Q. 1

Which one of the following is a pair of isotones?
Ans $X 1$.

## 40 <br> 40

K and Ar
18
19

## $13 \quad 14$ <br> $x=\quad \mathrm{N}$ and <br> 7 <br> $37 \quad 40$ <br> x. Cl and K <br> $17 \quad 18$

## 198 <br> 197

Hg and 80

Question Type : MCQ
Question ID : 37135111918
Option 1 ID : 37135147672
Option 2 ID: 37135147670
Option 3 ID : 37135147669
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 7 6 7 1}$
Status: Answered
Q. 2 What is the percentage decrease in the weight of a body when it is taken to a height of 32 km from the surface of earth?
( $\mathrm{R}=6400 \mathrm{~km}$ )
Ans
$\times 1.1 .5 \%$
จ. $1 \%$
×. $2 \%$
×4. $0.5 \%$
Question Type : MCQ
Question ID : $\mathbf{3 7 1 3 5 1 1 1 9 3 4}$
Option 1 ID : $\mathbf{3 7 1 3 5 1 4 7 7 3 5}$
Option 2 ID : $\mathbf{3 7 1 3 5 1 4 7 7 3 4}$
Option 3 ID : $\mathbf{3 7 1 3 5 1 4 7 7 3 6}$
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 7 7 3 3}$
Status: Answered
Chosen Option: $\mathbf{4}$
Q. 3 In the differential equation of linear simple harmonic motion, $\frac{d^{2} x}{d t^{2}}+\omega^{2} x=0$, the
term $\omega^{2}$ represents
Ans
restoring force per unit mass per unit displacement.
$\times 2$.
restoring force per unit displacement.
$X$.
restoring force per unit mass.
$\times 4$.
acceleration per unit mass per unit displacement.
Q. 4

A force of 26 N is acting on a body of mass 2 kg in the $\mathrm{x}-\mathrm{y}$ plane. Force is directed at an angle $\cos ^{-1}\left(\frac{12}{13}\right)$ with x - axis. The component of acceleration along y - axis is

Ans

## $x^{1} 8 \mathrm{~m} / \mathrm{s}^{2}$

$x^{2} 3 \mathrm{~m} / \mathrm{s}^{2}$
$\checkmark .5 \mathrm{~m} / \mathrm{s}^{2}$
${ }^{x}+12 \mathrm{~m} / \mathrm{s}^{2}$
Question Type : MCQ
Question ID: $\mathbf{3 7 1 3 5 1 1 1 9 2 5}$
Option 1 ID : $\mathbf{3 7 1 3 5 1 4 7 6 9 9}$
Option 2 ID : $\mathbf{3 7 1 3 5 1 4 7 6 9 7}$
Option 3 ID: $\mathbf{3 7 1 3 5 1 4 7 6 9 8}$
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 7 7 0 0}$
Status : Answered
Chosen Option: $\mathbf{1}$
Q. 5 An electron of charge ' $e$ ' is revolving in a fixed orbit of radius ' $r$ ' with frequency ' $f$ '.

Its magnetic dipole moment is
Ans

, 2. $\pi \mathrm{efr}^{2}$

X ${ }^{\text {3. }} \pi \mathrm{efr}$
×4. $\pi^{2} \mathrm{efr}$
Q. 6 If the ratio of amplitudes of two sound waves is 4:3, then the ratio of maximum and minimum intensities is

Ans
x. 1:7
$x$ 2. 1:49
จ. $49: 1$
X4. 7:1
Q. 7

The increase in length of wire, on stretching is $0.05 \%$. If its Poisson's ratio is 0.4 , then its diameter is reduced by

Ans
$0 \cdot 02 \%$
$x 20 \cdot 1 \%$
$x^{3 .} 0 \cdot 01 \%$
X4. 0.2\%
Q. 8 A spray pipe has a cylindrical tube of radius ' $R$ '. It has ' $n$ ' small holes of radius ' $r$ ' at one end. The liquid flows through the tube with velocity ' $V$ '. The velocity of the liquid through the holes is

Ans

×. $\frac{\mathrm{Vr}}{\mathrm{nR}}$
x $\frac{\mathrm{VR}}{\mathrm{nr}}$
x. $\frac{\mathrm{Vr}^{2}}{\mathrm{nR}^{2}}$
Q. 9 What is the energy stored per unit volume in vacuum, where the intensity of electric field is $10^{3} \frac{\mathrm{~V}}{\mathrm{~m}}$ ?
$\left[\epsilon_{0}=8.85 \times 10^{-12} \frac{\mathrm{C}^{2}}{\mathrm{Nm}^{2}}\right]$
Ans
$\times .8 .8 \times 10^{-5} \frac{\mathrm{~J}}{\mathrm{~m}^{3}}$
$x=4.425 \times 10^{-8} \frac{\mathrm{~J}}{\mathrm{~m}^{3}}$
x. $8.85 \times 10^{-6} \frac{\mathrm{~J}}{\mathrm{~m}^{3}}$

ง. $4.425 \times 10^{-6} \frac{\mathrm{~J}}{\mathrm{~m}^{3}}$
Q. 10 An ammeter and a microammeter are converted from the same galvanometer.

The resistance required for the conversion is
Ans

## $\checkmark$ higher for microammeter.

$x_{2}$ lower for ammeter.
$x$ lower for microammeter.
${ }^{*}$ higher for ammeter.

Question Type : MCQ
Question ID : $\mathbf{3 7 1 3 5 1 1 1 9 4 7}$
Option 1 ID: 37135147785
Option 2 ID : $\mathbf{3 7 1 3 5 1 4 7 7 8 8}$
Option 3 ID : 37135147786
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 7 7 8 7}$
Status: Answered
Chosen Option : 4
Q. 11 A galvanometer of resistance $20 \Omega$ has a current sensitivity of 5 div/mA. The instrument has 50 divisions. It can be converted into a voltmeter reading upto 25 volt by connecting a resistance of

Ans

## x. $20 \Omega$ in parallel.

$X_{2} 1240 \Omega$ in series.
x. $2480 \Omega$ in parallel.

ง. $2480 \Omega$ in series.
Q. 12 The work done in blowing a soap bubble of radius ' $R$ ' is ' $W{ }_{1}$ ' at room temperature.

Now, the soap solution is heated. From the heated solution another soap bubble of radius ' 2 R ' is blown and the work done is ' $\mathrm{W}_{2}$ '. Then

Ans
X. $\quad W_{2}=0$
$x_{2} \quad W_{2}=4 W_{1}$
$x_{3} \quad W_{2}=W_{1}$
ง. $\mathrm{W}_{2}<4 \mathrm{~W}_{1}$

Question ID: 37135111910
Option 1 ID : $\mathbf{3 7 1 3 5 1 4 7 6 4 0}$
Option 2 ID : 37135147637
Option 3 ID : $\mathbf{3 7 1 3 5 1 4 7 6 3 9}$
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 7 6 3 8}$
Status: Answered
Chosen Option : 2
Q. 13

In Young's double slit experiment, the angular width of a fringe is found to be $0.2^{\circ}$ on screen placed 1 m away. The wavelength of light used is 600 nm . If the entire apparatus is immersed in water of refractive index $4 / 3$, the angular width of the fringe will be

Ans

## x. $0.18^{\circ}$

$\checkmark$. $0.15^{\circ}$
$>3$
$0.06^{\circ}$
$\times 4.0 \cdot 12^{\circ}$
Q. 14 A tuning fork of frequency 340 Hz is held vibrating at the open end of an empty measuring cylinder of length 100 cm . Water is then poured in it slowly. What is the minimum height of water in cylinder, for which resonance will be obtained?
[Velocity of sound in air $=340 \mathrm{~m} / \mathrm{s}$, Neglect end correction.]

Ans

## , 25 cm

$x=75 \mathrm{~cm}$

## x. 80 cm

x. 50 cm
Q. 15 A black sphere has radius ' $R$ ' whose rate of radiation is ' $E$ ' at temperature ' $T$ '. If
radius is made $\frac{R}{3}$ ' and temperature ' $3 T$ ', the rate of radiation will be
Ans

## 1. 3E

$x=E$

จ. 9 E
x. 6E
Q. 16 A bar magnet has pole strength of 15 Am and magnetic length 1 cm . What is the magnetic induction produced by it at a distance of 50 cm from either poles?

$$
\left(\frac{\mu_{0}}{4 \pi}=10^{-7} \mathrm{~Wb} / \mathrm{Am}\right)
$$

Ans
$x=1.2 \times 10^{-6} \frac{\mathrm{~Wb}}{\mathrm{~m}^{2}}$
$x=2.4 \times 10^{-5} \frac{\mathrm{~Wb}}{\mathrm{~m}^{2}}$

ง. $0.12 \times 10^{-6} \frac{\mathrm{~Wb}}{\mathrm{~m}^{2}}$
x. $24 \times 10^{-5} \frac{\mathrm{~Wb}}{\mathrm{~m}^{2}}$
Q. 17 A planet has radius $\frac{1}{4}$ th of the radius of earth and acceleration due to gravity double than that of the earth. Then the ratio of escape velocity on the surface of planet to that on the earth's surface will be

Ans
จ1. $\frac{1}{\sqrt{2}}$
$x=2$
${ }^{x} \sqrt{2}$
x. $2 \sqrt{2}$
Q. 18

A particle executes linear S.H.M. with amplitude 4 cm . The magnitude of velocity and acceleration is equal when it is at 3 cm from mean position. The time period is

Ans

Q. 19 In an atom two electrons complete three revolutions around the nucleus in circular orbit in time 81 t and 192 t respectively. The ratio of their radii will be ( t is in second)

Ans

- 1. 

