

Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✗ icon are incorrect.

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Mathematics

Mandatory or Optional: Mandatory
Display Number Panel: Yes
Group All Questions: No

Question Number : 1 Question Id : 9593765201 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If for the equation $x^3 - 3x^2 + kx + 3 = 0$, one root is the negative of another, then value of 'k' is:

Options :

- ✗ -1
- ✗ 1
- ✓ -3
- ✗ 3
- ✗ 2

Question Number : 1 Question Id : 9593765201 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि समीकरण $x^3 - 3x^2 + kx + 3 = 0$ का एक वर्गमूल दूसरे के ऋणात्मक है, तो 'k' का मान होगा:

Options :

- ✗ -1

- 2. ✖ 1
- 3. ✔ -3
- 4. ✖ 3
- 5. ✖ 2

Question Number : 2 Question Id : 9593765202 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If 1 and 2 are two roots of the equation $x^4 - x^3 - 19x^2 + 49x - 30 = 0$, then the remaining two roots are:

Options :

- 1. ✖ -3 and 5
- 2. ✔ 3 and -5
- 3. ✖ -6 and 5
- 4. ✖ 6 and -5
- 5. ✖ 2 and 3

Question Number : 2 Question Id : 9593765202 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि समीकरण $x^4 - x^3 - 19x^2 + 49x - 30 = 0$ के दो वर्गमूल 1 और 2 हैं, तो शेष दो वर्गमूल हैं:

Options :

- 1. ✖ -3 और 5
- 2. ✔ 3 और -5
- 3. ✖ -6 और 5
- 4. ✖ 6 और -5
- 5. ✖ 2 और 3

Question Number : 3 Question Id : 9593765203 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $t = 2 + 3i$ is a root of $f(t) = t^4 - 3t^3 + 6t^2 + 25t - 39$, then the other three roots are:

Options :

- 1. ✖ $2 - 3i, (-1 + \sqrt{11})/2, (-1 - \sqrt{11})/2$
- 2. ✔ $2 - 3i, (-1 + \sqrt{13})/2, (-1 - \sqrt{13})/2$
- 3. ✖ $2 - 3i, (-1 + \sqrt{17})/2, (-1 - \sqrt{17})/2$
- 4. ✖ $-2 + 3i, (1 - \sqrt{13})/2, (1 + \sqrt{13})/2$
- 5. ✖ $-2 - 3i, (1 + \sqrt{13})/2, (1 - \sqrt{13})/2$

Correct : 2 Wrong : 1

यदि $f(t) = t^4 - 3t^3 + 6t^2 + 25t - 39$ का $t = 2 + 3i$ वर्गमूल है, तो अन्य तीन वर्गमूल हैं:

Options :

1. ✗ $2 - 3i, (-1 + \sqrt{11})/2, (-1 - \sqrt{11})/2$
2. ✓ $2 - 3i, (-1 + \sqrt{13})/2, (-1 - \sqrt{13})/2$
3. ✗ $2 - 3i, (-1 + \sqrt{17})/2, (-1 - \sqrt{17})/2$
4. ✗ $-2 + 3i, (1 - \sqrt{13})/2, (1 + \sqrt{13})/2$
5. ✗ $-2 - 3i, (1 + \sqrt{13})/2, (1 - \sqrt{13})/2$

Question Number : 4 Question Id : 9593765204 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The number of real roots of the equation $z^3 + iz - 1 = 0$ is:

Options :

1. ✓ 0
2. ✗ 2
3. ✗ 3
4. ✗ 1
5. ✗ -1

Question Number : 4 Question Id : 9593765204 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $z^3 + iz - 1 = 0$ में वास्तविक वर्गमूल की संख्या है:

Options :

1. ✓ 0
2. ✗ 2
3. ✗ 3
4. ✗ 1
5. ✗ -1

Question Number : 5 Question Id : 9593765205 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The series $\sum_{n=1}^{\infty} \frac{1}{n^p}$ converges if:

Options :

1. ✗ $p > 0$
2. ✗ $p < 1$

3. ✓ $p > 1$
 4. ✗ $p \leq 1$
 5. ✗ $0 < p < 1$

Question Number : 5 Question Id : 9593765205 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

श्रृंखला $\sum_{n=1}^{\infty} \frac{1}{n^p}$ समाभिरूप है अगर:

Options :

1. ✗ $p > 0$
 2. ✗ $p < 1$
 3. ✓ $p > 1$
 4. ✗ $p \leq 1$
 5. ✗ $0 < p < 1$

Question Number : 6 Question Id : 9593765206 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The series $\sin x + \frac{\sin 2^4 x}{2^2} + \frac{\sin 3^4 x}{3^2} + \dots$ is:

Options :

1. ✗ oscillatory.
 2. ✗ conditionally convergent.
 3. ✗ divergent.
 4. ✓ absolutely and uniformly convergent.
 5. ✗ uniformly convergent but not absolutely convergent.

Question Number : 6 Question Id : 9593765206 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

श्रृंखला $\sin x + \frac{\sin 2^4 x}{2^2} + \frac{\sin 3^4 x}{3^2} + \dots$ है।

Options :

1. ✗ दोलित
 2. ✗ सशर्त संसृत
 3. ✗ अलग-अलग
 4. ✓ पूरी तरह से और समान रूप से फैली हुई संसृत
 5. ✗ समान रूप से संसृत लेकिन पूरी तरह से संसृत नहीं

Correct : 2 Wrong : 1

The equation $\sqrt{x+1} - \sqrt{x-1} = \sqrt{4x-1}$, where x is a real number, has/have:

Options :

1. ✓ no solution.
2. ✗ one solution.
3. ✗ two solutions.
4. ✗ three solutions.
5. ✗ more than three solutions.

Question Number : 7 Question Id : 9593765207 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $\sqrt{x+1} - \sqrt{x-1} = \sqrt{4x-1}$ जहां x वास्तविक संख्या है, का/के _____ होगा/होंगे।

Options :

1. ✓ कोई समाधान नहीं
2. ✗ एक समाधान
3. ✗ दो समाधान
4. ✗ तीन समाधान
5. ✗ तीन से अधिक समाधान

Question Number : 8 Question Id : 9593765208 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The number of rational terms in the expansion of $(1 + \sqrt{2} + \sqrt[3]{5})^6$ is:

Options :

1. ✓ 7
2. ✗ 11
3. ✗ 12
4. ✗ 9
5. ✗ 5

Question Number : 8 Question Id : 9593765208 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$(1 + \sqrt{2} + \sqrt[3]{5})^6$ के विस्तार में परिमेय मानों की संख्या है:

Options :

1. ✓ 17
2. ✗ 11
3. ✗ 12

4. ✖ 9

5. ✖ 5

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Question Number : 9 Question Id : 9593765209 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $1 - \frac{1}{3} + \frac{1}{5} - \frac{1}{7} + \frac{1}{9} - \frac{1}{11} + \dots = \frac{\pi}{4}$, then the value of $\frac{1}{1.3} + \frac{1}{5.7} + \frac{1}{9.11} + \dots$ is:

Options :

1. ✔ $\frac{\pi}{8}$

2. ✖ $\frac{\pi}{6}$

3. ✖ $\frac{\pi}{4}$

4. ✖ $\frac{\pi}{12}$

5. ✖ 4π

Question Number : 9 Question Id : 9593765209 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

अगर $1 - \frac{1}{3} + \frac{1}{5} - \frac{1}{7} + \frac{1}{9} - \frac{1}{11} + \dots = \frac{\pi}{4}$ है, तब $\frac{1}{1.3} + \frac{1}{5.7} + \frac{1}{9.11} + \dots$ का मान है:

Options :

1. ✔ $\frac{\pi}{8}$

2. ✖ $\frac{\pi}{6}$

3. ✖ $\frac{\pi}{4}$

4. ✖ $\frac{\pi}{12}$

5. ✖ 4π

Question Number : 10 Question Id : 9593765210 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The sum of the series $\frac{1}{1.2} - \frac{1}{2.3} + \frac{1}{3.4} - \frac{1}{4.5} + \dots$ is:

Options :

1. ✖ $\log_e 3$

2. ✔ $\log_e 4 - 1$

3. ✖ $\log_e 2$

4. ✖ $2\log_e 3$

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Question Number : 10 Question Id : 9593765210 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

श्रृंखला $\frac{1}{1.2} - \frac{1}{2.3} + \frac{1}{3.4} - \frac{1}{4.5} + \dots$ का योग है:

Options :

1. ✖ $\log_e 3$
2. ✔ $\log_e 4 - 1$
3. ✖ $\log_e 2$
4. ✖ $2\log_e 3$
5. ✖ $2\log_e 2$

Question Number : 11 Question Id : 9593765211 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

A square matrix A is an invertible if and only if it is _____

Options :

1. ✖ one to one.
2. ✖ onto.
3. ✔ nonsingular.
4. ✖ one to one but not onto.
5. ✖ none of the other options.

Question Number : 11 Question Id : 9593765211 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

यदि एक वर्ग मैट्रिक्स A एक प्रतीप्य है और यदि केवल यह है _____।

Options :

1. ✖ one to one
2. ✖ onto
3. ✔ nonsingular
4. ✖ one to one but not onto
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 12 Question Id : 9593765212 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

The value of 'x' in which the matrix $A = \begin{pmatrix} x & 2 \\ 1 & x-1 \end{pmatrix}$ is singular, is

given by:

Options :

1. ✖ 0
2. ✖ 1
3. ✔ 2
4. ✖ 3
5. ✖ -2

Question Number : 12 Question Id : 9593765212 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

‘x’ का मान क्या है, जहाँ मैट्रिक्स $A = \begin{pmatrix} x & 2 \\ 1 & x-1 \end{pmatrix}$ एकवचन (singular) है?

Options :

1. ✖ 0
2. ✖ 1
3. ✔ 2
4. ✖ 3
5. ✖ -2

Question Number : 13 Question Id : 9593765213 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

Suppose $M = \begin{pmatrix} A_1 & B \\ 0 & A_2 \end{pmatrix}$, where A_1 and A_2 are square matrices. The characteristic polynomial of M is _____ the characteristic polynomials of A_1 and A_2 .

Options :

1. ✖ the sum of
2. ✔ the product of
3. ✖ equal to
4. ✖ the quotient of
5. ✖ the subtraction of

Question Number : 13 Question Id : 9593765213 Question Type : MCQ Display Question Number : Yes Single Line Question
 Option : No Option Orientation : Vertical
 Correct : 2 Wrong : 1

माना $M = \begin{pmatrix} A_1 & B \\ 0 & A_2 \end{pmatrix}$, जहाँ A_1 और A_2 वर्ग मैट्रिक्स हैं, M का

विशेषता बहुपद (characteristic polynomial), A_1 और A_2 के बहुपद विशेषता _____ है।

Options :

1. ✖ का योग

2. ✓ का गुणन

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3. ✗ के बराबर

4. ✗ के भागफल

5. ✗ का घटाव

Question Number : 14 Question Id : 9593765214 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

A square matrix A is orthogonal if:

Options :

1. ✗ $A = A^2$

2. ✓ $A^T = A^{-1}$

3. ✗ $A^T A^{-1} = I$

4. ✗ $A^T = -A$

5. ✗ $A^{-1}A^T = I$

Question Number : 14 Question Id : 9593765214 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक वर्ग मैट्रिक्स A लंबकोणीय है अगर:

Options :

1. ✗ $A = A^2$

2. ✓ $A^T = A^{-1}$

3. ✗ $A^T A^{-1} = I$

4. ✗ $A^T = -A$

5. ✗ $A^{-1}A^T = I$

Question Number : 15 Question Id : 9593765215 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If every minor of order 'r' of a matrix A is zero, then the rank of A is:

Options :

1. ✗ greater than r.

2. ✗ equal to r.

3. ✗ less than or equal to r.

4. ✓ less than r.

5. ✗ greater than or equal to r .

Question Number : 15 Question Id : 9593765215 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

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Correct : 2 Wrong : 1

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यदि एक मैट्रिक्स A में प्रत्येक 'r' का माइनर शून्य है, तो A की श्रेणी है:

Options :

1. ✗ r से अधिक
2. ✗ r के बराबर
3. ✗ r से कम या r के बराबर है
4. ✓ r से कम
5. ✗ r से अधिक या r के बराबर है

Question Number : 16 Question Id : 9593765216 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

An eigenvalue and the corresponding eigenvector of the matrix

$$\begin{bmatrix} 3 & 0 & 0 \\ 0 & 4 & \sqrt{3} \\ 0 & \sqrt{3} & 6 \end{bmatrix} \text{ are:}$$

Options :

1. ✗ 3, $(0 \ 1 \ \sqrt{3})^T$
2. ✓ 7, $(0 \ 1 \ \sqrt{3})^T$
3. ✗ 3, $(1 \ \sqrt{3} \ 0)^T$
4. ✗ -7, $(0 \ -1 \ \sqrt{3})^T$
5. ✗ -3, $(0 \ 1 \ -\sqrt{3})^T$

Question Number : 16 Question Id : 9593765216 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

मैट्रिक्स $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 4 & \sqrt{3} \\ 0 & \sqrt{3} & 6 \end{bmatrix}$ का अभिलक्षणिक मान (eigenvalue) और उसका

पारस्परिक अभिलक्षणिक सदिश (eigenvector) है:

Options :

1. ✗ 3, $(0 \ 1 \ \sqrt{3})^T$
2. ✓ 7, $(0 \ 1 \ \sqrt{3})^T$
3. ✗ 3, $(1 \ \sqrt{3} \ 0)^T$
4. ✗ -7, $(0 \ -1 \ \sqrt{3})^T$

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5. ✖ $-3, (0 \ 1 \ -\sqrt{3})^T$

Question Number : 17 Question Id : 9593765217 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $A = \begin{pmatrix} 2 & 3 \\ -3 & -4 \end{pmatrix}$, then the matrix A^{100} is given by:

Options :

1. ✔ $\begin{pmatrix} -299 & -300 \\ 300 & 301 \end{pmatrix}$

2. ✖ $\begin{pmatrix} 299 & 300 \\ -300 & 301 \end{pmatrix}$

3. ✖ $\begin{pmatrix} 299 & 300 \\ 300 & -301 \end{pmatrix}$

4. ✖ $\begin{pmatrix} -299 & 300 \\ 300 & 301 \end{pmatrix}$

5. ✖ $\begin{pmatrix} 299 & -300 \\ 300 & 301 \end{pmatrix}$

Question Number : 17 Question Id : 9593765217 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

अगर $A = \begin{pmatrix} 2 & 3 \\ -3 & -4 \end{pmatrix}$ है, तब मैट्रिक्स A^{100} _____ से प्राप्त होगा।

Options :

1. ✔ $\begin{pmatrix} -299 & -300 \\ 300 & 301 \end{pmatrix}$

2. ✖ $\begin{pmatrix} 299 & 300 \\ -300 & 301 \end{pmatrix}$

3. ✖ $\begin{pmatrix} 299 & 300 \\ 300 & -301 \end{pmatrix}$

4. ✖ $\begin{pmatrix} -299 & 300 \\ 300 & 301 \end{pmatrix}$

5. ✖ $\begin{pmatrix} 299 & -300 \\ 300 & 301 \end{pmatrix}$

Question Number : 18 Question Id : 9593765218 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $A = \begin{pmatrix} 1 & 2 & 3 \\ 0 & 2 & 5 \\ 0 & 0 & 3 \end{pmatrix}$, then the eigenvalues of A^{-1} are respectively:

Options :

1. ✗ 1, 2, 3
2. ✗ 1, 2, 5
3. ✓ 1, 2^{-1} , 3^{-1}
4. ✗ 2, 3, 5
5. ✗ 1, 2^2 , 3^2

Question Number : 18 Question Id : 9593765218 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

अगर $A = \begin{pmatrix} 1 & 2 & 3 \\ 0 & 2 & 5 \\ 0 & 0 & 3 \end{pmatrix}$ है, तब A^{-1} का आइगन वेल्यु है:

Options :

1. ✗ 1, 2, 3
2. ✗ 1, 2, 5
3. ✓ 1, 2^{-1} , 3^{-1}
4. ✗ 2, 3, 5
5. ✗ 1, 2^2 , 3^2

Question Number : 19 Question Id : 9593765219 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The greatest value of $f(x) = 2\sin x + \sin 2x$ on $\left[0, \frac{3\pi}{2}\right]$ is:

Options :

1. ✗ $\frac{3}{2}$
2. ✗ $\frac{5}{2}$
3. ✓ $\frac{3\sqrt{3}}{2}$
4. ✗ $\frac{9}{2}$

5. ✖ $\frac{1}{2}$

Question Number : 19 Question Id : 9593765219 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

$f(x) = 2\sin x + \sin 2x$ का $\left[0, \frac{3\pi}{2}\right]$ पर सबसे अधिक मान है:

Options :

1. ✖ $\frac{3}{2}$
2. ✖ $\frac{5}{2}$
3. ✔ $\frac{3\sqrt{3}}{2}$
4. ✖ $\frac{9}{2}$
5. ✖ $\frac{1}{2}$

Question Number : 20 Question Id : 9593765220 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\frac{2\sin\alpha}{1+\sin\alpha+\cos\alpha} = x$, then the value of $\frac{\cos\alpha}{1+\sin\alpha}$ is:

Options :

1. ✔ $1 - x$
2. ✖ x
3. ✖ $1 + x$
4. ✖ $1/x$
5. ✖ $3 + x$

Question Number : 20 Question Id : 9593765220 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

अगर $\frac{2\sin\alpha}{1+\sin\alpha+\cos\alpha} = x$, तब $\frac{\cos\alpha}{1+\sin\alpha}$ का मान होगा:

Options :

1. ✔ $1 - x$
2. ✖ x
3. ✖ $1 + x$
4. ✖ $1/x$
5. ✖ $3 + x$

Correct : 2 Wrong : 1

The number of integral values of 'k' for which the equation $k \sin x + \cos 2x = 2k - 7$ possesses solution, is:

Options :

1. ✗ 1
2. ✗ 4
3. ✗ 3
4. ✗ 2
5. ✓ 5

Question Number : 21 Question Id : 9593765221 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $k \sin x + \cos 2x = 2k - 7$ का 'k' के कितने अभिन्न मानों (integral values) के लिये वास्तविक हल है?

