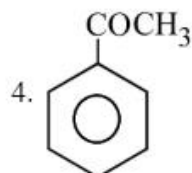
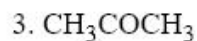
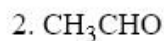
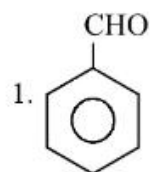


निम्न में कौन टॉलेन अभिकर्मक एवं फेहलिंग अभिकर्मक परीक्षण दोनों को दर्शाता है:



Options :

485584143257. 1

485584143258. 2

485584143259. 3

485584143260. 4

Mathematics

Group Number :	2
Group Id :	485584810
Group Maximum Duration :	60
Group Minimum Duration :	60
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	200
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Common

Section Id :	485584930
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	75
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4855842647

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 51 Question Id : 48558435816 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If $A = \begin{bmatrix} 2 & 1 \\ 1 & 4 \\ -1 & 6 \\ 0 & 7 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 & 3 & 0 \\ 2 & -1 & 6 & 7 \end{bmatrix}$ then

1. only AB is defined.
2. only BA is defined.
3. AB and BA both are defined.
4. Neither AB nor BA is defined.

Options :

485584143261. 1
485584143262. 2
485584143263. 3
485584143264. 4

Question Number : 51 Question Id : 48558435816 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि $A = \begin{bmatrix} 2 & 1 \\ 1 & 4 \\ -1 & 6 \\ 0 & 7 \end{bmatrix}$ और $B = \begin{bmatrix} 1 & 2 & 3 & 0 \\ 2 & -1 & 6 & 7 \end{bmatrix}$ हो तो

1. केवल AB परिभाषित है।
2. केवल BA परिभाषित है।
3. AB तथा BA दोनों परिभाषित हैं।
4. ना तो AB और ना ही BA परिभाषित है।

Options :

485584143261. 1
485584143262. 2

485584143263. 3
485584143264. 4

Question Number : 52 Question Id : 48558435817 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If $\begin{bmatrix} 4x & 5x-7 \\ 4x & 2x+y \end{bmatrix} = \begin{bmatrix} x+6 & y \\ 7y-13 & 7 \end{bmatrix}$ then the value of $2x + y$ is:

1. 8
2. 7
3. 9
4. 6

Options :

485584143265. 1
485584143266. 2
485584143267. 3
485584143268. 4

Question Number : 52 Question Id : 48558435817 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि $\begin{bmatrix} 4x & 5x-7 \\ 4x & 2x+y \end{bmatrix} = \begin{bmatrix} x+6 & y \\ 7y-13 & 7 \end{bmatrix}$ तो $2x + y$ का मान है-

1. 8
2. 7
3. 9
4. 6

Options :

485584143265. 1
485584143266. 2
485584143267. 3
485584143268. 4

Question Number : 53 Question Id : 48558435818 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

The area of a triangle with vertices $(0, -3)$, $(0, 3)$ and $(k, 0)$ is 27 sq.units. The value of k is:

1. -27
2. -6
3. -18
4. -9

Options :

485584143269. 1
485584143270. 2
485584143271. 3
485584143272. 4

Question Number : 53 Question Id : 48558435818 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

शीर्ष $(0, -3)$, $(0, 3)$ और $(k, 0)$ वाले त्रिभुज का क्षेत्रफल 27 वर्ग इकाई है। k का मान है:

1. -27
2. -6
3. -18
4. -9

Options :

485584143269. 1
485584143270. 2
485584143271. 3
485584143272. 4

Question Number : 54 Question Id : 48558435819 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If A is a non singular square matrix of order 3 such that $A^3 = 4A^2$ then value of $|A|$ is:

1. 16
2. 64
3. 4
4. 8

Options :

485584143273. 1
485584143274. 2
485584143275. 3
485584143276. 4

Question Number : 54 Question Id : 48558435819 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि A कोटि 3 का व्युत्क्रमणीय वर्ग आव्यूह इस प्रकार है कि $A^3 = 4A^2$ तो $|A|$ का मान होगा-

1. 16
2. 64
3. 4
4. 8

Options :

485584143273. 1
485584143274. 2
485584143275. 3
485584143276. 4

Question Number : 55 Question Id : 48558435820 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

Derivative of $2x^2$ with respect to $5x^4$ is:

1. $\frac{1}{5x}$

2. $-\frac{1}{5x^2}$

3. $\frac{1}{5x^2}$

4. $\frac{1}{5x^3}$

Options :

485584143277. 1

485584143278. 2

485584143279. 3

485584143280. 4

Question Number : 55 Question Id : 48558435820 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

$5x^4$ के सापेक्ष $2x^2$ का अवकलन है-

1. $\frac{1}{5x}$

2. $-\frac{1}{5x^2}$

3. $\frac{1}{5x^2}$

4. $\frac{1}{5x^3}$

Options :

485584143277. 1

485584143278. 2

485584143279. 3

485584143280. 4

Question Number : 56 Question Id : 48558435821 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

The slope of normal to the curve $y = 3x^2 - 6x$ at $x = 0$ is:

1. -6

2. $-\frac{1}{6}$

3. $\frac{1}{6}$

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

Options :

485584143281. 1

485584143282. 2

485584143283. 3

485584143284. 4

Question Number : 56 Question Id : 48558435821 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

$x = 0$ पर वक्र $y = 3x^2 - 6x$ के अभिलंब की प्रवणता है:

1. -6

2. $-\frac{1}{6}$

3. $\frac{1}{6}$

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

Options :

485584143281. 1

485584143282. 2

485584143283. 3

485584143284. 4

Question Number : 57 Question Id : 48558435822 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If $f(x) = -3x^2$, then $f(x)$ is:

1. Increasing in $(0, \infty)$, decreasing in $(-\infty, 0)$
2. Increasing in $(-\infty, 0)$, decreasing in $[0, \infty)$
3. Increasing in $\left[-\frac{1}{3}, \infty\right)$, decreasing in $\left(-\infty, \frac{-1}{3}\right]$
4. Decreasing for all real values of x

Options :

485584143285. 1
485584143286. 2
485584143287. 3
485584143288. 4

Question Number : 57 Question Id : 48558435822 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि $f(x) = -3x^2$, है, तो $f(x)$ है:

1. $(0, \infty)$ में वर्धमान, $(-\infty, 0)$ में हासमान
2. $(-\infty, 0)$ में वर्धमान, $[0, \infty)$ में हासमान
3. $\left[-\frac{1}{3}, \infty\right)$ में वर्धमान, $\left(-\infty, \frac{-1}{3}\right]$ में हासमान
4. x के सभी वास्तविक मानों के लिये हासमान

Options :

485584143285. 1
485584143286. 2
485584143287. 3
485584143288. 4

Question Number : 58 Question Id : 48558435823 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

The value of $\int (5x - 2)^3 dx$ is:

1. $3(5x - 2) + C$; C is constant of integration.
2. $15(5x - 2)^2 + C$; C is constant of integration.
3. $(5x - 2)^4 + C$; C is constant of integration.
4. $\frac{(5x - 2)^4}{20} + C$; C is constant of integration.

Options :

485584143289. 1
485584143290. 2
485584143291. 3
485584143292. 4

Question Number : 58 Question Id : 48558435823 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

$\int (5x - 2)^3 dx$ का मान है-

1. $3(5x - 2) + C$; C समाकलन अचर है।
2. $15(5x - 2)^2 + C$; C समाकलन अचर है।
3. $(5x - 2)^4 + C$; C समाकलन अचर है।
4. $\frac{(5x - 2)^4}{20} + C$; C समाकलन अचर है।

Options :

485584143289. 1
485584143290. 2
485584143291. 3
485584143292. 4

Question Number : 59 Question Id : 48558435824 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

Area bounded by $y = |x - 5|$ and x -axis between $x = 2$; and $x = 4$ is:

1. 5
2. 4
3. 3
4. 6

Options :

485584143293. 1
485584143294. 2
485584143295. 3
485584143296. 4

Question Number : 59 Question Id : 48558435824 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

$y = |x - 5|$ x -अक्ष एवं $x = 2$ व $x = 4$ से धिरे क्षेत्र का क्षेत्रफल है:

1. 5
2. 4
3. 3
4. 6

Options :

485584143293. 1
485584143294. 2
485584143295. 3
485584143296. 4

Question Number : 60 Question Id : 48558435825 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If $\frac{d}{dx} \left(2 \frac{d^2 y}{dx^2} \right)^3 = 7$, then the sum of order and degree of the differential equation is:

1. 3
2. 2
3. 5
4. 4

Options :

485584143297. 1
485584143298. 2
485584143299. 3
485584143300. 4

Question Number : 60 Question Id : 48558435825 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि $\frac{d}{dx} \left(2 \frac{d^2 y}{dx^2} \right)^3 = 7$, है तो अवकल की कोटि एवं घात का योगफल है:

1. 3
2. 2
3. 5
4. 4

Options :

485584143297. 1
485584143298. 2
485584143299. 3
485584143300. 4

Question Number : 61 Question Id : 48558435826 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

The equation of the curve whose slope is given by $\frac{dy}{dx} = \frac{4x}{y}$, $x > 0, y > 0$ and which passes through the point (2, 2) is:

1. $y^2 = 4x^2 - 12$

2. $x^2 = 4y^2 - 12$

3. $y^2 = 4x^2 + 12$

4. $x^2 = 4y^2 + 12$

Options :

485584143301. 1

485584143302. 2

485584143303. 3

485584143304. 4

Question Number : 61 Question Id : 48558435826 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

इस वक्र का समीकरण जिसकी प्रवणता $\frac{dy}{dx} = \frac{4x}{y}$, $x > 0, y > 0$ हो तथा जो बिंदु (2, 2) से गुजरता हो:

1. $y^2 = 4x^2 - 12$

2. $x^2 = 4y^2 - 12$

3. $y^2 = 4x^2 + 12$

4. $x^2 = 4y^2 + 12$

Options :

