

Q.1

Which one of the following is a pair of isotones?

Ans 1.

40 40
K and Ar
18 19

2. 13 14
N and N
7 7

3. 37 40
Cl and K
17 18

4. 198 197
Hg and Au
80 79

Question Type : MCQ

Question ID : 37135111918

Option 1 ID : 37135147672

Option 2 ID : 37135147670

Option 3 ID : 37135147669

Option 4 ID : 37135147671

Status : Answered

Chosen Option : 1

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?
(R = 6400 km)

Ans

1. 1.5 %

2. 1%

3. 2%

4. 0.5 %

Question Type : **MCQ**

Question ID : **37135111934**

Option 1 ID : **37135147735**

Option 2 ID : **37135147734**

Option 3 ID : **37135147736**

Option 4 ID : **37135147733**

Status : **Answered**

Chosen Option : **4**

Q.3 In the differential equation of linear simple harmonic motion, $\frac{d^2x}{dt^2} + \omega^2x = 0$, the term ω^2 represents

Ans

1.

restoring force per unit mass per unit displacement.

2.

restoring force per unit displacement.

3.

restoring force per unit mass.

4.

acceleration per unit mass per unit displacement.

Question Type : **MCQ**

Question ID : **37135111903**

Option 1 ID : **37135147611**

Option 2 ID : **37135147609**

Option 3 ID : **37135147610**

Option 4 ID : **37135147612**

Status : **Answered**

Chosen Option : **3**

Q.4

A force of 26N is acting on a body of mass 2 kg in the x-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

1. 8 m/s^2

2. 3 m/s^2

3. 5 m/s^2

4. 12 m/s^2

Question Type : **MCQ**

Question ID : **37135111925**

Option 1 ID : **37135147699**

Option 2 ID : **37135147697**

Option 3 ID : **37135147698**

Option 4 ID : **37135147700**

Status : **Answered**

Chosen Option : 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

1. $\pi^2 efr^2$

2. πefr^2

3. πefr

4. $\pi^2 efr$

Question Type : **MCQ**

Question ID : **37135111902**

Option 1 ID : **37135147607**

Option 2 ID : **37135147606**

Option 3 ID : **37135147605**

Option 4 ID : **37135147608**

Status : **Answered**

Chosen Option : 2

Q.6

If the ratio of amplitudes of two sound waves is 4:3, then the ratio of maximum and minimum intensities is

Ans

1. 1:7

2. 1:49

3. 49:1

4. 7:1

Question Type : MCQ

Question ID : 37135111901

Option 1 ID : 37135147602

Option 2 ID : 37135147604

Option 3 ID : 37135147603

Option 4 ID : 37135147601

Status : Answered

Chosen Option : 3

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

1. 0.02%

2. 0.1%

3. 0.01%

4. 0.2%

Question Type : MCQ

Question ID : 37135111907

Option 1 ID : 37135147628

Option 2 ID : 37135147625

Option 3 ID : 37135147627

Option 4 ID : 37135147626

Status : Answered

Chosen Option : 1

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

✓ 1. $\frac{VR^2}{nr^2}$

✗ 2. $\frac{Vr}{nR}$

✗ 3. $\frac{VR}{nr}$

✗ 4. $\frac{Vr^2}{nR^2}$

Question Type : **MCQ**

Question ID : **37135111945**

Option 1 ID : **37135147778**

Option 2 ID : **37135147779**

Option 3 ID : **37135147780**

Option 4 ID : **37135147777**

Status : **Answered**

Chosen Option : **1**

Q.9

What is the energy stored per unit volume in vacuum, where the intensity of

electric field is $10^3 \frac{\text{V}}{\text{m}}$?

$[\epsilon_0 = 8.85 \times 10^{-12} \frac{\text{C}^2}{\text{Nm}^2}]$

Ans

1. $8.8 \times 10^{-5} \frac{\text{J}}{\text{m}^3}$

2. $4.425 \times 10^{-8} \frac{\text{J}}{\text{m}^3}$

3. $8.85 \times 10^{-6} \frac{\text{J}}{\text{m}^3}$

4. $4.425 \times 10^{-6} \frac{\text{J}}{\text{m}^3}$

Question Type : **MCQ**

Question ID : **37135111923**

Option 1 ID : **37135147692**

Option 2 ID : **37135147691**

Option 3 ID : **37135147689**

Option 4 ID : **37135147690**

Status : **Answered**

Chosen Option : **1**

Q.10

An ammeter and a microammeter are converted from the same galvanometer.
The resistance required for the conversion is

Ans

- ✓ 1. higher for microammeter.
- ✗ 2. lower for ammeter.
- ✗ 3. lower for microammeter.
- ✗ 4. higher for ammeter.

Question Type : MCQ

Question ID : 37135111947

Option 1 ID : 37135147785

Option 2 ID : 37135147788

Option 3 ID : 37135147786

Option 4 ID : 37135147787

Status : Answered

Chosen Option : 4

Q.11

A galvanometer of resistance 20Ω 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

- ✗ 1. 20Ω in parallel.
- ✗ 2. 1240Ω in series.
- ✗ 3. 2480Ω in parallel.
- ✓ 4. 2480Ω in series.

Question Type : MCQ

Question ID : 37135111906

Option 1 ID : 37135147624

Option 2 ID : 37135147621

Option 3 ID : 37135147622

Option 4 ID : 37135147623

Status : Answered

Chosen Option : 1

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 '2R' is blown and the work done is ' W_2 '. Then

Ans

1. $W_2 = 0$

2. $W_2 = 4 W_1$

3. $W_2 = W_1$

4. $W_2 < 4 W_1$

Question Type : **MCQ**

Question ID : **37135111910**

Option 1 ID : **37135147640**

Option 2 ID : **37135147637**

Option 3 ID : **37135147639**

Option 4 ID : **37135147638**

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° 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

1. 0.18°

2. 0.15°

3. 0.06°

4. 0.12°

Question Type : **MCQ**

Question ID : **37135111946**

Option 1 ID : **37135147784**

Option 2 ID : **37135147783**

Option 3 ID : **37135147781**

Option 4 ID : **37135147782**

Status : **Answered**

Chosen Option : **1**

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 m/s, Neglect end correction.]

Ans

- ✓ 1. 25 cm
- ✗ 2. 75 cm
- ✗ 3. 80 cm
- ✗ 4. 50 cm

Question Type : MCQ

Question ID : 37135111942

Option 1 ID : 37135147765

Option 2 ID : 37135147767

Option 3 ID : 37135147768

Option 4 ID : 37135147766

Status : Answered

Chosen Option : 1

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 '3T', the rate of radiation will be

Ans

- ✗ 1. 3E
- ✗ 2. E
- ✓ 3. 9E
- ✗ 4. 6E

Question Type : MCQ

Question ID : 37135111944

Option 1 ID : 37135147775

Option 2 ID : 37135147776

Option 3 ID : 37135147773

Option 4 ID : 37135147774

Status : Answered

Chosen Option : 3

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?

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

Ans

1. $1.2 \times 10^{-6} \frac{\text{Wb}}{\text{m}^2}$

2. $2.4 \times 10^{-5} \frac{\text{Wb}}{\text{m}^2}$

3. $0.12 \times 10^{-6} \frac{\text{Wb}}{\text{m}^2}$

4. $24 \times 10^{-5} \frac{\text{Wb}}{\text{m}^2}$

Question Type : **MCQ**

Question ID : **37135111904**

Option 1 ID : **37135147613**

Option 2 ID : **37135147615**

Option 3 ID : **37135147614**

Option 4 ID : **37135147616**

Status : **Answered**

Chosen Option : **1**

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

✓ 1. $\frac{1}{\sqrt{2}}$

✗ 2. 2

✗ 3. $\sqrt{2}$

✗ 4. $2\sqrt{2}$

Question Type : **MCQ**

Question ID : **37135111919**

Option 1 ID : **37135147676**

Option 2 ID : **37135147674**

Option 3 ID : **37135147675**

Option 4 ID : **37135147673**

Status : **Answered**

Chosen Option : 1

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

✓ 1. $\frac{6\pi}{\sqrt{7}}$

✗ 2. $\frac{3\pi}{7}$

✗ 3. $\frac{3\pi}{\sqrt{7}}$

✗ 4. $\frac{6\pi}{7}$

Question Type : MCQ

Question ID : 37135111917

Option 1 ID : 37135147665

Option 2 ID : 37135147668

Option 3 ID : 37135147667

Option 4 ID : 37135147666

Status : Answered

Chosen Option : 1

Q.19

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

Ans

✓ 1. 9:16

✗ 2. 4:3

✗ 3. 27:64

✗ 4. 3:4

Question Type : MCQ

Question ID : 37135111938

Option 1 ID : 37135147749

Option 2 ID : 37135147751

Option 3 ID : 37135147752

Option 4 ID : 37135147750

Status : Answered

Chosen Option : 1

Q.20

Light travels through a glass plate of thickness ' d ' and refractive index ' μ '. If ' c ' is the velocity of light in vacuum, the time taken by the light to travel the thickness of glass ' d ' is

Ans

✗ 1. $\frac{d}{\mu c}$

✗ 2. $\frac{dc}{\mu}$

✗ 3. $d\mu c$

✓ 4. $\frac{\mu d}{c}$

Question Type : MCQ

Question ID : 37135111921

Option 1 ID : 37135147681

Option 2 ID : 37135147684

Option 3 ID : 37135147682

Option 4 ID : 37135147683

Status : Answered

Chosen Option : 1



Q.21

A disc of moment of inertia ' I_1 ' is rotating with angular velocity ' ω_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

✓ 1.
$$\frac{I_1 \omega_1}{I_1 + I_2}$$

✗ 2.
$$\frac{(I_1 + I_2) \omega_1}{I_1}$$

✗ 3.
$$\frac{I_2 \omega_1}{I_1 + I_2}$$

✗ 4.
$$\omega_1$$

Question Type : MCQ

Question ID : 37135111939

Option 1 ID : 37135147754

Option 2 ID : 37135147753

Option 3 ID : 37135147756

Option 4 ID : 37135147755

Status : Answered

Chosen Option : 1

Q.22

Two monoatomic ideal gases A and B of molecular masses ' m_1 ' and ' 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

1. $\frac{m_1}{m_2}$

2. $\sqrt{\frac{m_2}{m_1}}$

3. $\sqrt{\frac{m_1}{m_2}}$

4. $\frac{m_2}{m_1}$

Question Type : **MCQ**

Question ID : **37135111924**

Option 1 ID : **37135147694**

Option 2 ID : **37135147695**

Option 3 ID : **37135147693**

Option 4 ID : **37135147696**

Status : **Answered**

Chosen Option : **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  1.

is first elevated and then depressed.

 2.

shows no change in the level.

 3.

shows elevation in the middle.

 4.

shows depression in the middle.

Question Type : **MCQ**

Question ID : **37135111936**

Option 1 ID : **37135147744**

Option 2 ID : **37135147743**

Option 3 ID : **37135147741**

Option 4 ID : **37135147742**

Status : **Answered**

Chosen Option : **1**

Q.24 The critical angle for a ray of light from glass to air is ' θ ' 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 ' θ ', then corresponding angle of refraction is

Ans

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

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

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

✗ 4. $\cos^{-1} \left(\frac{1}{n} \right)$

Question Type : MCQ

Question ID : 37135111940

Option 1 ID : 37135147759

Option 2 ID : 37135147758

Option 3 ID : 37135147757

Option 4 ID : 37135147760

Status : Answered

Chosen Option : 3

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

1. $\frac{3v^2}{\pi r}$

2. $\frac{2v^2}{\pi r}$

3. $\frac{3v^2}{2\pi r}$

4. $\frac{v^2}{\pi r}$

Question Type : MCQ

Question ID : 37135111937

Option 1 ID : 37135147747

Option 2 ID : 37135147745

Option 3 ID : 37135147748

Option 4 ID : 37135147746

Status : Answered

Chosen Option : 4

Q.26

Choose the correct statement.

In case of insulators,

Ans

1.

conduction band is partially filled and valence band is partially empty.

2.

conduction band and valence band overlap each other.

