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Q.1

Which one of the following is a pair of isotones?

Ans

1. $^{40}_{18}K$ and $^{40}_{19}Ar$

2. $^{13}_{7}N$ and $^{14}_{7}N$

3. $^{37}_{17}C\ell$ and $^{40}_{18}K$

4. $^{198}_{80}Hg$ and $^{197}_{79}Au$

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**

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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, $\frac{d^2x}{dt^2} + \omega^2 x = 0$, 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**

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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**

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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**

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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. $\frac{Vr^2}{nR^2}$

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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**

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Q.9 What is the energy stored per unit volume in vacuum, where the intensity of electric field is $10^3 \frac{V}{m}$?

[$\epsilon_0 = 8{\cdot}85 \times 10^{-12} \frac{C^2}{Nm^2}$]

Ans

✗ 1. $8{\cdot}8 \times 10^{-5} \frac{J}{m^3}$

✗ 2. $4{\cdot}425 \times 10^{-8} \frac{J}{m^3}$

✗ 3. $8{\cdot}85 \times 10^{-6} \frac{J}{m^3}$

✓ 4. $4{\cdot}425 \times 10^{-6} \frac{J}{m^3}$

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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**

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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. 20 Ω in parallel.

✗ 2. 1240 Ω in series.

✗ 3. 2480 Ω in parallel.

✔ 4. 2480 Ω 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**

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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**

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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**

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

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

✓ 3. $0{\cdot}12 \times 10^{-6}\ \frac{\text{Wb}}{\text{m}^2}$

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

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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**

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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**

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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. $\frac{6\pi}{7}$

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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**

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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

✗ 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**

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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. ω_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**
Chosen Option : **1**

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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**

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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**

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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**

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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**

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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 '<u>ONE</u>' 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**

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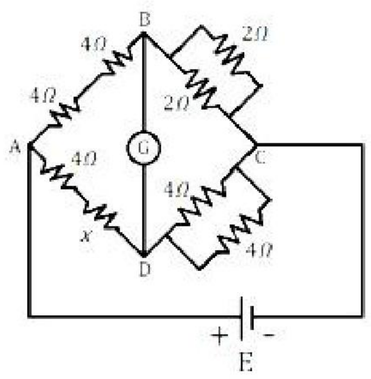
Q.29

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



Ans

✔ 1. 12 Ω

✗ 2. 6 Ω

✗ 3. 24 Ω

✗ 4. 4 Ω

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**

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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**

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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 990 Ω 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**

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

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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**

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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**

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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. $L = 1m, D = 1mm$

✓ 2. $L = 0{\cdot}5m, D = 0{\cdot}5\ mm$

✗ 3. $L = 1{\cdot}5m, D = 1{\cdot}5\ mm$

✗ 4. $L = 2m, D = 2mm$

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**

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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**

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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, $\sin 30° = \cos 60° = \frac{1}{2}$, $\sin 60° = \cos 30° = \frac{\sqrt{3}}{2}$)

Ans

✗ 1. $\frac{g}{18}$

✓ 2. $\frac{g}{3}$

✗ 3. $\frac{g}{6}$

✗ 4. $\frac{g}{9}$

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Question Type : **MCQ**
Question ID : **37135111928**
Option 1 ID : **37135147712**
Option 2 ID : **37135147709**
Option 3 ID : **37135147710**
Option 4 ID : **37135147711**
Status : **Answered**
Chosen Option : **2**

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

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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**

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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**

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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 5890Å is 4 volt. If the yellow light is replaced by blue light of wavelength 4000Å, 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**

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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 '$\omega$' is the angular velocity and 'v' is the linear velocity.

