
Option 3 ID : **37135152912**
Option 4 ID : **37135152910**
Status : **Answered**
Chosen Option : **3**

Q.41 In genetic engineering, _____serve as agents for gene transfer.

Ans

✔ 1. plasmids

✘ 2. ribosomes

✘ 3. lysosomes

✘ 4. microbodies

Question Type : **MCQ**
Question ID : **37135113290**
Option 1 ID : **37135153159**
Option 2 ID : **37135153157**
Option 3 ID : **37135153158**
Option 4 ID : **37135153160**
Status : **Answered**
Chosen Option : **1**

Q.42 Neurotransmitter, at a synapse, is stored temporarily in _____.

Ans

✔ 1.
synaptic vesicles.

✘ 2.
synaptic cleft

✘ 3.
pre synaptic membrane

✘ 4.
post synaptic membrane

Question Type : **MCQ**
Question ID : **37135113274**
Option 1 ID : **37135153096**
Option 2 ID : **37135153095**
Option 3 ID : **37135153093**
Option 4 ID : **37135153094**
Status : **Answered**
Chosen Option : **2**

Q.43 Lysozyme present in tears brings about lysis of _____.

Ans

✔ 1.
bacteria

✘ 2.
fungi

✘ 3.
protists

✘ 4.
viruses

Question Type : **MCQ**
Question ID : **37135113255**
Option 1 ID : **37135153017**
Option 2 ID : **37135153019**
Option 3 ID : **37135153020**
Option 4 ID : **37135153018**
Status : **Answered**
Chosen Option : **2**

Q.44 At the end of gestation period, the foetal hormones, which cause decrease in progesterone level in mother's blood are _____.

Ans

✗ 1.
adrenaline and nor-adrenaline

✗ 2.
parathyroid hormones

✗ 3.
thyroid hormones

✓ 4.
corticosteroids

Question Type : **MCQ**
Question ID : **37135113272**
Option 1 ID : **37135153088**
Option 2 ID : **37135153087**
Option 3 ID : **37135153086**
Option 4 ID : **37135153085**
Status : **Answered**
Chosen Option : **1**

Q.45 Total number of complete spirals occurring in a segment of DNA having 100 nucleotides will be _____.

Ans

✓ 1.
5

✗ 2.
6

✗ 3.
3

✗ 4.
4

Question Type : **MCQ**
Question ID : **37135113221**
Option 1 ID : **37135152882**
Option 2 ID : **37135152881**
Option 3 ID : **37135152884**
Option 4 ID : **37135152883**
Status : **Answered**
Chosen Option : **4**

Q.46 Protozoan disease of poultry is _____.

Ans

✗ 1.
Favus

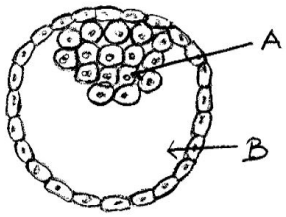
✗ 2.
Pullorum

✗ 3.
Ranikhet

✓ 4.
Coccidiosis

Question Type : **MCQ**
Question ID : **37135113275**
Option 1 ID : **37135153099**
Option 2 ID : **37135153098**
Option 3 ID : **37135153097**
Option 4 ID : **37135153100**
Status : **Answered**
Chosen Option : **4**

Q.47 One of the human embryonic developmental stages has been shown in the diagram. What do the A and B indicate?



Ans

✓ 1.
A-Inner mass of cells; B- Blastocoel

✗ 2.
A- Inner mass of cells; B- Antrum

✗ 3.
A-Trophoblasts; B-Yolk sac

✗ 4.
A- Ectoderm; B- Amniotic cavity

Question Type : **MCQ**
Question ID : **37135113286**
Option 1 ID : **37135153142**
Option 2 ID : **37135153143**
Option 3 ID : **37135153144**
Option 4 ID : **37135153141**
Status : **Answered**
Chosen Option : **3**

Q.48 Which one of the following is the correct structural organization of any animal?

Ans

✗ 1.

Tissues → Organs → Systems → Cells

✓ 2.

Cells → Tissues → Organs → Systems

✗ 3.

