

NTA JEE 2024_27 29 30 31 Jan 1st Feb 2024

Application No	
Candidate Name	
Roll No.	
Test Date	31/01/2024
Test Time	9:00 AM - 12:00 PM
Subject	B. Tech

Section : Mathematics Section A

Q.1 Let a be the sum of all coefficients in the expansion of

$$(1-2x+2x^2)^{2023} (3-4x^2+2x^3)^{2024} \text{ and } b = \lim_{x \rightarrow 0} \left(\frac{\int_0^x \frac{\log(1+t)}{t^{2024} + 1} dt}{x^2} \right). \text{ If the equations}$$

$cx^2 + dx + e = 0$ and $2bx^2 + ax + 4 = 0$ have a common root, where $c, d, e \in \mathbb{R}$, then $d : c : e$ equals

- Options 1. 1 : 2 : 4
 2. 4 : 1 : 4
 3. 1 : 1 : 4
 4. 2 : 1 : 4

Question Type : **MCQ**

Question ID : **4058591111**

Option 1 ID : **4058593528**

Option 2 ID : **4058593527**

Option 3 ID : **4058593526**

Option 4 ID : **4058593525**

Status : **Not Answered**

Chosen Option : --

Q.2 Two marbles are drawn in succession from a box containing 10 red, 30 white, 20 blue and 15 orange marbles, with replacement being made after each drawing. Then the probability, that first drawn marble is red and second drawn marble is white, is

- Options
1. $\frac{2}{25}$
 2. $\frac{4}{25}$
 3. $\frac{2}{3}$
 4. $\frac{4}{75}$

Question Type : **MCQ**

Question ID : **4058591123**

Option 1 ID : **4058593574**

Option 2 ID : **4058593573**

Option 3 ID : **4058593576**

Option 4 ID : **4058593575**

Status : **Answered**

Chosen Option : **4**

Q.3 The area of the region $\left\{ (x, y) : y^2 \leq 4x, x < 4, \frac{xy(x-1)(x-2)}{(x-3)(x-4)} > 0, x \neq 3 \right\}$ is

- Options
1. $\frac{16}{3}$
 2. $\frac{64}{3}$
 3. $\frac{8}{3}$
 4. $\frac{32}{3}$

Question Type : **MCQ**

Question ID : **4058591114**

Option 1 ID : **4058593538**

Option 2 ID : **4058593540**

Option 3 ID : **4058593537**

Option 4 ID : **4058593539**

Status : **Not Answered**

Chosen Option : **--**

Q.4

Let $g(x)$ be a linear function and $f(x) = \begin{cases} g(x) & , x \leq 0 \\ \left(\frac{1+x}{2+x}\right)^{\frac{1}{x}} & , x > 0 \end{cases}$, is continuous at $x = 0$.

If $f'(1) = f(-1)$, then the value $g(3)$ is

Options

1. $\log_e \left(\frac{4}{9}\right) - 1$
2. $\frac{1}{3} \log_e \left(\frac{4}{9}\right) + 1$
3. $\frac{1}{3} \log_e \left(\frac{4}{9e^{1/3}}\right)$
4. $\log_e \left(\frac{4}{9e^{1/3}}\right)$

Question Type : **MCQ**Question ID : **4058591113**Option 1 ID : **4058593536**Option 2 ID : **4058593535**Option 3 ID : **4058593533**Option 4 ID : **4058593534**Status : **Not Answered**

Chosen Option : --

Q.5

The sum of the series $\frac{1}{1-3 \cdot 1^2 + 1^4} + \frac{2}{1-3 \cdot 2^2 + 2^4} + \frac{3}{1-3 \cdot 3^2 + 3^4} + \dots$ up to 10-terms is

Options

1. $-\frac{55}{109}$
2. $-\frac{45}{109}$
3. $\frac{55}{109}$
4. $\frac{45}{109}$

Question Type : **MCQ**Question ID : **4058591109**Option 1 ID : **4058593519**Option 2 ID : **4058593520**Option 3 ID : **4058593518**Option 4 ID : **4058593517**Status : **Not Answered**

Chosen Option : --

Q.6

If $f(x) = \begin{vmatrix} x^3 & 2x^2+1 & 1+3x \\ 3x^2+2 & 2x & x^3+6 \\ x^3-x & 4 & x^2-2 \end{vmatrix}$ for all $x \in \mathbb{R}$, then $2f(0) + f'(0)$ is equal to

- Options
1. 24
 2. 42
 3. 18
 4. 48

Question Type : MCQ

Question ID : 4058591107

Option 1 ID : 4058593509

Option 2 ID : 4058593511

Option 3 ID : 4058593510

Option 4 ID : 4058593512

Status : Not Answered

Chosen Option : --

Q.7 The solution curve of the differential equation

$y \frac{dx}{dy} = x(\log_e x - \log_e y + 1)$, $x > 0, y > 0$ passing through the point $(e, 1)$ is

Options

1. $\left| \log_e \frac{y}{x} \right| = y^2$

2. $\left| \log_e \frac{x}{y} \right| = y$

3. $\left| \log_e \frac{y}{x} \right| = x$

4. $2 \left| \log_e \frac{x}{y} \right| = y + 1$

Question Type : MCQ

Question ID : 4058591116

Option 1 ID : 4058593546

Option 2 ID : 4058593548

Option 3 ID : 4058593547

Option 4 ID : 4058593545

Status : Answered

Chosen Option : 2

Q.8 Let S be the set of positive integral values of a for which

$$\frac{ax^2 + 2(a+1)x + 9a + 4}{x^2 - 8x + 32} < 0, \forall x \in \mathbb{R}. \text{ Then, the number of elements in } S \text{ is :}$$

- Options
1. ∞
 2. 3
 3. 0
 4. 1

Question Type : **MCQ**

Question ID : **4058591106**

Option 1 ID : **4058593508**

Option 2 ID : **4058593506**

Option 3 ID : **4058593507**

Option 4 ID : **4058593505**

Status : **Answered**

Chosen Option : **2**

Q.9

$$\lim_{x \rightarrow 0} \frac{e^{2|\sin x|} - 2|\sin x| - 1}{x^2}$$

- Options
1. is equal to 1
 2. is equal to 2
 3. does not exist
 4. is equal to -1

Question Type : **MCQ**

Question ID : **4058591110**

Option 1 ID : **4058593522**

Option 2 ID : **4058593521**

Option 3 ID : **4058593524**

Option 4 ID : **4058593523**

Status : **Not Answered**

Chosen Option : **--**

Q.10 Let $\vec{a} = 3\hat{i} + \hat{j} - 2\hat{k}$, $\vec{b} = 4\hat{i} + \hat{j} + 7\hat{k}$ and $\vec{c} = \hat{i} - 3\hat{j} + 4\hat{k}$ be three vectors. If a vectors \vec{p} satisfies $\vec{p} \times \vec{b} = \vec{c} \times \vec{b}$ and $\vec{p} \cdot \vec{a} = 0$, then $\vec{p} \cdot (\hat{i} - \hat{j} - \hat{k})$ is equal to