The dimensions of 'k' are

Ans

✔ 1. $[L^0M^0T^1]$

✗ 2. $[L^1M^0T^1]$

✗ 3. $[L^0M^0T^{-1}]$

✗ 4. $[L^0M^0T^2]$

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**

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

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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**

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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. $\frac{C_1C_2C_3}{V}$

✗ 2. $\frac{C_2C_3+C_1C_3+C_1C_2}{C_2C_3V}$

✗ 3. $\frac{V}{C_1+C_2+C_3}$

✓ 4. $\frac{C_2C_3V}{C_2C_3+C_1C_3+C_1C_2}$

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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**

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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 $\frac{\ell_1}{\ell_2}$ 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**

Section : 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**

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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**

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Q.4 How many atoms of argon are present in 3·99 g of it ? (atomic mass = 39·9)

Ans

✔ 1. $6{\cdot}022 \times 10^{22}$

✗ 2. $3{\cdot}011 \times 10^{22}$

✗ 3. $3{\cdot}011 \times 10^{21}$

✗ 4. $6{\cdot}022 \times 10^{21}$

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

✗ 1. O_2

✔ 2. He_2

✗ 3. N_2

✗ 4. H_2

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**

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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**

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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

✗ 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**

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

Ans

✔ 1. Li_2CO_3

✗ 2. Cs_2CO_3

✗ 3. K_2CO_3

✗ 4. Na_2CO_3

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 −R present in amino acid lysine.

Ans

✗ 1. C_6H_5-

✔ 2. $-(CH_2)_4-NH_2$

✗ 3. $-CH_2OH$

✗ 4. $-CH(CH_3)_2$

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**

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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

$$2N_2O_5 \rightarrow 4NO_2 + O_2,$$

Calculate rate constant of reaction if concentration of N_2O_5 is 0·05 M and rate of reaction is $1{\cdot}5 \times 10^{-6}$ mol $L^{-1}s^{-1}$?

Ans
✓ 1. $3{\cdot}0 \times 10^{-5}\ s^{-1}$

✗ 2. $2{\cdot}0 \times 10^{-5}\ s^{-1}$

✗ 3. $2{\cdot}5 \times 10^{-5}\ s^{-1}$

✗ 4. $1{\cdot}5 \times 10^{-5}\ s^{-1}$

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**

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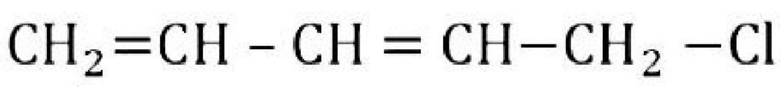
Q.14 Identify IUPAC name of following compound?



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**

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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 dm^3 of air at 1 bar to 200 dm^3 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**

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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 hydrids 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**

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

Ans

✗ 1. $R_3 - \dot{C}$

✗ 2. $R - \dot{C}H_2$

✗ 3. $R_2 - \dot{C}H$

✓ 4. $\dot{C}H_3$

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**

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

Ans

✗ 1. $sp^3 - 3p_z$

✓ 2. $sp^2 - 4p_z$

✗ 3. $sp^3 - 4p_z$

✗ 4. $sp^2 - 3p_z$

Question Type : **MCQ**
Question ID : **37135111984**
Option 1 ID : **37135147933**
Option 2 ID : **37135147935**
Option 3 ID : **37135147934**
Option 4 ID : **37135147936**
Status : **Answered**
Chosen Option : **2**

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

$$\text{Propene} \xrightarrow{HCl} A \xrightarrow[\text{Aq.KOH}]{\Delta} B$$

Ans

✗ 1. 2 − Chloropropane

✓ 2. Propan−2−ol

✗ 3. 1 − Chloropropane

✗ 4. Propan−1−ol

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**

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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**

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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**

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Q.28 Which of the following statements is correct according to Werner's theory, when excess $AgNO_3$ is treated with $CoCl_3.6NH_3$ 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

$$\text{Phenol} \xrightarrow{NaOH} A \xrightarrow{CH_3I} B$$

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**

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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**

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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**

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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 $(1/10)^{th}$ of it's initial value. What is the new volume of solution?

Ans

✗ 1. $30\ m^3$

✗ 2. $110\ m^3$

✗ 3. $11{\cdot}0\ m^3$

✓ 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**

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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**

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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**

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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**

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Q.42 Mass of unit cell of an element is 415×10^{-24} g, if edge length of unit cell is $3{\cdot}50 \times 10^{-8}$ cm.

What is the density of element?

Ans

✗ 1. $4{\cdot}67\ g/cm^3$

✗ 2. $1{\cdot}18\ g/cm^3$

✗ 3. $7{\cdot}32\ g/cm^3$

✓ 4. $9{\cdot}67\ g/cm^3$

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**

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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**

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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 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**

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Q.48 Emf of cell having following cell reaction at 298 K is 0·059 V.