9:16
$x=4: 3$
x. 27:64
x. 3:4

Light travels through a glass plate of thickness ' d ' and refractive index ' $\mu$ '. If ' $c$ ' is
the velocity of light in vacuum, the time taken by the light to travel the thickness
of glass ' d ' is
Ans
$\times 1 \frac{\mathrm{~d}}{\mu \mathrm{c}}$
dc
$\times 2$.
$\mu$
$x$. $\mathrm{d} \mu \mathrm{c}$
$\mu \mathrm{d}$
C
Q. 21 A disc of moment of inertia ' $I_{1}$ ' is rotating with angular velocity ' $\omega_{1}$ ' about an axis perpendicular to its plane, passing through its centre. If another disc of moment of inertia ' $I 2$ ' about the same axis is gently placed over it, then the new angular velocity of the combined disc will be

Ans

$x=\frac{\left(\mathrm{I}_{1}+\mathrm{I}_{2}\right) \omega_{1}}{\mathrm{I}_{1}}$
$x_{3} \frac{I_{2} \omega_{1}}{I_{1}+I_{2}}$
${ }^{\times} \cdot \omega_{1}$

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Question Type: MCQ
    Question ID : 37135111939
    Option 1 ID : 37135147754
    Option 2 ID : 37135147753
    Option 3 ID : 37135147756
    Option 4 ID : 37135147755
        Status: Answered
Q. 22

Two monoatomic ideal gases A and B of molecular masses ' \(\mathrm{m}_{1}\) ' and ' \(\mathrm{m}_{2}\) ' respectively, are enclosed in separate containers kept at the same temperature.

The ratio of the speed of sound in gas A to that in gas B is given by
Ans

\(v=\sqrt{\frac{m_{2}}{m_{1}}}\)

\(\times_{4} \quad \frac{m_{2}}{m_{1}}\)
Q. 23 A small quantity of paramagnetic liquid is taken in a watch-glass and kept on two dissimilar magnetic poles. The liquid

Ans
\(\times 1\).
is first elevated and then depressed.
\(\times 2\)
shows no change in the level.
- 3.
shows elevation in the middle.
\[
X 4
\]
shows depression in the middle.
Q. 24 The critical angle for a ray of light from glass to air is ' \(\theta\) ' and refractive index of glass with respect to air is ' \(n\) '. If a ray of light is incident from air to glass at an angle ' \(\theta\) ', then corresponding angle of refraction is

Ans
X. \(\cos ^{-1}\left(\frac{1}{n^{2}}\right)\)
\(x=\sin ^{-1}\left(\frac{1}{n}\right)\)
ง. \(\sin ^{-1}\left(\frac{1}{n^{2}}\right)\)
X. \(\cos ^{-1}\left(\frac{1}{n}\right)\)
Q. 25 A particle is moving along the circular path of radius ' \(r\) ' with velocity ' \(v\) '. The magnitude of average acceleration after half revolution is

Ans
\[
\begin{aligned}
& x_{1} \cdot \frac{3 v^{2}}{\pi r} \\
& \text { 又. } \frac{2 v^{2}}{\pi r} \\
& x_{3} \frac{3 v^{2}}{2 \pi r} \\
& x_{4} \cdot \frac{v^{2}}{\pi r}
\end{aligned}
\]
Q. 26

Choose the correct statement.
In case of insulators,
Ans
\(X 1\).
conduction band is partially filled and valence band is partially empty.
\(\times 2\)
conduction band and valence band overlap each other.
\(\checkmark^{3}\) conduction band is empty.
\(X 4\).
there is no gap between conduction and valence band.
Q. 27

The condition for observing Fraunhofer diffraction pattern from an obstacle is that the light wavefront incident on it must be

Ans
\(x\) spherical.
\(\checkmark\) plane.
\(x^{3}\) cylindrical.
>4.
either cylindrical or spherical.
Q. 28

The output ' Y ' in the following logic circuit will be 'ONE' only if


Ans
\(x\). \(B\) is ' 1 '
v. A is ' 1 '
\(x\). B is ' 0 '
X. A is ' 0 '
Q. 29 The given circuit is balanced Wheatstone's bridge. The value of resistance ' \(x\) ' is


Ans
\(\checkmark 12 \Omega\)
\({ }^{2} 26 \Omega\)
×. \(24 \Omega\)
\({ }^{\times 4} 4 \Omega\)
Q. 30 What should be the length of antenna for a carrier wave of frequency \(6 \times 10^{8} \mathrm{~Hz}\) ?
(velocity of light \(\mathrm{c}=3 \times 10^{8} \mathrm{~m} / \mathrm{s}\) )
Ans
x. 0.250 m
\(x=0.062 \mathrm{~m}\)

ง. 0.125 m
\(\times 4.0 .031 \mathrm{~m}\)
Q. 31

On mixing highly soluble impurity in water, the surface tension ' \(T\) ' and angle of contact ' \(\theta\) ',

Ans \(\times 1\)

\section*{decreases and increases respectively.}

\section*{2 both increase.}

\section*{\(x_{3}\) both decrease.}
\(\times 4\).

\section*{increases and decreases respectively.}
Q. 32 A cricket ball of mass 150 g moving with a velocity of \(12 \mathrm{~m} / \mathrm{s}\) is turned back with a velocity of \(20 \mathrm{~m} / \mathrm{s}\) on hitting the bat. The force of the blow lasts for 0.01 s . The force exerted on the ball by the bat is

Ans
\(\checkmark .480 \mathrm{~N}\)
\(x=240 \mathrm{~N}\)
\(x^{3} 360 \mathrm{~N}\)
\(\times 4.120 \mathrm{~N}\)
Q. 33 A particle executes linear S.H.M. along the principal axis of convex lens of focal length 8 cm . The mean position of oscillation is at 14 cm from the lens with amplitude 1 cm . The amplitude of oscillating image of the particle is nearly

Ans
\(x\). 3 cm
\(x\). 4 cm

ง. 2 cm
x. 1 cm

A wire has a length of 2 m and resistance of \(10 \Omega\). It is connected in series with a resistance of \(990 \Omega\) and a cell of e.m.f. 2 V . The potential gradient along the wire will be

Ans
, \(0.01 \mathrm{~V} / \mathrm{m}\)
\(x=0 \cdot 1 \mathrm{~V} / \mathrm{m}\)
x. \(1 \mathrm{~V} / \mathrm{m}\)
x. \(\quad 10 \mathrm{~V} / \mathrm{m}\)
Q. 35 A particle of mass ' \(m\) ' collides with another stationary particle of mass ' \(M\) '.

A particle of mass ' \(m\) ' stops just after collision. The coefficient of restitution is
Ans

Q. 36

A stone is tied at the end of a rope of length 1 m and whirled in a vertical circle. The
ratio of velocity at highest point to lowest point will be
Ans
\(\checkmark 1: \sqrt{5}\)
\(x=\sqrt{3}: 1\)
\(x=\sqrt{3}: \sqrt{5}\)
<4. \(\sqrt{5}: 1\)
Q. 37 The mutual inductance between two coils is 0.09 henry. If the current in the primary coil changes from 0 to 20 A in 0.006 s, the e.m.f. induced in the secondary coil at that instant is

Ans
x. 120 V
x. 200 V
x. 180 V

ง. 300 V
Q. 38 An electric lamp connected in series with a capacitor and an a.c. source, is glowing with certain brightness. On reducing the capacitance and frequency, the brightness of the lamp respectively

Ans

\section*{\(x\) is increased, is increased.}
\(x_{2}\) is reduced, is increased.
\(x^{3}\) is increased, is reduced.
\(\checkmark\) is reduced, is reduced.
Q. 39 The length (L) and diameter (D) are given for four wires of same material. They are stretched by same load. Which wire will elongate more?