485584143301. 1

485584143302. 2

485584143303. 3

485584143304. 4

Question Number : 62 Question Id : 48558435827 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

A random variable has the following probability distribution

$X = x_i$	2	3	4	5
$P(X = x_i)$	4k	k	5k	2k

The value of $P(X < 3)$ is:

1. $\frac{1}{12}$

2. $\frac{1}{3}$

3. $\frac{1}{4}$

4. $\frac{5}{12}$

Options :

485584143305. 1

485584143306. 2

485584143307. 3

485584143308. 4

Question Number : 62 Question Id : 48558435827 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

एक यादृच्छिक चर का प्रायिकता बंटन नीचे दिया गया है।

$X = x_i$	2	3	4	5
$P(X = x_i)$	4k	k	5k	2k

$P(X < 3)$ का मान है:

1. $\frac{1}{12}$

2. $\frac{1}{3}$

3. $\frac{1}{4}$

4. $\frac{5}{12}$

Options :

485584143305. 1

485584143306. 2
485584143307. 3
485584143308. 4

Question Number : 63 Question Id : 48558435828 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

If a discrete random variable X has the following probability distribution:

X	$\frac{2}{3}$	1	$\frac{4}{3}$
P(X)	c^2	c^2	c

then c is:

1. $\frac{1}{2}$
2. $\frac{1}{3}$
3. $\frac{1}{4}$
4. $\frac{1}{5}$

Options :

485584143309. 1
485584143310. 2
485584143311. 3
485584143312. 4

Question Number : 63 Question Id : 48558435828 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

यदि असंतत यादृच्छिक चर X का प्रायिकता बंटन निम्न है:

X	$\frac{2}{3}$	1	$\frac{4}{3}$
$P(X)$	c^2	c^2	c

तो c का मान है:

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

2. $\frac{1}{3}$

3. $\frac{1}{4}$

4. $\frac{1}{5}$

Options :

485584143309. 1

485584143310. 2

485584143311. 3

485584143312. 4

Question Number : 64 Question Id : 48558435829 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

The maximum value of $Z = 3x + 4y$ subject to constraint $x + y \leq 6, x, y \geq 0$ is :

1. 18

2. 20

3. 22

4. 24

Options :

485584143313. 1

485584143314. 2

485584143315. 3

485584143316. 4

Question Number : 64 Question Id : 48558435829 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

व्यवरोधों $x + y \leq 6$, $x, y \geq 0$ के अन्तर्गत $Z = 3x + 4y$ का अधिकतम मान है:

1. 18
2. 20
3. 22
4. 24

Options :

485584143313. 1
485584143314. 2
485584143315. 3
485584143316. 4

Question Number : 65 Question Id : 48558435830 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

For the problem $\max Z = ax + by$, $x \geq 0$, $y \geq 0$, which of the following is **NOT** a valid constraint to make it a linear programming problem?

1. $x \leq 5$, $y \leq 10$
2. $2x + 3y \leq 60$
3. $x + 2y \leq 40$
4. $x^2 + y \leq 50$

Options :

485584143317. 1
485584143318. 2
485584143319. 3
485584143320. 4

Question Number : 65 Question Id : 48558435830 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ1

समस्या अधिकतमीकरण $Z = ax + by, x \geq 0, y \geq 0$ के लिये,इसे रैखिक प्रोग्रामन समस्या बनाने के लिए, निम्नलिखित में से कौन सा एक वैध व्यरोध नहीं है।

1. $x \leq 5, y \leq 10$

2. $2x + 3y \leq 60$

3. $x + 2y \leq 40$

4. $x^2 + y \leq 50$

Options :

485584143317. 1

485584143318. 2

485584143319. 3

485584143320. 4

Core Mathematics

Section Id :	485584931
Section Number :	2
Section type :	Online
Mandatory or Optional :	Optional
Number of Questions :	35
Number of Questions to be attempted :	25
Section Marks :	125
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4855842648
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 66 Question Id : 48558435831 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

For real numbers a and b , define aRb if $b - a + \sqrt{5}$ is an irrational number. Then the relation R is:

1. Symmetric
2. Reflexive
3. Transitive
4. Equivalence

Options :

485584143321. 1
 485584143322. 2
 485584143323. 3
 485584143324. 4

Question Number : 66 Question Id : 48558435831 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

a तथा b वास्तविक संख्याओं के लिए, aRb इस प्रकार परिभाषित है कि $b - a + \sqrt{5}$ अपरिमेय संख्या हैं तो संबंध R होगा:

1. सममित
2. स्वतुल्य
3. संक्रामक
4. तुल्यता

Options :

485584143321. 1
 485584143322. 2
 485584143323. 3
 485584143324. 4

Question Number : 67 Question Id : 48558435832 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The domain of the function $f(x) = \log(x^2 - 4)$ is :

1. $[2, \infty)$
2. $(-\infty, -2) \cup (2, \infty)$
3. $(2, \infty)$
4. $(-\infty, -2] \cup (-2, -1)$

Options :

485584143325. 1
 485584143326. 2
 485584143327. 3
 485584143328. 4

Question Number : 67 Question Id : 48558435832 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

फलन $f(x) = \log(x^2 - 4)$ का प्रांत है:

1. $[2, \infty)$
2. $(-\infty, -2) \cup (2, \infty)$
3. $(2, \infty)$
4. $(-\infty, -2] \cup (-2, -1)$

Options :

485584143325. 1
485584143326. 2
485584143327. 3
485584143328. 4

Question Number : 68 Question Id : 48558435833 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

Domain of function $f(x) = \cos^{-1} \sqrt{2x-1}$ is

1. $[-1, 1]$
2. $\left(\frac{1}{2}, 1\right]$
3. $\left[\frac{1}{2}, 1\right]$
4. $\left[\frac{1}{2}, 1\right)$

Options :

485584143329. 1
485584143330. 2
485584143331. 3
485584143332. 4

Question Number : 68 Question Id : 48558435833 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

फलन $f(x) = \cos^{-1} \sqrt{2x-1}$ का प्रान्त है

1. $[-1,1]$

2. $\left(\frac{1}{2}, 1\right]$

3. $\left[\frac{1}{2}, 1\right]$

4. $\left[\frac{1}{2}, 1\right)$

Options :

485584143329. 1

485584143330. 2

485584143331. 3

485584143332. 4

Question Number : 69 Question Id : 48558435834 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The value of $\tan(\cos^{-1}x)$ is:

1. $\frac{1}{x}$

2. $\frac{\sqrt{1-x^2}}{x}$

3. $\frac{\sqrt{1+x^2}}{x}$

4. $\frac{x}{\sqrt{1-x^2}}$

Options :

485584143333. 1

485584143334. 2

485584143335. 3

485584143336. 4

Question Number : 69 Question Id : 48558435834 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$\tan(\cos^{-1}x)$ का मान है:

1. $\frac{1}{x}$

2. $\frac{\sqrt{1-x^2}}{x}$

3. $\frac{\sqrt{1+x^2}}{x}$

4. $\frac{x}{\sqrt{1-x^2}}$

Options :

485584143333. 1

485584143334. 2

485584143335. 3

485584143336. 4

Question Number : 70 Question Id : 48558435835 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If the matrix $\begin{bmatrix} x-y & 1 & -2 \\ 2x-y & 0 & 3 \\ 2 & -3 & 0 \end{bmatrix}$ is skew-symmetric, then values of x and y are respectively

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

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

3. 1, 1

4. -1, -1

Options :

485584143337. 1

485584143338. 2

485584143339. 3

485584143340. 4

Question Number : 70 Question Id : 48558435835 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि आव्यूह $\begin{bmatrix} x-y & 1 & -2 \\ 2x-y & 0 & 3 \\ 2 & -3 & 0 \end{bmatrix}$ विषम सममित है तो x तथा y का क्रमशः मान होगा

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

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

3. $1, 1$

4. $-1, -1$

Options :

485584143337. 1

485584143338. 2

485584143339. 3

485584143340. 4

Question Number : 71 Question Id : 48558435836 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $A = \begin{bmatrix} 2 & 3 \\ -1 & 1 \end{bmatrix}$ and $A^2 - 3A + kI = 0$ then the value of k is:

1. -5

2. 3

3. 5

4. -3

Options :

485584143341. 1

485584143342. 2

485584143343. 3

485584143344. 4

Question Number : 71 Question Id : 48558435836 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $A = \begin{bmatrix} 2 & 3 \\ -1 & 1 \end{bmatrix}$ तथा $A^2 - 3A + kI = 0$ है तो k का मान होगा-

1. -5
2. 3
3. 5
4. -3

Options :

485584143341. 1
485584143342. 2
485584143343. 3
485584143344. 4

Question Number : 72 Question Id : 48558435837 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $A = \begin{bmatrix} 1 & \sqrt{3} & 0 \\ -\sqrt{3} & 1 & 0 \\ 0 & 0 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} \sqrt{3} & 1 & 0 \\ -1 & \sqrt{3} & 0 \\ 0 & 0 & 2 \end{bmatrix}$ then AB is equal to :

1. $4I$
2. $-4I$
3. $\begin{bmatrix} 0 & 0 & 4 \\ 0 & 4 & 0 \\ -4 & 0 & 0 \end{bmatrix}$
4. $\begin{bmatrix} 0 & 4 & 0 \\ -4 & 0 & 0 \\ 0 & 0 & 4 \end{bmatrix}$

Options :

485584143345. 1
485584143346. 2
485584143347. 3
485584143348. 4

Question Number : 72 Question Id : 48558435837 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $A = \begin{bmatrix} 1 & \sqrt{3} & 0 \\ -\sqrt{3} & 1 & 0 \\ 0 & 0 & 2 \end{bmatrix}$ तथा $B = \begin{bmatrix} \sqrt{3} & 1 & 0 \\ -1 & \sqrt{3} & 0 \\ 0 & 0 & 2 \end{bmatrix}$ तो AB बराबर होगा-

1. $4I$

2. $-4I$

3. $\begin{bmatrix} 0 & 0 & 4 \\ 0 & 4 & 0 \\ -4 & 0 & 0 \end{bmatrix}$

4. $\begin{bmatrix} 0 & 4 & 0 \\ -4 & 0 & 0 \\ 0 & 0 & 4 \end{bmatrix}$

Options :

485584143345. 1

485584143346. 2

485584143347. 3

485584143348. 4

Question Number : 73 Question Id : 48558435838 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

Which of the following is a correct statement ?