- Options
1. 32
 2. 36
 3. 28
 4. 24

Question Type : **MCQ**

Question ID : **4058591122**

Option 1 ID : **4058593572**

Option 2 ID : **4058593571**

Option 3 ID : **4058593569**

Option 4 ID : **4058593570**

Status : **Not Answered**

Chosen Option : **--**

Q.11 Three rotten apples are accidentally mixed with fifteen good apples. Assuming the random variable x to be the number of rotten apples in a draw of two apples, the variance of x is

- Options
1. $\frac{47}{153}$
 2. $\frac{57}{153}$
 3. $\frac{40}{153}$
 4. $\frac{37}{153}$

Question Type : **MCQ**

Question ID : **4058591121**

Option 1 ID : **4058593567**

Option 2 ID : **4058593568**

Option 3 ID : **4058593566**

Option 4 ID : **4058593565**

Status : **Not Answered**

Chosen Option : --

Q.12 If one of the diameters of the circle $x^2 + y^2 - 10x + 4y + 13 = 0$ is a chord of another circle C , whose center is the point of intersection of the lines $2x + 3y = 12$ and $3x - 2y = 5$, then the radius of the circle C is :

- Options
1. $\sqrt{20}$
 2. $3\sqrt{2}$
 3. 6
 4. 4

Question Type : **MCQ**

Question ID : **4058591117**

Option 1 ID : **4058593549**

Option 2 ID : **4058593551**

Option 3 ID : **4058593550**

Option 4 ID : **4058593552**

Status : **Answered**

Chosen Option : 2

Q.13 If $f(x) = \frac{4x+3}{6x-4}, x \neq \frac{2}{3}$ and $(f \circ f)(x) = g(x)$, where $g: \mathbb{R} - \left\{\frac{2}{3}\right\} \rightarrow \mathbb{R} - \left\{\frac{2}{3}\right\}$, then $(g \circ g \circ g)(4)$ is equal to

- Options
1. -4
 2. $\frac{19}{20}$
 3. $-\frac{19}{20}$
 4. 4

Question Type : **MCQ**

Question ID : **4058591105**

Option 1 ID : **4058593504**

Option 2 ID : **4058593501**

Option 3 ID : **4058593503**

Option 4 ID : **4058593502**

Status : **Not Answered**

Chosen Option : --

Q.14 For $0 < c < b < a$, let $(a+b-2c)x^2 + (b+c-2a)x + (c+a-2b) = 0$ and $a \neq 1$ be one of its root. Then, among the two statements

(I) If $a \in (-1, 0)$, then b cannot be the geometric mean of a and c

(II) If $a \in (0, 1)$, then b may be the geometric mean of a and c

- Options
1. Neither (I) nor (II) is true
 2. only (I) is true
 3. only (II) is true
 4. Both (I) and (II) are true

Question Type : **MCQ**

Question ID : **4058591112**

Option 1 ID : **4058593532**

Option 2 ID : **4058593529**

Option 3 ID : **4058593530**

Option 4 ID : **4058593531**

Status : **Not Answered**

Chosen Option : --

Q.15 For $\alpha, \beta, \gamma \neq 0$, if $\sin^{-1} \alpha + \sin^{-1} \beta + \sin^{-1} \gamma = \pi$ and $(\alpha + \beta + \gamma)(\alpha - \gamma + \beta) = 3\alpha\beta$, then γ equals

Options

1. $\frac{\sqrt{3}}{2}$
2. $\frac{\sqrt{3}-1}{2\sqrt{2}}$
3. $\frac{1}{\sqrt{2}}$
4. $\sqrt{3}$

Question Type : **MCQ**

Question ID : **4058591124**

Option 1 ID : **4058593577**

Option 2 ID : **4058593580**

Option 3 ID : **4058593578**

Option 4 ID : **4058593579**

Status : **Not Answered**

Chosen Option : --

Q.16 The distance of the point $Q(0,2,-2)$ from the line passing through the point $P(5, -4, 3)$ and perpendicular to the lines $\vec{r} = (-3\hat{i} + 2\hat{k}) + \lambda(2\hat{i} + 3\hat{j} + 5\hat{k})$, $\lambda \in \mathbb{R}$ and $\vec{r} = (\hat{i} - 2\hat{j} + \hat{k}) + \mu(-\hat{i} + 3\hat{j} + 2\hat{k})$, $\mu \in \mathbb{R}$ is :

Options

1. $\sqrt{74}$
2. $\sqrt{86}$
3. $\sqrt{20}$
4. $\sqrt{54}$

Question Type : **MCQ**

Question ID : **4058591119**

Option 1 ID : **4058593558**

Option 2 ID : **4058593557**

Option 3 ID : **4058593560**

Option 4 ID : **4058593559**

Status : **Answered**

Chosen Option : **2**

Q.17 Let $y = y(x)$ be the solution of the differential equation

$$\frac{dy}{dx} = \frac{(\tan x) + y}{\sin x (\sec x - \sin x \tan x)}, x \in \left(0, \frac{\pi}{2}\right) \text{ satisfying the condition } y\left(\frac{\pi}{4}\right) = 2.$$

Then, $y\left(\frac{\pi}{3}\right)$ is

- Options
1. $\sqrt{3}(1 + 2 \log_e 3)$
 2. $\sqrt{3}(2 + \log_e \sqrt{3})$
 3. $\frac{\sqrt{3}}{2}(2 + \log_e 3)$
 4. $\sqrt{3}(2 + \log_e 3)$

Question Type : **MCQ**

Question ID : **4058591115**

Option 1 ID : **4058593544**

Option 2 ID : **4058593543**

Option 3 ID : **4058593542**

Option 4 ID : **4058593541**

Status : **Not Answered**

Chosen Option : --

Q.18 If the system of linear equations

$$x - 2y + z = -4$$

$$2x + \alpha y + 3z = 5$$

$$3x - y + \beta z = 3$$

has infinitely many solutions, then $12\alpha + 13\beta$ is equal to

- Options
1. 60
 2. 54
 3. 64
 4. 58

Question Type : **MCQ**

Question ID : **4058591108**

Option 1 ID : **4058593515**

Option 2 ID : **4058593513**

Option 3 ID : **4058593516**

Option 4 ID : **4058593514**

Status : **Not Answered**

Chosen Option : --

Q.19 If the foci of a hyperbola are same as that of the ellipse $\frac{x^2}{9} + \frac{y^2}{25} = 1$ and the eccentricity of the hyperbola is $\frac{15}{8}$ times the eccentricity of the ellipse, then the smaller focal distance of the point $\left(\sqrt{2}, \frac{14}{3}\sqrt{2}\right)$ on the hyperbola, is equal to