$Zn_{(s)} + 2H^{+}_{(aq)} \longrightarrow Zn^{++} + H_{2\,(g)}$. What is the value of ΔG?

Ans

✗ 1. $-5{\cdot}7$ kJ

✓ 2. $-11{\cdot}4$ kJ

✗ 3. $-8{\cdot}3$ kJ

✗ 4. $-14{\cdot}1$ 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. $145{\cdot}8^{\circ}$

✓ 2. $111{\cdot}5^{\circ}$

✗ 3. $90{\cdot}2^{\circ}$

✗ 4. $147{\cdot}5^{\circ}$

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**

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Q.50 For combustion of 1 mole of liquid benzene at 298 K, the heat of reaction at constant volume is $-3264{\cdot}2$ kJ. What is the heat of combustion at constant pressure? ($R = 8{\cdot}314\ J\ K^{-1}\ mol^{-1}$)

Ans

✗ 1. $-2439{\cdot}2\ kJ\ mol^{-1}$

✗ 2. $-816{\cdot}9\ kJ\ mol^{-1}$

✓ 3. $-3267{\cdot}9\ kJ\ mol^{-1}$

✗ 4. $-1633{\cdot}9\ kJ\ mol^{-1}$

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**

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**

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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**

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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**

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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**

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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**

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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**

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

Ans

✗ 1. *Paramoecium*

✗ 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 F_2 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**

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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**

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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**

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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**

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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**

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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**

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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**

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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**

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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**

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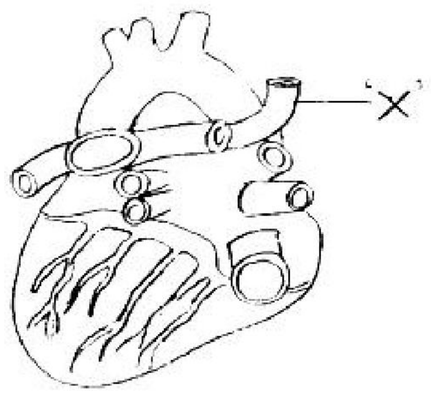
Q.29



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**

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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**

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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**

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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**

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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**

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Q.39 During Krebs cycle, the intermediate ∝ - 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**

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

Ans

✗ 1. *Mirabilis jalapa*

✗ 2. *Antirrhinum majus*

✗ 3. *Pisum sativum*

✓ 4. *Oenothera lamarkiana*

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**

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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**

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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**

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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 $FADH_2$ 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**

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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**

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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**

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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**

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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**

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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**

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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**

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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**

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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. $4NADH_2$, 2 $FADH_2$ and 2 GTP

✓ 2. $4NADH_2$, 1 $FADH_2$ and 2 GTP

✗ 3. $3NADH_2$, 1 $FADH_2$ and 2 GTP

✗ 4. $3NADH_2$, 1 $FADH_2$ 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**

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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**

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

Ans

✔ 1. foliose

✗ 2. crustose

✗ 3. shruby

✗ 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**

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Q.69 The pCO_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**

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

Ans

✗ 1. C g/m^2/day

✗ 2. C g dry wt./unit area

✓ 3. Chl /g dry wt./m^2/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**

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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**

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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 Epihydrophily 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**

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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**

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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**

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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**

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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**

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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 _____.

$CO_2 + 2NADPH_2 + 2ATP \longrightarrow (CH_2O) + 'X' + 2NADP + 2ADP + 2ip$

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**

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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**

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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 CO_2 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**

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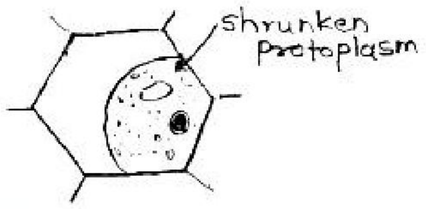
Q.91 The cell given in the diagram below is showing shrunken protoplasm, which one of the following is an INCORRECT statement regarding this cell?



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**

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

Ans

✗ 1. phosporylation

✓ 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	B
a – Blood proteins	i Hepatitis B
b – Human hormones	ii Lysozyme
c – Immuno modulators	iii Insulin
d – Vaccine	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**

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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**

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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**

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Q.99 In incomplete dominance each of the parental traits reappears in the F_2 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**

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