1. Determinant is a rectangular arrangement of numbers.

2. Determinant is a square arrangement of numbers.

3. Determinant is a value assigned to a square arrangement of numbers in a specific manner

4. Determinant is sum of diagonals elements of a square arrangement of numbers

Options :

485584143349. 1

485584143350. 2

485584143351. 3

485584143352. 4

Question Number : 73 Question Id : 48558435838 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

निम्न में से कौनसा कथन सही है:

1. सारणिक, संख्याओं का आयतकर क्रम विन्यास है।
2. सारणिक, संख्याओं का वर्गाकार क्रम विन्यास है।
3. सारणिक, का मान संख्याओं को वर्गाकार क्रम विन्यास में विशेष प्रकार दर्शाने से आता है।
4. सारणिक, संख्याओं के वर्गाकार क्रम विन्यास में विकर्ण के अवयवों का योग होता है।

Options :

485584143349. 1
485584143350. 2
485584143351. 3
485584143352. 4

Question Number : 74 Question Id : 48558435839 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The value of the determinant $\begin{vmatrix} \cos^2 \theta & \cos \theta \sin \theta & 0 \\ -\sin \theta & \cos \theta & 0 \\ 0 & 0 & 1 \end{vmatrix}$ is equal to

1. 1
2. $\cos \theta$
3. $\cos 2\theta$
4. $\cos \theta - \sin \theta$

Options :

485584143353. 1
485584143354. 2
485584143355. 3
485584143356. 4

Question Number : 74 Question Id : 48558435839 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

सारणिक $\begin{vmatrix} \cos^2 \theta & \cos \theta \sin \theta & 0 \\ -\sin \theta & \cos \theta & 0 \\ 0 & 0 & 1 \end{vmatrix}$ का मान है

1. 1
2. $\cos \theta$
3. $\cos 2\theta$
4. $\cos \theta - \sin \theta$

Options :

485584143353. 1
 485584143354. 2
 485584143355. 3
 485584143356. 4

Question Number : 75 Question Id : 48558435840 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $A = (2, 3)$, $B = (-1, 0)$, $C = (4, 6)$ then area of the parallelogram ABCD is:

1. 3
2. $\frac{3}{2}$
3. 6
4. 2

Options :

485584143357. 1
 485584143358. 2
 485584143359. 3
 485584143360. 4

Question Number : 75 Question Id : 48558435840 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $A = (2, 3)$, $B = (-1, 0)$, $C = (4, 6)$ है तो समान्तर चतुर्भुज ABCD का क्षेत्रफल होगा-

1. 3

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

3. 6

4. 2

Options :

485584143357. 1

485584143358. 2

485584143359. 3

485584143360. 4

Question Number : 76 Question Id : 48558435841 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$$\text{Let } f(x) = \begin{cases} 2x-1, & x < 1 \\ 1, & x = 1 \\ x^2, & x > 1 \end{cases}$$

then at $x = 1$

1. $f(x)$ is continuous from left only

2. $f(x)$ is continuous from right only

3. $f(x)$ is continuous

4. $f(x)$ has removable discontinuity

Options :

485584143361. 1

485584143362. 2

485584143363. 3

485584143364. 4

Question Number : 76 Question Id : 48558435841 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$$\text{यदि } f(x) = \begin{cases} 2x-1, & x < 1 \\ 1, & x = 1 \\ x^2, & x > 1 \end{cases}$$

तो $x = 1$ पर

1. $f(x)$ केवल बाएं तरफ संतत है
2. $f(x)$ केवल दाएं तरफ संतत है
3. $f(x)$ संतत है
4. $f(x)$ अपनेय असांतत्य है

Options :

485584143361. 1
485584143362. 2
485584143363. 3
485584143364. 4

Question Number : 77 Question Id : 48558435842 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $x = e^{y+e^y+\dots}$ to ∞ , $x > 0$ then $\frac{d^2y}{dx^2}$ is:

1. $-x^2$
2. $-\frac{1}{x^2}$
3. $\frac{1}{x^2}$
4. x^2

Options :

485584143365. 1
485584143366. 2
485584143367. 3
485584143368. 4

Question Number : 77 Question Id : 48558435842 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $x = e^y + e^{y+\dots} \text{ to } \infty, x > 0$ है तो $\frac{d^2y}{dx^2}$ का मान है-

1. $-x^2$

2. $-\frac{1}{x^2}$

3. $\frac{1}{x^2}$

4. x^2

Options :

485584143365. 1

485584143366. 2

485584143367. 3

485584143368. 4

Question Number : 78 Question Id : 48558435843 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The derivative of $f(\cot x)$ with respect to $g(\operatorname{cosec} x)$ at $x = \frac{\pi}{4}$ (where $f'(1) = 2, g'(\sqrt{2}) = 4$) is:

1. $\sqrt{2}$

2. 1

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

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

Options :

485584143369. 1

485584143370. 2

485584143371. 3

485584143372. 4

Question Number : 78 Question Id : 48558435843 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$x = \frac{\pi}{4}$ (जहाँ $f'(1) = 2.g'(\sqrt{2}) = 4$) पर $g(\operatorname{cosec} x)$ के सापेक्ष $f(\cot x)$ का अवकलन होगा-

1. $\sqrt{2}$

2. 1

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

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

Options :

485584143369. 1

485584143370. 2

485584143371. 3

485584143372. 4

Question Number : 79 Question Id : 48558435844 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The values of b for which the function $f(x) = \cos x + bx + a$ decreases on R are

1. $[-1, 1]$

2. $(-\infty, 1]$

3. $(-\infty, -1]$

4. $(-1, 1)$

Options :

485584143373. 1

485584143374. 2

485584143375. 3

485584143376. 4

Question Number : 79 Question Id : 48558435844 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

b के किस मान पर फलन $f(x) = \cos x + bx + a$ सभी वास्तविक संख्याओं पर ह्रासमान है-

1. $[-1, 1]$
2. $(-\infty, 1]$
3. $(-\infty, -1]$
4. $(-1, 1)$

Options :

485584143373. 1
485584143374. 2
485584143375. 3
485584143376. 4

Question Number : 80 Question Id : 48558435845 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The equation of the normal to the curve $y = 2\sin x$ at $(0, 0)$ is:

1. $x + \frac{1}{2}y = 0$
2. $x - 2y = 0$
3. $x - \frac{1}{2}y = 0$
4. $x + 2y = 0$

Options :

485584143377. 1
485584143378. 2
485584143379. 3
485584143380. 4

Question Number : 80 Question Id : 48558435845 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

वक्र $y = 2\sin x$ के बिन्दू $(0, 0)$ पर अभिलंब का समीकरण है:

1. $x + \frac{1}{2}y = 0$

2. $x - 2y = 0$

3. $x - \frac{1}{2}y = 0$

4. $x + 2y = 0$

Options :

485584143377. 1

485584143378. 2

485584143379. 3

485584143380. 4

Question Number : 81 Question Id : 48558435846 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The function $f(x) = \frac{x^4}{4} - \frac{x^2}{2}$ has

1. 2 points of local maxima
2. 2 points of local minima and one point of local maxima
3. 1 point of local minima and 2 points of local maximum
4. 1 point of local maxima and 1 point of local minima

Options :

485584143381. 1

485584143382. 2

485584143383. 3

485584143384. 4

Question Number : 81 Question Id : 48558435846 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

फलन $f(x) = \frac{x^4}{4} - \frac{x^2}{2}$ में

1. स्थानीय उच्चिष्ठ के दो बिन्दू
2. स्थानीय निम्निष्ठ के दो तथा स्थानीय उच्चिष्ठ का एक बिन्दू
3. स्थानीय निम्निष्ठ का एक तथा स्थानीय उच्चिष्ठ के दो बिन्दू
4. स्थानीय उच्चिष्ठ का एक तथा स्थानीय निम्निष्ठ का एक बिन्दू

Options :

485584143381. 1
485584143382. 2
485584143383. 3
485584143384. 4

Question Number : 82 Question Id : 48558435847 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The value of $\int_{-1}^1 x^2 [x] dx$ is:

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

Options :

485584143385. 1
485584143386. 2
485584143387. 3
485584143388. 4

Question Number : 82 Question Id : 48558435847 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$\int_{-1}^1 x^2 [x] dx$ का मान है:

1. $\frac{1}{3}$

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

3. 1

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

Options :

485584143385. 1

485584143386. 2

485584143387. 3

485584143388. 4

Question Number : 83 Question Id : 48558435848 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The value of $\int_{-3}^2 x^2 |2x| dx$ is:

1. 65

2. $-\frac{65}{2}$

3. 97

4. $\frac{97}{2}$

Options :

485584143389. 1

485584143390. 2

485584143391. 3

485584143392. 4

Question Number : 83 Question Id : 48558435848 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

$\int_{-3}^2 x^2 |2x| dx$ का मान है-

1. 65

2. $-\frac{65}{2}$

3. 97

4. $\frac{97}{2}$

Options :

485584143389. 1

485584143390. 2

485584143391. 3

485584143392. 4

Question Number : 84 Question Id : 48558435849 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

Area lying between the curves $y^2 = 9x$ and $y = 3x$ is:

1. $\frac{1}{4}$ sq. units

2. $\frac{1}{2}$ sq. units

3. $\frac{2}{3}$ sq. units

4. $\frac{1}{3}$ sq. units

Options :

485584143393. 1

485584143394. 2

485584143395. 3

485584143396. 4

Question Number : 84 Question Id : 48558435849 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