- Options
1. $14\sqrt{\frac{2}{5}} - \frac{4}{3}$
 2. $7\sqrt{\frac{2}{5}} - \frac{8}{3}$
 3. $14\sqrt{\frac{2}{5}} - \frac{16}{3}$
 4. $7\sqrt{\frac{2}{5}} + \frac{8}{3}$

Question Type : **MCQ**

Question ID : **4058591120**

Option 1 ID : **4058593562**

Option 2 ID : **4058593563**

Option 3 ID : **4058593564**

Option 4 ID : **4058593561**

Status : **Not Answered**

Chosen Option : --

Q.20 Let $\alpha, \beta, \gamma, \delta \in \mathbb{Z}$ and let $A(\alpha, \beta), B(1, 0), C(\gamma, \delta)$ and $D(1, 2)$ be the vertices of a parallelogram ABCD. If $AB = \sqrt{10}$ and the points A and C lie on the line $3y = 2x + 1$, then $2(\alpha + \beta + \gamma + \delta)$ is equal to

- Options
1. 5
 2. 8
 3. 12
 4. 10

Question Type : **MCQ**

Question ID : **4058591118**

Option 1 ID : **4058593553**

Option 2 ID : **4058593554**

Option 3 ID : **4058593556**

Option 4 ID : **4058593555**

Status : **Not Answered**

Chosen Option : --

Section : **Mathematics Section B**

Q.21 Let Q and R be the feet of perpendiculars from the point $P(a, a, a)$ on the lines $x = y, z = 1$ and $x = -y, z = -1$ respectively. If $\angle QPR$ is a right angle, then $12a^2$ is equal to _____

Given --
Answer :

Question Type : **SA**

Question ID : **4058591133**

Status : **Not Answered**

Q.22 Let $S = (-1, \infty)$ and $f : S \rightarrow \mathbb{R}$ be defined as

$$f(x) = \int_{-1}^x (e^t - 1)^{11} (2t - 1)^5 (t - 2)^7 (t - 3)^{12} (2t - 10)^{61} dt,$$

Let $p =$ Sum of squares of the values of x , where $f(x)$ attains local maxima on S , and $q =$ Sum of the values of x , where $f(x)$ attains local minima on S . Then, the value of $p^2 + 2q$ is _____

Given --
Answer :

Question Type : SA

Question ID : 4058591129

Status : Not Answered

Q.23 Let $f : \mathbb{R} \rightarrow \mathbb{R}$ be a function defined by $f(x) = \frac{4^x}{4^x + 2}$ and

$$M = \int_{f(a)}^{f(1-a)} x \sin^4(x(1-x)) dx, \quad N = \int_{f(a)}^{f(1-a)} \sin^4(x(1-x)) dx; a \neq \frac{1}{2}. \text{ If}$$

$\alpha M = \beta N$, $\alpha, \beta \in \mathbb{N}$, then the least value of $\alpha^2 + \beta^2$ is equal to _____

Given --
Answer :

Question Type : SA

Question ID : 4058591130

Status : Not Answered

Q.24 Let the foci and length of the latus rectum of an ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1, a > b \text{ be } (\pm 5, 0) \text{ and } \sqrt{50}, \text{ respectively. Then, the square of the}$$

$$\text{eccentricity of the hyperbola } \frac{x^2}{b^2} - \frac{y^2}{a^2 b^2} = 1 \text{ equals}$$

Given --
Answer :

Question Type : SA

Question ID : 4058591132

Status : Not Answered

Q.25 Let $A = \{1, 2, 3, 4\}$ and $R = \{(1, 2), (2, 3), (1, 4)\}$ be a relation on A . Let S be the equivalence relation on A such that $R \subset S$ and the number of elements in S is n . Then, the minimum value of n is _____

Given 3
Answer :

Question Type : SA

Question ID : 4058591125

Status : Answered

Q.26 The total number of words (with or without meaning) that can be formed out of the letters of the word 'DISTRIBUTION' taken four at a time, is equal to _____

Given --
Answer :

Question Type : SA
Question ID : 4058591127
Status : Not Answered

Q.27 If α denotes the number of solutions of $|1 - i|^x = 2^x$ and $\beta = \left(\frac{|z|}{\arg(z)} \right)$, where

$$z = \frac{\pi}{4} (1+i)^4 \left[\frac{1 - \sqrt{\pi} i}{\sqrt{\pi} + i} + \frac{\sqrt{\pi} - i}{1 + \sqrt{\pi} i} \right], i = \sqrt{-1}, \text{ then the distance of the point}$$

(α, β) from the line $4x - 3y = 7$ is _____

Given --
Answer :

Question Type : SA
Question ID : 4058591126
Status : Not Answered

Q.28 Let \vec{a} and \vec{b} be two vectors such that $|\vec{a}| = 1, |\vec{b}| = 4$, and $\vec{a} \cdot \vec{b} = 2$. If $\vec{c} = (2\vec{a} \times \vec{b}) - 3\vec{b}$ and the angle between \vec{b} and \vec{c} is α , then $192 \sin^2 \alpha$ is equal to _____

Given --
Answer :

Question Type : SA
Question ID : 4058591134
Status : Not Answered

Q.29 In the expansion of $(1+x)(1-x^2)\left(1 + \frac{3}{x} + \frac{3}{x^2} + \frac{1}{x^3}\right)^5, x \neq 0$, the sum of the coefficients of x^3 and x^{-13} is equal to _____

Given --
Answer :

Question Type : SA
Question ID : 4058591128
Status : Not Answered

Q.30 If the integral $525 \int_0^{\frac{\pi}{2}} \sin 2x \cos^{\frac{11}{2}} x \left(1 + \cos^{\frac{5}{2}} x\right)^{\frac{1}{2}} dx$ is equal to $(n\sqrt{2} - 64)$, then n is equal to _____

Given --
Answer :

Question Type : SA
Question ID : 4058591131
Status : Not Answered

Section : Physics Section A

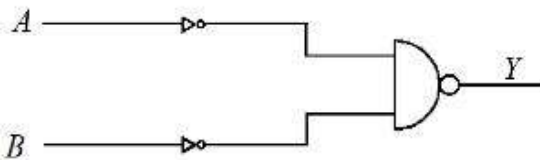
Q.31 The refractive index of a prism with apex angle A is $\cot A/2$. The angle of minimum deviation is :

- Options
1. $\delta_m = 180^\circ - 3A$
 2. $\delta_m = 180^\circ - A$
 3. $\delta_m = 180^\circ - 2A$
 4. $\delta_m = 180^\circ - 4A$

Question Type : **MCQ**Question ID : **4058591149**Option 1 ID : **4058593648**Option 2 ID : **4058593650**Option 3 ID : **4058593647**Option 4 ID : **4058593649**Status : **Not Answered**

Chosen Option : --

Q.32 Identify the logic operation performed by the given circuit.



