Telangana State Council Higher Education

Notations:
1. Options shown in green color and with ✔ icon are correct.
2. Options shown in red color and with ✗ icon are incorrect.

<table>
<thead>
<tr>
<th>Question Paper Name</th>
<th>TS ICET 2020 30th Sept 2020 Shift 2</th>
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<tbody>
<tr>
<td>Subject Name</td>
<td>TS ICET 2020</td>
</tr>
<tr>
<td>Creation Date</td>
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<td>Duration</td>
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<td>Number of Questions</td>
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<tr>
<td>Display Marks</td>
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<tr>
<td>Actual Answer Key</td>
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<td>Magnifying Glass Required?</td>
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<td>Ruler Required?</td>
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<tr>
<td>Eraser Required?</td>
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<td>Scratch Pad Required?</td>
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<td>Rough Sketch/Notepad Required?</td>
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<td>Protractor Required?</td>
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<tr>
<td>Show Watermark on Console?</td>
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<tr>
<td>Highlighter</td>
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<tr>
<td>Auto Save on Console?</td>
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**TS ICET 2020**

| Group Number                | 1                                      |
| Group Id                    | 39448417                               |
| Group Maximum Duration      | 0                                      |
| Group Minimum Duration      | 150                                    |
| Show Attended Group?        | No                                     |
| Edit Attended Group?        | No                                     |
| Break time                  | 0                                      |
| Group Marks                 | 200                                    |
| Is this Group for Examiner? | No                                     |

**Analytical Ability**

<p>| Section Id                  | 39448449                               |
| Section Number              | 1                                      |
| Section type                | Online                                 |
| Mandatory or Optional       | Mandatory                             |</p>
<table>
<thead>
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<tr>
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<td>Number of Questions to be attempted</td>
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<tr>
<td>Section Marks</td>
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<td>Mark As Answered Required?</td>
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<td>Sub-Section Number</td>
<td>1</td>
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<td>Sub-Section Id</td>
<td>394484337</td>
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<tr>
<td>Question Shuffling Allowed</td>
<td>Yes</td>
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**Question Id:** 3944843329  **Question Type:** COMPREHENSION  **Sub Question Shuffling Allowed:** Yes  **Group Comprehension Questions:** No  **Question Numbers:** (1 to 20)
Note: In questions numbered 1 to 20, a question is followed by data in the form of two statements labelled as I and II. You must decide whether the data given in the statements are sufficient to answer the questions. Using the data make an appropriate choice from (1) to (4) as per the following guidelines:

(a) Mark choice (1) if the statement I alone is sufficient to answer the question.
(b) Mark choice (2) if the statement II alone is sufficient to answer the question.
(c) Mark choice (3) if both the statements I and II are sufficient to answer the question but neither statement alone is sufficient.
(d) Mark choice (4) if both the statements I and II together are not sufficient to answer the question and additional data is required.

Sub questions

Question Number : 1 Question Id : 3944843330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Is \( x \) a rational number?

\( \text{.HashSet ఎంచించడానికి పిండిన ఎంచించ?} \)

(I) \( x = b + c \)

(II) \( b \) and \( c \) are irrational numbers.

\( b, c \) ఎంచించిన ఎంచించ. 

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number: 2 Question Id: 3944843331 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

In the adjacent figure what is the area of the square \( ABCD \)?

\( \text{ప్రతిచితంలో ఎంచించిన ఎంచించానికి ప్రతిచితం ఎంచించానికి ప్రతిచితం ABCD పొడవు?} \)

(I) \( AC = 16 \text{ cm} \)

\( AC = 16 \text{ సెంటీమీటర్లు} \).

(II) The areas of the circles \( C_1 \) and \( C_2 \) are in ratio of 4 : 1

\( C_1, C_2 సూక్ష్మము పోలించిన వేలి \( C_2 \) 4 : 1

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 3 Question Id: 3944843332 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0
\( f(x) \) is a polynomial with integer coefficients. Is \((x + 2)\) a factor of \(f(x)\)?

\[ f(x) \text{ divides } x + 2 \Leftrightarrow a, b, c, d, e \text{ are integers.} \]

(\text{I}) \quad f(x) = 2x^4 + bx^3 + cx^2 + dx + e

(\text{II}) \quad 8b - 4c + 2d - e = 32

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 4 Question Id : 3944843333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Find the area of the sector?

\[ \text{Area of sector?} \]

(\text{I}) \quad \text{Length of the arc} = 1 \text{ unit.}
\[ \text{Radius } r \text{ where } \theta = 1 \quad \text{radians.} \]

(\text{II}) \quad \text{Radius of sector is six times length of arc.}
\[ \text{Radius is six times the length of the arc.} \]

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 5 Question Id : 3944843334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
A person can purchase three articles for Rs.49. What is the price of the costliest article?

49 రూపాణిలోనే తెరియి మూడు పదార్థాలు కొనిపించవచ్చు. అత్యంత వైపున రూపాణి ఎంతా ఉండేది?

(I) The cost price of two articles each is Rs.1 less than the cost price of the costliest article.
ൽపు రూపాణిలోని రూపాణిలో అతిప్రత్యేకమొట్టము వైపున రూపాణి మరొక వైపు 1 రూపాణి వచ్చేది.

(II) The cost price of costliest article is 6.25% more than the cost price of the cheapest article.
అతిప్రత్యేకమొట్టము రూపాణి కండి వైపున రూపాణి వైపు 6.25% వచ్చేది.

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 6 Question Id : 3944843335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Is the polygon \(ABCD\) a trapezium?

పదార్థం \(ABCD\) ఉమ్మడిసారి?

(I) It has a pair of parallel sides.
మరొక పాయిడి రేఖలు ఉంటాయి.