वक्र $y^2 = 9x$ तथा $y = 3x$ से घिरे क्षेत्र का क्षेत्रफल है:

1. $\frac{1}{4}$ sq. units
2. $\frac{1}{2}$ sq. units
3. $\frac{2}{3}$ sq. units
4. $\frac{1}{3}$ sq. units

Options :

485584143393. 1
485584143394. 2
485584143395. 3
485584143396. 4

Question Number : 85 Question Id : 48558435850 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

Area lying in first quadrant and bounded by the circle $x^2 + y^2 = 9$ and the lines $x = 1$ and $x = 3$ is:

1. $\left| \frac{9\pi}{2} - \sqrt{2} - \frac{9}{4} \sin^{-1} \frac{1}{3} \right|$ sq. units
2. $\left| 9\pi - \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units
3. $\left| \frac{9\pi}{4} + \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units
4. $\left| \frac{9\pi}{4} - \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units

Options :

485584143397. 1
485584143398. 2
485584143399. 3
485584143400. 4

Question Number : 85 Question Id : 48558435850 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

वृत्त $x^2 + y^2 = 9$ एवं रेखाओं $x = 1, x = 3$ से घिरे तथा प्रथम चतुर्थास में स्थित क्षेत्र का क्षेत्रफल होगा-

1. $\left| \frac{9\pi}{2} - \sqrt{2} - \frac{9}{4} \sin^{-1} \frac{1}{3} \right|$ sq. units

2. $\left| 9\pi - \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units

3. $\left| \frac{9\pi}{4} + \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units

4. $\left| \frac{9\pi}{4} - \sqrt{2} - \frac{9}{2} \sin^{-1} \frac{1}{3} \right|$ sq. units

Options :

485584143397. 1
 485584143398. 2
 485584143399. 3
 485584143400. 4

Question Number : 86 Question Id : 48558435851 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The integrating factor of $\sin x \frac{dy}{dx} + 2y \cos x = 4$ is:

1. $|\sin x|$

2. $|\sin x|^2$

3. $|\sin x^2|$

4. $|\cos x|$

Options :

485584143401. 1
 485584143402. 2
 485584143403. 3
 485584143404. 4

Question Number : 86 Question Id : 48558435851 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value

$\sin x \frac{dy}{dx} + 2y \cos x = 4$ का समाकलन गुणक है:

1. $|\sin x|$
2. $|\sin x|^2$
3. $|\sin x^2|$
4. $|\cos x|$

Options :

485584143401. 1
 485584143402. 2
 485584143403. 3
 485584143404. 4

Question Number : 87 Question Id : 48558435852 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The solution of the differential equation $\frac{dy}{dx} = -\frac{x}{y}$ is:

1. $x^2 + y^2 = 2C$, where C is constant of integration.
2. $x - y^2 = 2C$, where C is constant of integration.
3. $x^2 + y = 2C$, where C is constant of integration.
4. $x^2 - y^2 = 2C$, where C is constant of integration.

Options :

485584143405. 1
 485584143406. 2
 485584143407. 3
 485584143408. 4

Question Number : 87 Question Id : 48558435852 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

अवकल समीकरण $\frac{dy}{dx} = -\frac{x}{y}$ का हल है:

1. $x^2 + y^2 = 2C$, C एक समाकलन का अचर है।
2. $x - y^2 = 2C$, C एक समाकलन का अचर है।
3. $x^2 + y = 2C$, C एक समाकलन का अचर है।
4. $x^2 - y^2 = 2C$, C एक समाकलन का अचर है।

Options :

485584143405. 1
485584143406. 2
485584143407. 3
485584143408. 4

Question Number : 88 Question Id : 48558435853 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $|\vec{a}| = 5$, $|\vec{b}| = 2$ and $|\vec{a} \cdot \vec{b}| = 8$ then the value of $|\vec{a} \times \vec{b}|$ is:

1. 5
2. 6
3. 36
4. ± 6

Options :

485584143409. 1
485584143410. 2
485584143411. 3
485584143412. 4

Question Number : 88 Question Id : 48558435853 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $|\vec{a}|=5, |\vec{b}|=2$ तथा $|\vec{a} \cdot \vec{b}|=8$ तो $|\vec{a} \times \vec{b}|$ का मान है:

1. 5
2. 6
3. 36
4. ± 6

Options :

485584143409. 1
485584143410. 2
485584143411. 3
485584143412. 4

Question Number : 89 Question Id : 48558435854 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If $|\vec{a} + \vec{b}| = 15, |\vec{a} - \vec{b}| = 10, |\vec{a}| = \frac{11}{2}$ then the value of $|\vec{b}|$ is/are :

1. $\frac{23}{2}$
2. $\pm \frac{23}{2}$
3. ± 23
4. $\frac{23}{\sqrt{2}}$

Options :

485584143413. 1
485584143414. 2
485584143415. 3
485584143416. 4

Question Number : 89 Question Id : 48558435854 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

यदि $|\vec{a} + \vec{b}| = 15$, $|\vec{a} - \vec{b}| = 10$, $|\vec{a}| = \frac{11}{2}$ तो $|\vec{b}|$ का मान है:

1. $\frac{23}{2}$

2. $\pm \frac{23}{2}$

3. ± 23

4. $\frac{23}{\sqrt{2}}$

Options :

485584143413. 1

485584143414. 2

485584143415. 3

485584143416. 4

Question Number : 90 Question Id : 48558435855 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The angle between the straight lines $\frac{x+4}{2} = \frac{y+5}{5} = \frac{z+6}{3}$ and $\frac{x-4}{10} = \frac{y-5}{2} = \frac{z-6}{-10}$ is

1. 45°

2. 90°

3. 30°

4. 60°

Options :

485584143417. 1

485584143418. 2

485584143419. 3

485584143420. 4

Question Number : 90 Question Id : 48558435855 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

सरल रेखाओं $\frac{x+4}{2} = \frac{y+5}{5} = \frac{z+6}{3}$ तथा $\frac{x-4}{10} = \frac{y-5}{2} = \frac{z-6}{-10}$ को मध्य कोण है:

1. 45°
2. 90°
3. 30°
4. 60°

Options :

485584143417. 1
485584143418. 2
485584143419. 3
485584143420. 4

Question Number : 91 Question Id : 48558435856 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The direction ratios of the line perpendicular to the lines $\frac{x-7}{-6} = \frac{y+17}{4} = \frac{z-6}{2}$ and $\frac{x+5}{6} = \frac{y+3}{3} = \frac{z-4}{-6}$ are proportional to:

1. 7, 4, 5
2. 7, 5, 4
3. 5, 7, 4
4. 5, 4, 7

Options :

485584143421. 1
485584143422. 2
485584143423. 3
485584143424. 4

Question Number : 91 Question Id : 48558435856 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

रेखाओं $\frac{x-7}{-6} = \frac{y+17}{4} = \frac{z-6}{2}$ तथा $\frac{x+5}{6} = \frac{y+3}{3} = \frac{z-4}{-6}$ के लम्ब रेखा का दिक्-अनुपात होगा-

1. 7, 4, 5
2. 7, 5, 4
3. 5, 7, 4
4. 5, 4, 7

Options :

485584143421. 1
485584143422. 2
485584143423. 3
485584143424. 4

Question Number : 92 Question Id : 48558435857 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

The maximum value of $Z = 2x + 3y$ subject to the constraints $x \geq 0, y \geq 0; x + y \leq 10, 3x + 4y \leq 36$ is:

1. 20
2. 27
3. 30
4. 0

Options :

485584143425. 1
485584143426. 2
485584143427. 3
485584143428. 4

Question Number : 92 Question Id : 48558435857 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

व्यवधानों $x \geq 0, y \geq 0; x + y \leq 10, 3x + 4y \leq 36$ के अन्तर्गत $Z = 2x + 3y$ का अधिकतम मान है:

1. 20
2. 27
3. 30
4. 0

Options :

485584143425. 1
485584143426. 2
485584143427. 3
485584143428. 4

Question Number : 93 Question Id : 48558435858 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

For the LPP, $\text{Min } Z = 5x + 7y$ subject to $x \geq 0, y \geq 0; 2x + y \geq 8, x + 2y \geq 10$, the basic feasible solutions are:

1. (0, 0), (10, 0), (2, 4) and (0, 8)
2. (10, 0), (2, 4) and (0, 8)
3. (0, 0), (0, 10), (2, 4) and (8, 0)
4. (0, 10), (4, 2) and (8, 0)

Options :

485584143429. 1
485584143430. 2
485584143431. 3
485584143432. 4

Question Number : 93 Question Id : 48558435858 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

LPP के लिये, व्युत्पन्न $x \geq 0, y \geq 0; 2x + y \geq 8, x + 2y \geq 10$ के अन्तर्गत $Z = 5x + 7y$ के न्यूनतम के लिए, सामान्य सुसंगत हल है:

1. (0, 0), (10, 0), (2, 4) तथा (0, 8)
2. (10, 0), (2, 4) तथा (0, 8)
3. (0, 0), (0, 10), (2, 4) तथा (8, 0)
4. (0, 10), (4, 2) तथा (8, 0)

Options :

485584143429. 1
485584143430. 2
485584143431. 3
485584143432. 4

Question Number : 94 Question Id : 48558435859 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

A bag contains 12 white and 18 red balls. Two balls are drawn in succession without replacement. The probability that the first is red and second is white is:

1. $\frac{63}{145}$
2. $\frac{36}{154}$
3. $\frac{36}{144}$
4. $\frac{36}{145}$

Options :

485584143433. 1
485584143434. 2
485584143435. 3
485584143436. 4

Question Number : 94 Question Id : 48558435859 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

एक थैले में 12 सफेद तथा 18 लाल गेंदें हैं। दो गेंद बिना प्रतिस्थापन के उत्तरोत्तर निकाली गईं तो पहली गेंद के लाल तथा दूसरी के सफेद होने की प्रायिकता होगी-