- Options
1. **NAND**
 2. OR
 3. AND
 4. NOR

Question Type : **MCQ**Question ID : **4058591152**Option 1 ID : **4058593661**Option 2 ID : **4058593660**Option 3 ID : **4058593659**Option 4 ID : **4058593662**Status : **Answered**Chosen Option : **3**

Q.33 The relation between time ' t ' and distance ' x ' is $t = \alpha x^2 + \beta x$, where α and β are constants. The relation between acceleration (a) and velocity (v) is :

- Options
1. $a = -3\alpha v^2$
 2. $a = -5\alpha v^5$
 3. $a = -4\alpha v^4$
 4. $a = -2\alpha v^3$

Question Type : **MCQ**Question ID : **4058591136**Option 1 ID : **4058593596**Option 2 ID : **4058593598**Option 3 ID : **4058593597**Option 4 ID : **4058593595**Status : **Not Answered**

Chosen Option : --

Q.34 If the percentage errors in measuring the length and the diameter of a wire are 0.1% each. The percentage error in measuring its resistance will be:

- Options
1. 0.144%
 2. 0.3%
 3. 0.2%
 4. 0.1%

Question Type : **MCQ**

Question ID : **4058591154**

Option 1 ID : **4058593670**

Option 2 ID : **4058593669**

Option 3 ID : **4058593668**

Option 4 ID : **4058593667**

Status : **Answered**

Chosen Option : **2**

Q.35 Two conductors have the same resistances at 0°C but their temperature coefficients of resistance are α_1 and α_2 . The respective temperature coefficients for their series and parallel combinations are :

- Options
1. $\alpha_1 + \alpha_2, \frac{\alpha_1 + \alpha_2}{2}$
 2. $\frac{\alpha_1 + \alpha_2}{2}, \frac{\alpha_1 + \alpha_2}{2}$
 3. $\frac{\alpha_1 + \alpha_2}{2}, \alpha_1 + \alpha_2$
 4. $\alpha_1 + \alpha_2, \frac{\alpha_1 \alpha_2}{\alpha_1 + \alpha_2}$

Question Type : **MCQ**

Question ID : **4058591145**

Option 1 ID : **4058593633**

Option 2 ID : **4058593631**

Option 3 ID : **4058593632**

Option 4 ID : **4058593634**

Status : **Answered**

Chosen Option : **2**

Q.36 The parameter that remains the same for molecules of all gases at a given temperature is :

- Options
1. momentum
 2. kinetic energy
 3. speed
 4. mass

Question Type : **MCQ**

Question ID : **4058591143**

Option 1 ID : **4058593625**

Option 2 ID : **4058593626**

Option 3 ID : **4058593624**

Option 4 ID : **4058593623**

Status : **Answered**

Chosen Option : **4**

Q.37 A coin is placed on a disc. The coefficient of friction between the coin and the disc is μ . If the distance of the coin from the center of the disc is r , the maximum angular velocity which can be given to the disc, so that the coin does not slip away, is :

- Options
1. $\frac{\mu g}{r}$
 2. $\frac{\mu}{\sqrt{rg}}$
 3. $\sqrt{\frac{\mu g}{r}}$
 4. $\sqrt{\frac{r}{\mu g}}$

Question Type : **MCQ**

Question ID : **4058591137**

Option 1 ID : **4058593599**

Option 2 ID : **4058593602**

Option 3 ID : **4058593600**

Option 4 ID : **4058593601**

Status : **Not Answered**

Chosen Option : --

Q.38 A coil is placed perpendicular to a magnetic field of 5000 T. When the field is changed to 3000 T in 2 s, an induced emf of 22 V is produced in the coil. If the diameter of the coil is 0.02 m, then the number of turns in the coil is:

- Options
1. 140
 2. 35
 3. 7
 4. 70

Question Type : **MCQ**

Question ID : **4058591147**

Option 1 ID : **4058593640**

Option 2 ID : **4058593641**

Option 3 ID : **4058593639**

Option 4 ID : **4058593642**

Status : **Answered**

Chosen Option : 4

Q.39 If the wavelength of the first member of Lyman series of hydrogen is λ . The wavelength of the second member will be

- Options
1. $\frac{27}{5}\lambda$
 2. $\frac{27}{32}\lambda$
 3. $\frac{5}{27}\lambda$
 4. $\frac{32}{27}\lambda$

Question Type : **MCQ**

Question ID : **4058591151**

Option 1 ID : **4058593657**

Option 2 ID : **4058593655**

Option 3 ID : **4058593658**

Option 4 ID : **4058593656**

Status : **Answered**

Chosen Option : 1

Q.40 Four identical particles of mass m are kept at the four corners of a square. If the gravitational force exerted on one of the masses by the other masses is

$$\left(\frac{2\sqrt{2}+1}{32}\right)\frac{Gm^2}{L^2}, \text{ the length of the sides of the square is}$$

- Options
1. $\frac{L}{2}$
 2. $4L$
 3. $2L$
 4. $3L$

Question Type : **MCQ**

Question ID : **4058591140**

Option 1 ID : **4058593611**

Option 2 ID : **4058593612**

Option 3 ID : **4058593613**

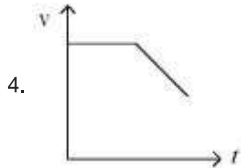
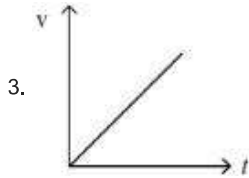
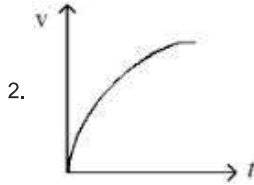
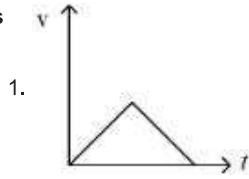
Option 4 ID : **4058593614**

Status : **Not Answered**

Chosen Option : --

Q.41 A small steel ball is dropped into a long cylinder containing glycerine. Which one of the following is the correct representation of the velocity time graph for the transit of the ball?