Cells → Organs → Systems → Tissues

✗ 4.

Systems → Organs → Cells → Tissues

Question Type : **MCQ**
Question ID : **37135113251**
Option 1 ID : **37135153003**
Option 2 ID : **37135153001**
Option 3 ID : **37135153002**
Option 4 ID : **37135153004**
Status : **Answered**
Chosen Option : **2**

Q.49 How many ATP molecules would be produced from complete aerobic breakdown of one molecule of acetyl Co-A?

Ans

✗ 1.

38

✗ 2.

15

✗ 3.

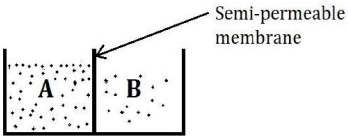
36

✓ 4.

12

Question Type : **MCQ**
Question ID : **37135113250**
Option 1 ID : **37135153000**
Option 2 ID : **37135152998**
Option 3 ID : **37135152999**
Option 4 ID : **37135152997**
Status : **Answered**
Chosen Option : **2**

Q.50 The figure below is showing two chambers A and B having different concentration of solutions separated by a semi-permeable membrane. Identify the correct statement.



Ans

✗ 1.

Movement of solute molecules takes place from chamber 'B' to chamber 'A' till equilibrium.

✗ 2.

There is no movement of solvent between chamber 'A' and 'B'.

✗ 3.

Movement of solvent molecules takes place from chamber 'A' to chamber 'B' till equilibrium.

✓ 4.

Movement of solvent molecules takes place from chamber 'B' to chamber 'A' till equilibrium.

Question Type : **MCQ**
Question ID : **37135113215**
Option 1 ID : **37135152860**
Option 2 ID : **37135152859**
Option 3 ID : **37135152857**
Option 4 ID : **37135152858**
Status : **Answered**
Chosen Option : **4**

Q.51 The source of oxygen evolved during photosynthesis is _____.

Ans

✗ 1.

light

✗ 2.

chlorophyll

✗ 3.

CO_2

✓ 4.

water

Question Type : **MCQ**
Question ID : **37135113241**
Option 1 ID : **37135152961**
Option 2 ID : **37135152963**
Option 3 ID : **37135152962**
Option 4 ID : **37135152964**
Status : **Answered**
Chosen Option : **4**

Q.52 The initial acceptor of electrons among the cytochromes in respiratory chain is _____.

Ans

✗ 1.
cytochrome – a_3

✗ 2.
cytochrome – a

✗ 3.
cytochrome – c

✓ 4.
cytochrome – b-c_1

Question Type : **MCQ**
Question ID : **37135113213**
Option 1 ID : **37135152850**
Option 2 ID : **37135152852**
Option 3 ID : **37135152849**
Option 4 ID : **37135152851**
Status : **Answered**
Chosen Option : **2**

Q.53 During _____, variations are created.

Ans

✓ 1.
sexual reproduction

✗ 2.
vegetative propagation

✗ 3.
cloning

✗ 4.
asexual reproduction

Question Type : **MCQ**
Question ID : **37135113209**
Option 1 ID : **37135152834**
Option 2 ID : **37135152835**
Option 3 ID : **37135152836**
Option 4 ID : **37135152833**
Status : **Answered**
Chosen Option : **1**

Q.54 If a person experiences difficulty in movements of pharynx, neck and shoulders, __ cranial nerve may be injured.

Ans

✗ 1.
abducens

✗ 2.
hypoglossal

✓ 3.
spinal accessory

✗ 4.
vagus

Question Type : **MCQ**
Question ID : **37135113287**
Option 1 ID : **37135153148**
Option 2 ID : **37135153147**
Option 3 ID : **37135153145**
Option 4 ID : **37135153146**
Status : **Answered**
Chosen Option : **1**

Q.55 During glycolysis, ATP generation -II step occurs between which of the two intermediates?