Ans
\(x \cdot \mathrm{~L}=1 \mathrm{~m}, \mathrm{D}=1 \mathrm{~mm}\)
\(\checkmark \quad L=0.5 \mathrm{~m}, \mathrm{D}=0.5 \mathrm{~mm}\)
\(x^{3} . \mathrm{L}=1.5 \mathrm{~m}, \mathrm{D}=1.5 \mathrm{~mm}\)
\(x^{*} \mathrm{~L}=2 \mathrm{~m}, \mathrm{D}=2 \mathrm{~mm}\)
Q. 40 The length and diameter of a metal wire used in sonometer is doubled. The fundamental frequency will change from ' \(n\) ' to

Ans
\(\times 1 \quad \frac{n}{2}\)
\(\times 2 \quad \frac{n}{16}\)

\(\times 4 \quad \frac{n}{8}\)
Q. 41 A disc rolls down a smooth inclined plane without slipping. An inclined plane makes an angle of \(60^{\circ}\) with the vertical. The linear acceleration of the disc along the inclined plane is
\(\left(\mathrm{g}=\right.\) acceleration due to gravity, \(\left.\sin 30^{\circ}=\cos 60^{\circ}=\frac{1}{2^{\prime}}, \sin 60^{\circ}=\cos 30^{\circ}=\frac{\sqrt{3}}{2}\right)\)
Ans
\(\times 1\) g
18
V. \(\frac{\mathrm{g}}{3}\) 3
\(\times 3\).
g
6
\(\times 4\)

\section*{g \\ 9}
Q. 42 Moment of inertia of the rod about an axis passing through the centre and perpendicular to its length is ' \(I\) '. The same rod is bent into a ring and its moment of inertia about the diameter is ' 12 ', then \(\frac{\mathrm{I}_{2}}{\mathrm{I}_{1}}\) is

Ans


\(x^{3} \cdot \frac{3}{4 \pi^{2}}\)
3
ง. \(\overline{2 \pi^{2}}\)
Q. 43

When a certain length of wire is turned into one circular loop, the magnetic induction at the centre of coil due to current ' \(I\) ' flowing through it is \(B_{1}\). If the same wire is turned into four loops to make a circular coil, the magnetic induction at the centre of this coil is ' \(B_{2}\) ' for same current, then relation between \(B_{2}\) and \(B_{1}\) is

Ans
X. \(B_{2}=8 B_{1}\)
\(x_{2} \quad B_{2}=64 B_{1}\)
X. \(B_{2}=4 B_{1}\)

ง. \(B_{2}=16 B_{1}\)
Q. 44

The size of the real image produced by a convex lens of focal length ' \(F\) ' is ' \(m\) ' times
the size of the object. The image distance from the lens is
Ans
\[
\begin{aligned}
& x \cdot F(m-1) \\
& x_{2} \cdot \frac{(m-1)}{F} \\
&
\end{aligned}
\]
\(\times 4 \frac{F}{(m-1)}\)
Q. 45 In experiment of photoelectric effect, the stopping potential for incident yellow light of wavelength \(5890 \AA\) is 4 volt. If the yellow light is replaced by blue light of wavelength \(4000 \AA\), the stopping potential is

Ans

\section*{\(x_{1}\) zero volt}

\section*{\(\checkmark\). more than 4V}

X3. \(4 V\)
\(x\) - less than \(4 V\)
Q. 46 The displacement of the particle at a distance ' \(x\) ' from the origin is given by \(\mathrm{Y}=\mathrm{A} \sin \omega\left(\frac{x}{\mathrm{v}}-k\right)\), where ' \(\omega\) ' is the angular velocity and ' \(v\) ' is the linear velocity.

The dimensions of ' k ' are

Ans

\(\times 2\). \(\left[\mathrm{L}^{1} \mathrm{M}^{0} \mathrm{~T}^{1}\right]\)
x. \(\left[\mathrm{L}^{0} \mathrm{M}^{0} \mathrm{~T}^{-1}\right]\)
X. \(\left[\mathrm{L}^{0} \mathrm{M}^{0} \mathrm{~T}^{2}\right]\)
Q. 47

A metal sphere is hanging from the ceiling of a vehicle. If the vehicle is moving along the horizontal road with uniform acceleration 'a' then the suspended thread of the sphere gets inclined to the vertical at an angle ' \(\theta\) '. The value of acceleration ' a ' is ( \(\mathrm{g}=\) acceleration due to gravity)

Ans

\section*{x. \(\mathrm{g} \cos \theta\)}
\(\times 2 \mathrm{~g}\)

\section*{×. \(g \sin \theta\)}

จ. \(g \tan \theta\)
Q. 48 Light of wavelength \(\lambda\) strikes a photoelectric surface and electrons are ejected with an energy ' \(E\) '. If the wavelength is changed to \(\lambda\) ', the energy increases to twice the original value. Then which one of the following relations is true for \(\lambda\) and \(\lambda^{\prime}\) ?

Ans
\[
\begin{aligned}
& \lambda>\lambda^{\prime}>\frac{\lambda}{2} \\
& \times \frac{\lambda}{4}<\lambda^{\prime}<\frac{\lambda}{2}
\end{aligned}
\]
x. \(\lambda=2 \lambda^{\prime}\)
x. \(\frac{\lambda}{3}>\lambda^{\prime}>\frac{\lambda}{4}\)
Q. 49 Capacitors of capacities \(C_{1}, C_{2}\) and \(C_{3}\) are connected in series. If the combination is connected to a supply of ' \(V\) ' volt, then potential difference across capacitor \(\mathrm{C}_{1}\) is

Ans



\(\mathrm{C}_{2} \mathrm{C}_{3} \mathrm{~V}\)
\(\mathrm{C}_{2} \mathrm{C}_{3}+\mathrm{C}_{1} \mathrm{C}_{3}+\mathrm{C}_{1} \mathrm{C}_{2}\)
Q. 50 A sonometer wire of length ' \(\ell_{1}\) ' is in resonance with a frequency 250 Hz . If the length of wire is increased to ' \(\ell_{2}\) ', then 2 beats per second are heard. The ratio of lengths \(\frac{\ell_{1}}{\ell_{2}}\) of wire will be

Ans
\(\times 1.1: 2\)
\(\checkmark\) 124:125
x. 2:1
x. 1:250

Section : Chemistry
Q. 1 The oxidation state of phosphorus in pyrophosphorus acid is

Ans
\(\checkmark+3\)
\(x_{2}+1\)
\(x_{3}+4\)
\(x_{4}+5\)
Q. 2 Which among the following elements belongs to second inner transition series?

Ans
\(x\). Sm
x \({ }^{2} \mathrm{Lu}\)
, 3. Am
x4. Dy
Q. 3 Which of the following functional groups is reduced by diborane?

Ans

\section*{\(x_{1}\). Nitro group}
\(x_{2}\) Halo group
\(x^{3}\). Ester group
Carboxyl group
Q. 4 How many atoms of argon are present in 3.99 g of it ? (atomic mass \(=39.9\) )

Ans
\(\checkmark .6 .022 \times 10^{22}\)
\(\times 2.011 \times 10^{22}\)
\(x^{3 .} 3.011 \times 10^{21}\)
\(\times 4.6 .022 \times 10^{21}\)
Q. 5 Which of the following molecule has zero bond order?

Ans
\(X 1 \mathrm{O}_{2}\)
\(\checkmark_{2} \mathrm{He}_{2}\)
\(x{ }^{3} \mathrm{~N}_{2}\)
\({ }_{x} \mathrm{H}_{2}\)
Q. 6 Identify the number of carbon atoms and number of oxygen atoms respectively present in furan
molecule.
Ans
\(x\). 4,1
\(x\). 4,2
, 5,1
\(x_{4} 6,1\)
\({ }^{0.7}\) Acetoxime on catalytic reduction gives

Ans
\(x_{1}\) acetic acid
\(\checkmark_{2}\) isopropyl amine
\(x^{3}\). ethyl amine
\(x_{4}\) acetic anhydride
Q. 8 What is the source of an alkane if it's molar mass is 100 and the percentage by mass of hydrogen
is 16 ?
Ans
\(x\). Waxes
\(x_{2}\) Diesel
\(x^{3}\). LPG
\(\checkmark\) Petrol
Q. 9 Standard entropies of \(\mathrm{N}_{2(\mathrm{~g})}, \mathrm{H}_{2(\mathrm{~g})}\) and \(\mathrm{NH}_{3(\mathrm{~g})}\) are \(\mathrm{a}_{1}, \mathrm{a}_{2}\) and \(\mathrm{a}_{3} \mathrm{~J} \mathrm{~K}^{-1} \mathrm{~mol}^{-1}\) respectively. What is
value of \(\Delta \mathrm{S}^{\circ}\) for formation of \(\mathrm{NH}_{3(\mathrm{~g})}\) ?
Ans

\(x_{2} a_{1}-\left(\frac{1}{2} a_{3}+\frac{3}{2} a_{2}\right)\)
\(x_{3} a_{2}-\left(\frac{1}{2} a_{1}+\frac{3}{2} a_{2}\right)\)
\(a_{3}-\left(\frac{1}{2} a_{1}+\frac{3}{2} a_{2}\right)\)
Q. 10 Which of the following metal carbonate decomposes on heating to evolve \(\mathrm{CO}_{2}\) gas?

Ans
\(\mathrm{Li}_{2} \mathrm{CO}_{3}\)
\(x_{2} \mathrm{Cs}_{2} \mathrm{CO}_{3}\)
\(\mathrm{K}_{2} \mathrm{CO}_{3}\)
\(x_{4} \mathrm{Na}_{2} \mathrm{CO}_{3}\)

Question Type : MCQ
Question ID: 37135111988
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 4 9}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 5 2}\)
Option 3 ID : 37135147951
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 7 9 5 0}\)
Status: Answered
Chosen Option: 1
Q. 11 Identify the side chain - R present in amino acid lysine.

Ans
\(X\). \(\mathrm{C}_{6} \mathrm{H}_{5}-\)
\(\checkmark_{2}-\left(\mathrm{CH}_{2}\right)_{4}-\mathrm{NH}_{2}\)
\(x_{3}-\mathrm{CH}_{2} \mathrm{OH}\)
\(x_{4}-\mathrm{CH}\left(\mathrm{CH}_{3}\right)_{2}\)
Q. 12 Which of the following properties is NOT of actinoids?