Options



Question Type : **MCQ**

Question ID : **4058591141**

Option 1 ID : **4058593616**

Option 2 ID : **4058593617**

Option 3 ID : **4058593615**

Option 4 ID : **4058593618**

Status : **Answered**

Chosen Option : 1

Q.42

A force is represented by $F = ax^2 + bt^{\frac{1}{2}}$

where x = distance and t = time. The dimensions of b^2/a are:

- Options
1. $[ML^3T^{-3}]$
 2. $[ML^{-1}T^{-1}]$
 3. $[ML^2T^{-3}]$
 4. $[MLT^{-2}]$

Question Type : **MCQ**

Question ID : **4058591135**

Option 1 ID : **4058593594**

Option 2 ID : **4058593592**

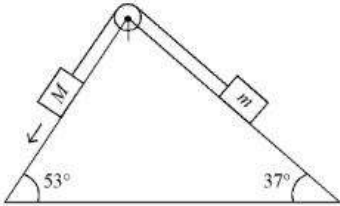
Option 3 ID : **4058593593**

Option 4 ID : **4058593591**

Status : **Answered**

Chosen Option : 1

Q.43 In the given arrangement of a doubly inclined plane two blocks of masses M and m are placed. The blocks are connected by a light string passing over an ideal pulley as shown. The coefficient of friction between the surface of the plane and the blocks is 0.25. The value of m , for which $M = 10$ kg will move down with an acceleration of 2 m/s^2 , is: (take $g = 10 \text{ m/s}^2$ and $\tan 37^\circ = 3/4$)



- Options
1. 4.5 kg
 2. 2.25 kg
 3. 9 kg
 4. 6.5 kg

Question Type : **MCQ**

Question ID : **4058591138**

Option 1 ID : **4058593603**

Option 2 ID : **4058593605**

Option 3 ID : **4058593604**

Option 4 ID : **4058593606**

Status : **Not Answered**

Chosen Option : --

Q.44 The fundamental frequency of a closed organ pipe is equal to the first overtone frequency of an open organ pipe. If length of the open pipe is 60 cm, the length of the closed pipe will be:

- Options
1. 30 cm
 2. 15 cm
 3. 45 cm
 4. 60 cm

Question Type : **MCQ**

Question ID : **4058591153**

Option 1 ID : **4058593665**

Option 2 ID : **4058593666**

Option 3 ID : **4058593664**

Option 4 ID : **4058593663**

Status : **Not Answered**

Chosen Option : --

Q.45 When a metal surface is illuminated by light of wavelength λ , the stopping potential is 8V. When the same surface is illuminated by light of wavelength 3λ , stopping potential is 2V. The threshold wavelength for this surface is:

- Options 1. 9λ
2. 3λ
3. 4.5λ
4. 5λ

Question Type : **MCQ**

Question ID : **4058591150**

Option 1 ID : **4058593654**

Option 2 ID : **4058593652**

Option 3 ID : **4058593651**

Option 4 ID : **4058593653**

Status : **Answered**

Chosen Option : 1

Q.46 In a plane EM wave, the electric field oscillates sinusoidally at a frequency of 5×10^{10} Hz and an amplitude of 50 Vm^{-1} . The total average energy density of the electromagnetic field of the wave is : [Use $\epsilon_0 = 8.85 \times 10^{-12} \text{ C}^2 / \text{Nm}^2$]

- Options 1. $4.425 \times 10^{-8} \text{ Jm}^{-3}$
2. $2.212 \times 10^{-10} \text{ Jm}^{-3}$
3. $2.212 \times 10^{-8} \text{ Jm}^{-3}$
4. $1.106 \times 10^{-8} \text{ Jm}^{-3}$

Question Type : **MCQ**

Question ID : **4058591148**

Option 1 ID : **4058593646**

Option 2 ID : **4058593644**

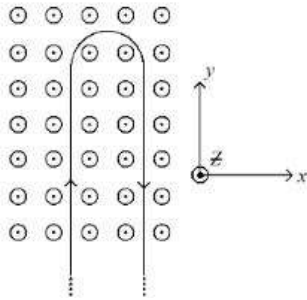
Option 3 ID : **4058593645**

Option 4 ID : **4058593643**

Status : **Not Answered**

Chosen Option : --

Q.47 A rigid wire consists of a semicircular portion of radius R and two straight sections. The wire is partially immersed in a perpendicular magnetic field $B = B_0 \hat{j}$ as shown in figure. The magnetic force on the wire if it has a current i is:



- Options
1. $iBR \hat{j}$
 2. $-iBR \hat{j}$
 3. $2iBR \hat{j}$
 4. $-2iBR \hat{j}$

Question Type : **MCQ**

Question ID : **4058591146**

Option 1 ID : **4058593637**

Option 2 ID : **4058593638**

Option 3 ID : **4058593635**

Option 4 ID : **4058593636**

Status : **Not Answered**

Chosen Option : --

Q.48 Two charges q and $3q$ are separated by a distance ' r ' in air. At a distance x from charge q , the resultant electric field is zero. The value of x is :

- Options
1. $\frac{r}{(1+\sqrt{3})}$
 2. $\frac{r}{3(1+\sqrt{3})}$
 3. $\frac{(1+\sqrt{3})}{r}$
 4. $r(1+\sqrt{3})$

Question Type : **MCQ**

Question ID : **4058591144**

Option 1 ID : **4058593629**

Option 2 ID : **4058593630**

Option 3 ID : **4058593628**

Option 4 ID : **4058593627**

Status : **Answered**

Chosen Option : 1

Q.49 An artillery piece of mass M_1 fires a shell of mass M_2 horizontally. Instantaneously after the firing, the ratio of kinetic energy of the artillery and that of the shell is:

Options

1. $\frac{M_2}{M_1}$
2. $M_1 / (M_1 + M_2)$
3. $M_2 / (M_1 + M_2)$
4. $\frac{M_1}{M_2}$

Question Type : **MCQ**

Question ID : **4058591139**

Option 1 ID : **4058593608**

Option 2 ID : **4058593609**

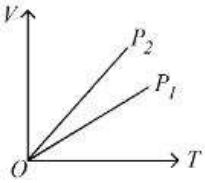
Option 3 ID : **4058593610**

Option 4 ID : **4058593607**

Status : **Not Answered**

Chosen Option : --

Q.50 The given figure represents two isobaric processes for the same mass of an ideal gas, then



- Options
1. $P_2 \geq P_1$
 2. $P_2 > P_1$
 3. $P_1 > P_2$
 4. $P_1 = P_2$

Question Type : **MCQ**

Question ID : **4058591142**

Option 1 ID : **4058593622**

Option 2 ID : **4058593620**

Option 3 ID : **4058593619**

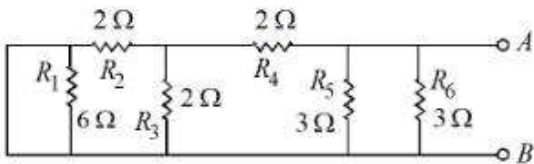
Option 4 ID : **4058593621**

Status : **Answered**

Chosen Option : **4**

Section : **Physics Section B**

Q.51 Equivalent resistance of the following network is _____ Ω .