Options :

1. ✗ 1
2. ✗ 4
3. ✗ 3
4. ✗ 2
5. ✓ 5

Question Number : 22 Question Id : 9593765222 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The number of real solutions of $\tan^{-1}(\sqrt{x(x+1)}) + \sin^{-1}(\sqrt{x^2 + x + 1}) = \frac{\pi}{2}$ is:

Options :

1. ✗ Infinite
2. ✓ 0
3. ✗ 2
4. ✗ 1
5. ✗ 3

Question Number : 22 Question Id : 9593765222 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\tan^{-1}(\sqrt{x(x+1)}) + \sin^{-1}(\sqrt{x^2 + x + 1}) = \frac{\pi}{2}$ के कितने वास्तविक हल है?

Options :

1. ✗ अनंत

- 2. ✓ 0
- 3. ✗ 2
- 4. ✗ 1
- 5. ✗ 3

Question Number : 23 Question Id : 9593765223 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $(-1 + i\sqrt{3})^{3n} + (-1 - i\sqrt{3})^{3n}$ is:

Options :

- 1. ✗ 2^{2n+1}
- 2. ✓ 2^{3n+1}
- 3. ✗ 3^{2n+1}
- 4. ✗ 2^{n+1}
- 5. ✗ 2^{3n}

Question Number : 23 Question Id : 9593765223 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$(-1 + i\sqrt{3})^{3n} + (-1 - i\sqrt{3})^{3n}$ का मान है:

Options :

- 1. ✗ 2^{2n+1}
- 2. ✓ 2^{3n+1}
- 3. ✗ 3^{2n+1}
- 4. ✗ 2^{n+1}
- 5. ✗ 2^{3n}

Question Number : 24 Question Id : 9593765224 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $x = 2 \cos \theta$, then $\frac{1 + \cos 7\theta}{1 + \cos \theta}$ is equal to:

Options :

- 1. ✗ $(x^3 + x^2 + 2x - 4)^2$
- 2. ✗ $(x^3 - x^2 - x + 1)^2$
- 3. ✗ $(x^3 + 2x^2 - x + 3)^2$
- 4. ✓ $(x^3 - x^2 - 2x + 1)^2$

5. ✖ $(x^3 - 2x^2 - x - 1)^2$

Question Number : 24 Question Id : 9593765224 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

अगर $x = 2 \cos \theta$, तब $\frac{1 + \cos 7\theta}{1 + \cos \theta}$ _____ के समान है।

Options :

1. ✖ $(x^3 + x^2 + 2x - 4)^2$

2. ✖ $(x^3 - x^2 - x + 1)^2$

3. ✖ $(x^3 + 2x^2 - x + 3)^2$

4. ✔ $(x^3 - x^2 - 2x + 1)^2$

5. ✖ $(x^3 - 2x^2 - x - 1)^2$

Question Number : 25 Question Id : 9593765225 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\cos(x + iy) = \cos \theta + i \sin \theta$, then the value of $\cos 2x + \cosh 2y$ is:

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

5. ✖ -1

Question Number : 25 Question Id : 9593765225 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि $\cos(x + iy) = \cos \theta + i \sin \theta$ है, तो $\cos 2x + \cosh 2y$ का मान है:

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

5. ✖ -1

Question Number : 26 Question Id : 9593765226 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The real part of $i^{\log(1+i)}$ is given by:

Options :

1. ✖ $e^{\frac{-\pi^2}{4}} \cos(\frac{\pi}{4} \log 2)$

2. ✖ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{8} \log 2)$

3. ✔ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{4} \log 2)$

4. ✖ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{2} \log 4)$

5. ✖ $e^{\frac{-\pi}{2}} \cos(\frac{\pi}{2} \log 2)$

Question Number : 26 Question Id : 9593765226 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$i^{\log(1+i)}$ का वास्तविक भाग _____ के द्वारा दिया जाता है।

Options :

1. ✖ $e^{\frac{-\pi^2}{4}} \cos(\frac{\pi}{4} \log 2)$

2. ✖ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{8} \log 2)$

3. ✔ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{4} \log 2)$

4. ✖ $e^{\frac{-\pi^2}{8}} \cos(\frac{\pi}{2} \log 4)$

5. ✖ $e^{\frac{-\pi}{2}} \cos(\frac{\pi}{2} \log 2)$

Question Number : 27 Question Id : 9593765227 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\tan\left(\frac{x}{2}\right) = \tanh\left(\frac{y}{2}\right)$, then the value of $\cos x \cdot \cosh y$ becomes:

Options :

1. ✖ -1

2. ✖ 2

3. ✖ 3

4. ✔ 1

5. ✖ 0

Question Number : 27 Question Id : 9593765227 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $\tan\left(\frac{x}{2}\right) = \tanh\left(\frac{y}{2}\right)$ है, तो $\cos x \cdot \cosh y$ का मान हो जाता है:

Options :

1. ✖ -1

2. ✖ 2

3. ✖ 3

4. ✔ 1

5. ✖ 0

Question Number : 28 Question Id : 9593765228 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $x = \log\left(\tan\left(\frac{\pi}{4} + \frac{\theta}{2}\right)\right)$, then $\tanh\left(\frac{x}{2}\right)$ is equal to:

Options :

1. ✖ $\tan \theta$ 2. ✖ $\tan 2\theta$ 3. ✔ $\tan\left(\frac{\theta}{2}\right)$ 4. ✖ $\tan\left(\frac{\theta}{4}\right)$ 5. ✖ $\tan\left(\frac{3\theta}{4}\right)$

Question Number : 28 Question Id : 9593765228 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $x = \log\left(\tan\left(\frac{\pi}{4} + \frac{\theta}{2}\right)\right)$ है, तो $\tanh\left(\frac{x}{2}\right)$ _____ के बराबर है।

Options :

1. ✖ $\tan \theta$ 2. ✖ $\tan 2\theta$ 3. ✔ $\tan\left(\frac{\theta}{2}\right)$ 4. ✖ $\tan\left(\frac{\theta}{4}\right)$

Question Number : 29 Question Id : 9593765229 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\vec{A} = t^2 \hat{i} - t \hat{j} + (2t+1)\hat{k}$ and $\vec{B} = (2t-3)\hat{i} + \hat{j} - t\hat{k}$, then

$\frac{d}{dt}|\vec{A}+\vec{B}|$ at $t=1$ is equal to:

Options :

1. ✖ 0
2. ✔ 1
3. ✖ 2
4. ✖ 3
5. ✖ -1

Question Number : 29 Question Id : 9593765229 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि $\vec{A} = t^2 \hat{i} - t \hat{j} + (2t+1)\hat{k}$ और $\vec{B} = (2t-3)\hat{i} + \hat{j} - t\hat{k}$ है, तो $t = 1$ के लिए

$\frac{d}{dt}|\vec{A}+\vec{B}|$ _____ के बराबर है।

Options :

1. ✖ 0
2. ✔ 1
3. ✖ 2
4. ✖ 3
5. ✖ -1

Question Number : 30 Question Id : 9593765230 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\vec{A} = \sin u \hat{i} + \cos u \hat{j} + u\hat{k}$, $\vec{B} = \cos u \hat{i} - \sin u \hat{j} - 3\hat{k}$ and

$\vec{C} = 2\hat{i} + 3\hat{j} - \hat{k}$, then $\frac{d}{du}(\vec{A} \times (\vec{B} \times \vec{C}))$ at $u=0$ is equal to:

Options :

1. ✖ $2\hat{i} + 3\hat{j} - 4\hat{k}$
2. ✖ $7\hat{i} - 6\hat{j} + 6\hat{k}$

3. ✓ $7\hat{i} + 6\hat{j} - 6\hat{k}$

4. ✗ $7\hat{i} + 3\hat{j} - 6\hat{k}$

5. ✗ $2\hat{i} - 3\hat{j} + 4\hat{k}$

Question Number : 30 Question Id : 9593765230 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $\vec{A} = \sin u \hat{i} + \cos u \hat{j} + u \hat{k}$, $\vec{B} = \cos u \hat{i} - \sin u \hat{j} - 3\hat{k}$ एवं $\vec{C} = 2\hat{i} + 3\hat{j} - \hat{k}$,

तो $u = 0$ के लिए $\frac{d}{du}(\vec{A} \times (\vec{B} \times \vec{C}))$ _____ के बराबर है।

Options :

1. ✗ $2\hat{i} + 3\hat{j} - 4\hat{k}$

2. ✗ $7\hat{i} - 6\hat{j} + 6\hat{k}$

3. ✓ $7\hat{i} + 6\hat{j} - 6\hat{k}$

4. ✗ $7\hat{i} + 3\hat{j} - 6\hat{k}$

5. ✗ $2\hat{i} - 3\hat{j} + 4\hat{k}$

Question Number : 31 Question Id : 9593765231 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\nabla\phi = (yz\hat{i} + zx\hat{j} - xy\hat{k})/z^2$, then ϕ is equal to:

Options :

1. ✗ $\frac{x^2y}{z}$

2. ✗ $\frac{xy^2}{z}$

3. ✗ $\frac{-xy}{z}$

4. ✓ $\frac{xy}{z}$

5. ✗ $\frac{zx}{y}$

Question Number : 31 Question Id : 9593765231 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $\nabla\phi = (yz\hat{i} + zx\hat{j} - xy\hat{k})/z^2$, तो ϕ _____ के बराबर है।

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Options :

1. ✗ $\frac{x^2y}{z}$
2. ✗ $\frac{xy^2}{z}$
3. ✗ $\frac{-xy}{z}$
4. ✓ $\frac{xy}{z}$
5. ✗ $\frac{zx}{y}$

Question Number : 32 Question Id : 9593765232 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\vec{A} = (bx^2y + yz)\hat{i} + (xy^2 - xz^2)\hat{j} + (2xyz - 2x^2y^2)\hat{k}$ has zero divergence, then the value of 'b' is:

Options :

1. ✗ -1
2. ✗ 1
3. ✗ 2
4. ✗ 3
5. ✓ -2

Question Number : 32 Question Id : 9593765232 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $\vec{A} = (bx^2y + yz)\hat{i} + (xy^2 - xz^2)\hat{j} + (2xyz - 2x^2y^2)\hat{k}$ का शून्य विचलन है, तो 'b' का मान है:

Options :

1. ✗ -1
2. ✗ 1
3. ✗ 2
4. ✗ 3
5. ✓ -2

Question Number : 33 Question Id : 9593765233 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\vec{A} = (2xy + 3yz)\hat{i} + (x^2 + axz - 4z^2)\hat{j} + (3xy + 2byz)\hat{k}$ has its curl identically equal to zero, then the values of 'a' and 'b' are respectively:

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Options :

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1. ✖ 3, 2
2. ✔ 3, -4
3. ✖ 1, 4
4. ✖ 2, 1
5. ✖ 3, 5

Question Number : 33 Question Id : 9593765233 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $\vec{A} = (2xy + 3yz)\hat{i} + (x^2 + axz - 4z^2)\hat{j} + (3xy + 2byz)\hat{k}$ का घुमाव हबहू शून्य के बराबर है, तब 'a' और 'b' का मान क्रमशः हैं:

Options :

1. ✖ 3, 2
2. ✔ 3, -4
3. ✖ 1, 4
4. ✖ 2, 1
5. ✖ 3, 5

Question Number : 34 Question Id : 9593765234 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ and $|\vec{r}| = r$, then $\nabla(r^n)$ is equal to:

Options :

1. ✖ $\frac{n\vec{r}}{r}$
2. ✖ $n\vec{r}$
3. ✖ $\frac{n\vec{r}^{n-1}}{r}$
4. ✖ $\frac{n\vec{r}^{n-2}}{r}$
5. ✔ $n\vec{r}^{n-2}$

Question Number : 34 Question Id : 9593765234 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

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अगर $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ और $|\vec{r}| = r$, तब $\nabla(r^n)$ _____ के बराबर है। <https://universitypaper.in>

Options :

1. ☐ $\frac{n\vec{r}}{r}$
2. ☐ $n\vec{r}$
3. ☐ $\frac{n\vec{r}^{n-1}}{r}$
4. ☐ $\frac{n\vec{r}^{n-2}}{r}$
5. ☒ $n\vec{r}^{n-2}$

Question Number : 35 Question Id : 9593765235 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ and $|\vec{r}| = r$, then $\text{div}\left(\frac{\vec{r}}{r}\right)$ is equal to:

- Options :
1. ☐ $\frac{4}{r}$
 2. ☒ $\frac{2}{r}$
 3. ☐ $\frac{3}{r}$
 4. ☐ $\frac{1}{r}$
 5. ☐ $2r$

Question Number : 35 Question Id : 9593765235 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ और $|\vec{r}| = r$, तो $\text{div}\left(\frac{\vec{r}}{r}\right)$ _____ के बराबर है।

Options :

1. ☐ $\frac{4}{r}$

2. ✓ $\frac{2}{r}$
3. ✗ $\frac{3}{r}$
4. ✗ $\frac{1}{r}$
5. ✗ $2r$

Question Number : 36 Question Id : 9593765236 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Let $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ and $|\vec{r}| = r$. The directional derivative of $\frac{1}{r}$ in the direction of $\vec{r}$ is:

Options :

1. ✗ $\frac{\vec{r}}{r}$
2. ✗ $\frac{1}{r}$
3. ✓ $-\frac{1}{r^2}$
4. ✗ $\frac{2}{r}$
5. ✗ $\frac{1}{r^2}$

Question Number : 36 Question Id : 9593765236 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

माना $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$ और $|\vec{r}| = r$ है। तब $\frac{1}{r}$ की दिशा में $\vec{r}$ दिशात्मक व्युत्पन्न _____ है।