Ans
\(X 1\).
Hydroxides of these are more basic in nature than lanthanoids

Some of the ions of these are fairly coloured
\(X\).
Binding energy of 5 f orbitals is lower than 4 f orbitals.
\(X 4\)
These have greater tendency to form complexes.
Q. 13 Reaction given below follows first order kinetics
\[
2 \mathrm{~N}_{2} \mathrm{O}_{5} \rightarrow 4 \mathrm{NO}_{2}+\mathrm{O}_{2},
\]

Calculate rate constant of reaction if concentration of \(\mathrm{N}_{2} \mathrm{O}_{5}\) is 0.05 M and rate of reaction is
\(1.5 \times 10^{-6} \mathrm{~mol} \mathrm{~L}^{-1} \mathrm{~s}^{-1}\) ?
Ans
\(3.0 \times 10^{-5} \mathrm{~s}^{-1}\)
\(x=2.0 \times 10^{-5} \mathrm{~s}^{-1}\)
\(x_{3} 2.5 \times 10^{-5} \mathrm{~s}^{-1}\)
\(x^{4} .1 .5 \times 10^{-5} \mathrm{~s}^{-1}\)
Q. 14 Identify IUPAC name of following compound?
\(\mathrm{CH}_{2}=\mathrm{CH}-\mathrm{CH}=\mathrm{CH}-\mathrm{CH}_{2}-\mathrm{Cl}\)
Ans
x. 5 - Chloropent -2, 4-diene
\(x_{2} 1\)-Chloropent-2,4-diene
5 - Chloropenta -1,3-diene
x. 1 -Chloropenta-2, 4-diene
Q. 15 Which of the following acids does not undergo HVZ reaction?

Ans
1. Ethanoic acidButanoic acid
\(x_{3}\) Propanoic acid
\(\checkmark\) Methanoic acid
Q. 16 Which of the following reactions of alcohols involves breaking of \(\mathrm{O}-\mathrm{H}\) bond ?

Ans
Reaction with acid anhydride
\(x_{2}\) Reaction with thionyl chloride
\(x_{3}\). Reaction with Lucas reagent
X 4
Reaction with phosphorus halides
Q. 17 What will be the minimum pressure required to compress \(500 \mathrm{dm}^{3}\) of air at 1 bar to \(200 \mathrm{dm}^{3}\) at
\(30^{\circ} \mathrm{C}\) ?
Ans
2-5 bar
\(x_{2} 1\) bar
\(x\)
2 bar
x. 3 bar
Q. 18 Which of the following polymers is obtained when glycolic acid combines with lactic acid?

Ans

\section*{Buna-N}
\(\times 2\).
PHBV

\section*{\(x^{3}\). Nylon-2-nylon-6}

\section*{Dextron}
Q. 19 Which among the following hydrids have low bond dissociation energy of M-H bond
\((M=\) Central atom \() ?\)
Ans
\(\times 1\)
\(\mathrm{H}_{2} \mathrm{Se}\)
\(x=\mathrm{H}_{2} \mathrm{~S}\)
\(\checkmark\). \(\mathrm{H}_{2} \mathrm{~T}_{\mathrm{e}}\)
\(\times{ }_{4} \mathrm{H}_{2} \mathrm{O}\)
Q. 20 The most unstable free radical among the following is

Ans
\(x\) R \(R_{3}-\dot{C}\)
\(x=\mathrm{R}-\dot{\mathrm{C}} \mathrm{H}_{2}\)
\(x^{3}\). \(\mathrm{R}_{2}-\dot{\mathrm{C}} \mathrm{H}\)
\(\checkmark \cdot \dot{\mathrm{CH}}_{3}\)
Question Type: MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 1 9 8 5}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 3 7}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 3 9}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 3 8}\)
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 7 9 4 0}\)
Status: Answered
Chosen Option : \(\mathbf{4}\)
Q. 21 A certain zero order reaction has rate constant \(0.025 \mathrm{Ms}^{-1}\). What will be the concentration of reactant ' A ' after 15 seconds, if initial concentration is 0.50 M ?
Ans
\(\times 1.0 .060 \mathrm{M}\)
X. 0.50 M

จ. \(0 \cdot 125 \mathrm{M}\)
\(\times 4.0 .375 \mathrm{M}\)
Q. 22 The overlap of orbitals involved in the formation of \(\mathrm{C}-\mathrm{Br}\) bond in vinyl bromide is

Ans
\[
\begin{aligned}
& x_{1} s p^{3}-3 p_{z} \\
& s p^{2}-4 p_{z}
\end{aligned}
\]
\(x^{3} s p^{3}-4 p_{z}\)
\(x_{4} s p^{2}-3 p_{z}\)
Q. 23 Identify the major product ' B ' in following reaction

\({ }^{\text {ans }} \times_{1} 2\) - Chloropropane
\(\checkmark_{2}\) Propan-2-ol

\section*{\(x^{3} 1\) - Chloropropane}
\(x_{4}\) Propan-1-ol
Q. 24 Which of the following metals is refined by using a tungsten filament for heating in a vessel so that
the pure metal deposits on the filament?
Ans
\(\times{ }^{1} \mathrm{Cu}\)
Zr
\(x_{3} \mathrm{Al}\)
Q. 25 Silver crystallises in face centred cubic structure, if radius of silver atom is 144.5 pm . What is the edge length of unit cell?

Ans
\[
408 \cdot 6 \mathrm{pm}
\]
\(x_{2} 289.0 \mathrm{pm}\)
\(x_{3 .} 428 \cdot 6 \mathrm{pm}\)
\(\times 433.7 \mathrm{pm}\)
Q. 26 Which of the following polymers contain ester linkage?
ans \(\sqrt{\text { a }}\) PHBV
\(x_{2}\) Orlon
\({ }_{3}\). Neoprene
\(x\) 4. Buna-S
Question Type : MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 1 9 8 1}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 2 3}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 2 2}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 7 9 2 1}\)
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 7 9 2 4}\)
Status: Answered
Chosen Option : \(\mathbf{1}\)
Q. 27 A solution is \(0.50 \%\) by weight, what is the weight of solvent containing 2.50 g solute?

Ans
497.5 g
\(x_{2} 125 \cdot 0 \mathrm{~g}\)
\(\times 300 \cdot 1 \mathrm{~g}\)
\(x_{4} 502 \cdot 5 \mathrm{~g}\)
Q. 28 Which of the following statements is correct according to Werner's theory, when excess \(\mathrm{AgNO}_{3}\) is treated with \(\mathrm{CoCl}_{3} .6 \mathrm{NH}_{3}\) precipitating three moles of AgCl ?
Ans
\(\times 1\).
2 Cl atoms and \(4 \mathrm{NH}_{3}\) molecules are in coordination sphere

3 'Cl' atoms are in ionization sphere
\(X\).
3 ' Cl ' atoms are in coordination sphere
\(\times 4\).
\(5 \mathrm{NH}_{3}\) and 1 Cl atom are in coordination sphere
\({ }^{\text {Q.29 }}\) Identify product B in following reaction
Phenol \(\xrightarrow{\mathrm{NaOH}} A \xrightarrow{\mathrm{CH}_{3} \mathrm{I}} \mathrm{B}\)
\({ }^{\text {ans }}\) Anisole
\(x\) 2. Iodobenzene
\(x_{3}\).Toluene
\(x_{4}\). Phenetole
Q. 30 Metallic element crystallises fcc type crystal lattice. What is the radius of atom if edge length of it's
unit cell is 405 pm ?
Ans
\(x^{1} 113 \cdot 2 \mathrm{pm}\)
\(x_{2} 175 \cdot 3 \mathrm{pm}\)
\(\checkmark\). \(143 \cdot 2 \mathrm{pm}\)
\(x_{4} 202 \cdot 5 \mathrm{pm}\)
Q. 31 Which of the following amine is most basic in nature?

Ans
\[
x_{1} \text { 2,4-Dichloroaniline }
\]
\(x_{2} 2,4\) - Dibromoaniline
\(x^{3}\) 2, 4-Dinitroaniline
\(\checkmark\) 2, 4 - Dimethylaniline
Q. 32 What type of hybridization is observed in interhalogen compounds of the type \(\mathrm{XX}_{3}^{\prime}\) ?

Ans
\(\checkmark \mathrm{sp}^{3} \mathrm{~d}\)
\(x_{2} s p^{3} d^{2}\)
\(x^{\text {3. }} \mathrm{sp}^{3}\)
\(x_{4} . \mathrm{sp}^{2}\)
Q. 33 Which antibiotic from following contains \(\mathrm{N}=\mathrm{N}\) linkage?

Ans

\section*{\(x\) Sulphanilamide}
\(\checkmark\). Prontosil
\(x_{3}\) Sulphapyridine
\(x_{4}\) Salvarsan
Q. 34 A solution has an osmotic pressure of ' X ' kPa at 300 K having one mole of solute in \(10.5 \mathrm{~m}^{3}\) of solution. If its osmotic pressure is reduced to \((1 / 10)^{\text {th }}\) of it's initial value. What is the new volume of solution?