3. conduction band is empty.

4.

there is no gap between conduction and valence band.

Question Type : MCQ

Question ID : 37135111913

Option 1 ID : 37135147652

Option 2 ID : 37135147651

Option 3 ID : 37135147649

Option 4 ID : 37135147650

Status : Answered

Chosen Option : 3



Q.27

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

Ans

1. spherical.

2. plane.

3. cylindrical.

4.

either cylindrical or spherical.

Question Type : MCQ

Question ID : 37135111927

Option 1 ID : 37135147706

Option 2 ID : 37135147708

Option 3 ID : 37135147705

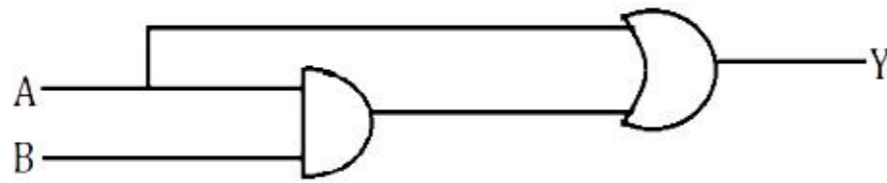
Option 4 ID : 37135147707

Status : Answered

Chosen Option : 2

Q.28

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



Ans

1. B is '1'

2. A is '1'

3. B is '0'

4. A is '0'

Question Type : MCQ

Question ID : 37135111931

Option 1 ID : 37135147723

Option 2 ID : 37135147721

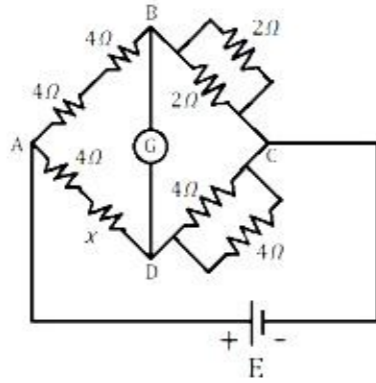
Option 3 ID : 37135147724

Option 4 ID : 37135147722

Status : Answered

Chosen Option : 1

Q.29 The given circuit is balanced Wheatstone's bridge. The value of resistance 'x' is



Ans

✓ 1. 12Ω

✗ 2. 6Ω

✗ 3. 24Ω

✗ 4. 4Ω

Question Type : MCQ

Question ID : 37135111916

Option 1 ID : 37135147662

Option 2 ID : 37135147663

Option 3 ID : 37135147661

Option 4 ID : 37135147664

Status : Answered

Chosen Option : 4

Q.30 What should be the length of antenna for a carrier wave of frequency 6×10^8 Hz?

(velocity of light $c = 3 \times 10^8$ m/s)

Ans

✗ 1. 0.250 m

✗ 2. 0.062 m

✓ 3. 0.125 m

✗ 4. 0.031 m

Question Type : MCQ

Question ID : 37135111929

Option 1 ID : 37135147716

Option 2 ID : 37135147714

Option 3 ID : 37135147715

Option 4 ID : 37135147713

Status : Answered

Chosen Option : 1

Q.31

On mixing highly soluble impurity in water, the surface tension 'T' and angle of contact ' θ ',

Ans 1.

decreases and increases respectively.

2. both increase.

3. both decrease.

4.

increases and decreases respectively.

Question Type : MCQ

Question ID : 37135111950

Option 1 ID : 37135147798

Option 2 ID : 37135147799

Option 3 ID : 37135147800

Option 4 ID : 37135147797

Status : Answered

Chosen Option : 1

Q.32

A cricket ball of mass 150 g moving with a velocity of 12 m/s is turned back with a velocity of 20 m/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

1. 480 N

2. 240 N

3. 360 N

4. 120 N

Question Type : MCQ

Question ID : 37135111948

Option 1 ID : 37135147789

Option 2 ID : 37135147791

Option 3 ID : 37135147790

Option 4 ID : 37135147792

Status : Answered

Chosen Option : 1



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

1. 3 cm

2. 4 cm

3. 2 cm

4. 1 cm

Question Type : **MCQ**

Question ID : **37135111932**

Option 1 ID : **37135147726**

Option 2 ID : **37135147725**

Option 3 ID : **37135147727**

Option 4 ID : **37135147728**

Status : **Answered**

Chosen Option : **1**

Q.34 A wire has a length of 2m and resistance of 10Ω . It is connected in series with a resistance of 990Ω and a cell of e.m.f. 2V. The potential gradient along the wire will be

Ans

1. 0.01 V/m

2. 0.1 V/m

3. 1 V/m

4. 10 V/m

Question Type : **MCQ**

Question ID : **37135111943**

Option 1 ID : **37135147772**

Option 2 ID : **37135147771**

Option 3 ID : **37135147770**

Option 4 ID : **37135147769**

Status : **Answered**

Chosen Option : **1**

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

1. $\frac{m+M}{m}$

2. $\frac{m}{M}$

3. $\frac{M}{m}$

4. $\frac{M-m}{M+m}$

Question Type : MCQ

Question ID : 37135111930

Option 1 ID : 37135147719

Option 2 ID : 37135147717

Option 3 ID : 37135147718

Option 4 ID : 37135147720

Status : Answered

Chosen Option : 1

Q.36

A stone is tied at the end of a rope of length 1m and whirled in a vertical circle. The ratio of velocity at highest point to lowest point will be

Ans

✓ 1. $1 : \sqrt{5}$

✗ 2. $\sqrt{3} : 1$

✗ 3. $\sqrt{3} : \sqrt{5}$

✗ 4. $\sqrt{5} : 1$

Question Type : MCQ

Question ID : 37135111915

Option 1 ID : 37135147657

Option 2 ID : 37135147659

Option 3 ID : 37135147660

Option 4 ID : 37135147658

Status : Answered

Chosen Option : 1

Q.37

The mutual inductance between two coils is 0.09 henry. If the current in the primary coil changes from 0 to 20A in 0.006 s, the e.m.f. induced in the secondary coil at that instant is

Ans

✗ 1. 120 V

✗ 2. 200 V

✗ 3. 180 V

✓ 4. 300 V

Question Type : MCQ

Question ID : 37135111911

Option 1 ID : 37135147641

Option 2 ID : 37135147643

Option 3 ID : 37135147642

Option 4 ID : 37135147644

Status : Answered

Chosen Option : 1

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

✗ 1. is increased, is increased.

✗ 2. is reduced, is increased.

✗ 3. is increased, is reduced.

✓ 4. is reduced, is reduced.

Question Type : MCQ

Question ID : 37135111941

Option 1 ID : 37135147764

Option 2 ID : 37135147762

Option 3 ID : 37135147763

Option 4 ID : 37135147761

Status : Answered

Chosen Option : 1

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

✗ 1. $L = 1\text{m}, D = 1\text{mm}$

✓ 2. $L = 0.5\text{m}, D = 0.5\text{ mm}$

✗ 3. $L = 1.5\text{m}, D = 1.5\text{ mm}$

✗ 4. $L = 2\text{m}, D = 2\text{mm}$

Question Type : MCQ

Question ID : 37135111922

Option 1 ID : 37135147687

Option 2 ID : 37135147688

Option 3 ID : 37135147686

Option 4 ID : 37135147685

Status : Answered

Chosen Option : 4

Q.40

The length and diameter of a metal wire used in sonometer is doubled. The fundamental frequency will change from 'n' to

Ans

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

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

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

4. $\frac{n}{8}$

Question Type : **MCQ**

Question ID : **37135111926**

Option 1 ID : **37135147704**

Option 2 ID : **37135147701**

Option 3 ID : **37135147703**

Option 4 ID : **37135147702**

Status : **Answered**

Chosen Option : **1**

Q.41 A disc rolls down a smooth inclined plane without slipping. An inclined plane makes an angle of 60° with the vertical. The linear acceleration of the disc along the inclined plane is

(g = acceleration due to gravity, $\sin 30^\circ = \cos 60^\circ = \frac{1}{2}$, $\sin 60^\circ = \cos 30^\circ = \frac{\sqrt{3}}{2}$)

Ans

1. $\frac{8g}{18}$

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

3. $\frac{g}{6}$

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

Question Type : **MCQ**

Question ID : **3713511928**

Option 1 ID : **37135147712**

Option 2 ID : **37135147709**

Option 3 ID : **37135147710**

Option 4 ID : **37135147711**

Status : **Answered**

Chosen Option : **2**

Q.42

Moment of inertia of the rod about an axis passing through the centre and perpendicular to its length is ' I_1 '. The same rod is bent into a ring and its moment of inertia about the diameter is ' I_2 ', then $\frac{I_2}{I_1}$ is

Ans

1. $\frac{4\pi^2}{3}$

2. $\frac{2\pi^2}{3}$

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

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

Question Type : MCQ

Question ID : 37135111912

Option 1 ID : 37135147645

Option 2 ID : 37135147647

Option 3 ID : 37135147646

Option 4 ID : 37135147648

Status : Answered

Chosen Option : 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

1. $B_2 = 8 B_1$

2. $B_2 = 64 B_1$

3. $B_2 = 4 B_1$

4. $B_2 = 16 B_1$

Question Type : MCQ

Question ID : 37135111920

Option 1 ID : 37135147678

Option 2 ID : 37135147680

Option 3 ID : 37135147677

Option 4 ID : 37135147679

Status : Answered

Chosen Option : 3

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

1. $F(m - 1)$

2. $\frac{(m-1)}{F}$

3. $F(m + 1)$

4. $\frac{F}{(m-1)}$

Question Type : MCQ

Question ID : 37135111935

Option 1 ID : 37135147738

Option 2 ID : 37135147739

Option 3 ID : 37135147737

Option 4 ID : 37135147740

Status : Answered

Chosen Option : 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

1. zero volt

2. more than 4V

3. 4V

4. less than 4V

Question Type : MCQ

Question ID : 37135111949

Option 1 ID : 37135147796

Option 2 ID : 37135147795

Option 3 ID : 37135147793

Option 4 ID : 37135147794

Status : Answered

Chosen Option : 2



Q.46

The displacement of the particle at a distance 'x' from the origin is given by

$Y = A \sin \omega \left(\frac{x}{v} - k \right)$, where ' ω ' is the angular velocity and ' v ' is the linear velocity.

The dimensions of 'k' are

Ans

✓ 1. $[L^0 M^0 T^1]$

✗ 2. $[L^1 M^0 T^1]$

✗ 3. $[L^0 M^0 T^{-1}]$

✗ 4. $[L^0 M^0 T^2]$

Question Type : MCQ

Question ID : 37135111909

Option 1 ID : 37135147634

Option 2 ID : 37135147633

Option 3 ID : 37135147635

Option 4 ID : 37135147636

Status : Answered

Chosen Option : 1

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 ' θ '. The value of acceleration 'a' is (g = acceleration due to gravity)

Ans

✗ 1. $g \cos \theta$

✗ 2. g

✗ 3. $g \sin \theta$

✓ 4. $g \tan \theta$

Question Type : MCQ

Question ID : 37135111914

Option 1 ID : 37135147655

Option 2 ID : 37135147656

Option 3 ID : 37135147653

Option 4 ID : 37135147654

Status : Answered

Chosen Option : 3



Q.48 Light of wavelength λ strikes a photoelectric surface and electrons are ejected with an energy 'E'. If the wavelength is changed to λ' , the energy increases to twice the original value. Then which one of the following relations is true for λ and λ' ?