Given --
Answer :

Question Type : SA
Question ID : 4058591160
Status : Not Answered

Q.52 A parallel plate capacitor with plate separation 5 mm is charged up by a battery. It is found that on introducing a dielectric sheet of thickness 2 mm, while keeping the battery connections intact, the capacitor draws 25% more charge from the battery than before. The dielectric constant of the sheet is _____.

Given 2
Answer :

Question Type : SA
Question ID : 4058591159
Status : Answered

Q.53 A small square loop of wire of side l is placed inside a large square loop of wire of side L ($L = l^2$). The loops are coplanar and their centers coincide. The value of the mutual inductance of the system is $\sqrt{x} \times 10^{-7} H$, where $x =$ _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591162
Status : Not Answered

Q.54 A particle performs simple harmonic motion with amplitude A . Its speed is increased to three times at an instant when its displacement is $\frac{2A}{3}$. The new amplitude of motion is $\frac{nA}{3}$. The value of n is _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591158
Status : Not Answered

Q.55 A solid circular disc of mass 50 kg rolls along a horizontal floor so that its center of mass has a speed of 0.4 m/s. The absolute value of work done on the disc to stop it is _____ J.

Given --
Answer :

Question Type : SA
Question ID : 4058591156
Status : Not Answered

Q.56 The mass defect in a particular reaction is 0.4g. The amount of energy liberated is $n \times 10^7$ kWh, where $n =$ _____.

(speed of light = 3×10^8 m/s)

Given --
Answer :

Question Type : SA

Question ID : 4058591164

Status : Not Answered

Q.57 A body starts falling freely from height H hits an inclined plane in its path at height h . As a result of this perfectly elastic impact, the direction of the velocity of the body becomes horizontal. The value of $\frac{H}{h}$ for which the body will take the maximum time to reach the ground is _____.

Given --
Answer :

Question Type : SA

Question ID : 4058591155

Status : Not Answered

Q.58 An electron moves through a uniform magnetic field $\vec{B} = B_0 \hat{i} + 2B_0 \hat{j}$ T. At a particular instant of time, the velocity of electron is $\vec{u} = 3\hat{i} + 5\hat{j}$ m/s. If the magnetic force acting on electron is $\vec{F} = 5e\hat{k}$ N, where e is the charge of electron, then the value of B_0 is _____ T.

Given 5
Answer :

Question Type : SA

Question ID : 4058591161

Status : Answered

Q.59 Two waves of intensity ratio 1:9 cross each other at a point. The resultant intensities at that point, when (a) Waves are incoherent is I_1 (b) Waves are coherent is I_2 and differ in phase by 60° . If $\frac{I_1}{I_2} = \frac{10}{x}$ then $x =$ _____.

Given --
Answer :

Question Type : SA

Question ID : 4058591163

Status : Not Answered

Q.60 The depth below the surface of sea to which a rubber ball be taken so as to decrease its volume by 0.02% is _____ m.

(Take density of sea water = 10^3 kgm^{-3} , Bulk modulus of rubber = $9 \times 10^8 \text{ Nm}^{-2}$, and $g = 10 \text{ ms}^{-2}$)

Given --
Answer :

Question Type : **SA**

Question ID : **4058591157**

Status : **Not Answered**

Section : Chemistry Section A

Q.61 'Adsorption' principle is used for which of the following purification method?

Options 1. **Chromatography**

2. **Sublimation**

3. **Distillation**

4. **Extraction**

Question Type : **MCQ**

Question ID : **4058591175**

Option 1 ID : **4058593721**

Option 2 ID : **4058593724**

Option 3 ID : **4058593722**

Option 4 ID : **4058593723**

Status : **Answered**

Chosen Option : 1

Q.62 Identify correct statements from below:

A. The chromate ion is square planar.

B. Dichromates are generally prepared from chromates.

C. The green manganate ion is diamagnetic.

D. Dark green coloured K_2MnO_4 disproportionates in a neutral or acidic medium to give permanganate.

E. With increasing oxidation number of transition metal, ionic character of the oxides decreases.

Choose the correct answer from the options given below:

Options 1. **B, C, D only**

2. **A, D, E only**

3. **A, B, C only**

4. **B, D, E only**

Question Type : **MCQ**

Question ID : **4058591172**

Option 1 ID : **4058593711**

Option 2 ID : **4058593712**

Option 3 ID : **4058593710**

Option 4 ID : **4058593709**

Status : **Not Answered**

Chosen Option : --

Q.63 Identify the mixture that shows positive deviations from Raoult's Law

- Options
1. $(\text{CH}_3)_2\text{CO} + \text{CS}_2$
 2. $\text{CHCl}_3 + (\text{CH}_3)_2\text{CO}$
 3. $\text{CHCl}_3 + \text{C}_6\text{H}_6$
 4. $(\text{CH}_3)_2\text{CO} + \text{C}_6\text{H}_5\text{NH}_2$

Question Type : **MCQ**

Question ID : **4058591166**

Option 1 ID : **4058593688**

Option 2 ID : **4058593685**

Option 3 ID : **4058593687**

Option 4 ID : **4058593686**

Status : **Answered**

Chosen Option : 1

Q.64 Given below are two statements:

Statement I: IUPAC name of $\text{HO} - \text{CH}_2 - (\text{CH}_2)_3 - \text{CH}_2 - \text{COCH}_3$ is

7-hydroxyheptan-2-one.

Statement II: 2-oxoheptan-7-ol is the correct IUPAC name for above compound.

In the light of the above statements, choose the *most appropriate answer* from the options given below:

- Options
1. Both Statement I and Statement II are correct.
 2. Statement I is correct but Statement II is incorrect.
 3. Statement I is incorrect but Statement II is correct.
 4. Both Statement I and Statement II are incorrect.

Question Type : **MCQ**

Question ID : **4058591179**

Option 1 ID : **4058593737**

Option 2 ID : **4058593739**

Option 3 ID : **4058593740**

Option 4 ID : **4058593738**

Status : **Answered**

Chosen Option : 2

Q.65 Match List I with List II

LIST I		LIST II	
A.	Glucose/ NaHCO_3/Δ	I.	Gluconic acid
B.	Glucose/ HNO_3	II.	No reaction
C.	Glucose/ HI/Δ	III.	n-hexane
D.	Glucose/Bromine water	IV.	Saccharic acid

Choose the correct answer from the options given below:

- Options
1. A-II, B-IV, C-III, D-I
 2. A-IV, B-I, C-III, D-II
 3. A-III, B-II, C-I, D-IV
 4. A-I, B-IV, C-III, D-II

Question Type : **MCQ**

Question ID : **4058591183**

Option 1 ID : **4058593756**

Option 2 ID : **4058593754**

Option 3 ID : **4058593755**

Option 4 ID : **4058593753**

Status : **Answered**

Chosen Option : 1

Q.66 Identify the factor from the following that *does not* affect electrolytic conductance of a solution.