Ans
1. \(30 \mathrm{~m}^{3}\)
\(\times 2.110 \mathrm{~m}^{3}\)
\(\times 3.11 \cdot 0 \mathrm{~m}^{3}\)
-4. \(105 \mathrm{~m}^{3}\)
Q. 35 Which of the following pairs of moving phase and stationary phase respectively is correct for column chromatography?

Ans
Liquid, Solid
\(\times 2\)
Solid, Liquid
\(x^{3}\). Gas, Liquid
\(x_{4}\) Gas, Solid
Q. 36 What type of hybridization results in trigonal geometry?

Ans
\(x_{1 .} \mathrm{dsp}^{2}\)
\(x_{2}\) sp
X \({ }^{\text {s. }} \mathrm{sp}^{3}\)
, 4. \(\mathrm{sp}^{2}\)
Q. 37 Identify the product obtained when phenol is treated with bromine water?

Ans

\section*{\(x_{1}\) p - Bromo phenol}
2. m-Bromo phenol

2, 4, 6 - tribromo phenol
\(x_{4}\) o - Bromo phenol
Q. 38 What is the oxidation number of carbon in \(\mathrm{K}_{2} \mathrm{C}_{2} \mathrm{O}_{4}\) ?

Ans
\[
\begin{aligned}
& x_{1}-2 \\
& x_{2} 0 \\
& x_{4}+4
\end{aligned}
\]
Q. 39 Which enzyme catalyses the reaction of \(\mathrm{CO}_{2}\) with water in human body?

Ans \(\quad\). Carbonic anhydrase

\section*{\(x_{2}\) Amylase}

\author{
\(\times 3\). \\ Catalase
}

Ferroxidase
\({ }^{\text {Q.40 }} \alpha\) - halogenation of carboxylic acid is called
Ans \(\quad \wedge_{1}\) Hell - Volhard - Zelinsky reaction
\(x_{2}\) Riemer - Tiemann reaction
\(x_{\text {з }}\) Gatterman reaction

\section*{x4. Sandmeyer's reaction}
Q. 41 What is the time required to deposit one millimole of aluminium by passage of 9.65 ampere
through aqueous solution of aluminium ions?
Ans 30 sec .
\(x_{2} 100 \mathrm{sec}\).
\(x^{\text {з. }} 10 \mathrm{sec}\).
\(\times 400 \mathrm{sec}\).
Q. 42 Mass of unit cell of an element is \(415 \times 10^{-24} \mathrm{~g}\), if edge length of unit cell is \(3.50 \times 10^{-8} \mathrm{~cm}\).

What is the density of element?
Ans
\(\times 1.4 \cdot 67 \mathrm{~g} / \mathrm{cm}^{3}\)
\(x_{2} .1 .18 \mathrm{~g} / \mathrm{cm}^{3}\)
\(x_{3 .} 7 \cdot 32 \mathrm{~g} / \mathrm{cm}^{3}\)
\(\checkmark .9 .67 \mathrm{~g} / \mathrm{cm}^{3}\)
Q. 43 Which of the following compound is a broad spectrum antibiotics?

Ans
Amoxicillin
\(x_{2}\) Chlordiazepoxide
\(x^{\text {3. Penicillin }}\)
\(x_{4}\) Meprobamate
Q. 44 What is the product obtained when ethylamine is heated with large excess of ethyl iodide?

Ans Tetraethyl ammonium iodide

\section*{\(x_{2}\) Triethyl amine}
\(x_{3}\) Diethyl amine
\(x_{4}\). Ethyl methyl amine
Q. 45 If same amount of each of following four gases expand from volume \(V_{1}\) to \(V_{2}\), maximum work done is observed in expansion of

Ans
\(\chi_{1} \mathrm{O}_{2}\)
\(\checkmark_{2} \mathrm{~N}_{2}\)
\(x_{3} \mathrm{CO}_{2}\)
\(x\)
\(\mathrm{SO}_{2}\)
Q. \(4615 \times 10^{-4} \mathrm{~kg}\) urea dissolved in 1 lit of \(\mathrm{H}_{2} \mathrm{O}\) and it is isotonic with 500 mL aq. glucose solution.

What is the amount of glucose present in solution? (at. mass \(C=12, H=1, O=16, N=14\) )
Ans
\(\times 1.345 \mathrm{~g}\)
\(\times 1.8 \mathrm{~g}\)
\(x^{3} 4.60 \mathrm{~g}\)
, 2.25 g
Q. 47 According to Werner's theory based on experiment the formula of coordination compound is \(\mathrm{CoCl}_{3} .3 \mathrm{NH}_{3}\) then the molar conductance in \(\mathrm{mho} \mathrm{mol}^{-1}\) and number of \(\mathrm{Cl}^{-}\)ions precipitated by \(\mathrm{AgNO}_{3}\) respectively is

Ans
102, 1
\(x\). 0,2
\(x_{3} 102,0\)
, 0,0
Q. 48 Emf of cell having following cell reaction at 298 K is 0.059 V .
\(\mathrm{Zn}_{(\mathrm{s})}+2 \mathrm{H}_{(\mathrm{aq})}^{+} \longrightarrow \mathrm{Zn}^{++}+\mathrm{H}_{2(\mathrm{~g})}\). What is the value of \(\Delta \mathrm{G}\) ?
Ans
\(x_{1 .}-5.7 \mathrm{~kJ}\)
\(\checkmark\). -11.4 kJ
\(x^{3}-8.3 \mathrm{~kJ}\)
\(x_{4}-14 \cdot 1 \mathrm{~kJ}\)
Q. 49 In gas phase \(\mathrm{H}-\mathrm{O}-\mathrm{H}\) dihedral bond angle in \(\mathrm{H}_{2} \mathrm{O}_{2}\) is

Ans
\(x .145 \cdot 8^{\circ}\)
\(\checkmark\). \(111.5^{\circ}\)
\(\times 3.90 \cdot{ }^{\circ}\)
\(\times 4.147 .5^{\circ}\)
Q. 50 For combustion of 1 mole of liquid benzene at 298 K , the heat of reaction at constant volume is
\(-3264 \cdot 2 \mathrm{~kJ}\). What is the heat of combustion at constant pressure? \(\left(\mathrm{R}=8.314 \mathrm{~J} \mathrm{~K}^{-1} \mathrm{~mol}^{-1}\right)\)
Ans
\(x_{1}-2439 \cdot 2 \mathrm{~kJ} \mathrm{~mol}^{-1}\)
\(x_{2}-816.9 \mathrm{~kJ} \mathrm{~mol}^{-1}\)
, \(3.3267 \cdot 9 \mathrm{~kJ} \mathrm{~mol}^{-1}\)
\(x_{4} .-1633 \cdot 9 \mathrm{~kJ} \mathrm{~mol}^{-1}\)

\section*{Section: Biology}
Q. 1 If a colour blind man marries a normal visioned woman, what is the percentage of
offsprings showing colour blindness phenotypically?
Ans
\(\times 50 \%\)
\(\checkmark \mathbf{~} 0\) \%
x. 25 \%
\(\times 4.100 \%\)
Q. 2 Students of class XII were given a list of following characters such as clawed toes, curved beak, feathers, pneumatic bones, wings and fur. In this list, how many are volant adaptations?

Ans
\(\times 1\)
\(\checkmark\), 3
\(x_{3} 2\)
\(x+5\)
Question Type: MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 5 7}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 2 2 7}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 2 2 6}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 2 2 5}\)
Option 4 ID : \(\mathbf{3 7 1 3 5 1 4 8 2 2 8}\)
Status: Answered
Chosen Option : \(\mathbf{2}\)
Q. 3 Among the following respiratory substrates, which one is the main source of energy?
Ans
\(x\) Organic acids
\(x 2\) Proteins
\(x_{3}\) Fats
\(\checkmark\) Carbohydrates
Q. 4 Which one of the following can form a nucleotide of DNA?
ans \(X_{1}\)
Thymine + ribose +phosphate
\(\times 2\)
Uracil + ribose + phosphate
\(X\).
Adenine + deoxyribose + phosphate
- 4

Uracil + deoxyribose + phosphate
Q. 5 When stimulus is applied to a membrane of neuron, it causes rapid influx of
\(\qquad\) -.
Ans
>1. \(\mathrm{K}+\)
\(x=\mathrm{Ca}^{++}\)
\(x_{3} \mathrm{Mg}^{++}\)
ง. \(\mathrm{Na}^{+}\)
Q. 6 Neurogenic heart receives stimulus for contraction from \(\qquad\) fibres.

Ans

\section*{\(x\) elastin}
\(x=\) collagennerve
\(x\) * muscle
Q. 7 Who first suggested that the oxygen evolved by green plants comes from water and not from carbon dioxide?

Ans
\(x\) Robert Hill
\(\checkmark\) C. Van Neil
\(x\). Park and Biggins
\(x\) Dr. Arnon
Q. 8 During tissue culture, the growth hormones are provided to callus to induce
\(\qquad\) _.
\({ }^{\text {ans }} \times\) callose formation
formation of secondary metabolites
\(x^{3}\) separation of cells
\(x_{4}\) organogenesis
Q. 9 Two consecutive nucleotides of a nucleic acid are linked with \(\qquad\) bond.