Ans

✓_{1.} $\lambda > \lambda' > \frac{\lambda}{2}$

✗_{2.} $\frac{\lambda}{4} < \lambda' < \frac{\lambda}{2}$

✗_{3.} $\lambda = 2\lambda'$

✗_{4.} $\frac{\lambda}{3} > \lambda' > \frac{\lambda}{4}$

Question Type : MCQ

Question ID : 37135111908

Option 1 ID : 37135147631

Option 2 ID : 37135147629

Option 3 ID : 37135147632

Option 4 ID : 37135147630

Status : Answered

Chosen Option : 1

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 C_1 is

Ans

✗ 1.
$$\frac{C_1 C_2 C_3}{V}$$

✗ 2.
$$\frac{C_2 C_3 + C_1 C_3 + C_1 C_2}{C_2 C_3 V}$$

✗ 3.
$$\frac{V}{C_1 + C_2 + C_3}$$

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

Question Type : MCQ

Question ID : 37135111933

Option 1 ID : 37135147730

Option 2 ID : 37135147729

Option 3 ID : 37135147732

Option 4 ID : 37135147731

Status : Answered

Chosen Option : 4

Q.50

A sonometer wire of length ' l_1 ' is in resonance with a frequency 250 Hz. If the length of wire is increased to ' l_2 ', then 2 beats per second are heard. The ratio of lengths $\frac{l_1}{l_2}$ of wire will be

Ans

1. 1:2

2. 124:125

3. 2:1

4. 1:250

Question Type : MCQ

Question ID : 37135111905

Option 1 ID : 37135147617

Option 2 ID : 37135147619

Option 3 ID : 37135147618

Option 4 ID : 37135147620

Status : Answered

Chosen Option : 1

part 17 Chemistry

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

Ans

1. +3

2. +1

3. +4

4. +5

Question Type : MCQ

Question ID : 37135111967

Option 1 ID : 37135147867

Option 2 ID : 37135147868

Option 3 ID : 37135147866

Option 4 ID : 37135147865

Status : Answered

Chosen Option : 3



Q.2 Which among the following elements belongs to second inner transition series?

Ans

1. Sm

2. Lu

3. Am

4. Dy

Question Type : MCQ

Question ID : 37135111982

Option 1 ID : 37135147928

Option 2 ID : 37135147926

Option 3 ID : 37135147925

Option 4 ID : 37135147927

Status : Answered

Chosen Option : 3

Q.3 Which of the following functional groups is reduced by diborane?

Ans

1. Nitro group

2. Halo group

3. Ester group

4. Carboxyl group

Question Type : MCQ

Question ID : 37135111991

Option 1 ID : 37135147961

Option 2 ID : 37135147964

Option 3 ID : 37135147962

Option 4 ID : 37135147963

Status : Answered

Chosen Option : 2

Q.4 How many atoms of argon are present in 3.99 g of it ? (atomic mass = 39.9)

Ans

✓ 1. 6.022×10^{22}

✗ 2. 3.011×10^{22}

✗ 3. 3.011×10^{21}

✗ 4. 6.022×10^{21}

Question Type : MCQ

Question ID : 37135111963

Option 1 ID : 37135147850

Option 2 ID : 37135147852

Option 3 ID : 37135147851

Option 4 ID : 37135147849

Status : Answered

Chosen Option : 1

Q.5 Which of the following molecule has zero bond order?

Ans



Question Type : MCQ

Question ID : 37135111958

Option 1 ID : 37135147831

Option 2 ID : 37135147829

Option 3 ID : 37135147832

Option 4 ID : 37135147830

Status : Answered

Chosen Option : 1

Q.6 Identify the number of carbon atoms and number of oxygen atoms respectively present in furan molecule.

Ans

1. 4, 1

2. 4, 2

3. 5, 1

4. 6, 1

Question Type : MCQ

Question ID : 37135111952

Option 1 ID : 37135147807

Option 2 ID : 37135147806

Option 3 ID : 37135147808

Option 4 ID : 37135147805

Status : Answered

Chosen Option : 1

Q.7 Acetoxime on catalytic reduction gives

Ans

1. acetic acid

2. isopropyl amine

3. ethyl amine

4. acetic anhydride

Question Type : MCQ

Question ID : 37135111972

Option 1 ID : 37135147885

Option 2 ID : 37135147888

Option 3 ID : 37135147887

Option 4 ID : 37135147886

Status : Answered

Chosen Option : 3

Q.8 What is the source of an alkane if its molar mass is 100 and the percentage by mass of hydrogen is 16?

Ans

1. Waxes

2. Diesel

3. LPG

4. Petrol

Question Type : **MCQ**

Question ID : **37135111955**

Option 1 ID : **37135147817**

Option 2 ID : **37135147819**

Option 3 ID : **37135147820**

Option 4 ID : **37135147818**

Status : **Answered**

Chosen Option : **1**

Q.9 Standard entropies of $N_{2(g)}$, $H_{2(g)}$ and $NH_{3(g)}$ are a_1 , a_2 and a_3 $J K^{-1} mol^{-1}$ respectively. What is value of ΔS° for formation of $NH_{3(g)}$?

Ans

1. $a_3 - \frac{1}{2}a_1 + \frac{3}{2}a_2$

2. $a_1 - \left(\frac{1}{2}a_3 + \frac{3}{2}a_2\right)$

3. $a_2 - \left(\frac{1}{2}a_1 + \frac{3}{2}a_2\right)$

4. $a_3 - \left(\frac{1}{2}a_1 + \frac{3}{2}a_2\right)$

Question Type : **MCQ**

Question ID : **37135111995**

Option 1 ID : **37135147978**

Option 2 ID : **37135147979**

Option 3 ID : **37135147980**

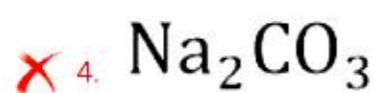
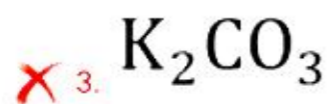
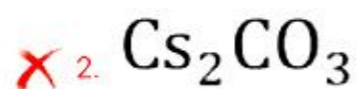
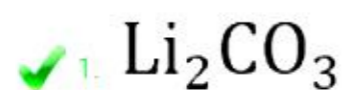
Option 4 ID : **37135147977**

Status : **Answered**

Chosen Option : **4**

Q.10 Which of the following metal carbonate decomposes on heating to evolve CO_2 gas?

Ans



Question Type : MCQ

Question ID : 37135111988

Option 1 ID : 37135147949

Option 2 ID : 37135147952

Option 3 ID : 37135147951

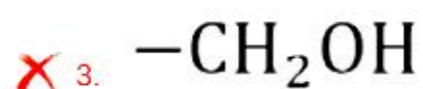
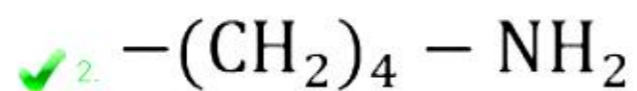
Option 4 ID : 37135147950

Status : Answered

Chosen Option : 1

Q.11 Identify the side chain $-\text{R}$ present in amino acid lysine.

Ans



Question Type : MCQ

Question ID : 37135111970

Option 1 ID : 37135147877

Option 2 ID : 37135147879

Option 3 ID : 37135147880

Option 4 ID : 37135147878

Status : Answered

Chosen Option : 2



Q.12 Which of the following properties is NOT of actinoids?

Ans 1.

Hydroxides of these are more basic in nature than lanthanoids

2.

Some of the ions of these are fairly coloured

3.

Binding energy of 5f orbitals is lower than 4f orbitals.

4.

These have greater tendency to form complexes.

Question Type : MCQ

Question ID : 37135111953

Option 1 ID : 37135147812

Option 2 ID : 37135147811

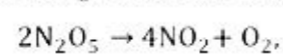
Option 3 ID : 37135147809

Option 4 ID : 37135147810

Status : Answered

Chosen Option : 3

Q.13 Reaction given below follows first order kinetics



Calculate rate constant of reaction if concentration of N_2O_5 is 0.05 M and rate of reaction is

$1.5 \times 10^{-6} \text{ mol L}^{-1}\text{s}^{-1}$?

Ans

1. $3.0 \times 10^{-5} \text{ s}^{-1}$

2. $2.0 \times 10^{-5} \text{ s}^{-1}$

3. $2.5 \times 10^{-5} \text{ s}^{-1}$

4. $1.5 \times 10^{-5} \text{ s}^{-1}$

Question Type : MCQ

Question ID : 37135111997

Option 1 ID : 37135147988

Option 2 ID : 37135147986

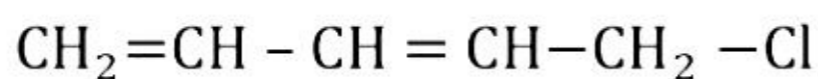
Option 3 ID : 37135147987

Option 4 ID : 37135147985

Status : Answered

Chosen Option : 1

Q.14 Identify IUPAC name of following compound?



Ans

- 1. 5 - Chloropent - 2, 4 - diene
- 2. 1 - Chloropent - 2, 4 - diene
- 3. 5 - Chloropenta - 1, 3 - diene
- 4. 1 - Chloropenta - 2, 4 - diene

Question Type : MCQ

Question ID : 37135111996

Option 1 ID : 37135147983

Option 2 ID : 37135147981

Option 3 ID : 37135147984

Option 4 ID : 37135147982

Status : Answered

Chosen Option : 3

Q.15 Which of the following acids does not undergo HVZ reaction?

Ans

- 1. Ethanoic acid
- 2. Butanoic acid
- 3. Propanoic acid
- 4. Methanoic acid

Question Type : MCQ

Question ID : 37135111964

Option 1 ID : 37135147854

Option 2 ID : 37135147856

Option 3 ID : 37135147855

Option 4 ID : 37135147853

Status : Answered

Chosen Option : 4



Q.16 Which of the following reactions of alcohols involves breaking of O-H bond ?

Ans

- ✓ 1. Reaction with acid anhydride
- ✗ 2. Reaction with thionyl chloride
- ✗ 3. Reaction with Lucas reagent
- ✗ 4. Reaction with phosphorus halides

Question Type : MCQ

Question ID : 37135111980

Option 1 ID : 37135147918

Option 2 ID : 37135147920

Option 3 ID : 37135147917

Option 4 ID : 37135147919

Status : Answered

Chosen Option : 1

Q.17 What will be the minimum pressure required to compress 500 dm³ of air at 1 bar to 200 dm³ at 30°C ?

Ans

- ✓ 1. 2-5 bar
- ✗ 2. 1 bar
- ✗ 3. 2 bar
- ✗ 4. 3 bar

Question Type : MCQ

Question ID : 37135111998

Option 1 ID : 37135147991

Option 2 ID : 37135147989

Option 3 ID : 37135147990

Option 4 ID : 37135147992

Status : Answered

Chosen Option : 1

Q.18 Which of the following polymers is obtained when glycolic acid combines with lactic acid?

Ans

- 1. Buna-N
- 2. PHBV
- 3. Nylon-2-nylon-6
- 4. Dextron

Question Type : MCQ

Question ID : 37135111992

Option 1 ID : 37135147966

Option 2 ID : 37135147965

Option 3 ID : 37135147967

Option 4 ID : 37135147968

Status : Answered

Chosen Option : 4

Q.19 Which among the following hydrides have low bond dissociation energy of M-H bond

(M= Central atom)?

Ans

- 1. H_2Se
- 2. H_2S
- 3. H_2Te
- 4. H_2O

Question Type : MCQ

Question ID : 37135111954

Option 1 ID : 37135147815

Option 2 ID : 37135147814

Option 3 ID : 37135147816

Option 4 ID : 37135147813

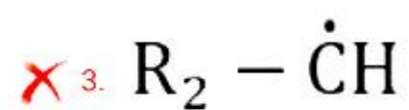
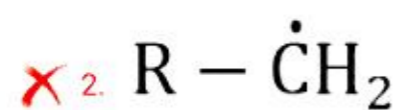
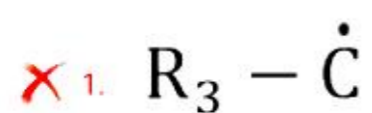
Status : Answered

Chosen Option : 1



Q.20 The most unstable free radical among the following is

Ans



Question Type : MCQ

Question ID : 37135111985

Option 1 ID : 37135147937

Option 2 ID : 37135147939

Option 3 ID : 37135147938

Option 4 ID : 37135147940

Status : Answered

Chosen Option : 4

Q.21 A certain zero order reaction has rate constant 0.025 Ms^{-1} . What will be the concentration of reactant 'A' after 15 seconds, if initial concentration is 0.50 M ?