1. $\frac{63}{145}$

2. $\frac{36}{154}$

3. $\frac{36}{144}$

4. $\frac{36}{145}$

Options :

485584143433. 1

485584143434. 2

485584143435. 3

485584143436. 4

Question Number : 95 Question Id : 48558435860 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ2

If A and B are events such that $P(A' \cup B') = \frac{1}{3}$ and $P(A \cup B) = \frac{4}{9}$ then the value of $P(A') + P(B')$ is:

1. 1

2. $\frac{7}{9}$

3. $\frac{8}{9}$

4. $\frac{5}{9}$

Options :

485584143437. 1

485584143438. 2

485584143439. 3

485584143440. 4

Question Number : 95 Question Id : 48558435860 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
-----	-------

A तथा B इस प्रकार से घटित हैं कि $P(A' \cup B') = \frac{1}{3}$ तथा $P(A \cup B) = \frac{4}{9}$ तो $P(A') + P(B')$ का मान होगा-

1. 1

2. $\frac{7}{9}$ 3. $\frac{8}{9}$ 4. $\frac{5}{9}$ **Options :**

485584143437. 1

485584143438. 2

485584143439. 3

485584143440. 4

Sub-Section Number :

2

Sub-Section Id :

4855842649

Question Shuffling Allowed :

No

Is Section Default? :

null

Question Number : 96 Question Id : 48558435861 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1**Question Key Details :**

Key	Value
Comprehension	Comp1

Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = x^2$, for every $x \in \mathbb{R}$. Then f is:

1. one-one and onto

2. one-one and not onto

3. neither one-one nor onto

4. onto and not one-one

Options :

485584143441. 1

485584143442. 2

485584143443. 3

485584143444. 4

Question Number : 96 Question Id : 48558435861 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1**Question Key Details :**

Key	Value
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मान लीजिए कि $f: \mathbb{R} \rightarrow \mathbb{R}$, $f(x) = x^2$, द्वारा परिभाषित है। जहाँ $x \in \mathbb{R}$, तो f हैं:

1. एकैकी तथा आच्छादक
2. एकैकी किंतु आच्छादक नहीं
3. न तो एकैकी और न आच्छादक
4. आच्छादक है किन्तु एकैकी नहीं

Options :

485584143441. 1

485584143442. 2

485584143443. 3

485584143444. 4

Question Number : 97 Question Id : 48558435862 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

Match List I with List II

LIST I		LIST II	
A.	$\frac{d}{dx} \left[\tan^{-1} \left(\frac{3x - x^3}{1 - 3x^2} \right) \right]$	I.	$\frac{3}{1 + x^2}$
B.	$\frac{d}{dx} \left[\cos^{-1} \left(\frac{1 - x^2}{1 + x^2} \right) \right]$	II.	$\frac{-3}{1 + x^2}$
C.	$\frac{d}{dx} \left[\cos^{-1} \left(\frac{2x}{1 + x^2} \right) \right]$	III.	$\frac{-2}{1 + x^2}$
D.	$\frac{d}{dx} \left[\cot^{-1} \left(\frac{3x - x^3}{1 - 3x^2} \right) \right]$	IV.	$\frac{2}{1 + x^2}$

Choose the correct answer from the options given below:

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

Options :

485584143445. 1

485584143446. 2

485584143447. 3
485584143448. 4

Question Number : 97 Question Id : 48558435862 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

सूची I का सूची II से मिलान कीजिए

सूची I		सूची II	
A.	$\frac{d}{dx} \left[\tan^{-1} \left(\frac{3x-x^3}{1-3x^2} \right) \right]$	I.	$\frac{3}{1+x^2}$
B.	$\frac{d}{dx} \left[\cos^{-1} \left(\frac{1-x^2}{1+x^2} \right) \right]$	II.	$\frac{-3}{1+x^2}$
C.	$\frac{d}{dx} \left[\cos^{-1} \left(\frac{2x}{1+x^2} \right) \right]$	III.	$\frac{-2}{1+x^2}$
D.	$\frac{d}{dx} \left[\cot^{-1} \left(\frac{3x-x^3}{1-3x^2} \right) \right]$	IV.	$\frac{2}{1+x^2}$

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए:

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

Options :

485584143445. 1
485584143446. 2
485584143447. 3
485584143448. 4

Question Number : 98 Question Id : 48558435863 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

The points of non differentiability of $f(x) = |x - 2| + |x - 3|$

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Choose the correct answer from the options given below:

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

Options :

- 485584143449. 1
- 485584143450. 2
- 485584143451. 3
- 485584143452. 4

Question Number : 98 Question Id : 48558435863 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

$f(x) = |x - 2| + |x - 3|$ के वे बिन्दु जिन पर अवकलनीय नहीं है:

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

नीचे दिये विकल्पों से सही उत्तर का चयन करें:

- 1. केवल A और B
- 2. केवल B और C
- 3. केवल A और C
- 4. केवल A और D

Options :

- 485584143449. 1
- 485584143450. 2
- 485584143451. 3

Question Number : 99 Question Id : 48558435864 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Compl

The value of $\int \frac{dx}{x^2 - 6x + 13}$ is :

1. $\frac{1}{2} \tan^{-1} \frac{x-3}{2} + C$, where C is constant of integration.
2. $\frac{1}{2} \cot^{-1} \frac{x-3}{2} + C$, where C is constant of integration.
3. $\frac{1}{2} \tan^{-1} \frac{x+3}{2} + C$, where C is constant of integration.
4. $\frac{1}{2} \cot^{-1} \frac{x+3}{2} + C$, where C is constant of integration.

Options :

485584143453. 1
485584143454. 2
485584143455. 3
485584143456. 4

Question Number : 99 Question Id : 48558435864 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Compl

$\int \frac{dx}{x^2 - 6x + 13}$ मान है :

1. $\frac{1}{2} \tan^{-1} \frac{x-3}{2} + C$, C एक समाकलन का अचर है।
2. $\frac{1}{2} \cot^{-1} \frac{x-3}{2} + C$, C एक समाकलन का अचर है।
3. $\frac{1}{2} \tan^{-1} \frac{x+3}{2} + C$, C एक समाकलन का अचर है।
4. $\frac{1}{2} \cot^{-1} \frac{x+3}{2} + C$, C एक समाकलन का अचर है।

Options :

485584143453. 1
 485584143454. 2
 485584143455. 3
 485584143456. 4

Question Number : 100 Question Id : 48558435865 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

If \vec{x} and \vec{y} are two collinear vectors, then which of the following are incorrect ?

- $\vec{x} = \pm \vec{y}$
- $\vec{y} = \lambda \vec{x}$, for some scalar λ
- Both the vectors \vec{x} and \vec{y} have same direction, but different magnitudes.
- the respective components of \vec{x} and \vec{y} are not proportional

Options :

485584143457. 1
 485584143458. 2
 485584143459. 3
 485584143460. 4

Question Number : 100 Question Id : 48558435865 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp1

यदि \vec{x} तथा \vec{y} दो सरिखीय सदिश हैं तो निम्न में से कौन सही नहीं है

- $\vec{x} = \pm \vec{y}$
- $\vec{y} = \lambda \vec{x}$, λ अदिश है
- दोनों सदिश \vec{x} तथा \vec{y} एक ही दिशा में है परन्तु मापांक भिन्न है
- \vec{x} और \vec{y} के सापेक्ष घटक समानुपात नहीं है

Options :

485584143457. 1
 485584143458. 2
 485584143459. 3

Applied Mathematics

Section Id :	485584932
Section Number :	3
Section type :	Online
Mandatory or Optional :	Optional
Number of Questions :	35
Number of Questions to be attempted :	25
Section Marks :	125
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4855842650
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 101 Question Id : 48558435866 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The present value (in ₹.) of a perpetuity of ₹.3600 payable at the end of each quarter, if the interest rate is 9% per annum compounded quarterly, is:

1. ₹2,40,000
2. ₹1,60,000
3. ₹2,00,000
4. ₹3,20,000

Options :

485584143461. 1
485584143462. 2
485584143463. 3
485584143464. 4

Question Number : 101 Question Id : 48558435866 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

प्रत्येक तिमाही के अंत में देय एक सतत राशि ₹.3600 का वर्तमान मूल्य यदि वार्षिक ब्याज दर 9% हो जो तियाही चक्रवृद्धि है,हैं:

1. ₹2,40,000
2. ₹1,60,000
3. ₹2,00,000
4. ₹3,20,000

Options :

485584143461. 1
485584143462. 2
485584143463. 3
485584143464. 4

Question Number : 102 Question Id : 48558435867 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

If the present value of a perpetuity of ₹600 payable at the end of every six months is ₹18000, then the rate of interest is:

1. $\frac{20}{3}$ % per annum
2. $\frac{22}{3}$ % per annum
3. $\frac{17}{3}$ % per annum
4. $\frac{10}{3}$ % per annum

Options :

485584143465. 1
485584143466. 2
485584143467. 3
485584143468. 4

Question Number : 102 Question Id : 48558435867 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

प्रत्येक छः मास के अंत में देय सतत राशि ₹600 का वर्तमान मूल्य ₹18000 है तो ब्याज की दर होगी:

1. $\frac{20}{3}\%$ प्रतिवर्ष
2. $\frac{22}{3}\%$ प्रतिवर्ष
3. $\frac{17}{3}\%$ प्रतिवर्ष
4. $\frac{10}{3}\%$ प्रतिवर्ष

Options :

485584143465. 1
485584143466. 2
485584143467. 3
485584143468. 4

Question Number : 103 Question Id : 48558435868 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

In a 800 m race, A beats B by 74 m and in a 600 m race, B beats C by 50 m. By how many meters will A beat C in a race of 800 m?