Options :

1. ✗ $\frac{\vec{r}}{r}$
2. ✗ $\frac{1}{r}$
3. ✓ $-\frac{1}{r^2}$
4. ✗ $\frac{2}{r}$

5. ✖ $\frac{1}{r^2}$

Question Number : 37 Question Id : 9593765237 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The value of $\text{curl}(\text{grad } \phi)$, where $\phi = x^3 + y^3 + z^3 - 3xy$ is:

Options :

1. ✖ 3
2. ✖ $6x\hat{i} - 6y\hat{j} + 5z\hat{k}$
3. ✖ $2x\hat{i} + 3y\hat{j} - 5z\hat{k}$
4. ✖ $4x\hat{i} - 6y\hat{j} + 8z\hat{k}$
5. ✔ 0

Question Number : 37 Question Id : 9593765237 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

$\text{curl}(\text{grad } \phi)$ का मान _____ है, जहाँ $\phi = x^3 + y^3 + z^3 - 3xy$ है।

Options :

1. ✖ 3
2. ✖ $6x\hat{i} - 6y\hat{j} + 5z\hat{k}$
3. ✖ $2x\hat{i} + 3y\hat{j} - 5z\hat{k}$
4. ✖ $4x\hat{i} - 6y\hat{j} + 8z\hat{k}$
5. ✔ 0

Question Number : 38 Question Id : 9593765238 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The value of $\text{curl}(\text{curl } \vec{A})$, where $\vec{A} = 3xz^2\hat{i} - yz\hat{j} + (x + 2z)\hat{k}$ is:

Options :

1. ✖ $x\hat{i} + (z - 1)\hat{k}$
2. ✖ $x\hat{i} + (2z - 1)\hat{k}$
3. ✔ $-6x\hat{i} + (6z - 1)\hat{k}$
4. ✖ $x\hat{i} + (6z - 1)\hat{k}$
5. ✖ $6x\hat{i} + \hat{j} - 6z\hat{k}$

Question Number : 38 Question Id : 9593765238 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

curl (curl $\vec{A}$) का मान _____ है, जहाँ $\vec{A} = 3xz^2 \hat{i} - yz \hat{j} + (x + 2z) \hat{k}$ है।

Options :

1. ✗ $x \hat{i} + (z - 1) \hat{k}$
2. ✗ $x \hat{i} + (2z - 1) \hat{k}$
3. ✓ $-6x \hat{i} + (6z - 1) \hat{k}$
4. ✗ $x \hat{i} + (6z - 1) \hat{k}$
5. ✗ $6x \hat{i} + \hat{j} - 6z \hat{k}$

Question Number : 39 Question Id : 9593765239 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If $\vec{a} = e^{-t} \hat{i} - 6(t + 1) \hat{j} + 3 \sin t \hat{k}$ is the acceleration of a particle at any time $t \geq 0$ and if the velocity $\vec{v}$ is zero at $t = 0$, then the velocity $\vec{v}$ at any time t is given by:

Options :

1. ✗ $(1 + e^{-t}) \hat{i} - (3t^2 - 6t) \hat{j} + 3(1 - \cos t) \hat{k}$
2. ✗ $(1 - e^{-t}) \hat{i} + (3t^2 - 6t) \hat{j} - 3(1 - \cos t) \hat{k}$
3. ✗ $(1 - e^{-t}) \hat{i} - (3t^2 - 6t) \hat{j} + 3(1 + \cos t) \hat{k}$
4. ✗ $(1 - e^{-t}) \hat{i} - (3t^2 + 4t) \hat{j} + 3(1 - \sin t) \hat{k}$
5. ✓ $(1 - e^{-t}) \hat{i} - (3t^2 + 6t) \hat{j} + 3(1 - \cos t) \hat{k}$

Question Number : 39 Question Id : 9593765239 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि $\vec{a} = e^{-t} \hat{i} - 6(t + 1) \hat{j} + 3 \sin t \hat{k}$ किसी भी समय $t \geq 0$ एक कण का त्वरण है और यदि वेग $\vec{v}$, $t = 0$ पर शून्य है, तो दिए गए किसी भी समय t पर वेग $\vec{v}$ होगा:

Options :

1. ✗ $(1 + e^{-t}) \hat{i} - (3t^2 - 6t) \hat{j} + 3(1 - \cos t) \hat{k}$
2. ✗ $(1 - e^{-t}) \hat{i} + (3t^2 - 6t) \hat{j} - 3(1 - \cos t) \hat{k}$
3. ✗ $(1 - e^{-t}) \hat{i} - (3t^2 - 6t) \hat{j} + 3(1 + \cos t) \hat{k}$

4. ✖ $(1 - e^{-t})\hat{i} - (3t^2 + 4t)\hat{j} + 3(1 - \sin t)\hat{k}$

5. ✔ $(1 - e^{-t})\hat{i} - (3t^2 + 6t)\hat{j} + 3(1 - \cos t)\hat{k}$

Question Number : 40 Question Id : 9593765240 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The total work done in moving a particle in a force field $\vec{A} = 3xy\hat{i} - 5z\hat{j} + 10x\hat{k}$ along the curve $x = t^2 + 1$, $y = 2t^2$, $z = t^3$ from $t = 1$ to $t = 2$ is:

Options :

1. ✖ 51

2. ✖ 101

3. ✔ 303

4. ✖ 201

5. ✖ 301

Question Number : 40 Question Id : 9593765240 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक कण को बल क्षेत्र $\vec{A} = 3xy\hat{i} - 5z\hat{j} + 10x\hat{k}$ तथा वक्रता $x = t^2 + 1$, $y = 2t^2$, $z = t^3$ के साथ $t = 1$ से $t = 2$ तक गतिमान करने के लिए लगा कुल बल होगा:

Options :

1. ✖ 51

2. ✖ 101

3. ✔ 303

4. ✖ 201

5. ✖ 301

Question Number : 41 Question Id : 9593765241 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The length of sub tangent to the rectangular hyperbola $x^2 - y^2 = a^2$ at the point $(a, \sqrt{2}a)$ is:

Options :

1. ✖ $\frac{1}{2a}$

2. ✔ $2a$

3. ✖ $\sqrt{2}a$

4. ✖ $\frac{a}{\sqrt{2}}$

5. ✖ $\frac{2}{a}$

Question Number : 41 Question Id : 9593765241 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

आयताकार अतिपरवलय $x^2 - y^2 = a^2$ की उप स्पर्शरेखा की लंबाई, बिंदु $(a, \sqrt{2}a)$ पर क्या है?

Options :

1. ✖ $\frac{1}{2a}$
2. ✔ $2a$
3. ✖ $\sqrt{2}a$
4. ✖ $\frac{a}{\sqrt{2}}$
5. ✖ $\frac{2}{a}$

Question Number : 42 Question Id : 9593765242 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The length of subnormal to the curve $y = x^3$ at $(2, 8)$ is:

Options :

1. ✖ 16
2. ✖ 32
3. ✖ 64
4. ✔ 96
5. ✖ 8

Question Number : 42 Question Id : 9593765242 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

एक वक्र $y = x^3$ के लिए सबनॉर्मल की लंबाई $(2, 8)$ _____ है।

Options :

1. ✖ 16
2. ✖ 32
3. ✖ 64
4. ✔ 96
5. ✖ 8

Question Number : 43 Question Id : 9593765243 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The radius of curvature of the curve $y = e^x$ at the point where it crosses the y-axis is:

Options :

1. ✗ $\sqrt{2}$
2. ✗ $\frac{1}{\sqrt{2}}$
3. ✗ 2
4. ✓ $2\sqrt{2}$
5. ✗ $\sqrt{3}$

Question Number : 43 Question Id : 9593765243 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक वक्र $y = e^x$ की वक्रता त्रिज्या उस बिंदु पर क्या है जहाँ वह y - अक्ष को काटता है?

Options :

1. ✗ $\sqrt{2}$
2. ✗ $\frac{1}{\sqrt{2}}$
3. ✗ 2
4. ✓ $2\sqrt{2}$
5. ✗ $\sqrt{3}$

Question Number : 44 Question Id : 9593765244 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The length of tangents drawn from the point (3, -4) to the circle

$$2x^2 + 2y^2 - 7x - 9y - 13 = 0 \text{ is:}$$

Options :

1. ✗ 26
2. ✓ $\sqrt{26}$
3. ✗ 2
4. ✗ $2\sqrt{13}$
5. ✗ $13\sqrt{2}$

Question Number : 44 Question Id : 9593765244 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

वक्र $2x^2 + 2y^2 - 7x - 9y - 13 = 0$ से बिंदु (3, -4) तक खींची स्पर्शरेखा की लंबाई है:

Options :

1. ✗ 26
2. ✓ $\sqrt{26}$
3. ✗ 2

4. ✖ $2\sqrt{13}$

5. ✖ $13\sqrt{2}$

Question Number : 45 Question Id : 9593765245 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The equation of the director circle of the circle $x^2 + y^2 = a^2$ is:

Options :

1. ✔ $x^2 + y^2 = 2a^2$

2. ✖ $x^2 + y^2 = 4a^2$

3. ✖ $x^2 - y^2 = 2a^2$

4. ✖ $x^2 + y^2 = 3a^2$

5. ✖ $x^2 - y^2 = a^2$

Question Number : 45 Question Id : 9593765245 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

$x^2 + y^2 = a^2$ वक्र के मुख्य वक्र (director circle) का समीकरण _____ है।

Options :

1. ✔ $x^2 + y^2 = 2a^2$

2. ✖ $x^2 + y^2 = 4a^2$

3. ✖ $x^2 - y^2 = 2a^2$

4. ✖ $x^2 + y^2 = 3a^2$

5. ✖ $x^2 - y^2 = a^2$

Question Number : 46 Question Id : 9593765246 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The equation of the circle which passes through the origin and belongs to the co-axial of circles whose limiting points are (1, 2) and (4, 3), is:

Options :

1. ✖ $2x^2 - 2y^2 + x - 7y = 0$

2. ✖ $x^2 + 2y^2 - x + 7y = 0$

3. ✖ $x^2 + y^2 - 2x + 5y = 0$

4. ✔ $2x^2 + 2y^2 - x - 7y = 0$

5. ✖ $x^2 - y^2 - 3x - 7y = 0$

Question Number : 46 Question Id : 9593765246 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

वक्र का समीकरण जो मुख्य बिन्दु से होकर गुजरता है और वक्र के अक्ष से संबंध रखता है जिसके सीमा बिन्दु (1, 2) और (4, 3) हैं, _____ होगा।

Options :

1. ✖ $2x^2 - 2y^2 + x - 7y = 0$

2. ✖ $x^2 + 2y^2 - x + 7y = 0$

3. ✖ $x^2 + y^2 - 2x + 5y = 0$

4. ✔ $2x^2 + 2y^2 - x - 7y = 0$

5. ✖ $x^2 - y^2 - 3x - 7y = 0$

Question Number : 47 Question Id : 9593765247 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The equation $x^2y^2 - 2xy^2 - 3y^2 - 4x^2y + 8xy + 12y = 0$ represents:

Options :

1. ✔ a set of four lines forming a square.

2. ✖ a pair of straight lines.

3. ✖ a pair of straight lines and a circle.

4. ✖ a pair of straight lines and a parabola.

5. ✖ a pair of straight lines and an ellipse.

Question Number : 47 Question Id : 9593765247 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

समीकरण $x^2y^2 - 2xy^2 - 3y^2 - 4x^2y + 8xy + 12y = 0$ क्या दर्शाता है?

Options :

1. ✔ चार रेखा समूहों द्वारा एक वर्ग के गठन का

2. ✖ एक जोड़ी सीधी रेखाओं की।

3. ✖ एक जोड़ी सीधी रेखाओं और एक वक्र की

4. ✖ एक जोड़ी सीधी रेखाओं की और एक परवलय की

5. ✖ एक जोड़ी सीधी रेखाओं की और एक दीर्घवृत्त की

Question Number : 48 Question Id : 9593765248 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

Equation of a common tangent to the curves $y^2 = 8x$ and $xy = -1$ is given by <https://universitypaper.in>

Options :

1. ✗ $y = 2x + 1$
2. ✗ $2y = x + 4$
3. ✓ $y = x + 2$
4. ✗ $3y = 6x + 1$
5. ✗ $y = x - 4$

Question Number : 48 Question Id : 9593765248 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

दिए गए वक्र $y^2 = 8x$ और $xy = -1$ के लिए एक सामान्य स्पर्शरेखा का समीकरण है:

Options :

1. ✗ $y = 2x + 1$
2. ✗ $2y = x + 4$
3. ✓ $y = x + 2$
4. ✗ $3y = 6x + 1$
5. ✗ $y = x - 4$

Question Number : 49 Question Id : 9593765249 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The common tangents to the circle $x^2 + y^2 = a^2/2$ and the parabola $y^2 = 4ax$ intersects at the focus of the parabola becomes:

Options :

1. ✗ $x^2 = 4ay$
2. ✓ $y^2 = -4ax$
3. ✗ $x^2 = -4ay$
4. ✗ $y^2 = 4a(x + a)$
5. ✗ $y^2 = \sqrt{2} ax$

Question Number : 49 Question Id : 9593765249 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

वक्र $x^2 + y^2 = a^2/2$ और परवलय $y^2 = 4ax$ की एक सामान्य स्पर्शरेखा एक परवलय के केन्द्र पर प्रतिछेद होने पर _____ होगी।

Options :

1. ✗ $x^2 = 4ay$
2. ✓ $y^2 = -4ax$
3. ✗ $x^2 = -4ay$
4. ✗ $y^2 = 4a(x + a)$
5. ✗ $y^2 = \sqrt{2} ax$

Question Number : 50 Question Id : 9593765250 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $2x + 3y = 0$ and $y = x$ are the equations of a pair of conjugate diameters of an ellipse, then the eccentricity of the ellipse is:

Options :

1. ✗ $\frac{1}{\sqrt{2}}$
2. ✓ $\frac{1}{\sqrt{3}}$
3. ✗ $\sqrt{\frac{2}{3}}$
4. ✗ $\frac{2}{\sqrt{3}}$
5. ✗ $\frac{4}{\sqrt{3}}$

Question Number : 50 Question Id : 9593765250 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $2x + 3y = 0$ और $y = x$ एक दीर्घवृत्त संयुग्मी के व्यास की एक जोड़ी के समीकरण हैं, तो दीर्घवृत्त की विकेंद्रता है:

Options :

1. ✗ $\frac{1}{\sqrt{2}}$
2. ✓ $\frac{1}{\sqrt{3}}$
3. ✗ $\sqrt{\frac{2}{3}}$
4. ✗ $\frac{2}{\sqrt{3}}$
5. ✗ $\frac{4}{\sqrt{3}}$

Question Number : 51 Question Id : 9593765251 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The coordinates of foot of the perpendicular from the point $(1, 0, -3)$ to the line

$$\frac{x-2}{3} = \frac{y-3}{4} = \frac{z-4}{5} \text{ are:}$$

Options :

1. ✗ $(1, 3, -2)$
2. ✗ $(1, 1, -1)$
3. ✗ $(1, 0, -1)$
4. ✓ $(-1, -1, -1)$
5. ✗ $(3, 5, 7)$

Question Number : 51 Question Id : 9593765251 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक बिंदु $(1, 0, -3)$, रेखा $\frac{x-2}{3} = \frac{y-3}{4} = \frac{z-4}{5}$ पर लंबवत हो तो उसके आधार का निर्देशांक है:

Options :

1. ✗ $(1, 3, -2)$
2. ✗ $(1, 1, -1)$
3. ✗ $(1, 0, -1)$
4. ✓ $(-1, -1, -1)$
5. ✗ $(3, 5, 7)$

Question Number : 52 Question Id : 9593765252 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

For what values of 'k', the planes $x + 2y + 3z + k = 0$ and $2x + ky + 6z - 1 = 0$ are perpendicular?

