Order is 3 and degree is 3

2. ✖

Order is 3 and degree is 2

3. ✖

Order is 2 and degree is not defined

4. ✔

Question Number : 80 Question Id : 105615240 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

The general solution of the differential equation $\dfrac{dy}{dx} = \dfrac{xy + x - 2y - 2}{xy - 2x + y - 2}$ is

Options :

$$x + y + 3\log\left|\dfrac{x+1}{y+1}\right| = c$$

1. ✖

$$x + y + 3\log\left|\dfrac{y+1}{x+1}\right| = c$$

2. ✖

$$x - y + 3\log\left|\dfrac{x+1}{y+1}\right| = c$$

3. ✖

$$x - y + 3\log\left|\dfrac{y+1}{x+1}\right| = c$$

4. ✔

Physics

Question Number : 81 Question Id : 105615241 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following interaction is responsible for beta decay?

Options :

1. ✖ Gravitational

2. ✔ Weak

3. ✖ Electromagnetic

4. ✖ Strong

Question Number : 82 Question Id : 105615242 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In a RC circuit, where R is resistance and C is capacitance which of the following has the dimension of time.

Options :

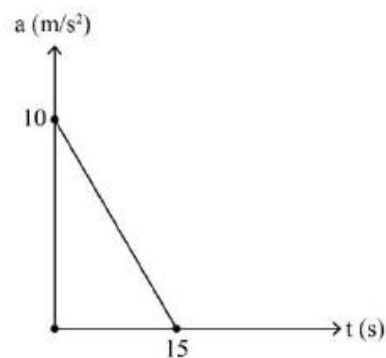1. ✖ R/C

C/R
2. ✖

$\sqrt{RC}$
3. ✖

RC
4. ✔

Question Number : 83 Question Id : 105615243 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A particle starts from rest. Its acceleration (a) versus time (t) is as shown in the figure. The maximum speed of the particle will be

Options :

150 m/s
1. ✖

75 m/s
2. ✔

37.5 m/s
3. ✖

45 m/s
4. ✖

Assertion(A): The zero velocity of a particle at any instant always implies zero acceleration at that instant

Reason(R) : A body is momentarily at rest when reverses its direction of motion.

The correct option among the following is

Options :

1. ✖ (A) is true, (R) is true and (R) is the correct explanation for (A)

2. ✖ (A) is true, (R) is true but (R) is not the correct explanation for (A)

3. ✖ (A) is true but (R) is false

4. ✔ (A) is false but (R) is true

A river has a steady speed of 'v'. A man swims upstream at a distance of 'd' and swims back to the starting point in total time 't'. The man can swim at a speed of '2v' in still water. If the time taken by the man in still water is 't₀' to complete the same length of swim, then $\dfrac{t}{t_0}$ is

Options :

1. ✖ $\dfrac{1}{2}$

2. ✖ $\dfrac{3}{2}$

$$\frac{3}{4}$$

3. ✖

$$\frac{4}{3}$$

4. ✔

Question Number : 86 Question Id : 105615246 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

A projectile is given an initial velocity of $(3i + 4j)\, m/s$ where, $\hat{i}$ is along the ground and $\hat{j}$ is along the vertical. Assuming g = 10 m/s ^{2}, if the equation of its trajectory can be written as $\frac{1}{9}\left[\beta x + \gamma x^2\right]$, then the value of γ is

Options :

$$-8$$

1. ✖

$$-5$$

2. ✔

$$-6$$

3. ✖

$$-12$$

4. ✖

Question Number : 87 Question Id : 105615247 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

A block is placed on a parabolic shape ramp given by equation $y = \dfrac{x^2}{20}$. If the coefficient of static friction (μ_s) is 0.5, then what is the maximum height above the ground at which the block can be placed without slipping?