1. 234.5 m
2. 84.06 m
3. 134.5 m
4. 665.5 m

Options :

485584143469. 1
485584143470. 2
485584143471. 3
485584143472. 4

Question Number : 103 Question Id : 48558435868 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

800 मीटर की एक दौड़ में A, B को 74 मीटर से हराता है। 600 मीटर की एक दौड़ में B, C 50 मीटर से हराता है तो 800 मीटर की दौड़ में A, C को कितने मीटर से हरायेगा।

1. 234.5 मीटर
2. 84.06 मीटर
3. 134.5 मीटर
4. 665.5 मीटर

Options :

485584143469. 1
485584143470. 2
485584143471. 3
485584143472. 4

Question Number : 104 Question Id : 48558435869 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

For the data

Variable	Price		Weights
	Base year	Current year	
X	30	50	8
Y	10	15	7
Z	25	30	4

The weighted price index number is:

1. 152.44
2. 150.44
3. 154.44
4. 156.44

Options :

485584143473. 1
485584143474. 2
485584143475. 3
485584143476. 4

Question Number : 104 Question Id : 48558435869 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
-----	-------

दिये हुए आँकड़ों के लिये

चर	कीमत		भार
	आधार वर्ष	वर्तमान वर्ष	
X	30	50	8
Y	10	15	7
Z	25	30	4

भारित मूल्य सूचकांक है:

1. 152.44
2. 150.44
3. 154.44
4. 156.44

Options :

485584143473. 1
485584143474. 2
485584143475. 3
485584143476. 4

Question Number : 105 Question Id : 48558435870 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

A, B and C are partners in a business. A receives $\frac{3}{5}$ of the total profit while B and C share the remainder equally. A's profit is increased by ₹1,500, when the rate of profit is increased from 10% to 12% in a year. Then, B's share in the total profit is:

1. ₹2,500
2. ₹3,000
3. ₹1,500
4. ₹1,000

Options :

485584143477. 1
485584143478. 2
485584143479. 3
485584143480. 4

Question Number : 105 Question Id : 48558435870 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

A, B तथा C एक व्यापार में साझेदार हैं। A को कुल लाभ का $\frac{3}{5}$ मिलता है जबकि B तथा C को शेष लाभ का बराबर-बराबर मिलता है। जब एक वर्ष में लाभ की दर 10% से 12% बढ़ जाती है तब A का लाभ ₹1,500 बढ़ जाता है। तब कुल लाभ में B का हिस्सा है:

1. ₹2,500
2. ₹3,000
3. ₹1,500
4. ₹1,000

Options :

485584143477. 1
485584143478. 2
485584143479. 3
485584143480. 4

Question Number : 106 Question Id : 48558435871 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

A loan of ₹200000 at the interest rate of 6% p.a. compounded monthly is to be amortized by equal payments at the end of each month for 5 years. The monthly payment is:

[Given $(1.005)^{-60} = 0.74137220$]

1. ₹1,866.57
2. ₹4,886.57
3. ₹3,866.57
4. ₹2,866.57

Options :

485584143481. 1
485584143482. 2
485584143483. 3
485584143484. 4

Question Number : 106 Question Id : 48558435871 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

एक ₹200000 का ऋण 6% वार्षिक ब्याज दर पर मासिक चक्रबृद्धि से 5 वर्षों तक प्रत्येक मास के अंत में समान किश्त के रूप में देय है। मासिक देय होगी:
[दिया है $(1.005)^{-60} = 0.74137220$]

1. ₹1,866.57
2. ₹4,886.57
3. ₹3,866.57
4. ₹2,866.57

Options :

485584143481. 1
485584143482. 2
485584143483. 3
485584143484. 4

Question Number : 107 Question Id : 48558435872 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

In reference to sampling, match List I with List II

LIST I		LIST II	
A.	Measure of a characteristic of a sample	I.	Parameter
B.	An assumption made about a population	II.	Standard Error
C.	Standard deviation of the sample	III.	Statistic
D.	Measure of characteristic of a population	IV.	Null Hypothesis

Choose the correct answer from the options given below:

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

Options :

485584143485. 1
485584143486. 2
485584143487. 3
485584143488. 4

Question Number : 107 Question Id : 48558435872 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

सूची I का सूची II से मिलान कीजिए:

सूची I		सूची II	
A.	नमूने के अभिलक्षणिक का माप	I.	प्राचल
B.	समष्टि के बारे में अवमानना	II.	मानक ऋटि
C.	नमूने का मानक विचलन	III.	सांख्यिकी
D.	समष्टि के अभिलक्षणिक का माप	IV.	शून्य परिकल्पना

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

485584143485. 1
485584143486. 2
485584143487. 3
485584143488. 4

Question Number : 108 Question Id : 48558435873 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

Mr. A took a loan of ₹ 300000 at 10% annual interest rate and paid ₹ 5000 as monthly instalment under flat rate system. What is the term of the loan?

1. 12 years
2. 8 years
3. 10 years
4. 20 years

Options :

485584143489. 1
485584143490. 2
485584143491. 3

485584143492. 4

Question Number : 108 Question Id : 48558435873 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

श्रीमान A ने ₹ 300000 का ऋण 10% वार्षिक ब्याज की दर से लिया और निश्चित ब्याज दर से ₹ 5000 की मासिक किश्त से चुकाया। ऋण की समय-अवधि क्या है?

1. 12 वर्ष
2. 8 वर्ष
3. 10 वर्ष
4. 20 वर्ष

Options :

485584143489. 1
485584143490. 2
485584143491. 3
485584143492. 4

Question Number : 109 Question Id : 48558435874 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The percent income of a year on 6% debentures of face value of ₹100 available in the market for ₹200 is:

1. 3%
2. 4%
3. 5%
4. 6%

Options :

485584143493. 1
485584143494. 2
485584143495. 3
485584143496. 4

Question Number : 109 Question Id : 48558435874 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

₹100 अंकित मूल्य के 6% ऋणपत्रों, जिसका बाजार मूल्य ₹200 है तो उसकी एक वर्ष की प्रतिशत आय है:

1. 3%
2. 4%
3. 5%
4. 6%

Options :

485584143493. 1
485584143494. 2
485584143495. 3
485584143496. 4

Question Number : 110 Question Id : 48558435875 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The effective rate equivalent to a nominal rate of 8% per annum compounded semi-annually is:

1. 8.20%
2. 8.24%
3. 8%
4. 8.16%

Options :

485584143497. 1
485584143498. 2
485584143499. 3
485584143500. 4

Question Number : 110 Question Id : 48558435875 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

सामान् दर 8% वार्षिक जो कि अर्धवार्षिक चक्रवृद्धि हो की प्रभावी दर होगी:

1. 8.20%
2. 8.24%
3. 8%
4. 8.16%

Options :

485584143497. 1
485584143498. 2
485584143499. 3
485584143500. 4

Question Number : 111 Question Id : 48558435876 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

Ravi takes 40 seconds whereas Vishnu takes 60 seconds to complete 240 metre race. By how many metres does Ravi defeat Vishnu ?

1. 80 metres
2. 60 metres
3. 70 metres
4. 50 metres

Options :

485584143501. 1
485584143502. 2
485584143503. 3
485584143504. 4

Question Number : 111 Question Id : 48558435876 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

240 मीटर की दौड़ रवि 40 सेकण्ड में जबकि विष्णु 60 सेकण्ड में पूरी करता है। रवि ने विष्णु को कितने मीटर से हराया?

1. 80 मीटर
2. 60 मीटर
3. 70 मीटर
4. 50 मीटर

Options :

485584143501. 1
485584143502. 2
485584143503. 3
485584143504. 4

Question Number : 112 Question Id : 48558435877 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The price of five different commodities for year 2018 and 2019 are as follows:

Commodities	Price in 2018 (in ₹)	Price in 2019 (in ₹)
A	4	8
B	3	9
C	2	6
D	6	9
E	2	4

The price index number for the year 2019 with 2018 as the base year, using simple average of price relatives is:

1. 230
2. 203
3. 233
4. 320

Options :

485584143505. 1
485584143506. 2
485584143507. 3
485584143508. 4

Question Number : 112 Question Id : 48558435877 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

विभिन्न प्रकार की वस्तुओं की वर्ष 2018 तथा 2019 की कीमत निम्न है

वस्तुएँ	2018 में मूल्य (₹ में)	2019 में मूल्य (₹ में)
A	4	8
B	3	9
C	2	6
D	6	9
E	2	4

मूल्यों के सामान्य औसत के आधार पर 2018 का आधार वर्ष मानकर, वर्ष 2019 का मूल्य सूचकांक क्या होगा?

1. 230
2. 203
3. 233
4. 320

Options :

485584143505. 1
485584143506. 2
485584143507. 3
485584143508. 4

Question Number : 113 Question Id : 48558435878 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

A boat can row upstream at 10 km/h and downstream at 18 km/h. If m is the speed of boat in still water and n is the speed of stream then $m+n$ is:

1. 16 km/h
2. 18 km/h
3. 20 km/h
4. 14 km/h

Options :

485584143509. 1
485584143510. 2
485584143511. 3

485584143512. 4

Question Number : 113 Question Id : 48558435878 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

एक नाव 10 किमी/घंटा से उपरिप्रवाह तथा 18 किमी/घंटा से निम्न प्रवाह में गति करती है। यदि नाव की शांत जल में चाल m तथा धारा की प्रवाह में चाल n हो तो $m+n$ का मान होगा:

1. 16 किमी/घंटा
2. 18 किमी/घंटा
3. 20 किमी/घंटा
4. 14 किमी/घंटा

Options :

485584143509. 1
485584143510. 2
485584143511. 3
485584143512. 4

Question Number : 114 Question Id : 48558435879 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

Pipes A and B can fill a tank in 40 hours and 50 hours respectively and pipe C can empty the full tank in 60 hours. If all the pipes are opened together, how much time (in hours) will be needed to fill the tank ?