Ans

1. 0.060 M

2. 0.50 M

3. 0.125 M

4. 0.375 M

Question Type : MCQ

Question ID : 37135111987

Option 1 ID : 37135147948

Option 2 ID : 37135147945

Option 3 ID : 37135147947

Option 4 ID : 37135147946

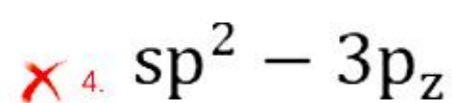
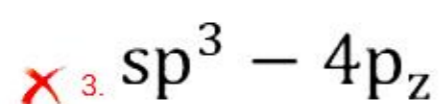
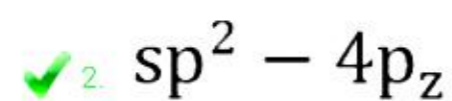
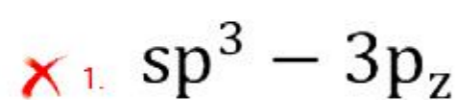
Status : Answered

Chosen Option : 3



Q.22 The overlap of orbitals involved in the formation of C–Br bond in vinyl bromide is

Ans



Question Type : MCQ

Question ID : 37135111984

Option 1 ID : 37135147933

Option 2 ID : 37135147935

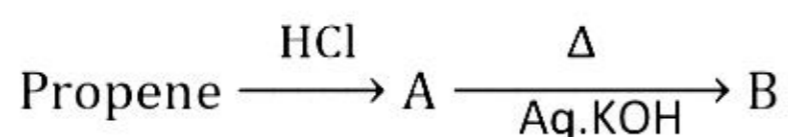
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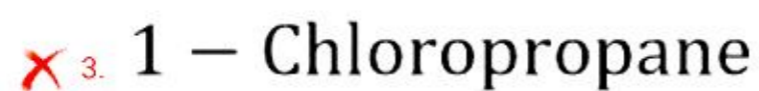
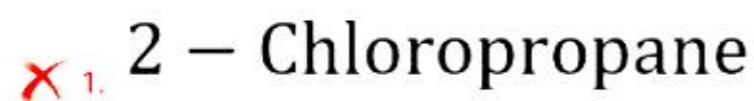
Status : Answered

Chosen Option : 2

Q.23 Identify the major product 'B' in following reaction



Ans



Question Type : MCQ

Question ID : 37135111956

Option 1 ID : 37135147822

Option 2 ID : 37135147824

Option 3 ID : 37135147821

Option 4 ID : 37135147823

Status : Answered

Chosen Option : 2

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

1. Cu

2. Zr

3. Al

4. Ni

Question Type : **MCQ**

Question ID : **37135111962**

Option 1 ID : **37135147847**

Option 2 ID : **37135147845**

Option 3 ID : **37135147848**

Option 4 ID : **37135147846**

Status : **Answered**

Chosen Option : **2**

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

1. 408.6 pm

2. 289.0 pm

3. 428.6 pm

4. 333.7 pm

Question Type : **MCQ**

Question ID : **37135111966**

Option 1 ID : **37135147863**

Option 2 ID : **37135147861**

Option 3 ID : **37135147864**

Option 4 ID : **37135147862**

Status : **Answered**

Chosen Option : **1**

Q.26 Which of the following polymers contain ester linkage?

Ans

- ✓ 1. PHBV
- ✗ 2. Orlon
- ✗ 3. Neoprene
- ✗ 4. Buna-S

Question Type : MCQ

Question ID : 37135111981

Option 1 ID : 37135147923

Option 2 ID : 37135147922

Option 3 ID : 37135147921

Option 4 ID : 37135147924

Status : Answered

Chosen Option : 1

Q.27 A solution is 0.50% by weight, what is the weight of solvent containing 2.50 g solute?

Ans

- ✓ 1. 497.5 g
- ✗ 2. 125.0 g
- ✗ 3. 500.1 g
- ✗ 4. 502.5 g

Question Type : MCQ

Question ID : 37135111978

Option 1 ID : 37135147910

Option 2 ID : 37135147909

Option 3 ID : 37135147911

Option 4 ID : 37135147912

Status : Answered

Chosen Option : 3

Q.28 Which of the following statements is correct according to Werner's theory, when excess AgNO_3 is treated with $\text{CoCl}_3 \cdot 6\text{NH}_3$ precipitating three moles of AgCl ?

Ans 1.

2 Cl atoms and 4 NH_3 molecules are in coordination sphere

2.

3 'Cl' atoms are in ionization sphere

3.

3 'Cl' atoms are in coordination sphere

4.

5 NH_3 and 1 Cl atom are in coordination sphere

Question Type : MCQ

Question ID : 37135111961

Option 1 ID : 37135147844

Option 2 ID : 37135147842

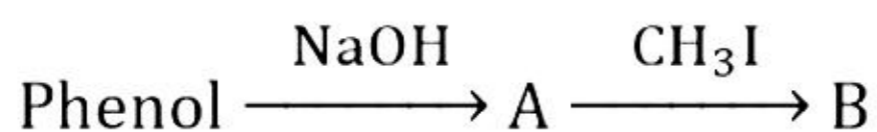
Option 3 ID : 37135147841

Option 4 ID : 37135147843

Status : Answered

Chosen Option : 1

Q.29 Identify product B in following reaction



Ans

1. Anisole

2. Iodobenzene

3. Toluene

4. Phenetole

Question Type : MCQ

Question ID : 37135111951

Option 1 ID : 37135147803

Option 2 ID : 37135147801

Option 3 ID : 37135147802

Option 4 ID : 37135147804

Status : Answered

Chosen Option : 1

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

1. 113.2 pm

2. 175.3 pm

3. 143.2 pm

4. 202.5 pm

Question Type : MCQ

Question ID : 37135111975

Option 1 ID : 37135147897

Option 2 ID : 37135147899

Option 3 ID : 37135147898

Option 4 ID : 37135147900

Status : Answered

Chosen Option : 3

Q.31 Which of the following amine is most basic in nature?

Ans

1. 2, 4 – Dichloroaniline

2. 2, 4 – Dibromoaniline

3. 2, 4 – Dinitroaniline

4. 2, 4 – Dimethylaniline

Question Type : MCQ

Question ID : 37135111983

Option 1 ID : 37135147929

Option 2 ID : 37135147932

Option 3 ID : 37135147931

Option 4 ID : 37135147930

Status : Answered

Chosen Option : 4

Q.32 What type of hybridization is observed in interhalogen compounds of the type XX'_3 ?

Ans

✓ 1. sp^3d

✗ 2. sp^3d^2

✗ 3. sp^3

✗ 4. sp^2

Question Type : **MCQ**

Question ID : **37135111977**

Option 1 ID : **37135147905**

Option 2 ID : **37135147907**

Option 3 ID : **37135147906**

Option 4 ID : **37135147908**

Status : **Answered**

Chosen Option : **1**

Q.33 Which antibiotic from following contains $N = N$ linkage?

Ans

✗ 1. Sulphanilamide

✓ 2. Prontosil

✗ 3. Sulphapyridine

✗ 4. Salvarsan

Question Type : **MCQ**

Question ID : **37135111990**

Option 1 ID : **37135147959**

Option 2 ID : **37135147958**

Option 3 ID : **37135147960**

Option 4 ID : **37135147957**

Status : **Answered**

Chosen Option : **1**



Q.34 A solution has an osmotic pressure of 'X' kPa at 300 K having one mole of solute in 10.5 m^3 of solution. If its osmotic pressure is reduced to $(\frac{1}{10})^{\text{th}}$ of its initial value. What is the new volume of solution?

Ans

- 1. 30 m^3
- 2. 110 m^3
- 3. 11.0 m^3
- 4. 105 m^3

Question Type : **MCQ**

Question ID : **37135111960**

Option 1 ID : **37135147840**

Option 2 ID : **37135147839**

Option 3 ID : **37135147837**

Option 4 ID : **37135147838**

Status : **Answered**

Chosen Option : **4**

Q.35 Which of the following pairs of moving phase and stationary phase respectively is correct for column chromatography?

Ans

- 1. Liquid, Solid
- 2. Solid, Liquid
- 3. Gas, Liquid
- 4. Gas, Solid

Question Type : **MCQ**

Question ID : **37135111971**

Option 1 ID : **37135147883**

Option 2 ID : **37135147884**

Option 3 ID : **37135147882**

Option 4 ID : **37135147881**

Status : **Answered**

Chosen Option : **1**

Q.36 What type of hybridization results in trigonal geometry?

Ans

1. dsp^2

2. sp

3. sp^3

4. sp^2

Question Type : MCQ

Question ID : 37135111986

Option 1 ID : 37135147944

Option 2 ID : 37135147941

Option 3 ID : 37135147943

Option 4 ID : 37135147942

Status : Answered

Chosen Option : 3

Q.37 Identify the product obtained when phenol is treated with bromine water?

Ans

1. p - Bromo phenol

2. m - Bromo phenol

3. 2, 4, 6 - tribromo phenol

4. o - Bromo phenol

Question Type : MCQ

Question ID : 37135111969

Option 1 ID : 37135147874

Option 2 ID : 37135147875

Option 3 ID : 37135147876

Option 4 ID : 37135147873

Status : Answered

Chosen Option : 3



Q.38 What is the oxidation number of carbon in $K_2C_2O_4$?

Ans

1. -2

2. +3

3. 0

4. +4

Question Type : MCQ

Question ID : 37135111976

Option 1 ID : 37135147904

Option 2 ID : 37135147902

Option 3 ID : 37135147901

Option 4 ID : 37135147903

Status : Answered

Chosen Option : 2

Q.39 Which enzyme catalyses the reaction of CO_2 with water in human body?

Ans

1. Carbonic anhydrase

2. Amylase

3. Catalase

4. Ferroxidase

Question Type : MCQ

Question ID : 37135111965

Option 1 ID : 37135147860

Option 2 ID : 37135147858

Option 3 ID : 37135147857

Option 4 ID : 37135147859

Status : Answered

Chosen Option : 1

Q.40 α - halogenation of carboxylic acid is called

Ans 1. Hell - Volhard - Zelinsky reaction

2. Riemer - Tiemann reaction

3. Gatterman reaction

4. Sandmeyer's reaction

Question Type : MCQ

Question ID : 37135111979

Option 1 ID : 37135147915

Option 2 ID : 37135147916

Option 3 ID : 37135147913

Option 4 ID : 37135147914

Status : Answered

Chosen Option : 1

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 1. 30 sec.

2. 100 sec.

3. 10 sec.

4. 300 sec.

Question Type : MCQ

Question ID : 37135111973

Option 1 ID : 37135147889

Option 2 ID : 37135147892

Option 3 ID : 37135147890

Option 4 ID : 37135147891

Status : Answered

Chosen Option : 1



Q.42 Mass of unit cell of an element is 415×10^{-24} g, if edge length of unit cell is 3.50×10^{-8} cm.

What is the density of element?

Ans

1. 4.67 g/cm^3

2. 1.18 g/cm^3

3. 7.32 g/cm^3

4. 9.67 g/cm^3

Question Type : MCQ

Question ID : 37135111957

Option 1 ID : 37135147826

Option 2 ID : 37135147825

Option 3 ID : 37135147827

Option 4 ID : 37135147828

Status : Answered

Chosen Option : 4

Q.43 Which of the following compound is a broad spectrum antibiotics?

Ans

1. Amoxicillin

2. Chlordiazepoxide

3. Penicillin

4. Meprobamate

Question Type : MCQ

Question ID : 37135112000

Option 1 ID : 37135147999

Option 2 ID : 37135148000

Option 3 ID : 37135147997

Option 4 ID : 37135147998

Status : Answered

Chosen Option : 1

Q.44 What is the product obtained when ethylamine is heated with large excess of ethyl iodide?