Options :

2.5 m

1. ✖

1.25 m

2. ✔

0.5 m

3. ✖

0.25 m

4. ✖

Question Number : 88 Question Id : 105615248 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
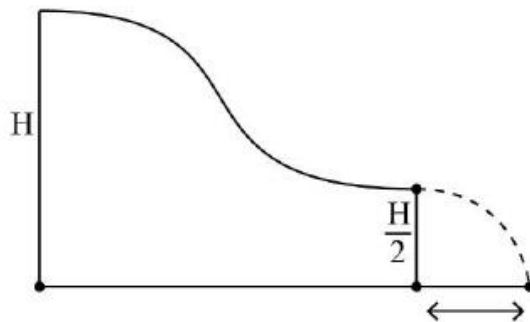Correct Marks : 1 Wrong Marks : 0

A small object slides down with initial velocity equal to zero from the top of a smooth hill of height H. The other end of the hill is horizontal and is at height $\dfrac{H}{2}$ as shown in the figure. The horizontal distance covered by the object from the end of the hill to the ground is

Options :

1. ✖   2H

2. ✔   H

3. ✖ $\dfrac{H}{2}$

4. ✖ $\dfrac{3H}{2}$

Question Number : 89 Question Id : 105615249 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A moving particle collides with a stationary particle of mass $\dfrac{1}{n}$ times the mass of moving particle, the fraction of its kinetic energy transferred to the stationary particle is

Options :

1. ✖ $\dfrac{4n^2}{(1+n)^2}$

2. ✔ $\dfrac{4n}{(1+n)^2}$

3. ✖ $\dfrac{4n}{1+n^2}$

4. ✖ $4n^2$

Question Number : 90 Question Id : 105615250 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

A solid cylinder of mass m and radius R rolls down an inclined plane of height 30 m without slipping. The speed of its centre of mass when the cylinder reaches the bottom is

[use g = 10 m/s²]

Options :

1. ✖   10 m/s

2. ✔   20 m/s

3. ✖   30 m/s

4. ✖   40 m/s

Question Number : 91 Question Id : 105615251 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

A simple pendulum consists of a small sphere of mass 'm' suspended by a thread of length '*l*'. The sphere carries a positive charge q. The pendulum is allowed to do small oscillations in a uniform electric field E with direction vertically upwards. The time period of oscillation is

Options :

1. ✖ $2\pi\sqrt{\dfrac{l}{g}}$

2. ✖ $2\pi\sqrt{\dfrac{ml}{qE}}$

3. ✔
$$2\pi \sqrt{\dfrac{l}{g - \dfrac{q}{m}E}}$$

4. ✖
$$2\pi \sqrt{\dfrac{l}{g + \dfrac{q}{m}E}}$$

Question Number : 92 Question Id : 105615252 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A rocket fired vertically with a speed of 4 km/s from the earth's surface. How far from the earth does the rocket go before returning to the earth?
(Take radius of earth $= 6.4 \times 10^6$ m and g $= 10$ m/s^2)

Options :

1. ✖
500.24 km

2. ✔
914.28 km

3. ✖
1230.24 km

4. ✖
1750.28 km

Question Number : 93 Question Id : 105615253 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A swimming pool has a depth of 22 m and area 700 m^2. Calculate fractional change $\dfrac{\Delta v}{v}$ of water at the bottom of the swimming pool. Given that the bulk modulus of water is 2.2×10^9 Nm^{-2}, g $= 10$ m/s^2, and density of water 1000 kg/m^3.

Options :

1. ✖ 2.2×10^{-4}

2. ✖ 0.7×10^{-4}

3. ✖ 0.31×10^{-4}

4. ✔ 10^{-4}

Question Number : 94 Question Id : 105615254 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A hollow spherical body of outer and inner radii of 4 cm and 2 cm respectively floats half submerged in a liquid of density 2.0 g/cm^3. The density of the material of the sphere is

Options :

1. ✖ 1.02 g/cm^3

2. ✔ 1.14 g/cm^3

3. ✖ 1.18 g/cm^3

4. ✖ 1.24 g/cm^3

Question Number : 95 Question Id : 105615255 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

What is the terminal velocity of a rain drop of radius 0.02 mm ?
[Note that the coefficient of viscosity of air is 1.8×10^{-5} N/m^2, density of water is 1000 Kg/m^3. Use g = 10m/s^2 and density of air can be neglected in comparison with density of water]

Options :

1. ✔   4.9 cm/s

2. ✖   9.8 cm/s

3. ✖   0.49 cm/s

4. ✖   49 cm/s

Question Number : 96 Question Id : 105615256 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A hole of diameter 5 cm is drilled in a metal sheet at $30\,^{\circ}$C. The linear expansion of metal is 2×10^{-5} K^{-1}. The diameter of the hole when the temperature is raised to $230\,^{\circ}$C, is equal to

Options :