Ans
\(\times\) glycosidic
\(x_{2}\) phospho-di-ester
\(x^{*}\) peptide
\(\checkmark\) hydrogen
Q. 10 A sudden rise in the level of LH, stimulates \(\qquad\) .
\({ }^{\text {ans }} \times\) secretion of estrogen ovulation
\(x_{3}\) secretion of uterine milk
\(\times\)
degeneration of uterine endometrium
Q. 11 Larger DNA molecule CANNOT be inserted in host bacterial cell by using
\(\qquad\) _.

Ans
\(x\) lambda phage M 13 phage
\(x\). cosmid
\(x\) x plasmid
Q. 12 Both cell organelles namely nucleus and lysosomes are absent in \(\qquad\) .

Ans

\section*{\(\times\).Paramoecium}

\section*{\(x=\) R.B.Cs. of camel}
\(\wedge^{*}\). mature human R.B.Cs.
\(x_{4}\) vertebrate liver cells
Q. 13 In the \(\mathrm{F}_{2}\) generation of a dihybrid cross of homozygous parents, the number of genotypes and phenotypes will be respectively \(\qquad\) -.

Ans
\(\checkmark 16\) and 9
\(x 24\) and 9
\(x^{9} 9\) and 4
\(\times 4\)
9 and 16
Q. 14 White coating material called enamel covers \(\qquad\) of tooth

Ans
\(x_{1}\) root
\(x_{2}\) periodontal ligament
\(x_{3}\) central cavity
\(\checkmark\) crown
Q. 15 Which of the following is NOT an ectodermal derivative?
\({ }^{\text {ans }} \times\) Stomodaeum

\section*{Adrenal cortex}
\(x\). Retina
\(x\). Enamel of teeth
Q. 16 Semi dwarf rice varieties were developed from \(\qquad\) in Philippines.

Ans
IR - 6
\(x=\) IR - 4
x. IR - 2
\(x\).IR - 8
Q. 17 The large number of genetically identical offsprings produced by micropropagation are called \(\qquad\) -.

Ans
\(x\) drones
\(x_{2}\) clones
\({ }_{\checkmark}\) siblings
\(x\). twins
Q. 18 Following are classified as plasma proteins EXCEPT \(\qquad\) .

Ans

\section*{\(x\) albumin}
\(x_{2}\) prothrombin
\(\checkmark\) thromboplastin
\(x\) fibrinogen
Q. 19 The technique developed to identify a person with the help of DNA restriction analysis is \(\qquad\) .

Ans
\(x\) Cloning
\(x_{2} r\)-DNA technology
\(x_{3}\) restriction digestion

\section*{\(\checkmark\). DNA profiling}
Q. 20 In the secondary treatment of STP the masses of bacteria associated with fungal
filaments are called \(\qquad\) _.

Ans \(x\). mycelium \(x_{2}\) flakes
flocs
\(x\) hyphae
Q. 21 The suspensor of the embryo in angiosperms develops from \(\qquad\) cell.

Ans
\(x\) lateral
\(\checkmark\) embryonal
\(x_{3}\) apical
\(x\) * basal
Q. 22 Which group of plants do NOT contain vascular tissue?

Ans
\(x\) Bryophytes
\(x=\) Angiosperms

\section*{\(x_{3}\) Pteridophytes}
\(\checkmark\) Gymnosperms
Q. 23 The megasporangium in angiosperms is usually \(\qquad\) .

Ans
\(x\). unitegmic
\(x\). polytegmic
\(\checkmark_{3}\) tritegmic
\(\times\) bitegmic
Q. 24 In the reproductive system of a male human being, the ejaculatory ducts open into \(\qquad\) ـ.

Ans
prostatic urethra
\(x_{2}\) spongial urethra
\(x_{3}\) penile urethra
\({ }_{x}\) membranous urethra
Q. 25 \(\qquad\) is obtained from fermented grains of mostly barley.

Ans

\section*{Whisky}

Rum
Beer
\(x\) * Wine
\({ }^{\text {Q.26 }}\) The glans penis is a derivative of \(\qquad\) .

Ans \(\quad\) corpus spongiosum
\(x_{2}\) corpus callosum
\(x_{3}\) corpora cavernosa
\(x_{4}\) corpus albicans
Q. 27 Genome of an organism CANNOT be altered by \(\qquad\) .
ans \(\times\) genetic engineering

\section*{\(x\). mutation}
\(\checkmark\).cloning
\(x_{4}\) gene manipulation

\section*{\({ }^{0.28}\) \\ Select the INCORRECT statement.}

Ans
\(\times 1\).
During cell division, the spindle fibres originate from microtubules.
\(\checkmark\)
Microfilaments are composed of protein keratin.
```

X

```

Intermediate filaments provide tensile strength to the cell.
\(\times 4\).
The components of cytoskeleton are microfilaments, microtubules and intermediate filaments.


In the above diagram, the blood vessel pointed ' X ' communicates with \(\qquad\)
and carries \(\qquad\) blood.
Ans
right atrium, deoxygenated
\(x\) right ventricle, oxygenated
\(x\). left atrium, deoxygenated
\(x\) - left ventricle, oxygenated
\({ }^{\text {Q. } 30}\) Struvite stones are derived from \(\qquad\) .

Ans

\section*{urea}
\(x_{2}\) creatinine
\(x_{2}\) guanine
\(x\) uric acid
Q. 31 The monitoring stations, established by NEERI, have reported that Kolkata and

New Delhi have highest \(\qquad\) and \(\qquad\) in air respectively.

Ans
carbon monoxide, suspended particulate matter
\[
x_{2}
\]
carbon monoxide, nitrogen dioxide
\(x^{3}\)
sulphur dioxide, suspended particulate matter
\(\times 4\)
carbon monoxide , sulphur dioxide
```

Question Type : MCQ
Question ID: 37135112087
Option 1 ID : 37135148347
Option 2 ID: $\mathbf{3 7 1 3 5 1 4 8 3 4 6}$
Option 3 ID: 37135148348
Option 4 ID: 37135148345
Status: Answered
Chosen Option: 3

```
Q. 32 Scala tympani of membranous labyrinth ends at A which opens into B. Identify A and B select correct option.

Ans
\(\times 1\)
A - oval window, B - pharynx
\(-2\).
A - round window, B - middle ear
\(x\).
A - round window, B - external auditory meatus
\(\times 4\)
A - oval window , B - middle ear
\({ }^{\text {Q.33 }}\) Holandric genes are present on \(\qquad\) .
ans \(X_{1}\).
homologous part of X chromosome
\(x=\)
homologous part of Y chromosome
\(x\)
non- homologous part of X chromosome
non- homologous part of Y chromosome
Q. 34 Which one of the following shows interspecific competition?

Ans
\(x\). Between tree and orchid
\(x_{2}\) Between two Peepal trees
Between lions and leopards.
\(x\) a Between tiger and camel
Q. 35 An adult man feels excessive thirst and excretes large volume of dilute urine. He may be suffering from \(\qquad\) —.
Ans
myxoedema diabetes insipidus
\(x^{3}\) Addison's disease
\(x\) acromegaly
Q. 36 How many pollen grains can be produced from a dithecous tetra locular anther with 75 microspore mother cells in each of its chamber?

Ans
\(\times 1200\)
\(\checkmark 900\)
\(\times 300\)
\(\times 450\)
\({ }^{\text {Q. } 37}\) Viviparous germination is seen in \(\qquad\) .

Ans
\(x_{1}\) mesophytes

\section*{\(x_{2}\) xerophytes}
, 3. halophytes
x4. hydrophytes
\({ }^{0.38}\) Which one is used as biofertilizer in paddy fields?
Ans

\section*{Nostoc}
x 2 Chlorella
\(x_{3}\) Azotobacter
\(\times\) Rhizobium
Q. 39 During Krebs cycle, the intermediate \(\propto\) - ketoglutarate is formed as a result
of \(\qquad\) .

Ans

hydration of oxalosuccinate \(\checkmark_{2}\) oxidation of succinyl co-A \(x_{3}\) oxidation of cis-aconitate
\(\times 4\)
decarboxylation of oxalosuccinate
Q. 40 In inflammatory response, \(\ldots\) and \(B\) _ are released by damaged mast cells and basophils.

Ans
X 1 .
A - histamines,
B-lymphokines
\(\times{ }_{2}\)
A - perforins, B - interferons
\(\times 3\).
A-lymphokines,
B - perforins
A - histamines, B - prostaglandins
Q. 41 Hugo de Vries proposed 'Mutation theory' by studying the plant \(\qquad\) -.

Ans
x. Mirabilis jalapa
\(x\) antirrhinum majus
\(x_{3}\) Pisum sativum
Oenothera lamarkiana
Q. 42 The law of purity of gametes is universally applicable because the gametes \(\qquad\)
Ans
\(\times 1\)
always have a recessive allele. \(x_{2}\) are never identical.
\(\times\).
always have a dominant allele.
receive only one of the allelic pairs.
Q. 43 The new field of biology, explored by HGP was \(\qquad\) .
ans

\section*{\(x\) \\ hydroponics}
\(x_{2}\) eugenics
\(\checkmark_{3}\) genomics
\(\times\). proteonomics
Q. 44 Which group of drugs is normally used as medicine?