Ans

✗ 1.
2- PGA and PEPA

✓ 2.
PEPA and pyruvate

✗ 3.
3- PGA and 2 -PGA

✗ 4.
1,3-diPGA and 3 -PGA

Question Type : **MCQ**
Question ID : **37135113219**
Option 1 ID : **37135152875**
Option 2 ID : **37135152876**
Option 3 ID : **37135152874**
Option 4 ID : **37135152873**
Status : **Answered**
Chosen Option : **4**

Q.56 Which auxin should be used to irradicate dicotyledonous weeds from a monocotyledonous crop field?

Ans

✔ 1.
2, 4 -D

✘ 2.
IBA

✘ 3.
IAA

✘ 4.
NAA

Question Type : **MCQ**
Question ID : **37135113208**
Option 1 ID : **37135152830**
Option 2 ID : **37135152831**
Option 3 ID : **37135152832**
Option 4 ID : **37135152829**
Status : **Answered**
Chosen Option : **3**

Q.57 A test cross is a back cross but back cross is not necessarily a test cross. Because a test cross is always between_____.

Ans

✘ 1.
F_1 hybrid with another F_1 hybrid

✔ 2.
F_1 hybrid and recessive parent.

✘ 3.
F_1 hybrid and dominant parent.

✘ 4.
F_1 hybrid and F_2 hybrid

Question Type : **MCQ**
Question ID : **37135113210**
Option 1 ID : **37135152839**
Option 2 ID : **37135152838**
Option 3 ID : **37135152837**
Option 4 ID : **37135152840**
Status : **Answered**
Chosen Option : **3**

Q.58 In human beings, which of the following is NOT the function of vagina?

Ans

✔ 1.
It acts as a passage for urine.

✘ 2.
It receives penis during copulation.

✘ 3.
It serves as the birth canal.

✘ 4.
It allows passage of menstrual flow.

Question Type : **MCQ**
Question ID : **37135113266**
Option 1 ID : **37135153064**
Option 2 ID : **37135153061**
Option 3 ID : **37135153063**
Option 4 ID : **37135153062**
Status : **Answered**
Chosen Option : **1**

Q.59 During gametogenesis, unequal cytoplasmic divisions take place in _____.

Ans

✘ 1.
multiplication phase of oogenesis.

✘ 2.
maturation phase of spermatogenesis.

✘ 3.
multiplication phase of spermatogenesis.

✔ 4.
maturation phase of oogenesis.

Question Type : **MCQ**
Question ID : **37135113289**
Option 1 ID : **37135153154**
Option 2 ID : **37135153156**
Option 3 ID : **37135153153**
Option 4 ID : **37135153155**
Status : **Answered**
Chosen Option : **3**

Q.60 Match Column – I with Column -II considering mode of asexual reproduction.

Column – I	Column – II
a) Binary fission	i) *Spirogyra*
b) Conidia	ii) Yeast
c) Budding	iii) *Amoeba*
d) Fragmentation	iv) *Penicillium*

Ans

✔ 1.
a-iii, b-iv, c-ii, d-i

✘ 2.
a-iv, b-iii, c-ii, d-i

✘ 3.
a-iii, b-i, c-ii, d-iv

✘ 4.
a-i, b-ii, c-iii, d-iv

Question Type : **MCQ**
Question ID : **37135113236**
Option 1 ID : **37135152942**
Option 2 ID : **37135152941**
Option 3 ID : **37135152944**
Option 4 ID : **37135152943**
Status : **Answered**
Chosen Option : **1**

Q.61 Select the correct statement.

Ans

✘ 1.
Striated muscles fibres are spindle shaped and show cross striations.

✔ 2.
Cardiac muscles show presence of intercalated disc.

✘ 3.
Smooth muscles show presence of large number of peripheral nuclei.

✘ 4.
Pace maker consists of nerve fibres in human beings.

Question Type : **MCQ**
Question ID : **37135113295**
Option 1 ID : **37135153178**
Option 2 ID : **37135153179**
Option 3 ID : **37135153177**
Option 4 ID : **37135153180**
Status : **Answered**
Chosen Option : **2**

Q.62 Smooth leaved and nectarless cotton varieties are NOT affected by _____.