1. ✖   5.01 cm

2. ✔   5.02 cm

3. ✖   5.03 cm

4. ✖   5.04 cm

Question Number : 97 Question Id : 105615257 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A metal cube absorbs 2100.0 J of heat when its temperature is raised by 2 °C. If the specific heat of the metal is 900 J kg^{-1} K^{-1}, then the mass of the cube is

Options :

1. ✔   1.116 kg

2. ✘   2.33 kg

3. ✘   1.66 kg

4. ✘   1.33 kg

Question Number : 98 Question Id : 105615258 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0
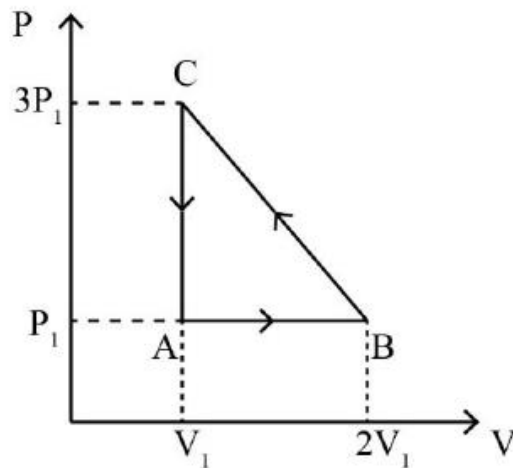
The net work done by an ideal gas going through the cycle as shown in the P – V diagram below is

Options :

1. ✘   0

$P_1 V_1$

2. ✔

$$\frac{3}{2} P_1 V_1$$

3. ✘

$$\frac{1}{2} P_1 V_1$$

4. ✘

Question Number : 99 Question Id : 105615259 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A diatomic gas $\left(C_P = \frac{7}{2} R\right)$ does 200 J of work when it is expanded isobarically. The heat given to the gas in the process is

Options :

600 J

1. ✘

800 J

2. ✘

900 J

3. ✘

700 J

4. ✔

Question Number : 100 Question Id : 105615260 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

Statement (I) : Gas thermometers are less sensitive than liquid thermometers.

Statement (II) : The ratio of universal gas constant and avagadro's number is called Boltzman's constant.

Statement (III) : The density of a given mass of a gas at constant pressure is inversely proportional to its absolute temperature.

The correct option among the following is

Options :

1. ✖ Statements I, II, III are true.

2. ✖ Statements I, II are true, but statement III is false.

3. ✔ Statements II, III are true, but statement I is false.

4. ✖ Statements I, II, III are false.

Question Number : 101 Question Id : 105615261 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

The distance between two successive minima of a transverse wave is 2.7 m. Five crests of the wave pass a given point along the direction of travel every 15.0 s. The speed of the wave is

Options :

1. ✔ 0.9 m/s

2. ✖ 1.2 m/s

0.5 m/s

3. ✗

2.4 m/s

4. ✗

Question Number : 102 Question Id : 105615262 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A convex lens focusses an object 20 cm from it on a screen placed 5 cm away from it. A glass plate (refractive index $= \frac{7}{5}$) of thickness 1.4 cm is inserted between the lens and the screen. What is the distance of the object from the lens, so that its image is again focused on the screen?

Options :

22.5 cm

1. ✗

30.7 cm

2. ✔

25.0 cm

3. ✗

28.4 cm

4. ✗

Question Number : 103 Question Id : 105615263 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

The angular width of a fringe in a double slit experiment is found to be 0.2° on a screen 1 m away. The wavelength of light used is 600 nm. The change in angular width of the fridge if the entire measurement system is immersed in water is
[Use refractive index of water as 4/3]

Options :

1. ✔ 0.05°

2. ✘ 0.10°

3. ✘ 0.15°

4. ✘ 0.20°

Question Number : 104 Question Id : 105615264 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A large metal plate has a surface charge density of 8.85×10^{-6} C/m^2. An electron having initial kinetic energy of 8×10^{-17} J is moving towards the center of the plate. If the electron stops just before reaching the plate then the initial distance between the electron and the plate is

$$\left[\text{Take } \varepsilon_0 = 8.85 \times 10^{-12} \text{ C}^2/\text{Nm}^2 \right]$$
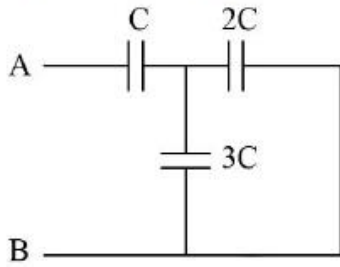
Options :