- Options
1. The nature of the electrode used.
 2. Concentration of the electrolyte.
 3. The nature of the electrolyte added.
 4. The nature of solvent used.

Question Type : **MCQ**

Question ID : **4058591168**

Option 1 ID : **4058593694**

Option 2 ID : **4058593696**

Option 3 ID : **4058593693**

Option 4 ID : **4058593695**

Status : **Answered**

Chosen Option : 4

Q.67 A species having carbon with sextet of electrons and can act as electrophile is called

- Options
1. pentavalent carbon
 2. carbocation
 3. carbanion
 4. carbon free radical

Question Type : **MCQ**

Question ID : **4058591178**

Option 1 ID : **4058593733**

Option 2 ID : **4058593736**

Option 3 ID : **4058593735**

Option 4 ID : **4058593734**

Status : **Answered**

Chosen Option : **3**

Q.68 The correct statements from following are:

- A. The strength of anionic ligands can be explained by crystal field theory.
- B. Valence bond theory does not give a quantitative interpretation of kinetic stability of coordination compounds.
- C. The hybridization involved in formation of $[\text{Ni}(\text{CN})_4]^{2-}$ complex is dsp^2 .
- D. The number of possible isomer(s) of $\text{cis-}[\text{PtCl}_2(\text{en})_2]^{2+}$ is one

Choose the correct answer from the options given below:

- Options
1. B, D only
 2. A, D only
 3. A, C only
 4. B, C only

Question Type : **MCQ**

Question ID : **4058591174**

Option 1 ID : **4058593719**

Option 2 ID : **4058593718**

Option 3 ID : **4058593717**

Option 4 ID : **4058593720**

Status : **Answered**

Chosen Option : **4**

Q.69 Give below are two statements:

Statement - I: Noble gases have very high boiling points.

Statement - II: Noble gases are monoatomic gases. They are held together by strong dispersion forces. Because of this they are liquefied at very low temperature. Hence, they have very high boiling points.

In the light of the above statements, choose the *correct answer* from the options given below:

- Options**
1. Statement I is true but Statement II is false.
 2. Both Statement I and Statement II are true.
 3. Statement I is false but Statement II is true.
 4. Both Statement I and Statement II are false.

Question Type : **MCQ**

Question ID : **4058591177**

Option 1 ID : **4058593731**

Option 2 ID : **4058593729**

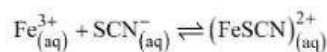
Option 3 ID : **4058593732**

Option 4 ID : **4058593730**

Status : **Not Answered**

Chosen Option : --

Q.70 For the given reaction, choose the correct expression of K_C from the following :-



Options

$$1. K_C = \frac{[\text{FeSCN}^{2+}]}{[\text{Fe}^{3+}][\text{SCN}^{-}]}$$

$$2. K_C = \frac{[\text{FeSCN}^{2+}]^2}{[\text{Fe}^{3+}][\text{SCN}^{-}]}$$

$$3. K_C = \frac{[\text{Fe}^{3+}][\text{SCN}^{-}]}{[\text{FeSCN}^{2+}]}$$

$$4. K_C = \frac{[\text{FeSCN}^{2+}]}{[\text{Fe}^{3+}]^2[\text{SCN}^{-}]^2}$$

Question Type : **MCQ**

Question ID : **4058591167**

Option 1 ID : **4058593691**

Option 2 ID : **4058593689**

Option 3 ID : **4058593692**

Option 4 ID : **4058593690**

Status : **Answered**

Chosen Option : 1

Q.71 Match List I with List II

LIST I (Technique)		LIST II (Application)	
A.	Distillation	I.	Separation of glycerol from spent-lye
B.	Fractional distillation	II.	Aniline - Water mixture
C.	Steam distillation	III.	Separation of crude oil fractions
D.	Distillation under reduced pressure	IV.	Chloroform - Aniline

Choose the correct answer from the options given below:

- Options
1. A-I, B-II, C-IV, D-III
 2. A-II, B-III, C-I, D-IV
 3. A-IV, B-I, C-II, D-III
 4. A-IV, B-III, C-II, D-I

Question Type : **MCQ**

Question ID : **4058591176**

Option 1 ID : **4058593725**

Option 2 ID : **4058593726**

Option 3 ID : **4058593727**

Option 4 ID : **4058593728**

Status : **Not Answered**

Chosen Option : --

Q.72 The metals that are employed in the battery industries are

- A. Fe
- B. Mn
- C. Ni
- D. Cr
- E. Cd

Choose the correct answer from the options given below:

- Options
1. B, C and E only
 2. B, D and E only
 3. A, B, C and D only
 4. A, B, C, D and E

Question Type : **MCQ**

Question ID : **4058591173**

Option 1 ID : **4058593716**

Option 2 ID : **4058593715**

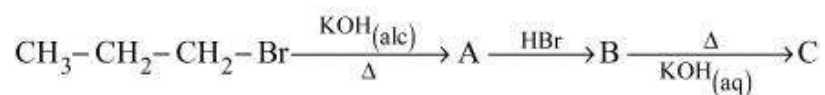
Option 3 ID : **4058593714**

Option 4 ID : **4058593713**

Status : **Answered**

Chosen Option : 1

Q.73 The product (C) in the below mentioned reaction is :



- Options
1. Propene
 2. Propyne
 3. Propan-1-ol
 4. Propan-2-ol

Question Type : **MCQ**

Question ID : **4058591180**

Option 1 ID : **4058593741**

Option 2 ID : **4058593742**

Option 3 ID : **4058593743**

Option 4 ID : **4058593744**

Status : **Answered**

Chosen Option : **4**

Q.74 The compound that is white in color is

- Options
1. ammonium arsinomolybdate
 2. ammonium sulphide
 3. lead iodide
 4. lead sulphate

Question Type : **MCQ**

Question ID : **4058591184**

Option 1 ID : **4058593757**

Option 2 ID : **4058593760**

Option 3 ID : **4058593758**

Option 4 ID : **4058593759**

Status : **Not Answered**

Chosen Option : **--**

Q.75 The correct sequence of electron gain enthalpy of the elements listed below is

- A. Ar
- B. Br
- C. F
- D. S

Choose the *most appropriate* from the options given below:

- Options
1. $C > B > D > A$
 2. $A > D > B > C$
 3. $D > C > B > A$
 4. $A > D > C > B$

Question Type : **MCQ**

Question ID : **4058591170**

Option 1 ID : **4058593702**

Option 2 ID : **4058593704**

Option 3 ID : **4058593701**

Option 4 ID : **4058593703**

Status : **Not Answered**

Chosen Option : --

Q.76 Integrated rate law equation for a first order gas phase reaction is given by

(where P_i is initial pressure and P_t is total pressure at time t)

Options

1. $k = \frac{2.303}{t} \times \log \frac{P_i}{(2P_i - P_t)}$
2. $k = \frac{2.303}{t} \times \log \frac{2P_i}{(2P_i - P_t)}$
3. $k = \frac{2.303}{t} \times \log \frac{(2P_i - P_t)}{P_i}$
4. $k = \frac{2.303}{t} \times \frac{P_i}{(2P_i - P_t)}$

Question Type : **MCQ**

Question ID : **4058591169**

Option 1 ID : **4058593698**

Option 2 ID : **4058593699**

Option 3 ID : **4058593697**

Option 4 ID : **4058593700**

Status : **Answered**

Chosen Option : 1

Q.77 Given below are two statements: One is labelled as **Assertion A** and the other is labelled as **Reason R**:

Assertion A: pK_a value of phenol is 10.0 while that of ethanol is 15.9.