1. $33\frac{5}{17}$
2. $35\frac{5}{17}$
3. $31\frac{5}{17}$
4. $30\frac{5}{17}$

Options :

485584143513. 1
485584143514. 2
485584143515. 3
485584143516. 4

Question Number : 114 Question Id : 48558435879 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

पाइप A तथा B एक टंकी को क्रमशः 40 घंटे तथा 50 घंटे में भर सकते हैं और पाइप C पूरी टंकी को 60 घंटे में खाली कर सकता है। यदि सभी पाइपों को एक साथ खोल दिया जाये तो टंकी को पूरा भरने में कितने घण्टे लगेंगे?

1. $33\frac{5}{17}$

2. $35\frac{5}{17}$

3. $31\frac{5}{17}$

4. $30\frac{5}{17}$

Options :

485584143513. 1

485584143514. 2

485584143515. 3

485584143516. 4

Question Number : 115 Question Id : 48558435880 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

For the formula $t = \frac{\mu_1 - \mu_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$ consider of the following statements:

- A. μ_1 and μ_2 are sample mean and population mean respectively.
- B. n_1 and n_2 are sample sizes of two samples from same population.
- C. S_1 and S_2 are sample means of two samples from same population.
- D. S_1 and S_2 are standard error of two samples from same population.
- E. n_1 is the sample size and n_2 is the population size.

Choose the correct answer from the options given below:

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

Options :

- 485584143517. 1
- 485584143518. 2
- 485584143519. 3
- 485584143520. 4

Question Number : 115 Question Id : 48558435880 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

सूत्र $t = \frac{\mu_1 - \mu_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$ के लिए, निम्नलिखित कथनों का विचार कीजिये:

- A. μ_1 तथा μ_2 क्रमशः साधारण माध्य तथा समाष्टि माध्य हैं।
- B. n_1 तथा n_2 एक ही समष्टि के दो नमूनों के प्रतिदर्श के आमाप हैं।
- C. S_1 तथा S_2 एक ही समष्टि के दो नमूनों के साधारण माध्य हैं।
- D. S_1 तथा S_2 एक ही समष्टि के दो नमूनों की मानक त्रुटि हैं।
- E. n_1 प्रतिदर्श की आमाप तथा n_2 समष्टि की आमाप है।

नीचे दिये हुए विकल्पों से सही उत्तर का चयन करें:

- 1. केवल B और D
- 2. केवल A, B और D
- 3. केवल B, C और D
- 4. केवल A और E

Options :

- 485584143517. 1
- 485584143518. 2
- 485584143519. 3
- 485584143520. 4

Question Number : 116 Question Id : 48558435881 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

10 litres of concentrated acid containing 75% of acid and rest water is mixed with X litres of diluted acid containing 40% of acid and rest water. If the final mixture contains 60% of acid then value of X is:

- 1. 7.5 litres
- 2. 9 litres
- 3. 6 litres
- 4. 8 litres

Options :

- 485584143521. 1
- 485584143522. 2
- 485584143523. 3
- 485584143524. 4

Question Number : 116 Question Id : 48558435881 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

75% अम्ल तथा शेष पानी के 10 लीटर मिश्रण में 40% अम्ल तथा शेष पानी के X लीटर मिश्रण को मिलाया यदि परिणामी मिश्रण में 60% अम्ल हो तो X का मान क्या होगा:

1. 7.5 लीटर
2. 9 लीटर
3. 6 लीटर
4. 8 लीटर

Options :

- 485584143521. 1
- 485584143522. 2
- 485584143523. 3
- 485584143524. 4

Question Number : 117 Question Id : 48558435882 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

Fisher's price index number is:

1. A.M. of Laspeyre's and Paasche's index
2. G.M. of Laspeyre's and Paasche's index
3. H.M. of Laspeyre's and Paasche's index
4. Average of Laspeyre's and Paasche's index

Options :

- 485584143525. 1
- 485584143526. 2
- 485584143527. 3
- 485584143528. 4

Question Number : 117 Question Id : 48558435882 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
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फिशर का मूल्य सूचकांक है:

1. लेस्पेयर्स तथा पाशे के सूचकांक का समान्तर माध्य
2. लेस्पेयर्स तथा पाशे के सूचकांक का गुणोत्तर माध्य
3. लेस्पेयर्स तथा पाशे के सूचकांक का हरात्मक माध्य
4. लेस्पेयर्स तथा पाशे के सूचकांक औसत

Options :

485584143525. 1
 485584143526. 2
 485584143527. 3
 485584143528. 4

Question Number : 118 Question Id : 48558435883 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

A random variable X has the following probability distribution

X	0	1	2	3	4	5	6	7
P(X)	0	k	2k	2k	3k	k^2	$2k^2$	$7k^2+k$

then value of E(X) is:

1. 1.66
2. 2.66
3. 3.66
4. 4.66

Options :

485584143529. 1
 485584143530. 2
 485584143531. 3
 485584143532. 4

Question Number : 118 Question Id : 48558435883 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

एक यादृच्छिक चर X का प्रायिकता बंटन नीचे दिया गया है

X	0	1	2	3	4	5	6	7
$P(X)$	0	k	$2k$	$2k$	$3k$	k^2	$2k^2$	$7k^2+k$

तो $E(X)$ का मान है:

1. 1.66
2. 2.66
3. 3.66
4. 4.66

Options :

485584143529. 1
 485584143530. 2
 485584143531. 3
 485584143532. 4

Question Number : 119 Question Id : 48558435884 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

With reference to time series, match List I with List II

LIST I		LIST II	
A.	Secular movements	I.	Price increase before Deepavali
B.	Seasonal variations	II.	Increase in price of gold during a major war
C.	Cyclic variations	III.	Long term trends
D.	Irregular variations	IV.	Recurring rise and decline in production

Choose the correct answer from the options given below:

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

Options :

485584143533. 1
 485584143534. 2
 485584143535. 3
 485584143536. 4

Question Number : 119 Question Id : 48558435884 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

कल श्रेणी के संदर्भ में, सूची I का सूची II से मिलान कीजिए

सूची I		सूची II	
A.	दीर्घकालीन परिवर्तन	I.	दीपावली से पूर्व मूल्य वृद्धि
B.	मौसमी परिवर्तन	II.	बड़े युद्ध के दौरान सोने की कीमत में वृद्धि
C.	चक्रीय परिवर्तन	III.	दीर्घकालीन उपनति
D.	अनियमित परिवर्तन	IV.	उत्पादन में लगातार वृद्धि और गिरावट

निम्नलिखित विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options :

485584143533. 1
485584143534. 2
485584143535. 3
485584143536. 4

Question Number : 120 Question Id : 48558435885 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The region represented by the system of inequalities $x, y \geq 0, y \leq 8, x + y \leq 4$ is:

1. unbounded in first quadrant
2. unbounded in first and second quadrant
3. bounded in first quadrant
4. bounded in first and second quadrants

Options :

485584143537. 1
485584143538. 2

485584143539. 3
485584143540. 4

Question Number : 120 Question Id : 48558435885 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

असमानताओं के निकाय $x, y \geq 0, y \leq 8, x + y \leq 4$ द्वारा निरूपित क्षेत्र है:

1. प्रथम चतुर्थांश में अपरिबद्ध
2. प्रथम तथा द्वितीय चतुर्थांश में अपरिबद्ध
3. प्रथम चतुर्थांश में परिबद्ध
4. प्रथम तथा द्वितीय चतुर्थांश में परिबद्ध

Options :

485584143537. 1
485584143538. 2
485584143539. 3
485584143540. 4

Question Number : 121 Question Id : 48558435886 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The solution of $7x \equiv 3 \pmod{5}$ is:

1. $x \equiv 5 \pmod{5}$
2. $x \equiv 4 \pmod{5}$
3. $x \equiv 1 \pmod{5}$
4. $x \equiv 2 \pmod{5}$

Options :

485584143541. 1
485584143542. 2
485584143543. 3
485584143544. 4

Question Number : 121 Question Id : 48558435886 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

$7x \equiv 3 \pmod{5}$ का हल है:

1. $x \equiv 5 \pmod{5}$
2. $x \equiv 4 \pmod{5}$
3. $x \equiv 1 \pmod{5}$
4. $x \equiv 2 \pmod{5}$

Options :

485584143541. 1
 485584143542. 2
 485584143543. 3
 485584143544. 4

Question Number : 122 Question Id : 48558435887 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

For the LPP Max $Z = 3x + 4y$, $x + y \leq 40$; $x + 2y \leq 60$, $x \geq 0$, $y \geq 0$ the solution is :

1. $x = 20$, $y = 20$, Max $Z = 140$
2. $x = 40$, $y = 0$, Max $Z = 120$
3. $x = 0$, $y = 60$, Max $Z = 240$
4. $x = 10$, $y = 30$, Max $Z = 130$

Options :

485584143545. 1
 485584143546. 2
 485584143547. 3
 485584143548. 4

Question Number : 122 Question Id : 48558435887 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

$7x \equiv 3$ (मापांक 5) का हल है:

1. $x \equiv 5$ (मापांक 5)
2. $x \equiv 4$ (मापांक 5)
3. $x \equiv 1$ (मापांक 5)
4. $x \equiv 2$ (मापांक 5)

Options :

485584143545. 1
485584143546. 2
485584143547. 3
485584143548. 4

Question Number : 123 Question Id : 48558435888 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

If the mean of the probability distribution is 5, then the value of k is:

X	2	k	5
P(X)	0.2	0.4	0.6

1. 1
2. 2
3. 4
4. 3

Options :

485584143549. 1
485584143550. 2
485584143551. 3
485584143552. 4

Question Number : 123 Question Id : 48558435888 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

यदि प्रायिकता बंटन का माध्य 5 है तो k का मान है:

X	2	k	5
P(X)	0.2	0.4	0.6

1. 1
2. 2
3. 4
4. 3

Options :

- 485584143549. 1
- 485584143550. 2
- 485584143551. 3
- 485584143552. 4

Question Number : 124 Question Id : 48558435889 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

If $A = \begin{bmatrix} 4 & 5 & 2 \\ 3 & -1 & 7 \end{bmatrix}$, then the sum of the elements of the matrix AA^T is:

1. 156
2. 164
3. 146
4. 136

Options :