1. ✔ 0.5 mm

2. ✘ 0.1 mm

3. ✘ 0.2 cm

4. ✘ 0.02 cm

Question Number : 105 Question Id : 105615265 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

The equivalent capacitance between points A and B is

Options :

     5/6 C

1. ✔

     11/5 C

2. ✘

     6 C

3. ✘

     5/11 C

4. ✘

Question Number : 106 Question Id : 105615266 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A cylindrical metallic wire is stretched to increase its length in such a way that the metallic wire changes its resistance by 6%. The percentage increase in its length is
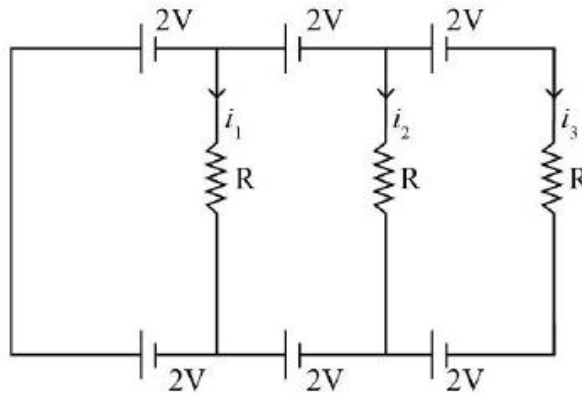
Options :

     2 %

1. ✘

     4 %

2. ✘

     3 %

3. ✔

12 %

4. ✖

Question Number : 107 Question Id : 105615267 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

Find the current in the three resistors as shown in the following figure?

Options :

1. ✖
$$i_1 = 0, \ i_2 = \frac{4V}{R}, \ i_3 = \frac{2V}{R}$$

2. ✔
$$i_1 = 0, \ i_2 = 0, \ i_3 = 0$$

3. ✖
$$i_1 = 0, \ i_2 = \frac{2V}{R}, \ i_3 = \frac{4V}{R}$$

4. ✖
$$i_1 = 0, \ i_2 = \frac{2V}{R}, \ i_3 = \frac{2V}{R}$$

Question Number : 108 Question Id : 105615268 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

A horizontal wire carries 160 A current below which another wire of linear density 10 g /m carrying a current is kept at 4 cm distance. If the wire is kept below hangs in air, what is the current in this wire when the direction of current in both the wires is same? ($g = 10$ m/s^2 and $\mu_0 = 4\pi \times 10^{-7}$)

Options :

1. ✔   125 A

2. ✖   140 A

3. ✖   110 A

4. ✖   100 A

Question Number : 109 Question Id : 105615269 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A long solenoid has 70 turns/cm and carries current I. An electron moves within the solenoid in a circle of radius 2.5 cm perpendicular to the solenoid axis. If the speed of the electron is 4.4×10^6 m/s then the current I in the solenoid is
(Take $\mu_0 = 4\pi \times 10^{-7}$ SI unit, mass of electron $= 9 \times 10^{-31}$ kg, charge of electron $= 1.6 \times 10^{-19}$ C)

Options :

1. ✖   98.5 mA

2. ✔   112.5 mA

3. ✖   125 mA

175.0 mA

4. ✖

Question Number : 110 Question Id : 105615270 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

Assertion (A) : The magnetic field lines are continuous and form closed loops.

Reason (R) : Magnetic monopole does not exist.

The correct option among the following is

Options :

(A) is true, (R) is true and (R) is the correct explanation for (A)

1. ✔

(A) is true, (R) is true but (R) is not the correct explanation for (A)

2. ✖

(A) is true but (R) is false

3. ✖

(A) is false but (R) is true

4. ✖

Question Number : 111 Question Id : 105615271 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A flat circular coil has 100 turns of wire of radius 10 cm. A uniform magnetic field exists in a direction perpendicular to the plane of the coil and it grows at a rate of 0.1 T/sec. the induced emf in the coil is:

Options :

π V

1. ✖

10π V

2. ✖

$\dfrac{\pi}{10}$ V

3. ✔

2π V

4. ✖

A 2μF capacitor is charged to 50 V by a battery. The battery is removed after capacitor is fully charged. At time $t = 0$, a 10 mH coil is connected in series with the capacitor. The maximum rate at which the current changes in the circuit is