Reason R: Ethanol is stronger acid than phenol.

In the light of the above statements, choose the *correct answer* from the options given below:

- Options
1. Both A and R are true but R is NOT the correct explanation of A.
 2. Both A and R are true and R is the correct explanation of A.
 3. A is false but R is true.
 4. A is true but R is false.

Question Type : **MCQ**

Question ID : **4058591181**

Option 1 ID : **4058593746**

Option 2 ID : **4058593745**

Option 3 ID : **4058593748**

Option 4 ID : **4058593747**

Status : **Not Answered**

Chosen Option : --

Q.78 Consider the oxides of group 14 elements

SiO_2 , GeO_2 , SnO_2 , PbO_2 , CO and GeO. The amphoteric oxides are

- Options
1. SiO_2 , GeO_2
 2. GeO, GeO_2
 3. SnO_2 , PbO_2
 4. SnO_2 , CO

Question Type : **MCQ**

Question ID : **4058591171**

Option 1 ID : **4058593705**

Option 2 ID : **4058593707**

Option 3 ID : **4058593708**

Option 4 ID : **4058593706**

Status : **Not Answered**

Chosen Option : --

Q.79 The linear combination of atomic orbitals to form molecular orbitals takes place only when the combining atomic orbitals

- A. have the same energy
- B. have the minimum overlap
- C. have same symmetry about the molecular axis
- D. have different symmetry about the molecular axis

Choose the *most appropriate* from the options given below:

- Options
1. B and D only
 2. A, B, C only
 3. B, C, D only
 4. A and C only

Question Type : **MCQ**

Question ID : **4058591165**

Option 1 ID : **4058593684**

Option 2 ID : **4058593681**

Option 3 ID : **4058593682**

Option 4 ID : **4058593683**

Status : **Not Answered**

Chosen Option : --

Q.80 Given below are two statements: One is labelled as **Assertion A** and the other is labelled as **Reason R**:

Assertion A: Alcohols react both as nucleophiles and electrophiles.

Reason R: Alcohols react with active metals such as sodium, potassium and aluminum to yield corresponding alkoxides and liberate hydrogen.

In the light of the above statements, choose the *correct answer* from the options given below:

- Options
1. A is true but R is false.
 2. A is false but R is true.
 3. Both A and R are true but R is NOT the correct explanation of A.
 4. Both A and R are true and R is the correct explanation of A.

Question Type : **MCQ**

Question ID : **4058591182**

Option 1 ID : **4058593751**

Option 2 ID : **4058593752**

Option 3 ID : **4058593750**

Option 4 ID : **4058593749**

Status : **Answered**

Chosen Option : **3**

Section : Chemistry Section B

Q.81 The number of species from the following in which the central atom uses sp^3 hybrid orbitals in its bonding is _____.

NH_3 , SO_2 , SiO_2 , $BeCl_2$, CO_2 , H_2O , CH_4 , BF_3

Given 4
Answer :

Question Type : SA
Question ID : 4058591187
Status : Answered

Q.82 The 'Spin only' Magnetic moment for $[Ni(NH_3)_6]^{2+}$ is _____ $\times 10^{-1}$ BM.
(given = Atomic number of Ni : 28)

Given 28
Answer :

Question Type : SA
Question ID : 4058591190
Status : Answered

Q.83 One Faraday of electricity liberates $x \times 10^{-1}$ gram atom of copper from copper sulphate. x is _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591189
Status : Not Answered

Q.84 Number of moles of methane required to produce 22g $CO_{2(g)}$ after combustion is $x \times 10^{-2}$ moles. The value of x is _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591185
Status : Not Answered

Q.85 Consider the following reaction at 298 K. $\frac{3}{2}O_{2(g)} \rightleftharpoons O_{3(g)}$. $K_p = 2.47 \times 10^{-29}$.
 $\Delta_r G^\ominus$ for the reaction is _____ kJ. (Given $R = 8.314 \text{ JK}^{-1} \text{ mol}^{-1}$)

Given --
Answer :

Question Type : SA
Question ID : 4058591188
Status : Not Answered

Q.86 Molar mass of the salt from NaBr, NaNO₃, KI and CaF₂ which does not evolve coloured vapours on heating with concentrated H₂SO₄ is _____ g mol⁻¹.

(Molar mass in g mol⁻¹ : Na : 23, N : 14, K : 39, O : 16, Br : 80, I : 127, F : 19, Ca : 40)

Given --
Answer :

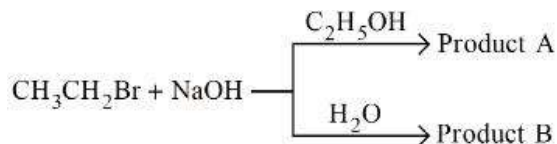
Question Type : SA
Question ID : 4058591194
Status : Not Answered

Q.87 Number of alkanes obtained on electrolysis of a mixture of CH₃COONa and C₂H₅COONa is _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591191
Status : Not Answered

Q.88

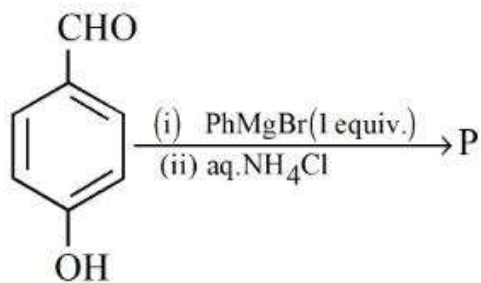


The total number of hydrogen atoms in product A and product B is _____.

Given 10
Answer :

Question Type : SA
Question ID : 4058591192
Status : Answered

Q.89 The product of the following reaction is P.



The number of hydroxyl groups present in the product P is _____.

Given --
Answer :

Question Type : SA
Question ID : 4058591193
Status : Not Answered

Q.90 The ionization energy of sodium in kJ mol^{-1} , if electromagnetic radiation of wavelength 242 nm is just sufficient to ionize sodium atom is _____.

Given --
Answer :

Question Type : **SA**

Question ID : **4058591186**

Status : **Not Answered**