Ans
Barbiturates, amphetamines, benzodiazepine
\(x_{2}\) LSD, cocaine, heroin
\(x^{3}\)
Morphine, cocaine, hashish Marijuana, charas, ganja
Q. 45 The commercial hatcheries provide \(\qquad\) day old chicks for poultry practices.

Ans
\(x .3\)
\(\checkmark 1\)
\(x .2\)
\(\times 4\)
Q. 46 A better conserver of water with respect to excretion of nitrogenous waste
is \(\qquad\) —.
Ans
\(x\) toad
\(x_{2}\) tadpole larva of frog
lizard
\(x\). turtle
Q. 47 Which one of the following is a carbohydrate but does NOT follow the general formula of carbohydrate?

Ans

\section*{\(x\). Fructose}
\(\checkmark\) Glucose
\(x\) Rhamnose
Q. 48 Reduced coenzyme \(\mathrm{FADH}_{2}\) is formed between which of the following
intermediates in Krebs Cycle?
Ans \(\times 1\).
Isocitrate and oxalosuccinate \(x_{2}\) Succinate and fumarate \(x_{3}\) Malate and oxaloacetate

Fumarate and malate
Q. 49 Which one of the following shows clover leaf model?

Ans
\(x\). DNA
\(x_{2} t-R N A\)
ง. m - RNA
\(x\) r \(r\) - RNA
Q. 50 In sickle cell anaemia, the RBCs become half moon shaped due to \(\qquad\) deficiency.

Ans

\(x_{2}\) carbon dioxide
\(\checkmark\) oxygen
\(x\). haemoglobin
Q. 51 During the development of embryo sac, a megaspore mother cell undergoes
\(\qquad\) meiosis and \(\qquad\) mitosis respectively.

Ans
\(x \cdot 1,3\)
\(x=3,1\)
ง. 1,4
\(\times 4,1\)
Q. 52 The endodermal cells show Casparian strips made up of \(\qquad\) .

Ans

\section*{\(x\) cellulose}
\(x_{2}\) cutin

\section*{suberin}
\(x\) pectin
\({ }^{\text {0.53 }}\) Select homologous organs from the following.

Ans
Forelimbs of lizard and wings of birds

\section*{\(x_{2}\) Wings of birds and insects}
\(x^{3}\)
Wings of pterodactyl and insect
X
Vermiform appendix and sacrum in human
Q. 54 Which one of the following is NOT purely a nitrogenous base?
\({ }^{\text {ans }}\), Guanosine
\(x\) Adenine
\(x\). Cytosine
\(\times\).Thymine
Q. 55 The fungi are separated from kingdom plantae on the basis of \(\qquad\) -.

Ans
x . cell organization
\(x\) ecological role
\(x\) x body organization
\(\checkmark\) mode of nutrition
Question Type: MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 4 6}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 8 1}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 8 4}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 8 2}\)
Option 4 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 8 3}\)
Status: Answered
Chosen Option : \(\mathbf{4}\)
Q. 56 Entry of a pollen tube in an ovule through its micropyle during fertilization is
called \(\qquad\) .
ans \(\downarrow\) chalazogamy
\(x=\) cleistogamy
\(x_{3}\). porogamy
\(x\) mesogamy
0.57 Genome of a prokaryotic cell is \(\qquad\) .

Ans
ス1.
genes contained in diploid number of chromosomes
total number of genes present in the chromosome
\(\times\) з.
total number of genes on sex chromosome

\section*{\(x_{4}\) \\ genes contained in the plasmid}

\author{
Question Type : MCQ \\ Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 7 9}\) \\ Option 1 ID: \(\mathbf{3 7 1 3 5 1 4 8 3 1 5}\) \\ Option 2 ID: \(\mathbf{3 7 1 3 5 1 4 8 3 1 3}\) \\ Option 3 ID: 37135148316 \\ Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 8 3 1 4}\) \\ Status: Answered \\ Chosen Option: \(\mathbf{4}\)
}
Q. 58 Most important photosynthetic pigments in higher plants are \(\qquad\) -

Ans
\(\checkmark\) anthocyanin
\(x_{2}\) carotenoids
\(x^{2}\) phycobilins
\(x\) chlorophylls
Q. 59 Simple tuberous roots help in vegetative propagation of \(\qquad\) _.

Ans
x. Murraya
\(x=\) Sweet potato
, Asparagus
x. Dahlia
Q. 60 One of the factors which may help to differentiate chronic kidney disease from acute kidney injury is \(\qquad\) _.

Ans
\(x=\) proteinuria
\(x_{3}\) abnormal fluid levels
small kidney size
Q. 61 Control and co-ordination of head movements in response to visual and auditory
stimuli is carried out by \(\qquad\) -.
Ans >. corpora striata

* з. crura cerebril
\({ }_{\wedge}\) corpora quadrigemina
Q. 62 A population is a group of all \(\qquad\) in a given time.

Ans
\(x\) individuals on this planet
individuals belonging to same species
\(x_{3}\) plants only
\(x\) animals only
Q. 63 An elephant produces six young ones in its life span of 100 years. If this continues, then, in 750 years, 19 million elephants will be produced. It is NOT possible in reality mainly due to \(\qquad\) -.
Ans \(x\) prodigality \(x=\) mutation competition
\(x\) mutualism
\({ }^{0.64}\) Single turn of Krebs cycle yields \(\qquad\) .

Ans
```

<1.

```

4NADH 2,2 FADH 2 and 2 GTP
4NADH \(2,1 \mathrm{FADH}_{2}\) and 2 GTP
\(\times 3\)
3NADH2, 1 FADH2 and 2 GTP
\(\times 4\)
\(3 \mathrm{NADH}_{2}, 1\) FADH 2 and 1 GTP
Q. 65 During phase of cell enlargement in plant growth, solute concentration favours
\(\qquad\) -
Ans

\section*{\(\checkmark\) endosmosis}
\(x\) a plasmolysis
\(x\) imbibition
x4exosmosis
```

Question Type: MCQ
Question ID : 37135112030
Option 1 ID : 37135148117
Option 2 ID: $\mathbf{3 7 1 3 5 1 4 8 1 2 0}$
Option 3 ID: 37135148119
Option 4 ID : 37135148118
Q. 66 Right atrium: coronary sinus :: left atrium: $\qquad$ .

Ans
$x$ coronary artery
$x_{2}$ inferior venacava
pulmonary artery
pulmonary vein
Q. 67 Mucilagenous disc is useful for attachment with the substratum in the members of
$\qquad$ lichen.

Ans
foliose
$x_{2}$ crustose
$x_{3}$ shruby
$x$. fruticose
Question Type : MCQ
Question ID : $\mathbf{3 7 1 3 5 1 1 2 0 4 1}$
Option 1 ID : $\mathbf{3 7 1 3 5 1 4 8 1 6 2}$
Option 2 ID : $\mathbf{3 7 1 3 5 1 4 8 1 6 1}$
Option 3 ID : $\mathbf{3 7 1 3 5 1 4 8 1 6 4}$
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 8 1 6 3}$
Status : Answered
Chosen Option : $\mathbf{2}$
Q. 68 After birth, infant receives antibodies IgA through colostrum from mother. This is
an example of $\qquad$ immunity.
${ }^{\text {ans }} \times$ natural acquired active
$x=$ innate (natural)
$x_{3}$ artificial acquired passive
${ }_{\checkmark}$ natural acquired passive
Q. 69 The $\mathrm{pCO}_{2}$ of inspired air is $\qquad$ mm Hg during external respiration.

Ans
$\times .30$
$x=100$
$\checkmark 40$
$\times 40$
Q. 70 Identify the WRONG match of the crop variety and its resistance to pest or disease.

Ans
$X 1$.
Pusa Shubhra ---- curl blight and black rot.
$\times 2$
Pusa Sawni and Pusa A4 ---- Shoot and fruit borer


Pusa sadabahar ---- stem borer and aphids
x* Pusa Gaurav ---- aphids
Q. 71 Gross primary productivity of an ecosystem is estimated in terms of $\qquad$ -

Ans
$x \cdot \mathrm{Cg} / \mathrm{m}^{2} /$ day

## $x_{2} \mathrm{C}$ g dry wt./unit area

${ }_{\wedge}$. Chl /g dry wt./m²/day

## x. Chl/g dry wt./unit area

Q. 72 Capacity of living nucleated cell to differentiate into any other type of cell and form a complete new organism is called $\qquad$ -.

Ans
totipotency
$x_{2}$ polymorphism
$x_{3}$ autophagy
$x$. heterophagy
Q. 73 The first germinal layer formed in human embryo is $\qquad$ .

Ans
$x$ mesoderm
$x_{2}$ trophoectoderm
$x=$ ectoderm
$\checkmark$ endoderm
Q. 74 Silage supplemented with oil cakes, vitamins etc makes up good feed for rearing breeds of $\qquad$ _.

Ans
buffalo
$x$ fowl
$x_{3}$ carp
$x$ silkworm
Q. 75 The anticoagulant 'heparin' is secreted by $\qquad$ .

Ans . mast cells
$\times 2$ adipocytes
$x_{3}$ macrophages
$x$ fibroblasts
Q. 76 Epihydrophily is observed in which of the following plants?

Ans

## Vallisneria

$x_{2}$ Lotus
$x^{3}$ Ceratophyllum
x. Zostera
Q. 77 Neuroglia cells show following characters EXCEPT
${ }^{\text {Ans }} \times$. Nourishment
$x=$ Regeneration
${ }_{\checkmark}$ Excitability
$x_{4}$ Phagocytosis

Question ID : 37135112094
Option 1 ID : 37135148375
Option 2 ID: $\mathbf{3 7 1 3 5 1 4 8 3 7 3}$
Option 3 ID: $\mathbf{3 7 1 3 5 1 4 8 3 7 4}$
Option 4 ID: $\mathbf{3 7 1 3 5 1 4 8 3 7 6}$
Q. 78 The sound producing organ in human respiratory system is $\qquad$ .

Ans

## x pharynx

$\checkmark$ larynx
$x$ a trachea
$x$ tongue
Q. 79 Cotton is protected from boll worm by using bacterium $\qquad$ .

Ans
x. Escherichia coli
x2 Bacillus thuringiensis
$\checkmark$. Rhizobium leguminosarum
x $\times$ Salmonella typhimurium

Question Type : MCQ
Question ID : $\mathbf{3 7 1 3 5 1 1 2 0 1 0}$
Option 1 ID : $\mathbf{3 7 1 3 5 1 4 8 0 3 8}$
Option 2 ID: $\mathbf{3 7 1 3 5 1 4 8 0 3 9}$
Option 3 ID : 37135148037
Option 4 ID : $\mathbf{3 7 1 3 5 1 4 8 0 4 0}$
Status: Answered
Chosen Option : 2
Q. 80 One of the following is NOT a thyroid hormone. It is $\qquad$ .

Ans

## $x$ thyrocalcitonin

$\checkmark$ tyrosine
$x_{3}$.triiodothyronine
$x$. tetraiodothyronine
Q. 81 Which one of the following elements is an important binding agent in ribosomes during protein synthesis?

Ans

## Magnesium

## Sulphur

## Phosphorus

$x$
Manganese