Ans

✓ 1. Tetraethyl ammonium iodide

✗ 2. Triethyl amine

✗ 3. Diethyl amine

✗ 4. Ethyl methyl amine

Question Type : MCQ

Question ID : 37135111994

Option 1 ID : 37135147976

Option 2 ID : 37135147975

Option 3 ID : 37135147974

Option 4 ID : 37135147973

Status : Answered

Chosen Option : 1

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

✗ 1. O_2

✓ 2. N_2

✗ 3. CO_2

✗ 4. SO_2

Question Type : MCQ

Question ID : 37135111999

Option 1 ID : 37135147993

Option 2 ID : 37135147995

Option 3 ID : 37135147996

Option 4 ID : 37135147994

Status : Answered

Chosen Option : 1

Q.46 15×10^{-4} kg urea dissolved in 1 lit of H_2O 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

1. 3.45 g

2. 1.8 g

3. 4.60 g

4. 2.25 g

Question Type : MCQ

Question ID : 37135111968

Option 1 ID : 37135147871

Option 2 ID : 37135147869

Option 3 ID : 37135147872

Option 4 ID : 37135147870

Status : Answered

Chosen Option : 4

Q.47 According to Werner's theory based on experiment the formula of coordination compound is

$CoCl_3 \cdot 3NH_3$ then the molar conductance in $mho \text{ mol}^{-1}$ and number of Cl^- ions precipitated by

$AgNO_3$ respectively is

Ans

1. 102, 1

2. 0, 2

3. 102, 0

4. 0, 0

Question Type : MCQ

Question ID : 37135111993

Option 1 ID : 37135147972

Option 2 ID : 37135147971

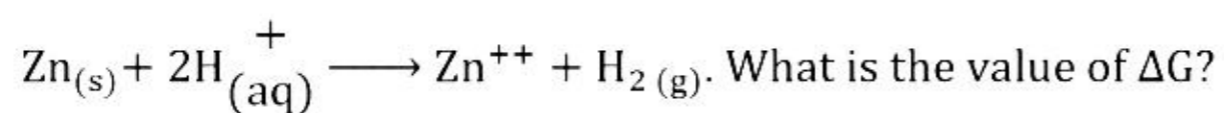
Option 3 ID : 37135147970

Option 4 ID : 37135147969

Status : Answered

Chosen Option : 1

Q.48 Emf of cell having following cell reaction at 298 K is 0.059 V.



Ans

1. -5.7 kJ

2. -11.4 kJ

3. -8.3 kJ

4. -14.1 kJ

Question Type : **MCQ**

Question ID : **37135111959**

Option 1 ID : **37135147833**

Option 2 ID : **37135147834**

Option 3 ID : **37135147835**

Option 4 ID : **37135147836**

Status : **Answered**

Chosen Option : **3**

Q.49 In gas phase H—O—H dihedral bond angle in H_2O_2 is

Ans

1. 145.8°

2. 111.5°

3. 90.2°

4. 147.5°

Question Type : **MCQ**

Question ID : **37135111974**

Option 1 ID : **37135147893**

Option 2 ID : **37135147896**

Option 3 ID : **37135147895**

Option 4 ID : **37135147894**

Status : **Answered**

Chosen Option : **1**

Q.50 For combustion of 1 mole of liquid benzene at 298 K, the heat of reaction at constant volume is -3264.2 kJ. What is the heat of combustion at constant pressure? ($R = 8.314 \text{ J K}^{-1} \text{ mol}^{-1}$)

Ans

1. $-2439.2 \text{ kJ mol}^{-1}$

2. $-816.9 \text{ kJ mol}^{-1}$

3. $-3267.9 \text{ kJ mol}^{-1}$

4. $-1633.9 \text{ kJ mol}^{-1}$

Question Type : **MCQ**

Question ID : **37135111989**

Option 1 ID : **37135147955**

Option 2 ID : **37135147956**

Option 3 ID : **37135147954**

Option 4 ID : **37135147953**

Status : **Answered**

Chosen Option : **3**

Q.51 00 Biology

Q.1 If a colour blind man marries a normal visioned woman, what is the percentage of offsprings showing colour blindness phenotypically?

Ans

1. **50 %**

2. **0 %**

3. **25 %**

4. **100 %**

Question Type : **MCQ**

Question ID : **37135112072**

Option 1 ID : **37135148287**

Option 2 ID : **37135148285**

Option 3 ID : **37135148286**

Option 4 ID : **37135148288**

Status : **Answered**

Chosen Option : **2**

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

1. 4

2. 3

3. 2

4. 5

Question Type : **MCQ**

Question ID : **37135112057**

Option 1 ID : **37135148227**

Option 2 ID : **37135148226**

Option 3 ID : **37135148225**

Option 4 ID : **37135148228**

Status : **Answered**

Chosen Option : **2**

Q.3 Among the following respiratory substrates, which one is the main source of energy?

Ans

1. Organic acids

2. Proteins

3. Fats

4. Carbohydrates

Question Type : **MCQ**

Question ID : **37135112049**

Option 1 ID : **37135148196**

Option 2 ID : **37135148195**

Option 3 ID : **37135148194**

Option 4 ID : **37135148193**

Status : **Answered**

Chosen Option : **4**

Q.4 Which one of the following can form a nucleotide of DNA?

Ans 1.

Thymine + ribose + phosphate

2.

Uracil + ribose + phosphate

3.

Adenine + deoxyribose + phosphate

4.

Uracil + deoxyribose + phosphate

Question Type : MCQ

Question ID : 37135112031

Option 1 ID : 37135148122

Option 2 ID : 37135148124

Option 3 ID : 37135148121

Option 4 ID : 37135148123

Status : Answered

Chosen Option : 3

Q.5 When stimulus is applied to a membrane of neuron, it causes rapid influx of

_____.

Ans

1. K^+

2. Ca^{++}

3. Mg^{++}

4. Na^+

Question Type : MCQ

Question ID : 37135112075

Option 1 ID : 37135148297

Option 2 ID : 37135148299

Option 3 ID : 37135148300

Option 4 ID : 37135148298

Status : Answered

Chosen Option : 4

Q.6 Neurogenic heart receives stimulus for contraction from _____ fibres.

Ans

1. elastin

2. collagen

3. nerve

4. muscle

Question Type : **MCQ**

Question ID : **37135112051**

Option 1 ID : **37135148204**

Option 2 ID : **37135148203**

Option 3 ID : **37135148202**

Option 4 ID : **37135148201**

Status : **Answered**

Chosen Option : **4**

Q.7 Who first suggested that the oxygen evolved by green plants comes from water and not from carbon dioxide?

Ans

1. Robert Hill

2. C. Van Neil

3. Park and Biggins

4. Dr. Arnon

Question Type : **MCQ**

Question ID : **37135112033**

Option 1 ID : **37135148129**

Option 2 ID : **37135148130**

Option 3 ID : **37135148131**

Option 4 ID : **37135148132**

Status : **Answered**

Chosen Option : **2**

Q.8 During tissue culture, the growth hormones are provided to callus to induce _____.

Ans

1. callose formation

2.

formation of secondary metabolites

3. separation of cells

4. organogenesis

Question Type : MCQ

Question ID : 37135112002

Option 1 ID : 37135148005

Option 2 ID : 37135148008

Option 3 ID : 37135148006

Option 4 ID : 37135148007

Status : Answered

Chosen Option : 4

Q.9 Two consecutive nucleotides of a nucleic acid are linked with _____ bond.

Ans

1. glycosidic

2. phospho-di-ester

3. peptide

4. hydrogen

Question Type : MCQ

Question ID : 37135112021

Option 1 ID : 37135148081

Option 2 ID : 37135148083

Option 3 ID : 37135148082

Option 4 ID : 37135148084

Status : Answered

Chosen Option : 2



Q.10 A sudden rise in the level of LH, stimulates _____.

Ans

1. secretion of estrogen

2. ovulation

3. secretion of uterine milk

4. degeneration of uterine endometrium

Question Type : MCQ

Question ID : 37135112059

Option 1 ID : 37135148235

Option 2 ID : 37135148234

Option 3 ID : 37135148236

Option 4 ID : 37135148233

Status : Answered

Chosen Option : 2

Q.11 Larger DNA molecule CANNOT be inserted in host bacterial cell by using _____.

Ans

1. lambda phage

2. M 13 phage

3. cosmid

4. plasmid

Question Type : MCQ

Question ID : 37135112029

Option 1 ID : 37135148113

Option 2 ID : 37135148116

Option 3 ID : 37135148115

Option 4 ID : 37135148114

Status : Answered

Chosen Option : 4

Q.12 Both cell organelles namely nucleus and lysosomes are absent in _____.

Ans

- 1. *Paramecium*
- 2. R.B.Cs. of camel
- 3. mature human R.B.Cs.
- 4. vertebrate liver cells

Question Type : MCQ

Question ID : 37135112088

Option 1 ID : 37135148349

Option 2 ID : 37135148351

Option 3 ID : 37135148350

Option 4 ID : 37135148352

Status : Answered

Chosen Option : 1

Q.13 In the F₂ generation of a dihybrid cross of homozygous parents, the number of genotypes and phenotypes will be respectively _____.

Ans

- 1. 16 and 9
- 2. 4 and 9
- 3. 9 and 4
- 4. 9 and 16

Question Type : MCQ

Question ID : 37135112013

Option 1 ID : 37135148049

Option 2 ID : 37135148051

Option 3 ID : 37135148050

Option 4 ID : 37135148052

Status : Answered

Chosen Option : 3

Q.14 White coating material called enamel covers _____ of tooth

Ans

1. root

2. periodontal ligament

3. central cavity

4. crown

Question Type : MCQ

Question ID : 37135112063

Option 1 ID : 37135148250

Option 2 ID : 37135148252

Option 3 ID : 37135148251

Option 4 ID : 37135148249

Status : Answered

Chosen Option : 4

Q.15 Which of the following is NOT an ectodermal derivative?

Ans

1. Stomodaeum

2. Adrenal cortex

3. Retina

4. Enamel of teeth

Question Type : MCQ

Question ID : 37135112085

Option 1 ID : 37135148340

Option 2 ID : 37135148338

Option 3 ID : 37135148337

Option 4 ID : 37135148339

Status : Answered

Chosen Option : 2

Q.16 Semi dwarf rice varieties were developed from _____ in Philippines.

Ans

- ✓ 1. IR - 6
- ✗ 2. IR - 4
- ✗ 3. IR - 2
- ✗ 4. IR - 8

Question Type : MCQ
Question ID : 37135112007
Option 1 ID : 37135148027
Option 2 ID : 37135148026
Option 3 ID : 37135148025
Option 4 ID : 37135148028
Status : Answered
Chosen Option : 4

Q.17 The large number of genetically identical offsprings produced by micropropagation are called _____.

Ans

- ✗ 1. drones
- ✗ 2. clones
- ✓ 3. siblings
- ✗ 4. twins

Question Type : MCQ
Question ID : 37135112034
Option 1 ID : 37135148136
Option 2 ID : 37135148135
Option 3 ID : 37135148133
Option 4 ID : 37135148134
Status : Answered
Chosen Option : 2

Q.18 Following are classified as plasma proteins EXCEPT _____.

Ans

- 1. albumin
- 2. prothrombin
- 3. thromboplastin
- 4. fibrinogen

Question Type : MCQ

Question ID : 37135112052

Option 1 ID : 37135148205

Option 2 ID : 37135148206

Option 3 ID : 37135148208

Option 4 ID : 37135148207

Status : Answered

Chosen Option : 1

Q.19 The technique developed to identify a person with the help of DNA restriction analysis is _____.

Ans

- 1. Cloning
- 2. r -DNA technology
- 3. restriction digestion
- 4. DNA profiling

Question Type : MCQ

Question ID : 37135112093

Option 1 ID : 37135148371

Option 2 ID : 37135148372

Option 3 ID : 37135148369

Option 4 ID : 37135148370

Status : Answered

Chosen Option : 4

Q.20 In the secondary treatment of STP the masses of bacteria associated with fungal filaments are called _____.

Ans

1. mycelium

2. flakes

3. flocs

4. hyphae

Question Type : MCQ

Question ID : 37135112011

Option 1 ID : 37135148042

Option 2 ID : 37135148044

Option 3 ID : 37135148043

Option 4 ID : 37135148041

Status : Answered

Chosen Option : 3

Q.21 The suspensor of the embryo in angiosperms develops from _____ cell.