Ans

✔ 1.
bollworms

✘ 2.
jassids

✘ 3.
fruit borers

✘ 4.
stem borers

Question Type : **MCQ**
Question ID : **37135113234**
Option 1 ID : **37135152933**
Option 2 ID : **37135152936**
Option 3 ID : **37135152935**
Option 4 ID : **37135152934**
Status : **Answered**
Chosen Option : **3**

Q.63 Which of the following prevents entry of food particles into the respiratory passage?

Ans

✘ 1.
Tongue

✔ 2.
Epiglottis

✘ 3.
Pharynx

✘ 4.
Glottis

Question Type : **MCQ**
Question ID : **37135113263**
Option 1 ID : **37135153049**
Option 2 ID : **37135153050**
Option 3 ID : **37135153052**
Option 4 ID : **37135153051**
Status : **Answered**
Chosen Option : **2**

Q.64 Select the correct match from Column-I with Column-II

Column-I	Column-II
a) Fibrous pericardium	i) Mesothelium
b) Lymphocyte	ii) Scavenger
c) Bundle of His	iii) Circular with kidney shaped nucleus
d) Erythrocyte	iv) Connection with AV node
	v) Interventricular septum

Ans

✗ 1.
a – v

✓ 2.
c – iv

✗ 3.
d – ii

✗ 4.
b – iii

Question Type : **MCQ**
Question ID : **37135113280**
Option 1 ID : **37135153117**
Option 2 ID : **37135153119**
Option 3 ID : **37135153120**
Option 4 ID : **37135153118**
Status : **Answered**
Chosen Option : **3**

Q.65 The relation between herbivore and carnivore is an example of _____.

Ans

✗ 1.
commensalism

✓ 2.
predation

✗ 3.
parasitism

✗ 4.
mutualism

Question Type : **MCQ**
Question ID : **37135113261**
Option 1 ID : **37135153041**
Option 2 ID : **37135153044**
Option 3 ID : **37135153043**
Option 4 ID : **37135153042**
Status : **Answered**
Chosen Option : **2**

Q.66 Match Column-I with Column-II and select the correct option.

Column-I	Column-II
a) *Seymouria*	i) fish and amphibian
b) *Ichthyostegia*	ii) reptiles and birds
c) *Archaeopteryx*	iii) ape and man
d) *Australopithecus*	iv) amphibians and reptiles

Ans

✔ 1. a-iv, b-i, c-ii, d-iii

✗ 2. a-iii, b-ii, c-iv, d-i

✗ 3. a-i, b-iii, c-ii, d-iv

✗ 4. a-iv, b-ii, c-iii, d-i

Question Type : **MCQ**
Question ID : **37135113291**
Option 1 ID : **37135153164**
Option 2 ID : **37135153161**
Option 3 ID : **37135153163**
Option 4 ID : **37135153162**
Status : **Answered**
Chosen Option : **1**

Q.67 The correct group of Indian breeds of buffalo is _____.

Ans

✔ 1. Murrah, Nagpuri, Nili

✗ 2. Nili, Surati, Sindhi

✗ 3. Sahiwal, Jersey, Brown swiss

✗ 4. Sindhi , Gir, Holstein

Question Type : **MCQ**
Question ID : **37135113300**
Option 1 ID : **37135153199**
Option 2 ID : **37135153200**
Option 3 ID : **37135153198**
Option 4 ID : **37135153197**
Status : **Answered**
Chosen Option : **1**

Q.68 Runners are slender wire like structures which develop from _____.

Ans

✗ 1.
underground part of stem.

✗ 2.
internodes of the stem.

✓ 3.
subaerial axillary buds of the stem.

✗ 4.
apical meristem.

Question Type : **MCQ**
Question ID : **37135113230**
Option 1 ID : **37135152920**
Option 2 ID : **37135152919**
Option 3 ID : **37135152918**
Option 4 ID : **37135152917**
Status : **Answered**
Chosen Option : **2**

Q.69 During lytic cycle the enzyme endolysin causes break down of _____.

Ans

✗ 1.
bacteriophage DNA

✓ 2.
host cell wall

✗ 3.
host DNA

✗ 4.
virions

Question Type : **MCQ**
Question ID : **37135113233**
Option 1 ID : **37135152929**
Option 2 ID : **37135152932**
Option 3 ID : **37135152930**
Option 4 ID : **37135152931**
Status : **Answered**
Chosen Option : **1**

Q.70 16) Match Column-I with Column-II and select the correct option.