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 5
4. ✗ 8
5. ✓ -10

Question Number : 52 Question Id : 9593765252 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

'k' के किन मानों के लिए समतल $x + 2y + 3z + k = 0$ और $2x + ky + 6z - 1 = 0$ लंबवत है?

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 5
- 4. ✖ 8
- 5. ✔ -10

Question Number : 53 Question Id : 9593765253 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The distance between the parallel planes $2x - 3y + 6z + 12 = 0$ and $6x - 9y + 18z - 6 = 0$ is:

Options :

- 1. ✖ 3
- 2. ✖ $4\sqrt{2}$
- 3. ✖ $10\sqrt{2}$
- 4. ✖ $6\sqrt{2}$
- 5. ✔ 2

Question Number : 53 Question Id : 9593765253 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समानांतर समतल $2x - 3y + 6z + 12 = 0$ और $6x - 9y + 18z - 6 = 0$ के बीच की दूरी है:

Options :

- 1. ✖ 3
- 2. ✖ $4\sqrt{2}$
- 3. ✖ $10\sqrt{2}$
- 4. ✖ $6\sqrt{2}$
- 5. ✔ 2

Question Number : 54 Question Id : 9593765254 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The equation of the plane that contains the three points A(1, -2, 4), B(4, 1, 7) and C(-1, 5, 1) is given by:

Options :

- 1. ✖ $10x + y + 9z - 24 = 0$
- 2. ✔ $10x - y - 9z + 24 = 0$
- 3. ✖ $10x - y + 9z - 24 = 0$
- 4. ✖ $10x - y - 9z - 24 = 0$
- 5. ✖ $10x + y - 9z + 24 = 0$

Question Number : 54 Question Id : 9593765254 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक समतल का समीकरण क्या होगा जिसमें तीन बिंदु $A(1, -2, 4)$, $B(4, 1, 7)$ and $C(-1, 5, 1)$ हैं?

Options :

1. ✗ $10x + y + 9z - 24 = 0$
2. ✓ $10x - y - 9z + 24 = 0$
3. ✗ $10x - y + 9z - 24 = 0$
4. ✗ $10x - y - 9z - 24 = 0$
5. ✗ $10x + y - 9z + 24 = 0$

Question Number : 55 Question Id : 9593765255 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The angle between the line $\frac{x+1}{2} = \frac{y}{3} = \frac{z-3}{6}$ and the plane $3x - y + z = 7$ is:

Options :

1. ✗ $\theta = \cos^{-1}\left(\frac{3}{7}\right)$
2. ✗ $\theta = \sin^{-1}\left(\frac{1}{\sqrt{2}}\right)$
3. ✗ $\theta = \cos^{-1}\left(\frac{1}{\sqrt{2}}\right)$
4. ✗ $\theta = \cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$
5. ✓ $\theta = \sin^{-1}\left(\frac{9}{7\sqrt{11}}\right)$

Question Number : 55 Question Id : 9593765255 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

रेखा $\frac{x+1}{2} = \frac{y}{3} = \frac{z-3}{6}$ और समतल $3x - y + z = 7$ के बीच कोण है:

Options :

1. ✗ $\theta = \cos^{-1}\left(\frac{3}{7}\right)$
2. ✗ $\theta = \sin^{-1}\left(\frac{1}{\sqrt{2}}\right)$
3. ✗ $\theta = \cos^{-1}\left(\frac{1}{\sqrt{2}}\right)$
4. ✗ $\theta = \cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$

5. ✓ $\theta = \sin^{-1}\left(\frac{9}{7\sqrt{11}}\right)$

Question Number : 56 Question Id : 9593765256 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

Section of a sphere by a plane is:

Options :

1. ✓ circle.
2. ✗ parabola.
3. ✗ ellipse.
4. ✗ hyperbola.
5. ✗ rectangular hyperbola.

Question Number : 56 Question Id : 9593765256 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

एक प्लेन द्वारा एक वक्र का अनुभाग है:

Options :

1. ✓ वृत्त
2. ✗ परबलय
3. ✗ दीर्घ वृत्त
4. ✗ अति परबलय
5. ✗ आयताकार अति परबलय

Question Number : 57 Question Id : 9593765257 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The radius of a great circle of a sphere is:

Options :

1. ✗ greater than the radius of the sphere.
2. ✗ less than the radius of the sphere.
3. ✓ equal to the radius of the sphere.
4. ✗ not equal to the radius of the sphere.
5. ✗ equal to twice the radius of the sphere.

Question Number : 57 Question Id : 9593765257 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

एक गोले के एक बड़े वृत्त की त्रिज्या है:

Options :

1. ✖ गोले की त्रिज्या से अधिक
2. ✖ गोले की त्रिज्या से कम क्षेत्र
3. ✔ गोले की त्रिज्या के बराबर
4. ✖ गोले की त्रिज्या के बराबर नहीं है
5. ✖ गोले की त्रिज्या के दुगुनी बराबर का

Question Number : 58 Question Id : 9593765258 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The equation of a cone with vertex at origin and base curve given by $2x^2 + 3y^2 = 2z$,
 $3x - y + 2z = 4$ is:

Options :

1. ✖ $8x^2 - 12y^2 - 4z^2 + 6zx + 2yz = 0$
2. ✖ $6x^2 - 4y^2 - 3z^2 + 2zx + 2yz = 0$
3. ✔ $4x^2 + 6y^2 - 2z^2 - 3zx + yz = 0$
4. ✖ $8x^2 + 12y^2 + 4z^2 + 6zx + 2yz = 0$
5. ✖ $4x^2 - 6y^2 + 2z^2 + 3zx - yz = 0$

Question Number : 58 Question Id : 9593765258 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक शंकु का समीकरण क्या होगा, जिसके शीर्षबिंदु और मूल आधार वक्र $2x^2 + 3y^2 = 2z$,
 $3x - y + 2z = 4$ द्वारा दिया गया है?

Options :

1. ✖ $8x^2 - 12y^2 - 4z^2 + 6zx + 2yz = 0$
2. ✖ $6x^2 - 4y^2 - 3z^2 + 2zx + 2yz = 0$
3. ✔ $4x^2 + 6y^2 - 2z^2 - 3zx + yz = 0$
4. ✖ $8x^2 + 12y^2 + 4z^2 + 6zx + 2yz = 0$
5. ✖ $4x^2 - 6y^2 + 2z^2 + 3zx - yz = 0$

Question Number : 59 Question Id : 9593765259 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $\frac{x}{1} = \frac{y}{1} = \frac{z}{k}$ is a generator of the cone $x^2 + y^2 - z^2 = 0$, then the
value of k is:

Options :

1. ✓ $\pm \sqrt{2}$

2. ✗ ± 2

3. ✗ ± 1

4. ✗ 3

5. ✗ 4

Question Number : 59 Question Id : 9593765259 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

अगर शंकु $x^2 + y^2 - z^2 = 0$ का जनक $\frac{x}{1} = \frac{y}{1} = \frac{z}{k}$ है, तो k का मान है:

Options :

1. ✓ $\pm \sqrt{2}$

2. ✗ ± 2

3. ✗ ± 1

4. ✗ 3

5. ✗ 4

Question Number : 60 Question Id : 9593765260 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $u = \log\left(\frac{x^2}{y}\right)$, then $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y}$ is equal to:

Options :

1. ✗ 0

2. ✓ 1

3. ✗ u

4. ✗ 2u

5. ✗ 2

Question Number : 60 Question Id : 9593765260 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $u = \log\left(\frac{x^2}{y}\right)$, तो $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y}$ _____ के बराबर होगा।

Options :

1. ✗ 0

2. ✓ 1

3. ✗ u

4. ✗ 2u

5. ✗ 2

Correct : 2 Wrong : 1

Functions which have continuous first partial derivatives on some rectangle

$R : |x - x_0| \leq a, |y - y_0| \leq b$. Then the equation $M(x, y) + N(x, y) y' = 0$ is exact in R if, and only if:

Options :

1. ✗ $M_x = N_y$
2. ✓ $M_y = N_x$
3. ✗ $M_x + N_y = 0$
4. ✗ $M_y + N_x = 0$
5. ✗ $x M_y = y N_x$

Question Number : 61 Question Id : 9593765261 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

आयात $R : |x - x_0| \leq a, |y - y_0| \leq b$ जिसका प्रथम पार्श्व डेरिवेटिव सतत हो, तब समीकरण $M(x, y) + N(x, y) y' = 0$ केवल और केवल सटीक होगा यदि:

Options :

1. ✗ $M_x = N_y$
2. ✓ $M_y = N_x$
3. ✗ $M_x + N_y = 0$
4. ✗ $M_y + N_x = 0$
5. ✗ $x M_y = y N_x$

Question Number : 62 Question Id : 9593765262 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The solution of the partial differential equation $D(D - 2D' - 3)z = 0$ is:

Options :

1. ✗ $z(x, y) = f_1(x) + e^{3y} f_2(y + 2x)$
2. ✗ $z(x, y) = f_1(x + 2y) + e^{3y} f_2(x)$
3. ✓ $z(x, y) = f_1(y) + e^{3y} f_2(y + 2x)$
4. ✗ $z(x, y) = f_1(y + 2x) + e^{3y} f_2(y)$
5. ✗ $z(x, y) = f_1(y) - e^{3y} f_2(y - 2x)$

Question Number : 62 Question Id : 9593765262 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

आंशिक अवकल समीकरण $D(D - 2D' - 3)z = 0$ का हल है:

<https://universitypaper.in>

Options :

1. ✗ $z(x, y) = f_1(x) + e^{3y} f_2(y + 2x)$
2. ✗ $z(x, y) = f_1(x + 2y) + e^{3y} f_2(x)$
3. ✓ $z(x, y) = f_1(y) + e^{3y} f_2(y + 2x)$
4. ✗ $z(x, y) = f_1(y + 2x) + e^{3y} f_2(y)$
5. ✗ $z(x, y) = f_1(y) - e^{3y} f_2(y - 2x)$

Question Number : 63 Question Id : 9593765263 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

If $u = \sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right)$, then $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y}$ is equal to:

Options :

1. ✗ $\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right)$
2. ✗ $2 \left[\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right) \right]$
3. ✗ $3 \left[\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right) \right]$
4. ✓ Zero
5. ✗ One

Question Number : 63 Question Id : 9593765263 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि, $u = \sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right)$, तब $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y}$ _____ के बराबर है।

Options :

1. ✗ $\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right)$
2. ✗ $2 \left[\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right) \right]$
3. ✗ $3 \left[\sin^{-1}\left(\frac{x}{y}\right) + \tan^{-1}\left(\frac{y}{x}\right) \right]$
4. ✓ शून्य

<https://universitypaper.in>

Question Number : 64 Question Id : 9593765264 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The necessary conditions for a function $F(x, y)$ to have an extreme at (a, b) are:

Options :

1. ✖ $F_x(a, b) = 0, F_{xx}(a, b) = 0$

2. ✖ $F_y(a, b) = 0, F_{yy}(a, b) = 0$

3. ✔ $F_x(a, b) = 0, F_y(a, b) = 0$

4. ✖ $F_{xx}(a, b) = 0, F_{yy}(a, b) = 0$

5. ✖ $F_{xy}(a, b) = 0, F_{yx}(a, b) = 0$

Question Number : 64 Question Id : 9593765264 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक फलन $F(x, y)$ को (a, b) पर चरम होने के लिए आवश्यक शर्तें हैं:

Options :

1. ✖ $F_x(a, b) = 0, F_{xx}(a, b) = 0$

2. ✖ $F_y(a, b) = 0, F_{yy}(a, b) = 0$

3. ✔ $F_x(a, b) = 0, F_y(a, b) = 0$

4. ✖ $F_{xx}(a, b) = 0, F_{yy}(a, b) = 0$

5. ✖ $F_{xy}(a, b) = 0, F_{yx}(a, b) = 0$

Question Number : 65 Question Id : 9593765265 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The singular solution of the equation $y = x + p^2 - 2p$, where $p = \frac{dy}{dx}$, is given by:

Options :

1. ✖ $y = x - 2$

2. ✔ $y = x - 1$

3. ✖ $y = 2x - 1$

4. ✖ $y = 2x + 3$

5. ✖ $y = x + 1$

Question Number : 65 Question Id : 9593765265 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $y = x + p^2 - 2p$ का सिंगुलर समाधान क्या है, जहाँ $p = \frac{dy}{dx}$ है? <https://universitypaper.in>

Options :

1. ✗ $y = x - 2$
2. ✓ $y = x - 1$
3. ✗ $y = 2x - 1$
4. ✗ $y = 2x + 3$
5. ✗ $y = x + 1$

Question Number : 66 Question Id : 9593765266 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The general solution of the equation $(px - y)(py + x) = 2p$, where $p = \frac{dy}{dx}$, is given by:

Options :

1. ✓ $y^2 = cx^2 - \frac{2c}{c+1}$
2. ✗ $y^2 = cx + \frac{2c}{c+1}$
3. ✗ $y = cx + \frac{c}{c+1}$
4. ✗ $y^2 = x^2 + \frac{2c}{c+1}$
5. ✗ $y^2 = x^2 - \frac{c}{c+1}$

Question Number : 66 Question Id : 9593765266 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(px - y)(py + x) = 2p$, का सामान्य समाधान क्या है, जहाँ $p = \frac{dy}{dx}$ है?

Options :

1. ✓ $y^2 = cx^2 - \frac{2c}{c+1}$
2. ✗ $y^2 = cx + \frac{2c}{c+1}$
3. ✗ $y = cx + \frac{c}{c+1}$
4. ✗ $y^2 = x^2 + \frac{2c}{c+1}$
5. ✗ $y^2 = x^2 - \frac{c}{c+1}$

Correct : 2 Wrong : 1

The particular integral of the equation $(D^2 - 4D + 3)y = \sin 3x$ is:

Options :

1. ✗ $\frac{1}{3}(2\cos 3x - \sin 3x)$
2. ✗ $\frac{1}{30}(\cos 3x - \sin 3x)$
3. ✗ $\frac{1}{10}(2\cos 3x + \sin 3x)$
4. ✓ $\frac{1}{30}(2\cos 3x - \sin 3x)$
5. ✗ $\frac{1}{30}(\cos 3x - 2\sin 3x)$

Question Number : 67 Question Id : 9593765267 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(D^2 - 4D + 3)y = \sin 3x$ का विशेष समाकलन (particular integral) है:

Options :

1. ✗ $\frac{1}{3}(2\cos 3x - \sin 3x)$
2. ✗ $\frac{1}{30}(\cos 3x - \sin 3x)$
3. ✗ $\frac{1}{10}(2\cos 3x + \sin 3x)$
4. ✓ $\frac{1}{30}(2\cos 3x - \sin 3x)$
5. ✗ $\frac{1}{30}(\cos 3x - 2\sin 3x)$

Question Number : 68 Question Id : 9593765268 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The solution of the equation $(D^3 + 8)y = 0$ is:

Options :

1. ✗ $y(x) = A_1 e^{-x} + e^{2x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$
2. ✓ $y(x) = A_1 e^{-2x} + e^x [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$
3. ✗ $y(x) = A_1 e^x + e^{-2x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$
4. ✗ $y(x) = A_1 e^{2x} + e^{-x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$

5. ✖ $y(x) = A_1 e^{-3x} + e^x [B_1 \cos(\sqrt{2} x) + C_1 \sin(\sqrt{2} x)]$

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Question Number : 68 Question Id : 9593765268 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(D^3 + 8)y = 0$ का समाधान है:

Options :

1. ✖ $y(x) = A_1 e^{-x} + e^{2x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$

2. ✔ $y(x) = A_1 e^{-2x} + e^x [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$

3. ✖ $y(x) = A_1 e^x + e^{-2x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$