```
Question Type : MCQ
Question ID : 37135112006
Option 1 ID : 37135148024
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 0 2 3}\)
Option 3 ID : 37135148022
Option 4 ID : 37135148021
Q. 82 Normally a somatic cell in human beings contains \(\qquad\) number of chromosomes.

Ans
\(\times 16\)
\(x=8\)
\(\times 32\)
\(\checkmark 46\)

\section*{\({ }^{\text {as3 }}\) Select the mis-match pair}

Ans
\(\times 1\).
Ephydatia - Gemmule formation
Ascidians - Gemmule formation
x. Hydra - Budding
\(x^{4}\) Planarians - Regeneration
Q. 84 The molecular weight of haemoglobin is \(\qquad\) daltons.

Ans
\(\times 68000\)
x 38000
ง. 28000
\(\times 48000\)
Q. 85 Johann Mendel is considered a genius much ahead of times, as he has given the concept of "factors" now called genes, is based on the fact that \(\qquad\) .

Ans
X 1.
he was the first to conduct experiments in plant hybridization.

\section*{he was the first to suggest the concept}
```

X.

```
he gave the concept before the discovery of mitosis, meiosis and chromosomes.
\(X 4\)
he was the first to use a microscope.
Q. 86 In the following reaction ' X ' stands for \(\qquad\) .
\(\mathrm{CO}_{2}+2 \mathrm{NADPH}_{2}+2 \mathrm{ATP} \longrightarrow\left(\mathrm{CH}_{2} \mathrm{O}\right)+\mathrm{X}^{\prime}+2 \mathrm{NADP}+2 \mathrm{ADP}+2 \mathrm{ip}\)
Ans
\(\checkmark \mathrm{O}_{2}\)
\(x_{2} \mathrm{H}_{2} \mathrm{O}\)
\(x_{3} \mathrm{CO}_{2}\)
\(\times\) ATP
Q. 87 The ventricular diastole has a duration of \(\qquad\) seconds.
\({ }^{\text {ans }} \downarrow 0.5\)
x 0.8
\(x^{3} 0.1\)
\(x .0 .3\)
\({ }^{\text {Q. } 88}\) Which pair of blood corpuscles is non-phagocytic?
ans \(\checkmark\) Eosinophil and Basophil
\(x_{2}\) Monocyte and Lymphocyte
\(X\).
Neutrophil and Lymphocyte
x. Monocyte and Eosinophil
Q. 89 During aerobic respiration, the total number of ATP formed through oxidative phosphorylation / ETS from one glucose molecule is \(\qquad\) -.

Ans
\(x\) thirty
\(\checkmark\), thirty eight
\(x\). eight
\(x\). thirty four
Question Type : MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 3 7}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 4 6}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 4 8}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 4 5}\)
Option 4 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 4 7}\)
Status: Answered
Chosen Option : \(\mathbf{4}\)
Q. \(90 \mathrm{CO}_{2}\) concentrating mechanism is NOT seen in \(\qquad\) _.

Ans

\section*{\(x\) Amaranthus}
\(x_{2}\) Jowar
\(x_{3}\) Gram
Maize
Q. 91 The cell given in the diagram below is showing shrunken protoplasm, which one of the following is an INCORRECT statement regarding this cell?


Ans
1.

The cell has decreased turgor pressure and increased osmotic pressure
The cell was placed in hypotonic solution
\(x\). The cell is plasmolyzed
\(\times 4\).
The cell was placed in hypertonic solution.
Question Type : MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 5 0}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 2 0 0}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 9 9}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 9 7}\)
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 8 1 9 8}\)
Status: Answered
Chosen Option : \(\mathbf{4}\)
Q. 92 Mark the CORRECT sequence of structures in the breast from inner to outer side.

Ans
X 1.
Lactiferous ducts \(\longrightarrow\) Lactiferous Sinuses \(\longrightarrow\) Lactiferous glands
> 2
Lactiferous Sinuses \(\longrightarrow\) Lactiferous ducts \(\longrightarrow\) Lactiferous glands
X
Lactiferous glands \(\longrightarrow\) Lactiferous Sinuses \(\longrightarrow\) Lactiferous ducts

Lactiferous glands \(\longrightarrow\) Lactiferous ducts \(\longrightarrow\) Lactiferous Sinuses
Question Type: MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 9 1}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 3 6 3}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 3 6 2}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 3 6 4}\)
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 8 3 6 1}\)
Status: Answered
Chosen Option: \(\mathbf{1}\)
collegedunia
Q. 93 During Calvin cycle, phosphoglyceraldehyde is formed from 1,3di.PGA by \(\qquad\) -.

Ans \(\times\) 1. phosporylation oxidation
\(x_{3}\) reduction
\(x_{4}\) oxidative decarboxylation
Q. 94 Match the following therapeutic products formed by r DNA technology

\section*{A}
a - Blood proteins
b - Human hormones
c - Immuno modulators
d - Vaccine
\(\times 1\)
a-ii, b-iv, c-i, d-iii
\(\times 2\).
a-iii, b-i, c-iv, d-ii
\(\mathrm{a}-\mathrm{i}\),
b-iv,
c - ii,
d-iii
\(\times 4\)
a-iv, b-iii, c-ii, d-i
Q. 95 Dark yellow urine, whitish stools, itching of skin, pale face etc. are main symptoms of \(\qquad\) _.

Ans

\section*{jaundice}
\(x_{2}\) constipation
\(x_{3}\) Kwashiorkor
\(x\) diarrhoea
Q. 96 In human beings, usually the gestation period lasts for about \(\qquad\) days,
from beginning of the last menstrual cycle.
Ans

\section*{280}
\(x=266\)
\(x_{3} 256\)
x. 243
\({ }^{\text {a.9 }}\) Sewall Wright effect is \(\qquad\) .

Ans
\(\times 1\)
transfer of genes between populations
\(\times 2\)
exchange of genetic material between communities
any alteration in allele frequency of a natural population by pure chance
\(\times 4\).
changes in chemical make up of a gene
Q. 98 The deposition of pesticides in fatty tissue of the organisms is called \(\qquad\) .

Ans
\(x\) biomagnification bioaccumulation
\(x_{3}\), bioconcentration
\(x\) biodegradation
Q. 99 In incomplete dominance each of the parental traits reappears in the F2 generation
by \(\qquad\) \%

Ans 75
x 100
\(\times 35\)
\(\times 50\)
Question Type: MCQ
Question ID : \(\mathbf{3 7 1 3 5 1 1 2 0 3 5}\)
Option 1 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 3 9}\)
Option 2 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 4 0}\)
Option 3 ID : \(\mathbf{3 7 1 3 5 1 4 8 1 3 7}\)
Option 4 ID: \(\mathbf{3 7 1 3 5 1 4 8 1 3 8}\)
Status: Answered
Q. 100 Identify the correct sequence of seral stages in the Xerarch Succession.

Ans
lichens \(\longrightarrow\) mosses \(\longrightarrow\) herbs \(\longrightarrow\) shrubs \(\longrightarrow\) trees

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