Column-I	Column-II
a) Sunflower	i) Protogyny
b) Castor	ii) Self incompatibility
c) Michelia	iii) Protandry
d) Orchid	iv) Unisexuality

Ans

✔ 1.
a-iii, b-iv, c-i, d-ii

✗ 2.
a-i, b-ii, c-iv, d-iii

✗ 3.
a-ii, b-iii, c-i, d-iv

✗ 4.
a-iii, b-ii, c-i, d-iv

Question Type : **MCQ**
Question ID : **37135113216**
Option 1 ID : **37135152862**
Option 2 ID : **37135152864**
Option 3 ID : **37135152863**
Option 4 ID : **37135152861**
Status : **Answered**
Chosen Option : **3**

Q.71 Presence of whole sets of chromosomes in an organism are indicated by the following EXCEPT _____.

Ans

✗ 1.
diploidy

✔ 2.
aneuploidy

✗ 3.
triploidy

✗ 4.
polyploidy

Question Type : **MCQ**
Question ID : **37135113256**
Option 1 ID : **37135153021**
Option 2 ID : **37135153023**
Option 3 ID : **37135153024**
Option 4 ID : **37135153022**
Status : **Answered**
Chosen Option : **2**

Q.72 The initial development of male gametophyte from the pollen grain in angiosperms is _____.

Ans

✗ 1. *in vitro*

✗ 2. *ex situ*

✓ 3. *in situ*

✗ 4. ex partite

Question Type : **MCQ**
Question ID : **37135113226**
Option 1 ID : **37135152901**
Option 2 ID : **37135152903**
Option 3 ID : **37135152902**
Option 4 ID : **37135152904**
Status : **Answered**
Chosen Option : **2**

Q.73 Normal value of serum bilirubin is usually _____μ mol/L.

Ans

✗ 1. 19 to 29

✓ 2. 3 to 13

✗ 3. 15 to 25

✗ 4. 33 to 37

Question Type : **MCQ**
Question ID : **37135113297**
Option 1 ID : **37135153187**
Option 2 ID : **37135153185**
Option 3 ID : **37135153186**
Option 4 ID : **37135153188**
Status : **Answered**
Chosen Option : **3**

Q.74 Select vestigial organs from the following.

Ans

✗ 1.

Vermiform appendix, wings of bat and coccyx of man.

✓ 2.

Vermiform appendix, nictitating membrane and coccyx of man.

✗ 3.

Forelimbs of whale, lizard and bat.

✗ 4.

Wings of bat, nictitating membrane and wings of insects.

Question Type : **MCQ**
Question ID : **37135113276**
Option 1 ID : **37135153101**
Option 2 ID : **37135153102**
Option 3 ID : **37135153104**
Option 4 ID : **37135153103**
Status : **Answered**
Chosen Option : **2**

Q.75 Out of the 56 % of sunlight reaching the earth's atmosphere _____is used for photosynthesis.

Ans

✗ 1.

0.05 %

✓ 2.

0.02 %

✗ 3.

10 %

✗ 4.

0.2 %

Question Type : **MCQ**
Question ID : **37135113239**
Option 1 ID : **37135152955**
Option 2 ID : **37135152956**
Option 3 ID : **37135152953**
Option 4 ID : **37135152954**
Status : **Answered**
Chosen Option : **4**

Q.76 In human beings, if the spermatozoa are not ejaculated, then _____.

Ans

✗ 1.
they are inactivated within the seminal vesicles.

✗ 2.
they are permanently stored in cauda epididymis.

✗ 3.
they are permanently stored in caput epididymis.

✓ 4.
they are re-absorbed in the vas deferens.

Question Type : **MCQ**
Question ID : **37135113296**
Option 1 ID : **37135153184**
Option 2 ID : **37135153183**
Option 3 ID : **37135153181**
Option 4 ID : **37135153182**
Status : **Answered**
Chosen Option : **1**

Q.77 Detritus food chain always begins with _____.