- 485584143553. 1
- 485584143554. 2
- 485584143555. 3
- 485584143556. 4

Question Number : 124 Question Id : 48558435889 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

यदि $A = \begin{bmatrix} 4 & 5 & 2 \\ 3 & -1 & 7 \end{bmatrix}$, हो तो आव्यूह AA^T के अवयवों का योगफल है:

1. 156
2. 164
3. 146
4. 136

Options :

485584143553. 1
485584143554. 2
485584143555. 3
485584143556. 4

Question Number : 125 Question Id : 48558435890 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

If $x^{\frac{3}{4}} + y^{\frac{3}{4}} = a^{\frac{3}{4}}$ (a is a constant) then $\frac{dy}{dx}$ is equal to :

1. $\left(\frac{y}{x}\right)^{\frac{1}{4}}$

2. $\left(\frac{x}{y}\right)^{\frac{1}{4}}$

3. $-\left(\frac{y}{x}\right)^{\frac{1}{4}}$

4. $-\left(\frac{x}{y}\right)^{\frac{1}{4}}$

Options :

485584143557. 1
485584143558. 2
485584143559. 3
485584143560. 4

Question Number : 125 Question Id : 48558435890 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

यदि $x^{\frac{3}{4}} + y^{\frac{3}{4}} = a^{\frac{3}{4}}$ (a अचर है) तो $\frac{dy}{dx}$ का मान है :

1. $\left(\frac{y}{x}\right)^{\frac{1}{4}}$

2. $\left(\frac{x}{y}\right)^{\frac{1}{4}}$

3. $-\left(\frac{y}{x}\right)^{\frac{1}{4}}$

4. $-\left(\frac{x}{y}\right)^{\frac{1}{4}}$

Options :

485584143557. 1
 485584143558. 2
 485584143559. 3
 485584143560. 4

Question Number : 126 Question Id : 48558435891 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

Let A and B be symmetric matrices of same order, then which of the following statement is true?

1. (A + B) is a symmetric matrix
2. (AB) is a symmetric matrix
3. (A + B) is a skew-symmetric matrix
4. (AB) is a skew-symmetric matrix

Options :

485584143561. 1
 485584143562. 2
 485584143563. 3
 485584143564. 4

Question Number : 126 Question Id : 48558435891 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

माना A तथा B समान कोटि के सममित आव्यूह हैं तो निम्न में से कौनसा कथन सत्य है?

1. (A + B) सममित आव्यूह है
2. (AB) सममित आव्यूह है
3. (A + B) विषय सममित आव्यूह है
4. (AB) विषय सममित आव्यूह है

Options :

485584143561. 1
485584143562. 2
485584143563. 3
485584143564. 4

Question Number : 127 Question Id : 48558435892 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

For matrix $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$, the values of x and y so that $A^2 + xI = yA$ are :

1. $x = 6, y = 8$
2. $x = 8, y = 6$
3. $x = 8, y = 8$
4. $x = 6, y = 6$

Options :

485584143565. 1
485584143566. 2
485584143567. 3
485584143568. 4

Question Number : 127 Question Id : 48558435892 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

आव्यूह $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$, के लिए x तथा y का मान, यदि $A^2 + xI = yA$ हो, है:

1. $x = 6, y = 8$
2. $x = 8, y = 6$
3. $x = 8, y = 8$
4. $x = 6, y = 6$

Options :

485584143565. 1
485584143566. 2
485584143567. 3
485584143568. 4

Question Number : 128 Question Id : 48558435893 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

If $8 + 3x < |8 + 3x|$, $x \in \mathbb{R}$, then x lies in :

1. $(-\infty, \infty)$
2. $\left(-\infty, \frac{-3}{8}\right)$
3. $\left(-\infty, \frac{-8}{3}\right)$
4. $\left(-\infty, \frac{8}{3}\right)$

Options :

485584143569. 1
485584143570. 2
485584143571. 3
485584143572. 4

Question Number : 128 Question Id : 48558435893 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

यादि $8 + 3x < |8 + 3x|$, $x \in \mathbb{R}$, है तो x स्थित है :

1. $(-\infty, \infty)$
2. $\left(-\infty, \frac{-3}{8}\right)$
3. $\left(-\infty, \frac{-8}{3}\right)$
4. $\left(-\infty, \frac{8}{3}\right)$

Options :

485584143569. 1
485584143570. 2
485584143571. 3
485584143572. 4

Question Number : 129 Question Id : 48558435894 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

For $x + y = 8$, the maximum value of xy is:

1. 4
2. 8
3. 32
4. 16

Options :

485584143573. 1
485584143574. 2
485584143575. 3
485584143576. 4

Question Number : 129 Question Id : 48558435894 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

$x + y = 8$ के लिए, xy का अधिकतम मान है:

1. 4
2. 8
3. 32
4. 16

Options :

485584143573. 1
485584143574. 2
485584143575. 3
485584143576. 4

Question Number : 130 Question Id : 48558435895 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

The maximum profit that a company can make if the profit function is given by

$P(x) = 32 + 24x - 18x^2$ is:

1. 48
2. 40
3. 36
4. 42

Options :

485584143577. 1
485584143578. 2
485584143579. 3
485584143580. 4

Question Number : 130 Question Id : 48558435895 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	MCQ3

एक कंपनी का अधिकतम लाभ यदि लाभ फलन

$P(x) = 32 + 24x - 18x^2$ दिया हो, है:

1. 48
2. 40
3. 36
4. 42

Options :

485584143577. 1
485584143578. 2
485584143579. 3
485584143580. 4

Sub-Section Number :

2

Sub-Section Id :

4855842651

Question Shuffling Allowed :

No

Is Section Default? :

null

Question Number : 131 Question Id : 48558435896 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

A motor boat goes 48 km downstream and comes back to the starting point in 16 hours. If the speed of the stream is 4 km/hr, then the speed of the motor boat in still water is :

1. 6 km/hr
2. 8 km/hr
3. 10 km/hr
4. 5 km/hr

Options :

485584143581. 1
485584143582. 2
485584143583. 3
485584143584. 4

Question Number : 131 Question Id : 48558435896 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

एक मोटर बोट को 48 किमी धरा के प्रवाह में जाकर वापस अपने शुरुआत के स्थान पर आने 16 घण्टे लगते हैं। यदि लहरों की चाल 4 किमी/घंटा हो तो मोटर बोट की शांत जल में चाल क्या होगी:

1. 6 किमी/घंटा
2. 8 किमी/घंटा
3. 10 किमी/घंटा
4. 5 किमी/घंटा

Options :

485584143581. 1
485584143582. 2
485584143583. 3
485584143584. 4

Question Number : 132 Question Id : 48558435897 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

If $x = \frac{1}{t^2}$ and $y = \frac{1}{t^3}$, then $\frac{d^2y}{dx^2}$ at $t = 1$ is :

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

Options :

485584143585. 1
485584143586. 2
485584143587. 3
485584143588. 4

Question Number : 132 Question Id : 48558435897 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

यदि $x = \frac{1}{t^2}$ तथा $y = \frac{1}{t^3}$, है तो $t = 1$ पर $\frac{d^2y}{dx^2}$ का मान है:

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

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

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

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

Options :

485584143585. 1

485584143586. 2

485584143587. 3

485584143588. 4

Question Number : 133 Question Id : 48558435898 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

A coin is tossed 5 times. The probability of getting atleast one head is:

1. $\frac{31}{32}$

2. $\frac{15}{16}$

3. $\frac{1}{32}$

4. $\frac{63}{64}$

Options :

485584143589. 1

485584143590. 2

485584143591. 3

485584143592. 4

Question Number : 133 Question Id : 48558435898 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

एक सिक्के को 5 बार उछाला गया। कम से कम एक चित आने की प्रायिकता होगी-

1. $\frac{31}{32}$

2. $\frac{15}{16}$

3. $\frac{1}{32}$

4. $\frac{63}{64}$

Options :

- 485584143589. 1
- 485584143590. 2
- 485584143591. 3
- 485584143592. 4

Question Number : 134 Question Id : 48558435899 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

The following data are from a simple random sample : 1, 4, 7

The point estimate of the population standard deviation is:

1. 2

2. 5

3. 1.5

4. 3

Options :

- 485584143593. 1
- 485584143594. 2
- 485584143595. 3
- 485584143596. 4

Question Number : 134 Question Id : 48558435899 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

निम्नलिखित आंकडे सामान्य यादृच्छिक प्रतिचयन : 1, 4, 7 समष्टि मानक विचलन का अनुमानित बिन्दु है:

1. 2
2. 5
3. 1.5
4. 3

Options :

485584143593. 1
485584143594. 2
485584143595. 3
485584143596. 4

Question Number : 135 Question Id : 48558435900 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

A car costing ₹8,50,000 has scrap value of ₹1,25,000. If annual depreciation charge is ₹1,45,000, then useful life of the car is :

1. 12 years
2. 5 years
3. 7 years
4. 10 years

Options :

485584143597. 1
485584143598. 2
485584143599. 3
485584143600. 4

Question Number : 135 Question Id : 48558435900 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Wrong Marks : 1

Question Key Details :

Key	Value
Comprehension	Comp2

एक कार जिसकी कीमत ₹8,50,000 है, की अपघर्षित कीमत ₹1,25,000 है। यदि वार्षिक अवमूल्यन ₹1,45,000 है, तो कार का उपयोगी काल होगा:

1. 12 वर्ष
2. 5 वर्ष
3. 7 वर्ष
4. 10 वर्ष

Options :

485584143597. 1
485584143598. 2
485584143599. 3
485584143600. 4

Physics

Group Number :	3
Group Id :	485584811
Group Maximum Duration :	60
Group Minimum Duration :	60
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	200
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Physics

Section Id :	485584933
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	40
Section Marks :	200
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	4855842652
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 136 Question Id : 48558435901 Question Type : MCQ Option Shuffling : No Is Question Mandatory :
No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 5 Wrong Marks : 1