4. ✖ $y(x) = A_1 e^{2x} + e^{-x} [B_1 \cos(\sqrt{3} x) + C_1 \sin(\sqrt{3} x)]$

5. ✖ $y(x) = A_1 e^{-3x} + e^x [B_1 \cos(\sqrt{2} x) + C_1 \sin(\sqrt{2} x)]$

Question Number : 69 Question Id : 9593765269 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The particular integral of the equation $(x^2 D^2 - 2xD - 4)y = 32(\log x)^2$ is given by:

Options :

1. ✔ $-8(\log x)^2 + 12(\log x) - 13$

2. ✖ $8(\log x)^2 - 12(\log x) + 13$

3. ✖ $4(\log x)^2 + 8(\log x) + 5$

4. ✖ $6(\log x)^2 + 12(\log x) - 15$

5. ✖ $8(\log x) + 12(\log x)^2 - 13$

Question Number : 69 Question Id : 9593765269 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(x^2 D^2 - 2xD - 4)y = 32(\log x)^2$ का विशेष समाकलन (particular integral) है:

Options :

1. ✔ $-8(\log x)^2 + 12(\log x) - 13$

2. ✖ $8(\log x)^2 - 12(\log x) + 13$

3. ✖ $4(\log x)^2 + 8(\log x) + 5$

4. ✖ $6(\log x)^2 + 12(\log x) - 15$

5. ✖ $8(\log x) + 12(\log x)^2 - 13$

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Correct : 2 Wrong : 1

If $z = f(x, y)$, where $x = e^u + e^{-v}$ and $y = e^{-u} - e^v$, then:

Options :

1. ✗ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = y \frac{\partial z}{\partial x} - x \frac{\partial z}{\partial y}$

2. ✗ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y}$

3. ✗ $\frac{\partial z}{\partial u} + \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} - y \frac{\partial z}{\partial y}$

4. ✗ $\frac{\partial z}{\partial u} + \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y}$

5. ✓ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} - y \frac{\partial z}{\partial y}$

Question Number : 70 Question Id : 9593765270 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $z = f(x, y)$, जहाँ $x = e^u + e^{-v}$ है, तो:

Options :

1. ✗ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = y \frac{\partial z}{\partial x} - x \frac{\partial z}{\partial y}$

2. ✗ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y}$

3. ✗ $\frac{\partial z}{\partial u} + \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} - y \frac{\partial z}{\partial y}$

4. ✗ $\frac{\partial z}{\partial u} + \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} + y \frac{\partial z}{\partial y}$

5. ✓ $\frac{\partial z}{\partial u} - \frac{\partial z}{\partial v} = x \frac{\partial z}{\partial x} - y \frac{\partial z}{\partial y}$

Question Number : 71 Question Id : 9593765271 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The envelope of the family of lines $y = mx - a\sqrt{1+m^2}$, where m is a parameter, is given by:

Options :

1. ✗ $y^2 = x$

2. ✗ $x^2 = y$

3. ✗ $y^2 = 4ax$

4. ✗ $x^2 = 4ay$

5. ✓ $x^2 + y^2 = a^2$

Question Number : 71 Question Id : 9593765271 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

रेखाओं का सम्मिलित समूह $y = mx - a\sqrt{1+m^2}$, है जहाँ m एक पैरामीटर है
_____ द्वारा दिया गया है।

Options :

1. ✗ $y^2 = x$

2. ✗ $x^2 = y$

3. ✗ $y^2 = 4ax$

4. ✗ $x^2 = 4ay$

5. ✓ $x^2 + y^2 = a^2$

Question Number : 72 Question Id : 9593765272 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $\int_0^3 \int_0^{\frac{1}{x}} ye^{xy} dy dx$ is equal to:

Options :

1. ✗ $\frac{4}{3}$

2. ✗ $\frac{2}{3}$

3. ✗ $\frac{3}{2}$

4. ✓ $\frac{-1}{3}$

5. ✗ 3^{-1}

Question Number : 72 Question Id : 9593765272 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\int_0^3 \int_0^{\frac{1}{x}} ye^{xy} dy dx$ का मान _____ के बराबर है।

Options :

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1. ✗ $\frac{4}{3}$
2. ✗ $\frac{2}{3}$
3. ✗ $\frac{3}{2}$
4. ✓ $\frac{-1}{3}$
5. ✗ 3^{-1}

Question Number : 73 Question Id : 9593765273 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The area bounded by the parabolas $y^2 = 4 - x$ and $y^2 = x$ is:

Options :

1. ✓ $\frac{16\sqrt{2}}{3}$
2. ✗ $3\sqrt{2}$
3. ✗ $\frac{3}{2}$
4. ✗ $\frac{2}{3}$
5. ✗ $\frac{1}{3}$

Question Number : 73 Question Id : 9593765273 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

परबलय $y^2 = 4 - x$ और $y^2 = x$ द्वारा परिबद्ध क्षेत्रफल _____ हैं।

Options :

1. ✓ $\frac{16\sqrt{2}}{3}$
2. ✗ $3\sqrt{2}$
3. ✗ $\frac{3}{2}$
4. ✗ $\frac{2}{3}$
5. ✗ $\frac{1}{3}$

Question Number : 74 Question Id : 9593765274 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

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Correct : 2 Wrong : 1

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If $f(x) = f(2a - x)$, then $\int_0^{2a} f(x) dx$ is equal to:

Options :

1. ✖ 0
2. ✖ $2 \int_0^{2a} f(x) dx$
3. ✖ $\frac{1}{2} \int_0^a f(x) dx$
4. ✔ $2 \int_0^a f(x) dx$
5. ✖ $-a$

Question Number : 74 Question Id : 9593765274 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

यदि $f(x) = f(2a - x)$, तो $\int_0^{2a} f(x) dx$ _____ के बराबर है।

Options :

1. ✖ 0
2. ✖ $2 \int_0^{2a} f(x) dx$
3. ✖ $\frac{1}{2} \int_0^a f(x) dx$
4. ✔ $2 \int_0^a f(x) dx$
5. ✖ $-a$

Question Number : 75 Question Id : 9593765275 Question Type : MCQ Display Question Number : Yes Single Line Question

Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of definite integral $\int_{-a}^a |x| dx$ is equal to:

Options :

1. ✖ 0
2. ✖ a

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3. ✖ $2a$

4. ✔ a^2

5. ✖ $\frac{a^2}{4}$

Question Number : 75 Question Id : 9593765275 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

एक निश्चित समाकल $\int_{-a}^a |x| dx$ का मान _____ के बराबर है।

Options :

1. ✖ 0

2. ✖ a

3. ✖ $2a$

4. ✔ a^2

5. ✖ $\frac{a^2}{4}$

Question Number : 76 Question Id : 9593765276 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $\int_0^{\frac{\pi}{2}} \sin^4 x \cos^2 x dx$ is equal to:

Options :

1. ✖ π

2. ✖ $\frac{\pi}{4}$

3. ✔ $\frac{\pi}{32}$

4. ✖ $\frac{\pi}{16}$

5. ✖ $\frac{\pi}{2}$

Question Number : 76 Question Id : 9593765276 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\int_0^{\frac{\pi}{2}} \sin^4 x \cos^2 x dx$ का मान _____ के बराबर है।

Options :

1. ✖ π

2. ✗ $\frac{\pi}{4}$
3. ✓ $\frac{\pi}{32}$
4. ✗ $\frac{\pi}{16}$
5. ✗ $\frac{\pi}{2}$

Question Number : 77 Question Id : 9593765277 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $\int_0^{\frac{\pi}{2}} \sin 2\theta \log(\tan \theta) d\theta$ is equal to:

Options :

1. ✗ -1
2. ✓ 0
3. ✗ 1
4. ✗ $\frac{\pi}{2}$
5. ✗ $\frac{\pi}{3}$

Question Number : 77 Question Id : 9593765277 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\int_0^{\frac{\pi}{2}} \sin 2\theta \log(\tan \theta) d\theta$ का मान _____ के बराबर है।

Options :

1. ✗ -1
2. ✓ 0
3. ✗ 1
4. ✗ $\frac{\pi}{2}$
5. ✗ $\frac{\pi}{3}$

Question Number : 78 Question Id : 9593765278 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $\int_0^1 \frac{x-1}{\log x} dx$ is equal to:

Options :

1. ✗ $3 \log 2$
2. ✗ $2 \log 3$
3. ✓ $\log 2$
4. ✗ 1
5. ✗ $\log 5$

Question Number : 78 Question Id : 9593765278 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\int_0^1 \frac{x-1}{\log x} dx$ का मान _____ के बराबर है।

Options :

1. ✗ $3 \log 2$
2. ✗ $2 \log 3$
3. ✓ $\log 2$
4. ✗ 1
5. ✗ $\log 5$

Question Number : 79 Question Id : 9593765279 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The value of $\int_0^{\pi} \frac{x \sin x}{1 + \cos^2 x} dx$ is equal to:

Options :

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

Question Number : 79 Question Id : 9593765279 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\int_0^{\pi} \frac{x \sin x}{1 + \cos^2 x} dx$ का मान _____ के बराबर है।

Options :

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

Question Number : 80 Question Id : 9593765280 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

The value of $\int_0^{\pi/4} \log(1 + \tan x) dx$ is equal to:

Options :

1. ✗ $\frac{\pi}{4} \log 2$
2. ✗ $\frac{\pi}{2} \log 4$
3. ✓ $\frac{\pi}{8} \log 2$
4. ✗ $\frac{\pi}{2} \log 8$
5. ✗ $\pi \log 2$

Question Number : 80 Question Id : 9593765280 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

$\int_0^{\pi/4} \log(1 + \tan x) dx$ का मान _____ के बराबर है।

Options :

1. ✗ $\frac{\pi}{4} \log 2$
2. ✗ $\frac{\pi}{2} \log 4$
3. ✓ $\frac{\pi}{8} \log 2$
4. ✗ $\frac{\pi}{2} \log 8$
5. ✗ $\pi \log 2$

Correct : 2 Wrong : 1

Applying Gamma function, the value of $\int_0^{\pi/2} \sqrt{\cot \theta} d\theta$ is given by:

Options :

1. ✗ $\frac{\pi}{2}$
2. ✗ $\frac{\sqrt{2}}{\pi}$
3. ✓ $\frac{\pi}{\sqrt{2}}$
4. ✗ $\frac{\sqrt{\pi}}{2}$
5. ✗ $\frac{\sqrt{\pi}}{3}$

Question Number : 81 Question Id : 9593765281 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

गामा फंक्शन लागू करके, $\int_0^{\pi/2} \sqrt{\cot \theta} d\theta$ का मान होगा:

Options :

1. ✗ $\frac{\pi}{2}$
2. ✗ $\frac{\sqrt{2}}{\pi}$
3. ✓ $\frac{\pi}{\sqrt{2}}$
4. ✗ $\frac{\sqrt{\pi}}{2}$
5. ✗ $\frac{\sqrt{\pi}}{3}$

Question Number : 82 Question Id : 9593765282 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Applying the transformation $x + y = u$ and $y = v$, the value of $\int_0^{\pi} \int_0^{\pi} |\cos(x + y)| dx dy$ is given by:

Options :

1. ✗ π
2. ✗ $\frac{3\pi}{2}$

3. ✗ $\frac{\pi}{3}$
4. ✗ $\frac{\pi}{2}$
5. ✓ 2π

Question Number : 82 Question Id : 9593765282 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$x + y = u$ और $y = v$ का परिवर्तन लागू करके $\int_0^{\pi} \int_0^{\pi} |\cos(x+y)| dx dy$ का मान होगा:

Options :

1. ✗ π
2. ✗ $\frac{3\pi}{2}$
3. ✗ $\frac{\pi}{3}$
4. ✗ $\frac{\pi}{2}$
5. ✓ 2π

Question Number : 83 Question Id : 9593765283 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The general solution of $\frac{d^2y}{dx^2} + \frac{dy}{dx} + y = 0$ is, where C_1 and C_2 are constants.

Options :

1. ✗ $y(x) = e^{x/2} \left[C_1 \cos\left(\frac{\sqrt{3}x}{2}\right) + C_2 \sin\left(\frac{\sqrt{3}x}{2}\right) \right]$
2. ✓ $y(x) = e^{-x/2} \left[C_1 \cos\left(\frac{\sqrt{3}x}{2}\right) + C_2 \sin\left(\frac{\sqrt{3}x}{2}\right) \right]$
3. ✗ $y(x) = e^{\sqrt{3}x/2} \left[C_1 \cos\left(\frac{x}{2}\right) + C_2 \sin\left(\frac{x}{2}\right) \right]$
4. ✗ $y(x) = e^{-\sqrt{3}x/2} \left[C_1 \cos\left(\frac{x}{2}\right) + C_2 \sin\left(\frac{x}{2}\right) \right]$
5. ✗ $y(x) = e^{-x/3} \left[C_1 \cos\left(\frac{\sqrt{2}x}{3}\right) + C_2 \sin\left(\frac{\sqrt{2}x}{3}\right) \right]$

Question Number : 83 Question Id : 9593765283 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

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$\frac{d^2y}{dx^2} + \frac{dy}{dx} + y = 0$ का सामान्य समाधान क्या है, जहाँ C_1 और C_2 स्थिरांक हैं?

Options :

1. ✖ $y(x) = e^{x/2} \left[C_1 \cos\left(\frac{\sqrt{3} x}{2}\right) + C_2 \sin\left(\frac{\sqrt{3} x}{2}\right) \right]$
2. ✔ $y(x) = e^{-x/2} \left[C_1 \cos\left(\frac{\sqrt{3} x}{2}\right) + C_2 \sin\left(\frac{\sqrt{3} x}{2}\right) \right]$
3. ✖ $y(x) = e^{\sqrt{3} x/2} \left[C_1 \cos\left(\frac{x}{2}\right) + C_2 \sin\left(\frac{x}{2}\right) \right]$
4. ✖ $y(x) = e^{-\sqrt{3} x/2} \left[C_1 \cos\left(\frac{x}{2}\right) + C_2 \sin\left(\frac{x}{2}\right) \right]$
5. ✖ $y(x) = e^{-x/3} \left[C_1 \cos\left(\frac{\sqrt{2} x}{3}\right) + C_2 \sin\left(\frac{\sqrt{2} x}{3}\right) \right]$

Question Number : 84 Question Id : 9593765284 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The solution of the differential equation $\frac{dy}{dx} + (\cos x)y = \sin x \cos x$ is, where C is a constant.

Options :

1. ✔ $y(x) = (\sin x - 1) + Ce^{-\sin x}$
2. ✖ $y(x) = (\sin x + 1) + Ce^{-\sin x}$
3. ✖ $y(x) = (\sin x - 1) + Ce^{\sin x}$
4. ✖ $y(x) = (\sin x + 1) + Ce^{\sin x}$
5. ✖ $y(x) = \sin x + Ce^{-\sin x}$

Question Number : 84 Question Id : 9593765284 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

विभेदक समीकरण $\frac{dy}{dx} + (\cos x)y = \sin x \cos x$ का समाधान क्या है, जहाँ C स्थिरांक हैं?