Ans

✗ 1.
lichens

✓ 2.
dead organic matter

✗ 3.
phytoplanktons

✗ 4.
trees

Question Type : **MCQ**
Question ID : **37135113246**
Option 1 ID : **37135152982**
Option 2 ID : **37135152983**
Option 3 ID : **37135152981**
Option 4 ID : **37135152984**
Status : **Answered**
Chosen Option : **2**

Q.78 Telomere has a unique property of _____.

Ans

✗ 1.
condensation of chromatin network.

✓ 2.
prevention of ends of the chromosomes from sticking together.

✗ 3.
attaching to spindle fibres.

✗ 4.
regulation of protein synthesis.

Question Type : **MCQ**
Question ID : **37135113284**
Option 1 ID : **37135153135**
Option 2 ID : **37135153133**
Option 3 ID : **37135153134**
Option 4 ID : **37135153136**
Status : **Answered**
Chosen Option : **3**

Q.79 Which of the following is affected by injury to Broca's area of cerebrum?

Ans

✗ 1.
Vision

✓ 2.
Speech

✗ 3.
Hearing

✗ 4.
Smell

Question Type : **MCQ**
Question ID : **37135113252**
Option 1 ID : **37135153007**
Option 2 ID : **37135153006**
Option 3 ID : **37135153005**
Option 4 ID : **37135153008**
Status : **Answered**
Chosen Option : **2**

Q.80 Which of the following is NOT a unique feature of acquired immunity?

Ans

✗ 1. Discrimination between self and non-self

✓ 2. Non- specificity

✗ 3. Memory

✗ 4. Diversity

Question Type : **MCQ**
Question ID : **37135113288**
Option 1 ID : **37135153152**
Option 2 ID : **37135153150**
Option 3 ID : **37135153151**
Option 4 ID : **37135153149**
Status : **Answered**
Chosen Option : **2**

Q.81 How many of the nitrogen containing bases are common among both DNA and RNA?

Ans

✗ 1. Four

✗ 2. Two

✓ 3. Three

✗ 4. One

Question Type : **MCQ**
Question ID : **37135113220**
Option 1 ID : **37135152880**
Option 2 ID : **37135152878**
Option 3 ID : **37135152879**
Option 4 ID : **37135152877**
Status : **Answered**
Chosen Option : **3**

Q.82 The white adipose tissue appears opaque due to _____.

Ans

✗ 1.
large amount of intra-cellular protein.

✗ 2.
large amount of extra-cellular fat.

✓ 3.
large number of adipocytes.

✗ 4.
more number of white fibres.

Question Type : **MCQ**
Question ID : **37135113269**
Option 1 ID : **37135153075**
Option 2 ID : **37135153073**
Option 3 ID : **37135153074**
Option 4 ID : **37135153076**
Status : **Answered**
Chosen Option : **2**

Q.83 Neeta is assigned a project of integrated organic farming in village. Which ideal sustainable method will she use for this?
She will

Ans

✓ 1.
include the activities of bee-keeping, dairy management, water harvesting, composting along with agriculture in the village.

✗ 2.
educate the rural women for establishment of self help groups to encourage cottage industry.

✗ 3.
form groups of youths to do street plays to educate the villagers for reduction and recycling of wastes.

✗ 4.
guide the villagers to design and build an effluent treatment and biogas plant.

Question Type : **MCQ**
Question ID : **37135113293**
Option 1 ID : **37135153171**
Option 2 ID : **37135153169**
Option 3 ID : **37135153172**
Option 4 ID : **37135153170**
Status : **Answered**
Chosen Option : **1**

Q.84 One of the following is an example of incomplete sex linkage_____.

Ans

✗ 1.
Red green colour blindness

✗ 2.
Myopia

✓ 3.
Retinitis pigmentosa

✗ 4.
Haemophilia

Question Type : **MCQ**
Question ID : **37135113277**
Option 1 ID : **37135153105**
Option 2 ID : **37135153108**
Option 3 ID : **37135153106**
Option 4 ID : **37135153107**
Status : **Answered**
Chosen Option : **3**

Q.85 Binomial system of nomenclature was introduced by _____.