Ans

1. lateral

2. embryonal

3. apical

4. basal

Question Type : MCQ

Question ID : 37135112003

Option 1 ID : 37135148012

Option 2 ID : 37135148011

Option 3 ID : 37135148009

Option 4 ID : 37135148010

Status : Answered

Chosen Option : 4

Q.22 Which group of plants do NOT contain vascular tissue?

Ans

- 1. Bryophytes
- 2. Angiosperms
- 3. Pteridophytes
- 4. Gymnosperms

Question Type : MCQ
Question ID : 37135112015
Option 1 ID : 37135148060
Option 2 ID : 37135148057
Option 3 ID : 37135148059
Option 4 ID : 37135148058
Status : Answered
Chosen Option : 1

Q.23 The megasporangium in angiosperms is usually _____.

Ans

- 1. unitegmic
- 2. polytegmic
- 3. tritegmic
- 4. bitegmic

Question Type : MCQ
Question ID : 37135112009
Option 1 ID : 37135148033
Option 2 ID : 37135148036
Option 3 ID : 37135148035
Option 4 ID : 37135148034
Status : Answered
Chosen Option : 2

Q.24 In the reproductive system of a male human being, the ejaculatory ducts open into _____.

Ans

- ✓ 1. prostatic urethra
- ✗ 2. spongial urethra
- ✗ 3. penile urethra
- ✗ 4. membranous urethra

Question Type : **MCQ**

Question ID : **37135112081**

Option 1 ID : **37135148323**

Option 2 ID : **37135148324**

Option 3 ID : **37135148321**

Option 4 ID : **37135148322**

Status : **Answered**

Chosen Option : **3**

Q.25 _____ is obtained from fermented grains of mostly barley.

Ans

- ✗ 1. Whisky
- ✗ 2. Rum
- ✓ 3. Beer
- ✗ 4. Wine

Question Type : **MCQ**

Question ID : **37135112045**

Option 1 ID : **37135148179**

Option 2 ID : **37135148180**

Option 3 ID : **37135148178**

Option 4 ID : **37135148177**

Status : **Answered**

Chosen Option : **3**

Q.26 The glans penis is a derivative of _____.

- Ans
- 1. corpus spongiosum
 - 2. corpus callosum
 - 3. corpora cavernosa
 - 4. corpus albicans

Question Type : **MCQ**
Question ID : **37135112076**
Option 1 ID : **37135148303**
Option 2 ID : **37135148301**
Option 3 ID : **37135148302**
Option 4 ID : **37135148304**
Status : **Answered**
Chosen Option : **4**

Q.27 Genome of an organism CANNOT be altered by _____.

- Ans
- 1. genetic engineering
 - 2. mutation
 - 3. cloning
 - 4. gene manipulation

Question Type : **MCQ**
Question ID : **37135112019**
Option 1 ID : **37135148074**
Option 2 ID : **37135148075**
Option 3 ID : **37135148076**
Option 4 ID : **37135148073**
Status : **Answered**
Chosen Option : **3**

Q.28

Select the INCORRECT statement.

Ans 1.

During cell division, the spindle fibres originate from microtubules.

2.

Microfilaments are composed of protein keratin.

3.

Intermediate filaments provide tensile strength to the cell.

4.

The components of cytoskeleton are microfilaments, microtubules and intermediate filaments.

Question Type : **MCQ**

Question ID : **37135112099**

Option 1 ID : **37135148396**

Option 2 ID : **37135148393**

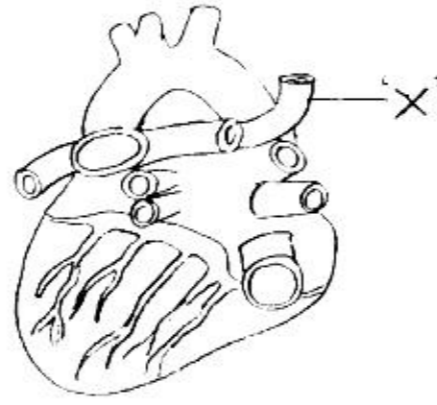
Option 3 ID : **37135148395**

Option 4 ID : **37135148394**

Status : **Answered**

Chosen Option : **1**

Q.29



In the above diagram, the blood vessel pointed 'X' communicates with _____ and carries _____ blood.

Ans

✓ 1.

right atrium, deoxygenated

✗ 2. right ventricle, oxygenated

✗ 3. left atrium, deoxygenated

✗ 4. left ventricle, oxygenated

Question Type : MCQ

Question ID : 37135112083

Option 1 ID : 37135148330

Option 2 ID : 37135148331

Option 3 ID : 37135148329

Option 4 ID : 37135148332

Status : Answered

Chosen Option : 1

Q.30 Struvite stones are derived from _____.

Ans

✓ 1. urea

✗ 2. creatinine

✗ 3. guanine

✗ 4. uric acid

Question Type : MCQ

Question ID : 37135112058

Option 1 ID : 37135148229

Option 2 ID : 37135148231

Option 3 ID : 37135148232

Option 4 ID : 37135148230

Status : Answered

Chosen Option : 3

Q.31 The monitoring stations, established by NEERI, have reported that Kolkata and New Delhi have highest _____ and _____ in air respectively.

Ans

✓ 1.

carbon monoxide , suspended particulate matter

✗ 2.

carbon monoxide , nitrogen dioxide

✗ 3.

sulphur dioxide, suspended particulate matter

✗ 4.

carbon monoxide , sulphur dioxide

Question Type : MCQ

Question ID : 37135112087

Option 1 ID : 37135148347

Option 2 ID : 37135148346

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

✗ 1.

A – oval window, B – pharynx

✓ 2.

A – round window , B – middle ear

✗ 3.

A – round window, B – external auditory meatus

✗ 4.

A – oval window , B – middle ear

Question Type : MCQ

Question ID : 37135112090

Option 1 ID : 37135148360

Option 2 ID : 37135148357

Option 3 ID : 37135148359

Option 4 ID : 37135148358

Status : Answered

Chosen Option : 4

Q.33 Holandric genes are present on _____.

Ans 1.

homologous part of X chromosome

2.

homologous part of Y chromosome

3.

non-homologous part of X chromosome

4.

non-homologous part of Y chromosome

Question Type : MCQ

Question ID : 37135112089

Option 1 ID : 37135148353

Option 2 ID : 37135148355

Option 3 ID : 37135148354

Option 4 ID : 37135148356

Status : Answered

Chosen Option : 4

Q.34 Which one of the following shows interspecific competition?

Ans

1. Between tree and orchid

2. Between two Peepal trees

3.

Between lions and leopards.

4. Between tiger and camel

Question Type : MCQ

Question ID : 37135112100

Option 1 ID : 37135148398

Option 2 ID : 37135148397

Option 3 ID : 37135148400

Option 4 ID : 37135148399

Status : Answered

Chosen Option : 3

Q.35 An adult man feels excessive thirst and excretes large volume of dilute urine. He may be suffering from _____.

Ans

- 1. myxoedema
- 2. diabetes insipidus
- 3. Addison's disease
- 4. acromegaly

Question Type : MCQ

Question ID : 37135112084

Option 1 ID : 37135148334

Option 2 ID : 37135148335

Option 3 ID : 37135148333

Option 4 ID : 37135148336

Status : Answered

Chosen Option : 2

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

- 1. 1200
- 2. 900
- 3. 300
- 4. 750

Question Type : MCQ

Question ID : 37135112026

Option 1 ID : 37135148104

Option 2 ID : 37135148103

Option 3 ID : 37135148101

Option 4 ID : 37135148102

Status : Answered

Chosen Option : 1

Q.37 Viviparous germination is seen in _____.

Ans

1. mesophytes

2. xerophytes

3. halophytes

4. hydrophytes

Question Type : MCQ

Question ID : 37135112047

Option 1 ID : 37135148186

Option 2 ID : 37135148185

Option 3 ID : 37135148187

Option 4 ID : 37135148188

Status : Answered

Chosen Option : 3

Q.38 Which one is used as biofertilizer in paddy fields?

Ans

1. *Nostoc*

2. *Chlorella*

3. *Azotobacter*

4. *Rhizobium*

Question Type : MCQ

Question ID : 37135112039

Option 1 ID : 37135148154

Option 2 ID : 37135148156

Option 3 ID : 37135148155

Option 4 ID : 37135148153

Status : Answered

Chosen Option : 3

Q.39 During Krebs cycle, the intermediate α - ketoglutarate is formed as a result of _____.

Ans 1.

hydration of oxalosuccinate

2. oxidation of succinyl co-A

3. oxidation of cis-aconitate

4.

decarboxylation of oxalosuccinate

Question Type : MCQ

Question ID : 37135112028

Option 1 ID : 37135148112

Option 2 ID : 37135148111

Option 3 ID : 37135148109

Option 4 ID : 37135148110

Status : Answered

Chosen Option : 4

Q.40 In inflammatory response, A and B are released by damaged mast cells and basophils.

Ans 1.

A – histamines, B – lymphokines

2.

A – perforins, B – interferons

3.

A – lymphokines, B – perforins

4.

A – histamines, B – prostaglandins

Question Type : MCQ

Question ID : 37135112086

Option 1 ID : 37135148342

Option 2 ID : 37135148344

Option 3 ID : 37135148341

Option 4 ID : 37135148343

Status : Answered

Chosen Option : 4

Q.41 Hugo de Vries proposed 'Mutation theory' by studying the plant _____.

Ans

1. *Mirabilis jalapa*

2. *Antirrhinum majus*

3. *Pisum sativum*

4. *Oenothera lamarckiana*

Question Type : MCQ

Question ID : 37135112071

Option 1 ID : 37135148282

Option 2 ID : 37135148284

Option 3 ID : 37135148281

Option 4 ID : 37135148283

Status : Answered

Chosen Option : 4

Q.42 The law of purity of gametes is universally applicable because the gametes _____

Ans

1.

always have a recessive allele.

2. are never identical.

3.

always have a dominant allele.

4.

receive only one of the allelic pairs.

Question Type : MCQ

Question ID : 37135112048

Option 1 ID : 37135148191

Option 2 ID : 37135148192

Option 3 ID : 37135148190

Option 4 ID : 37135148189

Status : Answered

Chosen Option : 4

Q.43 The new field of biology, explored by HGP was _____.

Ans

- 1. hydroponics
- 2. eugenics
- 3. genomics
- 4. proteonomics

Question Type : **MCQ**

Question ID : **37135112055**

Option 1 ID : **37135148218**

Option 2 ID : **37135148219**

Option 3 ID : **37135148217**

Option 4 ID : **37135148220**

Status : **Answered**

Chosen Option : **3**

Q.44 Which group of drugs is normally used as medicine?

Ans

- 1. Barbiturates, amphetamines, benzodiazepine
- 2. LSD, cocaine, heroin
- 3. Morphine, cocaine, hashish
- 4. Marijuana, charas, ganja

Question Type : **MCQ**

Question ID : **37135112064**

Option 1 ID : **37135148254**

Option 2 ID : **37135148256**

Option 3 ID : **37135148253**

Option 4 ID : **37135148255**

Status : **Answered**

Chosen Option : **1**

Q.45 The commercial hatcheries provide _____ day old chicks for poultry practices.

Ans

1. 3

2. 1

3. 2

4. 4

Question Type : **MCQ**

Question ID : **37135112082**

Option 1 ID : **37135148327**

Option 2 ID : **37135148325**

Option 3 ID : **37135148326**

Option 4 ID : **37135148328**

Status : **Answered**

Chosen Option : **3**

Q.46 A better conserver of water with respect to excretion of nitrogenous waste is _____.

Ans

1. toad

2. tadpole larva of frog

3. lizard

4. turtle

Question Type : **MCQ**

Question ID : **37135112096**

Option 1 ID : **37135148381**

Option 2 ID : **37135148382**

Option 3 ID : **37135148383**

Option 4 ID : **37135148384**

Status : **Answered**

Chosen Option : **3**

Q.47 Which one of the following is a carbohydrate but does NOT follow the general formula of carbohydrate?

Ans

- 1. Lactose
- 2. Fructose
- 3. Glucose
- 4. Rhamnose

Question Type : MCQ
Question ID : 37135112044
Option 1 ID : 37135148175
Option 2 ID : 37135148174
Option 3 ID : 37135148173
Option 4 ID : 37135148176
Status : Answered
Chosen Option : 4

Q.48 Reduced coenzyme FADH₂ is formed between which of the following intermediates in Krebs Cycle?