Options :

2000 A/s

1. ✖

5000 A/s

2. ✔

2500 A/s

3. ✖

10000 A/s

4. ✖

An electromagnetic wave has its electric and magnetic fields given by

$$\vec{E}(t) = \vec{E}_m \sin(kx - \omega t)$$
$$\vec{B}(t) = \vec{B}_m \sin(kx - \omega t)$$

If the direction of $\vec{E}_m$ & $\vec{B}_m$ are in the direction of $\hat{i} + \hat{j}$ and $\hat{i} - \hat{j}$ respectively, the unit vector that gives the direction of propagation of the wave is

Options :

1. ✔ $-\hat{k}$

2. ✘ $\hat{k}$

3. ✘ $\hat{i}$

4. ✘ $-\hat{i}$

Question Number : 114 Question Id : 105615274 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

The value of Plank's constant, if the slope of the graph of stopping potential vs frequency of incident light is 4×10^{-15} Vs is
(given charge of an electron = 1.6×10^{-19}C)

Options :

1. ✘ 6.0×10^{-34} Js

2. ✘ 6.2×10^{-34} Js

3. ✔ 6.4×10^{-34} Js

$$6.6 \times 10^{-34} \text{ Js}$$

4. ✖

Question Number : 115 Question Id : 105615275 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

A beam of white light is incident normally on a plane surface absorbing 70 % of the light and reflecting the rest. If the incident beam carries 10 W of power, the force exerted by it on the surface is

Options :

$$3.3 \times 10^{-8} \text{ N}$$

1. ✖

$$4.33 \times 10^{-8} \text{ N}$$

2. ✔

$$2.3 \times 10^{-8} \text{ N}$$

3. ✖

$$3.53 \times 10^{-8} \text{ N}$$

4. ✖

Question Number : 116 Question Id : 105615276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

If the series limit frequency of Balmer series is v_B, then the series limit frequency of the Brackett series is

Options :

$$\frac{4v_B}{25}$$

1. ✖

$$\frac{v_B}{9}$$

2. ✖

$$\frac{v_B}{4}$$

3. ✔

$$\frac{9v_B}{4}$$

4. ✖

Question Number : 117 Question Id : 105615277 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

Consider a nucleus $^{60}_{30}X$. It's approximate density is
(Take 1 amu=1.6×10^{-27} kg, $R_o = 1.2 \times 10^{-15}$ m.)

Options :

1.2×10^{18} kg/m^3

1. ✖

8.5×10^{19} kg/m^3

2. ✖

3.3×10^{16} kg/m^3

3. ✖

2.2×10^{17} kg/m^3

4. ✔

Question Number : 118 Question Id : 105615278 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

The resistivity of a material is found to be $10^8 \, \Omega - m$. Then the material would be

Options :

Only insulator
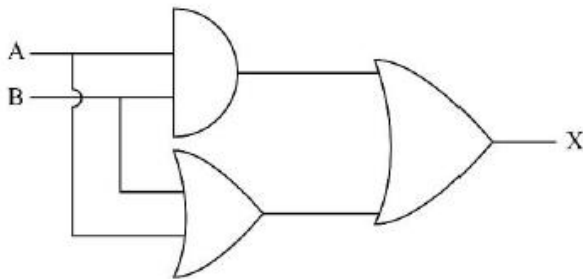
1. ✔

Only metal

2. ✖

Only semiconductor

3. ✖

Only Superconductor

4. ✖

Question Number : 119 Question Id : 105615279 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 1 Wrong Marks : 0

The behaviour of the circuit is like _____ gate

Options :

OR

1. ✔

NOR

2. ✖

NAND

3. ✖

AND

4. ✖

Question Number : 120 Question Id : 105615280 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A message signal of frequency 15 kHz is used to modulate a carrier of frequency v_c. If the side bands produced are 1515 kHz and 1485 kHz, then v_c is

Options :

1. ✖   2.0 MHz

2. ✔   1.5 MHz

3. ✖   2.5 MHz

4. ✖   3.0 MHz

Chemistry

Section Id :	1056156
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	40
Number of Questions to be attempted :	40
Section Marks :	40
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	1056156
Question Shuffling Allowed :	Yes

Question Number : 121 Question Id : 105615281 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The total number of spectral lines observed when electron returns from the 6th shell until the 2nd shell in hydrogen atom is

Options :

1. ✔   15