Ans

✗ 1.
R. H. Whittaker

✗ 2.
H. J. Lam

✗ 3.
Carl Woese

✓ 4.
Carl Linnaeus

Question Type : **MCQ**
Question ID : **37135113245**
Option 1 ID : **37135152980**
Option 2 ID : **37135152979**
Option 3 ID : **37135152977**
Option 4 ID : **37135152978**
Status : **Answered**
Chosen Option : **4**

Q.86 The photosynthetic pigments present only in red algae are_____.

Ans

✗ 1.
xanthophyll

✗ 2.
carotene

✓ 3.
phycobilins

✗ 4.
anthocyanin

Question Type : **MCQ**
Question ID : **37135113224**
Option 1 ID : **37135152893**
Option 2 ID : **37135152894**
Option 3 ID : **37135152895**
Option 4 ID : **37135152896**
Status : **Answered**
Chosen Option : **2**

Q.87 Mark the mismatch pair.

Ans

✗ 1.
Mixing of chromosomes of male and female pronuclei -- Karyogamy

✗ 2.
Morphogenetic movements so as to form germinal layers -- Gastrulation.

✓ 3.
Discharge of semen in vagina during copulation -- Fertilization

✗ 4.
A series of rapid mitotic divisions in zygote -- Cleavage

Question Type : **MCQ**
Question ID : **37135113279**
Option 1 ID : **37135153113**
Option 2 ID : **37135153116**
Option 3 ID : **37135153114**
Option 4 ID : **37135153115**
Status : **Answered**
Chosen Option : **3**

Q.88 During germination of seed, water absorption takes place by _____.

Ans

✗ 1.
endosmosis

✗ 2.
osmotic pressure

✗ 3.
exosmosis

✓ 4.
imbibition

Question Type : **MCQ**
Question ID : **37135113237**
Option 1 ID : **37135152945**
Option 2 ID : **37135152948**
Option 3 ID : **37135152946**
Option 4 ID : **37135152947**
Status : **Answered**
Chosen Option : **1**

Q.89 What are the sediments in the settling tanks of tertiary treatment in STP called?

Ans

✓ 1.
Activated Sludge

✗ 2.
Contaminants

✗ 3.
Effluents

✗ 4.
Sewage

Question Type : **MCQ**
Question ID : **37135113214**
Option 1 ID : **37135152855**
Option 2 ID : **37135152856**
Option 3 ID : **37135152854**
Option 4 ID : **37135152853**
Status : **Answered**
Chosen Option : **2**

Q.90 Wobble hypothesis explains _____.

Ans

✗ 1.
polarity of DNA molecule.

✗ 2.
synthesis of protein.

✓ 3.
degeneracy of genetic code.

✗ 4.
triplets of nucleotides.

Question Type : **MCQ**
Question ID : **37135113235**
Option 1 ID : **37135152940**
Option 2 ID : **37135152937**
Option 3 ID : **37135152938**
Option 4 ID : **37135152939**
Status : **Answered**
Chosen Option : **4**

Q.91 The step followed during DNA profiling in which DNA sample is subjected to restriction endonuclease is _____.

Ans

✗ 1.
Hybridization

✗ 2.
DNA isolation

✗ 3.
DNA amplification

✓ 4.
DNA fragmentation

Question Type : **MCQ**
Question ID : **37135113285**
Option 1 ID : **37135153139**
Option 2 ID : **37135153140**
Option 3 ID : **37135153137**
Option 4 ID : **37135153138**
Status : **Answered**
Chosen Option : **3**

Q.92 Bacteria possess following appendages EXCEPT_____.

Ans

✗ 1. flagella

✗ 2. fimbriae

✓ 3. cilia

✗ 4. pili

Question Type : **MCQ**
Question ID : **37135113292**
Option 1 ID : **37135153165**
Option 2 ID : **37135153168**
Option 3 ID : **37135153166**
Option 4 ID : **37135153167**
Status : **Answered**
Chosen Option : **4**

Q.93 Generally callus produced during tissue culture is a mass of ____cells.