Ans

- 1. Isocitrate and oxalosuccinate
- 2. Succinate and fumarate
- 3. Malate and oxaloacetate
- 4. Fumarate and malate

Question Type : MCQ
Question ID : 37135112020
Option 1 ID : 37135148080
Option 2 ID : 37135148079
Option 3 ID : 37135148078
Option 4 ID : 37135148077
Status : Answered
Chosen Option : 2

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

Ans

1. DNA

2. t – RNA

3. m – RNA

4. r – RNA

Question Type : MCQ

Question ID : 37135112040

Option 1 ID : 37135148157

Option 2 ID : 37135148160

Option 3 ID : 37135148158

Option 4 ID : 37135148159

Status : Answered

Chosen Option : 2

Q.50 In sickle cell anaemia, the RBCs become half moon shaped due to _____ deficiency.

Ans

1. water

2. carbon dioxide

3. oxygen

4. haemoglobin

Question Type : MCQ

Question ID : 37135112022

Option 1 ID : 37135148088

Option 2 ID : 37135148086

Option 3 ID : 37135148085

Option 4 ID : 37135148087

Status : Answered

Chosen Option : 3

Q.51 During the development of embryo sac, a megaspore mother cell undergoes _____ meiosis and _____ mitosis respectively.

Ans

1. 1, 3

2. 3, 1

3. 1, 4

4. 4, 1

Question Type : MCQ

Question ID : 37135112023

Option 1 ID : 37135148091

Option 2 ID : 37135148092

Option 3 ID : 37135148089

Option 4 ID : 37135148090

Status : Answered

Chosen Option : 1

Q.52 The endodermal cells show Casparian strips made up of _____.

Ans

1. cellulose

2. cutin

3. suberin

4. pectin

Question Type : MCQ

Question ID : 37135112024

Option 1 ID : 37135148093

Option 2 ID : 37135148094

Option 3 ID : 37135148095

Option 4 ID : 37135148096

Status : Answered

Chosen Option : 4

Q.53 Select homologous organs from the following.

Ans 1.

Forelimbs of lizard and wings of birds

2. Wings of birds and insects

3.

Wings of pterodactyl and insect

4.

Vermiform appendix and sacrum in human

Question Type : **MCQ**

Question ID : **37135112078**

Option 1 ID : **37135148309**

Option 2 ID : **37135148310**

Option 3 ID : **37135148312**

Option 4 ID : **37135148311**

Status : **Answered**

Chosen Option : **1**

Q.54 Which one of the following is NOT purely a nitrogenous base?

Ans 1. Guanosine

2. Adenine

3. Cytosine

4. Thymine

Question Type : **MCQ**

Question ID : **37135112042**

Option 1 ID : **37135148168**

Option 2 ID : **37135148165**

Option 3 ID : **37135148167**

Option 4 ID : **37135148166**

Status : **Answered**

Chosen Option : **1**

Q.55 The fungi are separated from kingdom plantae on the basis of _____.

Ans

- 1. cell organization
- 2. ecological role
- 3. body organization
- 4. mode of nutrition

Question Type : MCQ

Question ID : 37135112046

Option 1 ID : 37135148181

Option 2 ID : 37135148184

Option 3 ID : 37135148182

Option 4 ID : 37135148183

Status : Answered

Chosen Option : 4

Q.56 Entry of a pollen tube in an ovule through its micropyle during fertilization is called _____.

Ans

- 1. chalazogamy
- 2. cleistogamy
- 3. porogamy
- 4. mesogamy

Question Type : MCQ

Question ID : 37135112014

Option 1 ID : 37135148055

Option 2 ID : 37135148056

Option 3 ID : 37135148053

Option 4 ID : 37135148054

Status : Answered

Chosen Option : 3

Q.57 Genome of a prokaryotic cell is _____.

- Ans
- 1. genes contained in diploid number of chromosomes
 - 2. total number of genes present in the chromosome
 - 3. total number of genes on sex chromosome
 - 4. genes contained in the plasmid

Question Type : **MCQ**
Question ID : **37135112079**
Option 1 ID : **37135148315**
Option 2 ID : **37135148313**
Option 3 ID : **37135148316**
Option 4 ID : **37135148314**
Status : **Answered**
Chosen Option : **4**

Q.58 Most important photosynthetic pigments in higher plants are _____.

- Ans
- 1. anthocyanin
 - 2. carotenoids
 - 3. phycobilins
 - 4. chlorophylls

Question Type : **MCQ**
Question ID : **37135112027**
Option 1 ID : **37135148108**
Option 2 ID : **37135148106**
Option 3 ID : **37135148107**
Option 4 ID : **37135148105**
Status : **Answered**
Chosen Option : **4**

Q.59 Simple tuberous roots help in vegetative propagation of _____.

Ans

✗ 1. *Murraya*

✗ 2. Sweet potato

✓ 3. *Asparagus*

✗ 4. *Dahlia*

Question Type : MCQ

Question ID : 37135112038

Option 1 ID : 37135148152

Option 2 ID : 37135148149

Option 3 ID : 37135148150

Option 4 ID : 37135148151

Status : Answered

Chosen Option : 2

Q.60 One of the factors which may help to differentiate chronic kidney disease from acute kidney injury is _____.

Ans

✗ 1. deranged acid levels

✗ 2. proteinuria

✗ 3. abnormal fluid levels

✓ 4. small kidney size

Question Type : MCQ

Question ID : 37135112069

Option 1 ID : 37135148274

Option 2 ID : 37135148275

Option 3 ID : 37135148276

Option 4 ID : 37135148273

Status : Answered

Chosen Option : 4

Q.61 Control and co-ordination of head movements in response to visual and auditory stimuli is carried out by _____.

Ans

- 1. corpora striata
- 2. corpora cavernosa
- 3. crura cerebrii
- 4. corpora quadrigemina

Question Type : MCQ

Question ID : 37135112060

Option 1 ID : 37135148237

Option 2 ID : 37135148239

Option 3 ID : 37135148240

Option 4 ID : 37135148238

Status : Answered

Chosen Option : 4

Q.62 A population is a group of all _____ in a given time.

Ans

- 1. individuals on this planet
- 2. individuals belonging to same species
- 3. plants only
- 4. animals only

Question Type : MCQ

Question ID : 37135112080

Option 1 ID : 37135148317

Option 2 ID : 37135148318

Option 3 ID : 37135148320

Option 4 ID : 37135148319

Status : Answered

Chosen Option : 2

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 _____.

Ans

- 1. prodigality
- 2. mutation
- 3. competition
- 4. mutualism

Question Type : MCQ

Question ID : 37135112062

Option 1 ID : 37135148246

Option 2 ID : 37135148248

Option 3 ID : 37135148245

Option 4 ID : 37135148247

Status : Answered

Chosen Option : 1

Q.64 Single turn of Krebs cycle yields _____.

Ans

- 1. 4NADH₂ , 2 FADH₂ and 2 GTP
- 2. 4NADH₂ , 1 FADH₂ and 2 GTP
- 3. 3NADH₂ , 1 FADH₂ and 2 GTP
- 4. 3NADH₂ , 1 FADH₂ and 1 GTP

Question Type : MCQ

Question ID : 37135112004

Option 1 ID : 37135148016

Option 2 ID : 37135148014

Option 3 ID : 37135148013

Option 4 ID : 37135148015

Status : Answered

Chosen Option : 4

Q.65 During phase of cell enlargement in plant growth, solute concentration favours _____.

Ans

- ✓ 1. endosmosis
- ✗ 2. plasmolysis
- ✗ 3. imbibition
- ✗ 4. exosmosis

Question Type : **MCQ**

Question ID : **37135112030**

Option 1 ID : **37135148117**

Option 2 ID : **37135148120**

Option 3 ID : **37135148119**

Option 4 ID : **37135148118**

Status : **Answered**

Chosen Option : **4**

Q.66 Right atrium: coronary sinus :: left atrium: _____.

Ans

- ✗ 1. coronary artery
- ✗ 2. inferior venacava
- ✗ 3. pulmonary artery
- ✓ 4. pulmonary vein

Question Type : **MCQ**

Question ID : **37135112065**

Option 1 ID : **37135148258**

Option 2 ID : **37135148260**

Option 3 ID : **37135148257**

Option 4 ID : **37135148259**

Status : **Answered**

Chosen Option : **4**

Q.67 Mucilagenous disc is useful for attachment with the substratum in the members of _____ lichen.

Ans

- ✓ 1. foliose
- ✗ 2. crustose
- ✗ 3. shrubby
- ✗ 4. fruticose

Question Type : MCQ
Question ID : 37135112041
Option 1 ID : 37135148162
Option 2 ID : 37135148161
Option 3 ID : 37135148164
Option 4 ID : 37135148163
Status : Answered
Chosen Option : 2

Q.68 After birth, infant receives antibodies IgA through colostrum from mother. This is an example of _____ immunity.

Ans

- ✗ 1. natural acquired active
- ✗ 2. innate (natural)
- ✗ 3. artificial acquired passive
- ✓ 4. natural acquired passive

Question Type : MCQ
Question ID : 37135112054
Option 1 ID : 37135148213
Option 2 ID : 37135148216
Option 3 ID : 37135148215
Option 4 ID : 37135148214
Status : Answered
Chosen Option : 4

Q.69 The $p\text{CO}_2$ of inspired air is _____ mm Hg during external respiration.

Ans

1. 30

2. 100

3. 40

4. 80

Question Type : MCQ

Question ID : 37135112092

Option 1 ID : 37135148365

Option 2 ID : 37135148368

Option 3 ID : 37135148366

Option 4 ID : 37135148367

Status : Answered

Chosen Option : 3

Q.70 Identify the WRONG match of the crop variety and its resistance to pest or disease.

Ans

1.

Pusa Shubhra ---- curl blight and black rot.

2.

Pusa Sawni and Pusa A4 ---- Shoot and fruit borer

3.

Pusa sadabahar ---- stem borer and aphids

4. Pusa Gaurav ---- aphids

Question Type : MCQ

Question ID : 37135112036

Option 1 ID : 37135148141

Option 2 ID : 37135148143

Option 3 ID : 37135148144

Option 4 ID : 37135148142

Status : Answered

Chosen Option : 3



Q.71 Gross primary productivity of an ecosystem is estimated in terms of _____.

Ans

- 1. C g/m²/day
- 2. C g dry wt./unit area
- 3. Chl /g dry wt./m²/day
- 4. Chl/g dry wt./unit area

Question Type : **MCQ**

Question ID : **37135112032**

Option 1 ID : **37135148126**

Option 2 ID : **37135148128**

Option 3 ID : **37135148127**

Option 4 ID : **37135148125**

Status : **Answered**

Chosen Option : **3**

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

Ans

- 1. totipotency
- 2. polymorphism
- 3. autophagy
- 4. heterophagy

Question Type : **MCQ**

Question ID : **37135112073**

Option 1 ID : **37135148291**

Option 2 ID : **37135148292**

Option 3 ID : **37135148289**

Option 4 ID : **37135148290**

Status : **Answered**

Chosen Option : **1**

Q.73 The first germinal layer formed in human embryo is _____.

Ans

- 1. mesoderm
- 2. trophoectoderm
- 3. ectoderm
- 4. endoderm

Question Type : MCQ

Question ID : 37135112053

Option 1 ID : 37135148212

Option 2 ID : 37135148210

Option 3 ID : 37135148209

Option 4 ID : 37135148211

Status : Answered

Chosen Option : 4

Q.74 Silage supplemented with oil cakes, vitamins etc makes up good feed for rearing breeds of _____.

Ans

- 1. buffalo
- 2. fowl
- 3. carp
- 4. silkworm

Question Type : MCQ

Question ID : 37135112095

Option 1 ID : 37135148377

Option 2 ID : 37135148379

Option 3 ID : 37135148378

Option 4 ID : 37135148380

Status : Answered

Chosen Option : 1

Q.75 The anticoagulant 'heparin' is secreted by _____.