Options :

1. ✔ $y(x) = (\sin x - 1) + Ce^{-\sin x}$
2. ✖ $y(x) = (\sin x + 1) + Ce^{-\sin x}$
3. ✖ $y(x) = (\sin x - 1) + Ce^{\sin x}$

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4. ✖ $y(x) = (\sin x + 1) + Ce^{\sin x}$

5. ✖ $y(x) = \sin x + Ce^{-\sin x}$

Question Number : 85 Question Id : 9593765285 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The particular solution for the differential equation

$$\frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 2y = 5\cos x \text{ is:}$$

Options :

1. ✖ $0.5 \cos x$

2. ✖ $1.5 \cos x + 0.5 \sin x$

3. ✖ $1.5 \sin x$

4. ✔ $0.5 \cos x + 1.5 \sin x$

5. ✖ $1.5 \cos x - 0.5 \sin x$

Question Number : 85 Question Id : 9593765285 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

विभेदक समीकरण $\frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 2y = 5\cos x$ का विशेष समाधान है:

Options :

1. ✖ $0.5 \cos x$

2. ✖ $1.5 \cos x + 0.5 \sin x$

3. ✖ $1.5 \sin x$

4. ✔ $0.5 \cos x + 1.5 \sin x$

5. ✖ $1.5 \cos x - 0.5 \sin x$

Question Number : 86 Question Id : 9593765286 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The order and degree of the differential equation $y = x \frac{dy}{dx} + 2\sqrt{1 + \left(\frac{dy}{dx}\right)^2}$ are respectively:

Options :

1. ✖ 2, 2

2. ✖ 2, 1

3. ✔ 1, 2

4. ✖ 1, 1

5. ✖ 1, 0

Correct : 2 Wrong : 1

विभेदक समीकरण $y = x \frac{dy}{dx} + 2\sqrt{1 + \left(\frac{dy}{dx}\right)^2}$ का क्रम और डिग्री क्रमशः है:

Options :

1. ✗ 2, 2
2. ✗ 2, 1
3. ✓ 1, 2
4. ✗ 1, 1
5. ✗ 1, 0

Question Number : 87 Question Id : 9593765287 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The integrating factor of differential equation $(1 + y^2) dx = (\tan^{-1} y - x) dy$ is:

Options :

1. ✗ y^3
2. ✗ $\frac{1}{y^3}$
3. ✗ $\tan^{-1} y$
4. ✓ $e^{\tan^{-1} y}$
5. ✗ $\frac{1}{y^2 + 1}$

Question Number : 87 Question Id : 9593765287 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$(1 + y^2) dx = (\tan^{-1} y - x) dy$ विभेदक समीकरण का एकीकृत कारक _____ है।

Options :

1. ✗ y^3
2. ✗ $\frac{1}{y^3}$
3. ✗ $\tan^{-1} y$
4. ✓ $e^{\tan^{-1} y}$
5. ✗ $\frac{1}{y^2 + 1}$

Correct : 2 Wrong : 1

The solution of the equation $(\cos x - x \cos y) dy = (\sin y + y \sin x) dx$ is:

Options :

1. ✗ $y \cos x + x \sin y = c$
2. ✓ $y \cos x - x \sin y = c$
3. ✗ $x \cos x - y \sin y = c$
4. ✗ $x + y \sin x = c$
5. ✗ $x \cos y - y \sin x = c$

Question Number : 88 Question Id : 9593765288 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(\cos x - x \cos y) dy = (\sin y + y \sin x) dx$ का समाधान है:

Options :

1. ✗ $y \cos x + x \sin y = c$
2. ✓ $y \cos x - x \sin y = c$
3. ✗ $x \cos x - y \sin y = c$
4. ✗ $x + y \sin x = c$
5. ✗ $x \cos y - y \sin x = c$

Question Number : 89 Question Id : 9593765289 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The particular integral of $\frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 2y = e^{e^x}$ is:

Options :

1. ✓ $e^{-2x} e^{e^x}$
2. ✗ $e^{-x} e^{e^x}$
3. ✗ $(e^{-x} - e^{-2x}) e^{e^x}$
4. ✗ $e^{2x} e^{e^x}$
5. ✗ $e^x e^{e^x}$

Question Number : 89 Question Id : 9593765289 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$\frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 2y = e^{e^x}$ का विशेष समाकल है:

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Options :

1. ✓ $e^{-2x} e^{e^x}$
2. ✗ $e^{-x} e^{e^x}$
3. ✗ $(e^{-x} - e^{-2x}) e^{e^x}$
4. ✗ $e^{2x} e^{e^x}$
5. ✗ $e^x e^{e^x}$

Question Number : 90 Question Id : 9593765290 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The particular integral of $(D + 1)^3 y = e^{-x}$ is:

Options :

1. ✗ $\frac{x^3 e^{-x}}{2}$
2. ✗ $\frac{x^3 e^{-x}}{3}$
3. ✓ $\frac{x^3 e^{-x}}{6}$
4. ✗ $\frac{x^2 e^{-x}}{6}$
5. ✗ $\frac{x^2 e^{-x}}{2}$

Question Number : 90 Question Id : 9593765290 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

$(D + 1)^3 y = e^{-x}$ का विशेष समाकल है:

Options :

1. ✗ $\frac{x^3 e^{-x}}{2}$
2. ✗ $\frac{x^3 e^{-x}}{3}$
3. ✓ $\frac{x^3 e^{-x}}{6}$

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4. ✗ $\frac{x^2 e^{-x}}{6}$
5. ✗ $\frac{x^2 e^{-x}}{2}$

Question Number : 91 Question Id : 9593765291 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The solution of the equation $(x^3 D^3 + 3x^2 D^2 + xD)y = 0$ is:

Options :

1. ✓ $a + b(\log x) + c(\log x)^2$
2. ✗ $a + b(\log x)^{-1} + c(\log x)^{-2}$
3. ✗ $a + bx + cx^2$
4. ✗ $a(\log x) + b(\log x)^2 + c(\log x)^3$
5. ✗ $a + b\frac{1}{x} + c\frac{1}{x^2}$

Question Number : 91 Question Id : 9593765291 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

समीकरण $(x^3 D^3 + 3x^2 D^2 + xD)y = 0$ का समाधान है:

Options :

1. ✓ $a + b(\log x) + c(\log x)^2$
2. ✗ $a + b(\log x)^{-1} + c(\log x)^{-2}$
3. ✗ $a + bx + cx^2$
4. ✗ $a(\log x) + b(\log x)^2 + c(\log x)^3$
5. ✗ $a + b\frac{1}{x} + c\frac{1}{x^2}$

Question Number : 92 Question Id : 9593765292 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The particular integral of $(x^2 D^2 + xD + 1)y = \log x \sin(\log x)$ is:

Options :

1. ✗ $\frac{1}{4}[\log x \sin(\log x) + (\log x)^2 \cos(\log x)]$
2. ✓ $\frac{1}{4}[\log x \sin(\log x) - (\log x)^2 \cos(\log x)]$

3. ✖ $-\frac{1}{4}[\log x \sin(\log x) - (\log x)^2 \cos(\log x)]$
4. ✖ $-\frac{1}{4}[\log x \sin(\log x) + (\log x)^2 \cos(\log x)]$
5. ✖ $\frac{1}{4}[(\log x)^2 \cos(\log x) - \log x \sin(\log x)]$

Question Number : 92 Question Id : 9593765292 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

$(x^2 D^2 + xD + 1)y = \log x \sin(\log x)$ का विशेष समाकल है:

Options :

1. ✖ $\frac{1}{4}[\log x \sin(\log x) + (\log x)^2 \cos(\log x)]$
2. ✔ $\frac{1}{4}[\log x \sin(\log x) - (\log x)^2 \cos(\log x)]$
3. ✖ $-\frac{1}{4}[\log x \sin(\log x) - (\log x)^2 \cos(\log x)]$
4. ✖ $-\frac{1}{4}[\log x \sin(\log x) + (\log x)^2 \cos(\log x)]$
5. ✖ $\frac{1}{4}[(\log x)^2 \cos(\log x) - \log x \sin(\log x)]$

Question Number : 93 Question Id : 9593765293 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

A relation R on a nonempty set A is a partial order relation if:

Options :

1. ✖ reflexive, symmetric and transitive.
2. ✔ reflexive, anti-symmetric and transitive.
3. ✖ irreflexive, symmetric and transitive.
4. ✖ irreflexive, anti-symmetric and transitive.
5. ✖ reflexive, symmetric but not transitive.

Question Number : 93 Question Id : 9593765293 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

एक शून्य समुच्चय A से R का संबंध एक आंशिक क्रम संबंध है अगर:

Options :

1. ✖ स्वतुल्य, सममित और सकर्मक।
2. ✔ स्वतुल्य, असममित और सकर्मक।

3. ✖ अस्वतुल्य, सममित और सकर्मक।
4. ✖ अस्वतुल्य, असममित और सकर्मक।
5. ✖ अस्वतुल्य, सममित लेकिन सकर्मक नहीं।

Question Number : 94 Question Id : 9593765294 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The relation R on a set $A = \{1, 2, 3, 4, 5\}$ is defined by the rule
 $(a, b) \in R$ if 3 divides $a - b$. The number of elements of the complement of R is:

Options :

1. ✖ 8
2. ✖ 10
3. ✖ 12
4. ✖ 14
5. ✔ 16

Question Number : 94 Question Id : 9593765294 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

अगर $a - b$ को 3 से भाग दिया जाए जहाँ समुच्चय $A = \{1, 2, 3, 4, 5\}$ में R का संबंध $(a, b) \in R$ नियम द्वारा परिभाषित किया गया है। R के पूरक में तत्वों की कितनी संख्या है?

Options :

1. ✖ 8
2. ✖ 10
3. ✖ 12
4. ✖ 14
5. ✔ 16

Question Number : 95 Question Id : 9593765295 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Let G be an infinite cyclic group. Then G possesses:

Options :

1. ✖ infinite number of generators.
2. ✖ exactly one generator.
3. ✔ exactly two generators.
4. ✖ exactly three generators.
5. ✖ none of the other options.

Question Number : 95 Question Id : 9593765295 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical <https://universitypaper.in>

Correct : 2 Wrong : 1

मान लीजिये G एक अनंत चक्रीय समूह है। तो G _____ से युक्त है। <https://universitypaper.in>

Options :

1. ✗ जनक की अनंत संख्या
2. ✗ ठीक एक जनक
3. ✓ वास्तव में दो जनक
4. ✗ वास्तव में तीन जनक
5. ✗ इनमें से कोई नहीं

Question Number : 96 Question Id : 9593765296 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Let J denote the set of all even integers. Then J is:

Options :

1. ✗ not a ring.
2. ✓ a ring without unity.
3. ✗ a field.
4. ✗ a integral domain
5. ✗ none of the other options.

Question Number : 96 Question Id : 9593765296 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

मान लीजिये J सभी सम पूर्णाकों को दर्शाता है। तो J है:

Options :

1. ✗ वह रिंग नहीं है
2. ✓ बिना इकाई के रिंग
3. ✗ एक क्षेत्र
4. ✗ एक समाकल डोमेन
5. ✗ इनमें से कोई नहीं

Question Number : 97 Question Id : 9593765297 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which of the following statement is incorrect?

Options :

1. ✗ Let G be a group and $a, b, c \in G$. Then $ab = ac \Rightarrow b = c$.
2. ✗ A field is a commutative ring whose non-zero elements have multiplicative inverses.
3. ✓ Let H and K be subgroups of a finite group G . Then $o(HK)$ divides $o(G)$. <https://universitypaper.in>

4. ✖ 1 and -1 are the only two invertible elements of the ring of all integers. <https://universitypaper.in>

5. ✖ Let G be a group and $a, b, c \in G$. Then $ac = bc \Rightarrow a = b$.

Question Number : 97 Question Id : 9593765297 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

निम्नलिखित में से कौन सा कथन गलत है:

Options :

1. ✖ मान लीजिये G एक समूह है और $a, b, c \in G$ तो $ab = ac \Rightarrow b = c$ ।

2. ✖ एक क्षेत्र में एक अनुक्रम घेरा भी है जहां रिक्त शून्य तत्वों का बहुमत व्युत्पन्न है।

3. ✔

मान लीजिये H और K एक पूर्णांक समूह G का उपसमुच्चय है तब $o(HK)$ द्वारा $o(G)$ को भाग देगे।

4. ✖ केवल 1 और -1 दो तत्वों के लंबवत है जो सभी समाकलों के पूर्णाकों का घेरा हैं।

5. ✖ मान लीजिये G एक समूह है और $a, b, c \in G$. तब $ac = bc \Rightarrow a = b$ ।

Question Number : 98 Question Id : 9593765298 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Let G be a cycle group of order 8. Then the number of generators of G to:

Options :

1. ✖ one

2. ✖ two

3. ✖ three

4. ✔ four

5. ✖ five

Question Number : 98 Question Id : 9593765298 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

मान लीजिये G एक चक्रीय समूह में 8 वां क्रम में है। तब G के जनको की संख्या है:

Options :

1. ✖ एक

2. ✖ दो

3. ✖ तीन

4. ✔ चार

5. ✖ पाँच

Question Number : 99 Question Id : 9593765299 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which one of the following statements is false?

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Options :

<https://universitypaper.in>

1. ✖ The set of real numbers is uncountable.
2. ✖ $(0, 1]$ is uncountable.
3. ✔ The set of rational numbers is uncountable.
4. ✖ A subset of a countable set is countable.
5. ✖ The set of integers is countable.

Question Number : 99 Question Id : 9593765299 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

निम्न कथनों में से कौन सा असत्य है?

Options :

1. ✖ वास्तविक संख्या का समुच्चय अगणनीय है।
2. ✖ $(0, 1]$ अगणनीय है।
3. ✔ तर्कसंगत संख्याओं के समुच्चय अगणनीय है
4. ✖ एक उप समुच्चय का एक गणनीय समुच्चय गणनीय है।
5. ✖ पूर्णाकों का समुच्चय गणनीय है।

Question Number : 100 Question Id : 9593765300 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which one of the functions is uniformly continuous?

Options :

1. ✖ $f : [0, 1] \rightarrow \mathbb{R}$ defined by $f(x) = \frac{1}{x}$
2. ✖ $f : \mathbb{R} \rightarrow \mathbb{R}$ defined by $f(x) = x^2$
3. ✖ $f : (0, 1] \rightarrow \mathbb{R}$ defined by $f(x) = \frac{1}{x}$
4. ✖ $f : \mathbb{R} \setminus \{0\} \rightarrow \mathbb{R}$ defined by $f(x) = \sin \frac{1}{x}$
5. ✔ $f : [0, 1] \rightarrow \mathbb{R}$ defined by $f(x) = x^2$

Question Number : 100 Question Id : 9593765300 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

निम्न में से कौन सा एक कार्य एक समान रूप से सतत है?

Options :

1. ✖ $f : [0, 1] \rightarrow \mathbb{R}$ परिभाषित है $(x) = \frac{1}{x}$

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2. ✖ $f : \mathbb{R} \rightarrow \mathbb{R}$ परिभाषित है $f(x) = x^2$

3. ✖ $f : (0,1] \rightarrow \mathbb{R}$ परिभाषित है $f(x) = \frac{1}{x}$

4. ✖ $f : \mathbb{R} \setminus \{0\} \rightarrow \mathbb{R}$ परिभाषित है $f(x) = \sin \frac{1}{x}$

5. ✔ $f : [0,1] \rightarrow \mathbb{R}$ परिभाषित है $f(x) = x^2$

General Knowledge

Group Maximum Duration :	60
Group Minimum Duration :	60
Revisit allowed for view? :	No
Revisit allowed for edit? :	No

GK of Chhattisgarh

Mandatory or Optional:	Mandatory
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 101 Question Id : 9593765301 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

What was the previous name of Moti Bag (garden) of Raipur?

Options :

1. ✖ Sapre garden
2. ✖ Jawahar garden
3. ✖ Adinbara garden
4. ✖ Goerge II garden
5. ✔ Victoria garden

Question Number : 101 Question Id : 9593765301 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

रायपुर के मोती बाग का पुराना नाम क्या था?

Options :

1. ✖ सप्रे बाग
2. ✖ जवाहर बाग

3. ✖ एडिनवरा बाग
4. ✖ जार्ज द्वितीय बाग
5. ✔ विक्टोरिया बाग

Question Number : 102 Question Id : 9593765302 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who is the writer of the book called "Ratanpur Mahatmya"?

Options :

1. ✖ Raj Singh
2. ✔ Gopal Kavi
3. ✖ Shiv Raj
4. ✖ Jai Singh
5. ✖ None of the other options

Question Number : 102 Question Id : 9593765302 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

"रतनपुर महात्म्य" पुस्तक के लेखक कौन है?

Options :

1. ✖ राज सिंह
2. ✔ गोपाल कवि
3. ✖ शिव राज
4. ✖ जय सिंह
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 103 Question Id : 9593765303 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who is the main worker of Swarajya party in Chhattisgarh?