Ans

✗ 1. sclerenchyma

✗ 2. collenchyma

✓ 3. parenchyma

✗ 4. chlorenchyma

Question Type : **MCQ**
Question ID : **37135113204**
Option 1 ID : **37135152814**
Option 2 ID : **37135152815**
Option 3 ID : **37135152813**
Option 4 ID : **37135152816**
Status : **Answered**
Chosen Option : **4**

Q.94 Which of the following intermediates of Krebs cycle undergoes both oxidation and decarboxylation reactions?

Ans

✗ 1.
Oxalo acetate

✗ 2.
Oxalo succinate

✓ 3.
∝ - ketoglutarate

✗ 4.
Succinyl Co-A

Question Type : **MCQ**
Question ID : **37135113229**
Option 1 ID : **37135152916**
Option 2 ID : **37135152913**
Option 3 ID : **37135152915**
Option 4 ID : **37135152914**
Status : **Answered**
Chosen Option : **2**

Q.95 Cell walls become brittle due to lack of _____elements.

Ans

✓ 1.
Calcium

✗ 2.
Potassium

✗ 3.
Boron

✗ 4.
Copper

Question Type : **MCQ**
Question ID : **37135113240**
Option 1 ID : **37135152958**
Option 2 ID : **37135152960**
Option 3 ID : **37135152959**
Option 4 ID : **37135152957**
Status : **Answered**
Chosen Option : **1**

Q.96 Which one of the following is NOT an example of mutualism?

Ans

✔ 1.

Plasmodium and Man

✘ 2.

Ruminants and bacteria

✘ 3.

Mycorrhiza

✘ 4.

Lichen

Question Type : **MCQ**
Question ID : **37135113267**
Option 1 ID : **37135153068**
Option 2 ID : **37135153066**
Option 3 ID : **37135153067**
Option 4 ID : **37135153065**
Status : **Answered**
Chosen Option : **3**

Q.97 The narrow passage, which connects the abdominal cavity with the scrotal sacs, is _____.

Ans

✔ 1.

inguinal canal

✘ 2.

iter

✘ 3.

gubernaculum

✘ 4.

ejaculatory duct

Question Type : **MCQ**
Question ID : **37135113254**
Option 1 ID : **37135153013**
Option 2 ID : **37135153016**
Option 3 ID : **37135153015**
Option 4 ID : **37135153014**
Status : **Answered**
Chosen Option : **3**

Q.98 After completing his civil engineering degree, Ramesh was appointed as trainee in the R and D city development office, he was to work on the project of laying water repellent roads in the city, which one of the following method will he decide to implement for sustainability?

Ans

✔ 1.
Mixing 'Polyblend' in bitumen to be used.

✘ 2.
Adding plastic powder in the cement to be used.

✘ 3.
Mixing wax in the cement to be used.

✘ 4.
Adding cement in the mixture to be used.

Question Type : **MCQ**
Question ID : **37135113231**
Option 1 ID : **37135152922**
Option 2 ID : **37135152923**
Option 3 ID : **37135152924**
Option 4 ID : **37135152921**
Status : **Answered**
Chosen Option : **1**

Q.99 During the development of male gametes in angiosperms, the microspore mother cell undergoes _____meiosis and ____mitosis respectively.

Ans

✘ 1.
two and two

✘ 2.
two and one

✔ 3.
one and two

✘ 4.
one and three

Question Type : **MCQ**
Question ID : **37135113202**
Option 1 ID : **37135152808**
Option 2 ID : **37135152806**
Option 3 ID : **37135152805**
Option 4 ID : **37135152807**
Status : **Answered**
Chosen Option : **2**

Q.100 Corona in passion flower helps the plant in achieving ____pollination.

Ans

✗ 1.
bat

✗ 2.
bird

✗ 3.
wind

✓ 4.
insect

Question Type : **MCQ**
Question ID : **37135113212**
Option 1 ID : **37135152847**
Option 2 ID : **37135152846**
Option 3 ID : **37135152848**
Option 4 ID : **37135152845**
Status : **Answered**
Chosen Option : **4**