Ans

- ✓ 1. mast cells
- ✗ 2. adipocytes
- ✗ 3. macrophages
- ✗ 4. fibroblasts

Question Type : MCQ
Question ID : 37135112067
Option 1 ID : 37135148265
Option 2 ID : 37135148267
Option 3 ID : 37135148268
Option 4 ID : 37135148266
Status : Answered
Chosen Option : 1

Q.76 Epihydrophyly is observed in which of the following plants?

Ans

- ✓ 1. *Vallisneria*
- ✗ 2. *Lotus*
- ✗ 3. *Ceratophyllum*
- ✗ 4. *Zostera*

Question Type : MCQ
Question ID : 37135112016
Option 1 ID : 37135148062
Option 2 ID : 37135148064
Option 3 ID : 37135148063
Option 4 ID : 37135148061
Status : Answered
Chosen Option : 1

Q.77 Neuroglia cells show following characters EXCEPT

Ans

- 1. Nourishment
- 2. Regeneration
- 3. Excitability
- 4. Phagocytosis

Question Type : MCQ

Question ID : 37135112094

Option 1 ID : 37135148375

Option 2 ID : 37135148373

Option 3 ID : 37135148374

Option 4 ID : 37135148376

Status : Answered

Chosen Option : 4

Q.78 The sound producing organ in human respiratory system is _____.

Ans

- 1. pharynx
- 2. larynx
- 3. trachea
- 4. tongue

Question Type : MCQ

Question ID : 37135112056

Option 1 ID : 37135148223

Option 2 ID : 37135148222

Option 3 ID : 37135148221

Option 4 ID : 37135148224

Status : Answered

Chosen Option : 2

Q.79 Cotton is protected from boll worm by using bacterium _____.

Ans

✗ 1. *Escherichia coli*

✗ 2. *Bacillus thuringiensis*

✓ 3. *Rhizobium leguminosarum*

✗ 4. *Salmonella typhimurium*

Question Type : MCQ

Question ID : 37135112010

Option 1 ID : 37135148038

Option 2 ID : 37135148039

Option 3 ID : 37135148037

Option 4 ID : 37135148040

Status : Answered

Chosen Option : 2

Q.80 One of the following is NOT a thyroid hormone. It is _____.

Ans

✗ 1. thyrocalcitonin

✓ 2. tyrosine

✗ 3. triiodothyronine

✗ 4. tetraiodothyronine

Question Type : MCQ

Question ID : 37135112068

Option 1 ID : 37135148271

Option 2 ID : 37135148272

Option 3 ID : 37135148270

Option 4 ID : 37135148269

Status : Answered

Chosen Option : 2



Q.81 Which one of the following elements is an important binding agent in ribosomes during protein synthesis?

Ans

1. Magnesium

2. Sulphur

3. Phosphorus

4. Manganese

Question Type : MCQ

Question ID : 37135112006

Option 1 ID : 37135148024

Option 2 ID : 37135148023

Option 3 ID : 37135148022

Option 4 ID : 37135148021

Status : Answered

Chosen Option : 4

Q.82 Normally a somatic cell in human beings contains _____ number of chromosomes.

Ans

1. 16

2. 8

3. 32

4. 46

Question Type : MCQ

Question ID : 37135112074

Option 1 ID : 37135148294

Option 2 ID : 37135148293

Option 3 ID : 37135148295

Option 4 ID : 37135148296

Status : Answered

Chosen Option : 4

Q.83 Select the mis-match pair

Ans 1.

Ephydatia – Gemmule formation

2.

Ascidians – Gemmule formation

3. *Hydra* - Budding

4. Planarians – Regeneration

Question Type : MCQ

Question ID : 37135112066

Option 1 ID : 37135148262

Option 2 ID : 37135148264

Option 3 ID : 37135148261

Option 4 ID : 37135148263

Status : Answered

Chosen Option : 2

Q.84 The molecular weight of haemoglobin is _____ daltons.

Ans

1. 68000

2. 38000

3. 28000

4. 48000

Question Type : MCQ

Question ID : 37135112012

Option 1 ID : 37135148048

Option 2 ID : 37135148046

Option 3 ID : 37135148045

Option 4 ID : 37135148047

Status : Answered

Chosen Option : 1

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 _____.

Ans 1.

he was the first to conduct experiments in plant hybridization.

2.

he was the first to suggest the concept

3.

he gave the concept before the discovery of mitosis, meiosis and chromosomes.

4.

he was the first to use a microscope.

Question Type : MCQ

Question ID : 37135112001

Option 1 ID : 37135148004

Option 2 ID : 37135148001

Option 3 ID : 37135148002

Option 4 ID : 37135148003

Status : Answered

Chosen Option : 3

Q.86 In the following reaction 'X' stands for _____.



Ans

1. O_2

2. H_2O

3. CO_2

4. ATP

Question Type : MCQ

Question ID : 37135112025

Option 1 ID : 37135148100

Option 2 ID : 37135148098

Option 3 ID : 37135148097

Option 4 ID : 37135148099

Status : Answered

Chosen Option : 2

Q.87 The ventricular diastole has a duration of _____ seconds.

Ans

✓ 1. 0.5

✗ 2. 0.8

✗ 3. 0.1

✗ 4. 0.3

Question Type : MCQ

Question ID : 37135112077

Option 1 ID : 37135148306

Option 2 ID : 37135148305

Option 3 ID : 37135148308

Option 4 ID : 37135148307

Status : Answered

Chosen Option : 4

Q.88 Which pair of blood corpuscles is non-phagocytic?

Ans

✓ 1. Eosinophil and Basophil

✗ 2. Monocyte and Lymphocyte

✗ 3.

Neutrophil and Lymphocyte

✗ 4. Monocyte and Eosinophil

Question Type : MCQ

Question ID : 37135112061

Option 1 ID : 37135148243

Option 2 ID : 37135148242

Option 3 ID : 37135148241

Option 4 ID : 37135148244

Status : Answered

Chosen Option : 1

Q.89 During aerobic respiration, the total number of ATP formed through oxidative phosphorylation / ETS from one glucose molecule is _____.

Ans

- 1. thirty
- 2. thirty eight
- 3. eight
- 4. thirty four

Question Type : **MCQ**

Question ID : **37135112037**

Option 1 ID : **37135148146**

Option 2 ID : **37135148148**

Option 3 ID : **37135148145**

Option 4 ID : **37135148147**

Status : **Answered**

Chosen Option : **4**

Q.90 CO₂ concentrating mechanism is NOT seen in _____.

Ans

- 1. Amaranthus
- 2. Jowar
- 3. Gram
- 4. Maize

Question Type : **MCQ**

Question ID : **37135112008**

Option 1 ID : **37135148031**

Option 2 ID : **37135148030**

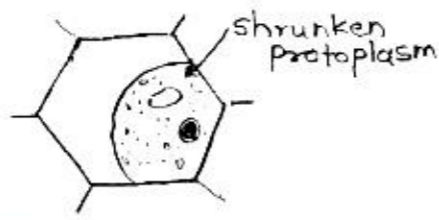
Option 3 ID : **37135148032**

Option 4 ID : **37135148029**

Status : **Answered**

Chosen Option : **3**

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

2.

The cell was placed in hypotonic solution

3. The cell is plasmolyzed

4.

The cell was placed in hypertonic solution.

Question Type : MCQ

Question ID : 37135112050

Option 1 ID : 37135148200

Option 2 ID : 37135148199

Option 3 ID : 37135148197

Option 4 ID : 37135148198

Status : Answered

Chosen Option : 4

Q.92 Mark the CORRECT sequence of structures in the breast from inner to outer side.

Ans 1.

Lactiferous ducts → Lactiferous Sinuses → Lactiferous glands

2.

Lactiferous Sinuses → Lactiferous ducts → Lactiferous glands

3.

Lactiferous glands → Lactiferous Sinuses → Lactiferous ducts

4.

Lactiferous glands → Lactiferous ducts → Lactiferous Sinuses

Question Type : MCQ

Question ID : 37135112091

Option 1 ID : 37135148363

Option 2 ID : 37135148362

Option 3 ID : 37135148364

Option 4 ID : 37135148361

Status : Answered

Chosen Option : 1

Q.93 During Calvin cycle, phosphoglyceraldehyde is formed from 1,3di.PGA by _____.

Ans

✗ 1. phosphorylation

✓ 2. oxidation

✗ 3. reduction

✗ 4. oxidative decarboxylation

Question Type : MCQ

Question ID : 37135112017

Option 1 ID : 37135148067

Option 2 ID : 37135148065

Option 3 ID : 37135148066

Option 4 ID : 37135148068

Status : Answered

Chosen Option : 3

Q.94 Match the following therapeutic products formed by r DNA technology

A

a - Blood proteins

b - Human hormones

c - Immuno modulators

d - Vaccine

B

i Hepatitis B

ii Lysozyme

iii Insulin

iv Urokinase

Ans

✗ 1.

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

✗ 2.

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

✓ 3.

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

✗ 4.

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

Question Type : MCQ

Question ID : 37135112043

Option 1 ID : 37135148172

Option 2 ID : 37135148170

Option 3 ID : 37135148171

Option 4 ID : 37135148169

Status : Answered

Chosen Option : 4

Q.95 Dark yellow urine, whitish stools, itching of skin, pale face etc. are main symptoms of _____.

Ans

- ✓ 1. jaundice
- ✗ 2. constipation
- ✗ 3. Kwashiorkor
- ✗ 4. diarrhoea

Question Type : **MCQ**
Question ID : **37135112097**
Option 1 ID : **37135148387**
Option 2 ID : **37135148388**
Option 3 ID : **37135148385**
Option 4 ID : **37135148386**
Status : **Answered**
Chosen Option : **1**

Q.96 In human beings, usually the gestation period lasts for about _____ days, from beginning of the last menstrual cycle.

Ans

- ✓ 1. 280
- ✗ 2. 266
- ✗ 3. 256
- ✗ 4. 243

Question Type : **MCQ**
Question ID : **37135112070**
Option 1 ID : **37135148280**
Option 2 ID : **37135148279**
Option 3 ID : **37135148278**
Option 4 ID : **37135148277**
Status : **Answered**
Chosen Option : **4**

Q.97 Sewall Wright effect is _____.

Ans

1.

transfer of genes between populations

2.

exchange of genetic material between communities

3.

any alteration in allele frequency of a natural population by pure chance

4.

changes in chemical make up of a gene

Question Type : **MCQ**

Question ID : **37135112098**

Option 1 ID : **37135148389**

Option 2 ID : **37135148392**

Option 3 ID : **37135148391**

Option 4 ID : **37135148390**

Status : **Answered**

Chosen Option : **3**

Q.98 The deposition of pesticides in fatty tissue of the organisms is called _____.

Ans

1. biomagnification

2. bioaccumulation

3. bioconcentration

4. biodegradation

Question Type : **MCQ**

Question ID : **37135112005**

Option 1 ID : **37135148017**

Option 2 ID : **37135148019**

Option 3 ID : **37135148018**

Option 4 ID : **37135148020**

Status : **Answered**

Chosen Option : **2**

Q.99 In incomplete dominance each of the parental traits reappears in the F₂ generation by _____%

Ans

✓ 1. 75

✗ 2. 100

✗ 3. 25

✗ 4. 50

Question Type : MCQ

Question ID : 37135112035

Option 1 ID : 37135148139

Option 2 ID : 37135148140

Option 3 ID : 37135148137

Option 4 ID : 37135148138

Status : Answered

Chosen Option : 3

Q.100 Identify the correct sequence of seral stages in the Xerarch Succession.

Ans

✓ 1.

lichens → mosses → herbs → shrubs → trees

✗ 2.

mosses → lichens → herbs → shrubs → trees

✗ 3.

herbs → shrubs → mosses → lichens → trees

✗ 4.

lichens → herbs → mosses → shrubs → trees

Question Type : MCQ

Question ID : 37135112018

Option 1 ID : 37135148070

Option 2 ID : 37135148069

Option 3 ID : 37135148072

Option 4 ID : 37135148071

Status : Answered

Chosen Option : 2