Options :

1. ✖ Pt. Lochan Prasad Pandey
2. ✖ Chhedi Lal
3. ✖ Pt. Ravi Shankar Shukla
4. ✔ E. Raghwendra Rao
5. ✖ None of the other options

Question Number : 103 Question Id : 9593765303 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

छत्तीसगढ़ में स्वराज्य दल के प्रमुख कार्यकर्ता कौन थे?

Options :

1. ✖ पं. लोचन प्रसाद पांडे
2. ✖ छेदीलाल
3. ✖ पं. रविशंकर शुक्ल
4. ✔ ई. राघवेन्द्र राव
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 104 Question Id : 9593765304 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

National poet Makhan Lal Chaturvedi's famous poem "Pusp ki Abhilasha" was written in which Jail of Chhattisgarh? First line of this poem is "Chah Nahi Main Surbala Ke Gahne Mai Guntha Jaun".

Options :

1. ✖ Nagpur
2. ✖ Raipur
3. ✔ Bilaspur
4. ✖ Raigarh
5. ✖ None of the other options

Question Number : 104 Question Id : 9593765304 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

राष्ट्र कवि माखन लाल चतुर्वेदी जी ने "पुष्प की अभिलाषा" कविता छत्तीसगढ़ की किस जेल में लिखी थी? इस कविता की प्रथम पंक्ति थी "चाह नहीं मैं सुरबाला के गहने में गुथा जाऊँ।"

Options :

1. ✖ नागपुर
2. ✖ रायपुर
3. ✔ बिलासपुर
4. ✖ रायगढ़
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 105 Question Id : 9593765305 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

In which Tahsil of Chhattisgarh, the prominent freedom fighter Gajadhar Sao was connected?

Options :

1. ✖ Durg
2. ✖ Raipur
3. ✖ Bilaspur
4. ✖ Dhamtari
5. ✔ None of the other options

Question Number : 105 Question Id : 9593765305 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ के प्रसिद्ध स्वतंत्रता संग्राम सेनानी श्री गजाधर साव किस तहसील से संबद्ध थे?

Options :

1. ✖ दुर्ग
2. ✖ रायपुर
3. ✖ बिलासपुर
4. ✖ धमतरी
5. ✔ अन्य विकल्पों में से कोई नहीं

Question Number : 106 Question Id : 9593765306 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Where is Menka dwar or Gate?

Options :

1. ✖ Sakti
2. ✖ Madnpur
3. ✖ Dhanpur
4. ✔ Chaitur Garh
5. ✖ Ram Garh

Question Number : 106 Question Id : 9593765306 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

मेनका द्वार या दरवाजा कहाँ है?

Options :

1. ✖ सक्ती
2. ✖ मदनपुर
3. ✖ धनपुर
4. ✔ चैतुरगढ़

Question Number : 107 Question Id : 9593765307 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

In 1987, one of the prominent idol searched by the Archeological Department, which was made up by several part of different animals. In which place was this idol kept by government?

Options :

1. ✖ Malhar
2. ✖ Ratanpur
3. ✔ Talagaon
4. ✖ Sirpur
5. ✖ None of the other options

Question Number : 107 Question Id : 9593765307 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

पुरातत्व विभाग ने 1987 ई. में एक प्रख्यात मूर्ति खोजी जिसमें बहुत से प्राणियों के भाग सम्मिलित थे। इसे शासन ने कौन से स्थान पर रखा है?

Options :

1. ✖ मल्हार
2. ✖ रतनपुर
3. ✔ तलगांव
4. ✖ सिरपुर
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 108 Question Id : 9593765308 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

In which district Satdhara waterfall is?

Options :

1. ✖ Raipur
2. ✖ Kanker
3. ✖ Bilaspur
4. ✔ Dantewada
5. ✖ None of the other options

Question Number : 108 Question Id : 9593765308 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

सतधारा जलप्रपात किस जिले में है?

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Options :

1. ✖ रायपुर
2. ✖ कांकेर
3. ✖ बिलासपुर
4. ✔ दंतेवाड़ा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 109 Question Id : 9593765309 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which famous temple in Chhattisgarh was constructed by king Veersen?

Options :

1. ✖ Mahamaya temple
2. ✖ Bhoramdeo temple
3. ✖ Rajiv Lochan temple
4. ✔ Ma Bumbleshwari temple
5. ✖ None of the other options

Question Number : 109 Question Id : 9593765309 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

राजा वीरसेन द्वारा छत्तीसगढ़ के किस प्रसिद्ध मंदिर का निर्माण कराया गया है?

Options :

1. ✖ महामाया मंदिर
2. ✖ भोरमदेव मंदिर
3. ✖ राजिव लोचन मंदिर
4. ✔ मां बूम्बलेश्वरी मंदिर
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 110 Question Id : 9593765310 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

How many kilometer lies Mahanadi basin in Chhattisgarh?

Options :

1. ✖ 70858
2. ✖ 65580

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3. ✖ 6356

4. ✖ 2380

5. ✔ None of the other options

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Question Number : 110 Question Id : 9593765310 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ में महानदी बेसिन का विस्तार कितने किलोमीटर में है?

Options :

1. ✖ 70858

2. ✖ 65580

3. ✖ 6356

4. ✖ 2380

5. ✔ अन्य विकल्पों में से कोई नहीं

Question Number : 111 Question Id : 9593765311 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

From which Hindu tithi, Rajim Kumbha mela commences?

Options :

1. ✔ Megh purnima

2. ✖ Kartik purnima

3. ✖ Poush purnima

4. ✖ Baisakh purnima

5. ✖ None of the other options

Question Number : 111 Question Id : 9593765311 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

राजिम कुंभ मेला किस हिन्दू तिथि से प्रारंभ होता है?

Options :

1. ✔ माघ पूर्णिमा

2. ✖ कार्तिक पूर्णिमा

3. ✖ पौष पूर्णिमा

4. ✖ बैसाख पूर्णिमा

5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 112 Question Id : 9593765312 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

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Correct : 2 Wrong : 1

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Where is Hazrat Moose Khan Dargaha situated?

Options :

1. ✗ Kabirdham (Kawardha)
2. ✗ Rajnandgaon
3. ✗ Durg
4. ✓ Ratanpur
5. ✗ None of the other options

Question Number : 112 Question Id : 9593765312 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

हजरत मूसे खां का दरगाह कहाँ स्थित है?

Options :

1. ✗ कबीरधाम (कवर्धा)
2. ✗ राजनांदगांव
3. ✗ दुर्ग
4. ✓ रतनपुर
5. ✗ अन्य विकल्पों में से कोई नहीं

Question Number : 113 Question Id : 9593765313 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Jaydev Baghel was related to which field of work?

Options :

1. ✓ Craft
2. ✗ Music
3. ✗ Literature
4. ✗ Medicine
5. ✗ None of the other options

Question Number : 113 Question Id : 9593765313 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

जयदेव बघेल किस कार्यक्षेत्र से संबंधित थे?

Options :

1. ✓ शिल्प
2. ✗ संगीत

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3. ✖ साहित्य
4. ✖ चिकित्सा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 114 Question Id : 9593765314 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Another name of Mahanadi is:

Options :

1. ✖ Shuni
2. ✖ Suvarn Rekha
3. ✔ Chitrotpala
4. ✖ Mandakini
5. ✖ None of the other options

Question Number : 114 Question Id : 9593765314 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

महानदी का एक अन्य नाम है:

Options :

1. ✖ शुनि
2. ✖ सुवर्ण रेखा
3. ✔ चित्रोत्पला
4. ✖ मन्दाकिनी
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 115 Question Id : 9593765315 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

In which monument of Sirpur, the 'Panch Tantra' based famous stories are depicted?

Options :

1. ✖ Anand prabhu kuti vihar
2. ✖ Swastik vihar
3. ✔ Teevar dev vihar
4. ✖ Laxman temple
5. ✖ None of the other options

Question Number : 115 Question Id : 9593765315 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

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इनमें से सिरपुर स्थित किस स्मारक में 'पंचतंत्र' आधारित प्रसिद्ध कहानियाँ रूपायित हैं?

Options :

1. ✖ आनंद प्रभु कुटी विहार
2. ✖ स्वास्तिक विहार
3. ✔ तीवर देव विहार
4. ✖ लक्ष्मण मंदिर
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 116 Question Id : 9593765316 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

From which of the following does the literary reference of Rishabh Teerth of Chhattisgarh is derived?

Options :

1. ✖ Raghuवंशा
2. ✔ Mahabharat
3. ✖ Adipurana
4. ✖ Arthshatra
5. ✖ None of the other options

Question Number : 116 Question Id : 9593765316 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ में ऋषभ तीर्थ की जानकारी का साहित्यिक स्रोत क्या है?

Options :

1. ✖ रघुवंश
2. ✔ महाभारत
3. ✖ आदिपुराण
4. ✖ अर्थशास्त्र
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 117 Question Id : 9593765317 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

The Gundadhar University is situated at:

Options :

1. ✖ Bilaspur
2. ✔ Jagadpur

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3. ✖ Bhilai

4. ✖ Janjgir

5. ✖ None of the other options

Question Number : 117 Question Id : 9593765317 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

गुंडाधूर विश्वविद्यालय _____ में स्थित है।

Options :

1. ✖ बिलासपुर

2. ✔ जगदलपुर

3. ✖ भिलाई

4. ✖ जांजगीर

5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 118 Question Id : 9593765318 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

'Paritranaay Sadhunam' is a modal sentence of which dept. of Chhattisgarh administration?

Options :

1. ✔ Police dept.

2. ✖ Culture and tourism

3. ✖ Education

4. ✖ Forest dept.

5. ✖ None of the other options

Question Number : 118 Question Id : 9593765318 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

“परित्राणाय साधुनाम्” छत्तीसगढ़ प्रशासन के किस विभाग का आदर्श वाक्य है?

Options :

1. ✔ पुलिस विभाग

2. ✖ पर्यटन एवं संस्कृति

3. ✖ शिक्षा विभाग

4. ✖ वन विभाग

5. ✖ अन्य विकल्पों में से कोई नहीं

Correct : 2 Wrong : 1

The Hindi meaning of 'Salwa judum' is:

Options :

1. ✓ Shanti Ki Or Lauto
2. ✗ Public awareness
3. ✗ Tribal education
4. ✗ Vande Matram
5. ✗ None of the other options

Question Number : 119 Question Id : 9593765319 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

“सलवा जुडुम” का हिन्दी अर्थ है:

Options :

1. ✓ शांति की और लौटो
2. ✗ जनजागरण
3. ✗ आदिवासी शिक्षा
4. ✗ वंदे मातरम्
5. ✗ अन्य विकल्पों में से कोई नहीं

Question Number : 120 Question Id : 9593765320 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Out of the following, which scheduled tribe celebrate “Kak Sad Parab”?

Options :

1. ✗ Kamar
2. ✓ Abujhmadia
3. ✗ Baiga
4. ✗ Pahari korwa
5. ✗ None of the other options

Question Number : 120 Question Id : 9593765320 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

निम्नलिखित में से कौन सी अनुसूचित जनजाति “काकसाइ परब” मनाते है?

Options :

1. ✗ कमार
2. ✓ अबुझमाड़िया

3. ✖ बैगा
4. ✖ पहाड़ी कोरवा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 121 Question Id : 9593765321 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who celebrate "Bali Parab"?

Options :

1. ✔ Halba
2. ✖ Oraoh
3. ✖ Kamar
4. ✖ Kanwar
5. ✖ None of the other options

Question Number : 121 Question Id : 9593765321 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

बाली परब कौन मनाते है?

Options :

1. ✔ हल्बा
2. ✖ उरांव
3. ✖ कमार
4. ✖ कंवर
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 122 Question Id : 9593765322 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who speaks "Baigani" dialect?

Options :

1. ✖ Korwa
2. ✖ Korku
3. ✖ Kamar
4. ✖ Gond
5. ✔ None of the other options

Question Number : 122 Question Id : 9593765322 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

"बैगानी" बोली कौन बोलते है?

Options :

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1. ✖ कोरवा
2. ✖ कोरकू
3. ✖ कमार
4. ✖ गोंड
5. ✔ अन्य विकल्पों में से कोई नहीं

Question Number : 123 Question Id : 9593765323 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who perform "Gaur Dance" (Bison Dance)?

Options :

1. ✖ Oraon
2. ✖ Baiga
3. ✖ Kamar
4. ✔ Madia
5. ✖ None of the other options

Question Number : 123 Question Id : 9593765323 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

"गौर नृत्य" कौन करते हैं?

Options :

1. ✖ उरांव
2. ✖ बैगा
3. ✖ कमार
4. ✔ माड़िया
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 124 Question Id : 9593765324 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Jamidar (landlord) of the Sonakhan estate of Chhattisgarh, belonged to which scheduled tribe?

Options :

1. ✖ Kanwar
2. ✔ Binjhar
3. ✖ Gond
4. ✖ Halba

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5. ✖ None of the other options

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Question Number : 124 Question Id : 9593765324 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

छत्तीसगढ़ के सोनाखान स्टेट के जमींदार किस जनजाति के थे?

Options :

1. ✖ कंवर
2. ✔ बिड़वार
3. ✖ गोंड
4. ✖ हल्बा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 125 Question Id : 9593765325 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

“Dhumakuria” youth dormitory belongs to which of the following scheduled tribe?

Options :

1. ✖ Muria
2. ✖ Madia
3. ✖ Kamar
4. ✔ Oraon
5. ✖ None of the other options

Question Number : 125 Question Id : 9593765325 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

निम्नांकित अनुसूचित जनजातियों में “धुमकुरिया” युवागृह किस जनजाति की थी?

Options :

1. ✖ मुरिया
2. ✖ माड़िया
3. ✖ कमर
4. ✔ उरांव
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 126 Question Id : 9593765326 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

What was the minimum support price of ‘A’ grade paddy in the year 2014-15 in Chhattisgarh state?

Options :

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1. ✖ Rs 1350 per quintal
2. ✔ Rs 1400 per quintal
3. ✖ Rs 1470 per quintal
4. ✖ Rs 1425 per quintal
5. ✖ None of the other options

Question Number : 126 Question Id : 9593765326 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

वर्ष 2014-15 में छत्तीसगढ़ राज्य में 'A' ग्रेड के धान का न्यूनतम समर्थन मूल्य क्या था?

Options :

1. ✖ ₹ 1350 प्रति क्विंटल
2. ✔ ₹ 1400 प्रति क्विंटल
3. ✖ ₹ 1470 प्रति क्विंटल
4. ✖ ₹ 1425 प्रति क्विंटल
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 127 Question Id : 9593765327 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

What percentage of subsidy can be provided to small and marginal farmers under "National Micro Irrigation Mission"?

Options :

1. ✔ 75 percent
2. ✖ 60 percent
3. ✖ 50 percent
4. ✖ 80 percent
5. ✖ None of the other options

Question Number : 127 Question Id : 9593765327 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

"राष्ट्रीय माइक्रो सिंचाई मिशन" के अन्तर्गत सीमांत एवं लघु कृषकों को कितनी प्रतिशत सब्सिडी दी जा सकती है?

Options :

1. ✔ 75 प्रतिशत
2. ✖ 60 प्रतिशत
3. ✖ 50 प्रतिशत

4. ✖ 80 प्रतिशत

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5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 128 Question Id : 9593765328 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

What was the total production of sugarcane in the year 2012-13 in Chhattisgarh state?

Options :

1. ✖ 32.60 thousand tonnes

2. ✔ 37.30 thousand tonnes

3. ✖ 38.67 thousand tonnes

4. ✖ 38.88 thousand tonnes

5. ✖ None of the other options

Question Number : 128 Question Id : 9593765328 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

वर्ष 2012-13 में छत्तीसगढ़ राज्य में गन्ने का कुल उत्पाद कितना था?

Options :

1. ✖ 32.60 हजार टन

2. ✔ 37.30 हजार टन

3. ✖ 38.67 हजार टन

4. ✖ 38.88 हजार टन

5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 129 Question Id : 9593765329 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

How many districts are covered under "National Horticulture Mission" in Chhattisgarh state?

Options :

1. ✖ 27

2. ✖ 24

3. ✖ 20

4. ✔ 19

5. ✖ None of the other options

Question Number : 129 Question Id : 9593765329 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ में 'राष्ट्रीय उद्यानिकी' मिशन के अन्तर्गत कितने जिले शामिल किए गये हैं?

Options :

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1. ✖ 27
2. ✖ 24
3. ✖ 20
4. ✔ 19
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 130 Question Id : 9593765330 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which district of Chhattisgarh has covered the maximum area of forest?

Options :

1. ✖ Bastar
2. ✔ Narayanpur
3. ✖ Koriya
4. ✖ Sukma
5. ✖ None of the other options

Question Number : 130 Question Id : 9593765330 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य में सर्वाधिक वनों का विस्तार वाला जिला कौन सा है?

Options :

1. ✖ बस्तर
2. ✔ नारायणपुर
3. ✖ कोरिया
4. ✖ सुकमा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 131 Question Id : 9593765331 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which of the class has given the higher number of ration card in Chhattisgarh state?

Options :

1. ✖ Antyodaya (pink)
2. ✔ Priority (blue)
3. ✖ General (brown)
4. ✖ Disabled (green)
5. ✖ None of the other options

Question Number : 131 Question Id : 9593765331 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य में सर्वाधिक राशनकार्ड की संख्या किस को प्रदान की गयी है?

Options :

1. ✖ अन्त्योदय (गुलाबी)
2. ✔ प्राथमिकता (नीला)
3. ✖ सामान्य (भुरा)
4. ✖ निःशक्तजन
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 132 Question Id : 9593765332 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

How many project division are working for forest development in Chhattisgarh state?

Options :

1. ✖ Four
2. ✔ Seven
3. ✖ Ten
4. ✖ Three
5. ✖ None of the other options

Question Number : 132 Question Id : 9593765332 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य में वन विकास हेतु कितने परियोजना मण्डल काम कर रहे हैं?

Options :

1. ✖ चार
2. ✔ सात
3. ✖ दस
4. ✖ तीन
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 133 Question Id : 9593765333 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which is Biggest Pat of Chhattisgarh?

Options :

1. ✖ Main Pat

2. ✖ Jarang Pat
3. ✖ Samri Pat
4. ✔ Jashpur Pat
5. ✖ None of the other options

Question Number : 133 Question Id : 9593765333 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ का सबसे बड़ा पाट कौन सा है?

Options :

1. ✖ मैन पाट
2. ✖ जारंग पाट
3. ✖ सामरी पाट
4. ✔ जशपुर पाट
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 134 Question Id : 9593765334 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

One third of total disabled population of Chhattisgarh state lives only in the following two district:

Options :

1. ✖ Surguja and Raigarh
2. ✖ Bilaspur and Korba
3. ✖ Bastar and Koriya
4. ✔ Raipur and Drug
5. ✖ None of the other options

Question Number : 134 Question Id : 9593765334 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य की कुल निःशक्त जनसंख्या का एक तिहाई केवल निम्न दो जिलों में रहती है?

Options :

1. ✖ सरगुजा और रायगढ़
2. ✖ बिलासपुर और कोरबा
3. ✖ बस्तर और कोरिया
4. ✔ रायपुर और दुर्ग

5. ✖ अन्य विकल्पों में से कोई नहीं

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Question Number : 135 Question Id : 9593765335 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

What is the percentage of protected forest to total area in Chhattisgarh?

Options :

1. ✔ 40.21
2. ✖ 43.13
3. ✖ 50.00
4. ✖ 32.00
5. ✖ None of the other options

Question Number : 135 Question Id : 9593765335 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

छत्तीसगढ़ के कुल वनक्षेत्र में संरक्षित वन का प्रतिशत कितना है?

Options :

1. ✔ 40.21
2. ✖ 43.13
3. ✖ 50.00
4. ✖ 32.00
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 136 Question Id : 9593765336 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

If a member of Janpad Panchayat quitting the Janpad and start living in other Janpad, then what will happen?

Options :

1. ✔ He shall not remain member
2. ✖ He shall remain member
3. ✖ He will complete this term
4. ✖ Janpad Panchayat will decide in this matter
5. ✖ None of the other options

Question Number : 136 Question Id : 9593765336 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

यदि कोई जनपद सदस्य उस जनपद को छोड़कर दूसरे जनपद में रहना शुरू कर दे तो क्या होगा?

Options :

1. ✔ वह सदस्य नहीं रहेगा

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2. ✖ वह सदस्य बना रहेगा
3. ✖ वह अपना कार्यकाल पूरा करेगा
4. ✖ जनपद पंचायत इस विषय पर निर्णय लेगी
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 137 Question Id : 9593765337 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

What is correct about the minimum & maximum no. of members?

- I. Gram Panchayat 10-20 member
- II. Gram Panchayat 10-15 member
- III. Janpad Panchayat 10-20 member
- IV. Janpad Panchayat 10-25 member
- V. Zila Panchayat 10-35 member
- VI. Zila Panchayat 10-30 member

Options :

1. ✖ I, III, V
2. ✖ II, IV, VI
3. ✖ I, IV, VI
4. ✖ II, III, V
5. ✔ I, IV, V

Question Number : 137 Question Id : 9593765337 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

पंचायतों की न्यूनतम और अधिकतम संख्या के विषय में सही क्या है?

- I. ग्राम पंचायत 10-20 सदस्य
- II. ग्राम पंचायत 10-15 सदस्य
- III. जनपद पंचायत 10-20 सदस्य
- IV. जनपद पंचायत 10-25 सदस्य
- V. जिला पंचायत 10-35 सदस्य
- VI. जिला पंचायत 10-30 सदस्य

Options :

1. ✖ I, III, V
2. ✖ II, IV, VI
3. ✖ I, IV, VI
4. ✖ II, III, V
5. ✔ I, IV, V

Question Number : 138 Question Id : 9593765338 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which is not included in obligatory taxes imposed by Gram Panchayat?

- I. Light tax, light arrangement provided by Gram Panchayat
- II. Professional tax
- III. Tax on sarais/dharmshalas
- IV. Water tax
- V. Market fees
- VI. Fees on bullock cart stand

Options :

- 1. ✗ I, II, III
- 2. ✗ IV, V, VI
- 3. ✗ II, IV, VI
- 4. ✗ I, III, V
- 5. ✓ I, II, V

Question Number : 138 Question Id : 9593765338 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

ग्राम पंचायत द्वारा अधिरोपित किए जानेवाले अनिवार्य करों में क्या सम्मिलित नहीं है?

- I. ग्राम पंचायत द्वारा प्रदत्त प्रकाश व्यवस्था पर प्रकाश कर
- II. वृत्ति कर
- III. सरायों / धर्मशालाओं पर कर
- IV. जलकर
- V. बाजार फीस
- VI. बैलगाड़ी स्टेण्ड के लिए फीस

Options :

- 1. ✗ I, II, III
- 2. ✗ IV, V, VI
- 3. ✗ II, IV, VI
- 4. ✗ I, III, V
- 5. ✓ I, II, V

Question Number : 139 Question Id : 9593765339 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who of the following compared the Collector to a tortoise on whose back stood the elephant like Govt. of India?

Options :

- 1. ✗ Sir George Campbell

- 2. ✖ Sir William Wilson
- 3. ✖ The Imperial Gazetteer of India
- 4. ✔ Ramsay McDonald
- 5. ✖ None of the other options

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Question Number : 139 Question Id : 9593765339 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

निम्न में से किस व्यक्ति ने जिलाधीश की तुलना एक ऐसे कछुए से की थी जिसकी पीठ पर हाथी रूपी भारत सरकार खड़ी है?

Options :

- 1. ✖ सर जार्ज कैम्पबेल
- 2. ✖ सर विलियम विल्सन
- 3. ✖ दि इम्पीरियल गजेटियर ऑफ इण्डिया
- 4. ✔ रेम्जे मेकडोनाल्ड
- 5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 140 Question Id : 9593765340 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Who chairs the annual meeting of the chief secretaries of all the states?

Options :

- 1. ✔ Cabinet Secretary
- 2. ✖ Home Secretary of Govt. of India
- 3. ✖ Home Minister
- 4. ✖ Prime Minister
- 5. ✖ None of the other options

Question Number : 140 Question Id : 9593765340 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

सभी राज्यों के मुख्य सचिवों के वार्षिक सम्मेलन की अध्यक्षता कौन करता है?

Options :

- 1. ✔ मन्त्रिमण्डलीय सचिव
- 2. ✖ भारत सरकार का गृह सचिव
- 3. ✖ केन्द्रीय गृह मन्त्री
- 4. ✖ प्रधान मन्त्री

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5. ✖ अन्य विकल्पों में से कोई नहीं

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Question Number : 141 Question Id : 9593765341 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

Udanti sanctuary is situated at the boundary of which state?

Options :

1. ✖ Madhya Pradesh
2. ✖ Bihar
3. ✖ Maharashtra
4. ✔ Odisha
5. ✖ None of the other options

Question Number : 141 Question Id : 9593765341 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

उदन्ती अभयारण्य किस राज्य की सीमा पर स्थित है?

Options :

1. ✖ मध्य प्रदेश
2. ✖ बिहार
3. ✖ महाराष्ट्र
4. ✔ ओडिशा
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 142 Question Id : 9593765342 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

Which of the following tribes of Chhattisgarh is identified as extremely backward tribe by the central government?

Options :

1. ✖ Kol
2. ✔ Kamar
3. ✖ Halba
4. ✖ Kanwar
5. ✖ None of the other options

Question Number : 142 Question Id : 9593765342 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

छत्तीसगढ़ की निम्नलिखित में से किस आदिवासी जनजाति को केन्द्र सरकार ने विशेष पिछड़ी जनजाति घोषित किया है?

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Options :

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1. ✖ कोल
2. ✔ कमार
3. ✖ हल्बा
4. ✖ कंवर
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 143 Question Id : 9593765343 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

What percentage of water is estimated under surface water in Chhattisgarh state?

Options :

1. ✔ 80.6 Percent
2. ✖ 75.7 Percent
3. ✖ 82.5 Percent
4. ✖ 76.0 Percent
5. ✖ None of the other options

Question Number : 143 Question Id : 9593765343 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य में सतहजल के अन्तर्गत कितने प्रतिशत जल की उपलब्धता अनुमानित की गयी है?

Options :

1. ✔ 80.6 प्रतिशत
2. ✖ 75.7 प्रतिशत
3. ✖ 82.5 प्रतिशत
4. ✖ 76.0 प्रतिशत
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 144 Question Id : 9593765344 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

“Save girl, Educate girl” plan was launched in Chhattisgarh on:

Options :

1. ✖ 20 Jan, 2015
2. ✔ 22 Jan, 2015
3. ✖ 23 Jan, 2015
4. ✖ 26 Jan, 2015
5. ✖ None of the other options

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Question Number : 144 Question Id : 9593765344 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

“बेटी बचाओ बेटी पढ़ाओ” योजना छत्तीसगढ़ राज्य में कब लागू की गई?

Options :

1. ✗ 20 जनवरी 2015
2. ✓ 22 जनवरी 2015
3. ✗ 23 जनवरी 2015
4. ✗ 26 जनवरी 2015
5. ✗ अन्य विकल्पों में से कोई नहीं

Question Number : 145 Question Id : 9593765345 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

When was state woman commission constituted?

Options :

1. ✓ 24 Mar, 2001
2. ✗ 26 Jan, 2002
3. ✗ 15 Aug, 2010
4. ✗ 26 Jan, 2011
5. ✗ None of the other options

Question Number : 145 Question Id : 9593765345 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

राज्य महिला आयोग का गठन कब किया गया था?

Options :

1. ✓ 24 मार्च 2001
2. ✗ 26 जनवरी 2002
3. ✗ 15 अगस्त 2010
4. ✗ 26 जनवरी 2011
5. ✗ अन्य विकल्पों में से कोई नहीं

Question Number : 146 Question Id : 9593765346 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

When was the National Rural Livelihood Mission (NRLM) introduced in Chhattisgarh?

Options :

1. ✓ 1 Apr, 2013

2. ✖ 2 Oct, 2014
3. ✖ 26 Jan, 2013
4. ✖ 15 Aug, 2014
5. ✖ None of the other options

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Question Number : 146 Question Id : 9593765346 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ में "राष्ट्रीय ग्रामीण आजीविका मिशन" (NRCM) कब लागू किया गया?

Options :

1. ✔ 1 अप्रैल 2013
2. ✖ 2 अक्टूबर 2014
3. ✖ 26 जनवरी 2013
4. ✖ 15 अगस्त 2014
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 147 Question Id : 9593765347 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

Which is a major Jalashay projet in Chhattisgarh state?

Options :

1. ✖ Sukhanal Barrage
2. ✖ Ghumariya Barrage
3. ✖ Mongara Barrage
4. ✖ Saradih Barrage
5. ✔ None of the other options

Question Number : 147 Question Id : 9593765347 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ राज्य में कौन सी बड़ी जलाशय परियोजना है?

Options :

1. ✖ सुखनाला बैराज
2. ✖ घुमरीया बैराज
3. ✖ मोंगरा बैराज
4. ✖ साराडीह बैराज
5. ✔ अन्य विकल्पों में से कोई नहीं

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Question Number : 148 Question Id : 9593765348 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

How many forest division are approved by the Government of India for scientific management of forest of Chhattisgarh state?

Options :

1. ✗ 32
2. ✗ 33
3. ✓ 34
4. ✗ 35
5. ✗ None of the other options

Question Number : 148 Question Id : 9593765348 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

भारत सरकार के द्वारा छत्तीसगढ़ राज्य के कितने वन संभाग को वनों के वैज्ञानिक प्रबन्धन के लिए स्वीकृति दी गयी है?

Options :

1. ✗ 32
2. ✗ 33
3. ✓ 34
4. ✗ 35
5. ✗ अन्य विकल्पों में से कोई नहीं

Question Number : 149 Question Id : 9593765349 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

"Manthan-Award" received by the Government of Chhattisgarh is related to which of the followings?

Options :

1. ✗ Increase in milk-production
2. ✗ Increase in rice-production
3. ✓ Computerization of public distribution system
4. ✗ Road Transport
5. ✗ None of the other options

Question Number : 149 Question Id : 9593765349 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical

Correct : 2 Wrong : 1

छत्तीसगढ़ सरकार को प्राप्त 'मंथन-अवार्ड' का सम्बन्ध निम्न में से किससे है?

Options :

1. ✖ दुग्ध उत्पादन वृद्धि से
2. ✖ चावल उत्पादन वृद्धि से
3. ✔ सार्वजनिक वितरण प्रणाली के कम्प्यूटरीकृत से
4. ✖ सड़क यातायत से
5. ✖ अन्य विकल्पों में से कोई नहीं

Question Number : 150 Question Id : 9593765350 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

Who was awarded Sanskrit Bhasha Samman in the year 2014 in Chhattisgarh?

Options :

1. ✖ Shri Ganga Ram Paikra
2. ✔ Dr. Ramakant Shukla
3. ✖ Shri Vibhudeep Nanda
4. ✖ Shri Ambar Singh Bhardwaj
5. ✖ None of the other options

Question Number : 150 Question Id : 9593765350 Question Type : MCQ Display Question Number : Yes Single Line Question
Option : No Option Orientation : Vertical
Correct : 2 Wrong : 1

छत्तीसगढ़ में वर्ष 2014 का संस्कृत भाषा सम्मान किसे प्रदान किया गया है?

Options :

1. ✖ श्री गंगाराम पैकरा
2. ✔ डा. रमाकांत शुक्ला
3. ✖ श्री विभुदीप नंद
4. ✖ श्री अम्बर सिंह भारद्वाज
5. ✖ अन्य विकल्पों में से कोई नहीं