(II) Two of its sides are equal in length.
సమాంతర రేఖలను సమాంతర నిర్మాణ చేస్తుంది.
Question Number : 7 Question Id : 3944843336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What is the median of the frequency distribution?

(I) Its arithmetic mean is 57.

(II) Its mode is 55.

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 8 Question Id : 3944843337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

What is the positive integral value of \( x \) ?

(I) \( 39 < 7x + 3 < 46 \)

(II) \( 25 < x^2 < 49 \)

Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 9 Question Id : 3944843338 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0
What is the LCM of two numbers $a$ and $b$?

(1) The GCD of $a$ and $b$ is 3.
   $a, b \in \mathbb{N}, \gcd(a, b) = 3$.

(2) $a$ is even and $b$ is odd.
   $a \in \mathbb{E}, b \in \mathbb{O}$.

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number: 10 Question Id: 394484339 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

What is the digit in the Ten's place of the number $n$?

$n$ పదార్ధం దశాంశ స్థానం నంబరు $n$ ఆంధ్రం?

(1) $n > 100$

(2) $n$ gives remainder 69 when divided by 100.
   $n \equiv 69 \mod 100$.

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number: 11 Question Id: 3944843340 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0
If \( A \) is a square matrix, what is \( \det A \)?

\[ A \] is a square \( m \times m \) matrix, \( \det A \) is ______?

(I) \( \det 5A = 45 \)

(II) \( \det 10A = 360 \)

Options:
1. ✗ 1  
2. ✗ 2  
3. ✔ 3  
4. ✗ 4

Question Number : 12 Question Id : 3944843341 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

How old is Rakesh now?

(రాఖేశ్ మెలుకును ఎన్ని సంవత్సరాలు ?)

(I) Seven years ago, Rakesh was older than Suresh by eight years.

షేడ్ (రాఖేశ్, సూరేశ్) సంవత్సరాల మేలు, సూరేశ్ యొక్కుడు ఎన్ని సంవత్సరాలు?

(II) Presently Rakesh is thrice as old as Suresh.

రాఖేశ్ యొక్కుడు సూరేశ్ ఏ సంవత్సరాలు ఎన్ని ?

Options:
1. ✗ 1  
2. ✗ 2  
3. ✔ 3  
4. ✗ 4

Question Number : 13 Question Id : 3944843342 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Find the cost of two benches and three chairs?

Tenne tanalu, meneva tigada costam?

(I) The cost of 5 benches, 10 chairs is Rs.17500.
5 tanalu, 10 tigada costam Rs.17500.

(II) The cost of 7 benches, 11 chairs is Rs.27500.
7 tanalu, 11 tigada costam Rs.27500.

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number: 14 Question Id: 3944843343 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

Find the value of \( \frac{x^2+y^2}{x+y} \).

\( \frac{x^2+y^2}{x+y} \) tinnamala samakatnamaddam.

(I) \( x = \frac{a}{y} \)

(II) \( x^2 + y^2 = 12 \)

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number: 15 Question Id: 3944843344 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Find the volume of the cone \( C \).

\( \text{స్ఫరస్తి ఆధారం, మూడింటే ఎత్తును దీనిలో ఉంటా?} \)

(I) Height of \( C \) > radius of \( C \)
\( C > C \) అసాధారణం

(II) Volume of the cylinder, whose radius and height are same and \( C \), is 300 cm\(^3\).

\( \text{మూడవైపు వేలు, మూడింటే ఎత్తు ఉంటాయ ఆధారం మొదలు కప్ప ఉంటాయ} \)

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

What is the number of elements in the set \( A \)?

\( A \) నకిలి ఎంటర్ ఎంటర్ ఎంటర్?

(I) Number of elements in \( A \cup B \) is 35.
\( A \cup B \) పెద్ద ఎంటర్ ఎంటర్ 35.

(II) Number of elements in \( B - A \) is 7.
\( B - A \) లెక్క ఎంటర్ ఎంటర్ 7.

(Here \( B \) is also a set)
(హేరి \( B \) కూడా సంఖ్యా)

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
What is the value of $\cos^4\theta + \sec^4\theta$?

$\cos^4\theta + \sec^4\theta = \frac{\sin^2\theta + \cos^2\theta}{\cos^2\theta}$

(I) $\sin^2\theta + \cos^2\theta = 1$

(II) $\cos\theta + \sec\theta = 2$

Options:
1. ≠ 1
2. ✔ 2
3. ≠ 3
4. ≠ 4

What is the cost price of the article?

售價 何者為原價?

(I) It is sold for Rs. X at a loss of 20%.

20% भूलू या तो विक्रया दर, X या भूलू किया गया है.

(II) If it is sold for Rs. (X+50) the profit would have been 10%.

10% भूलू अभी किया गया तो 10% वाः 50 रु. कीमत होगी.

Options:
1. ≠ 1
If a set $X$ has 22 elements and $A$ is a subset of $X$, then what is the number of subsets of $X$ that are disjoint from $A$?

(22 $X$ యొక్క 22 ఎంటులు ఉన్నాయి. $A$ అంటే $X$ యొక్క ఒక ఉమ్మడి సంఖ్య, $A$ యొక్క మరొక ఉమ్మడి సంఖ్య ఎంత?

(I) Set $A$ has less than 10 elements.

(II) The largest subset of $X$ disjoint from $A$ has 14 elements.

Options:

1. 1
2. 2
3. 3
4. 4
What is the value of \( y \)?

\[ y \text{ ఏమించే విలుపం?} \]

(I) \[ x = 2y + z. \]

(II) \[ x = (y - 1)^3 \text{ and } x = 8. \]

\[ x = (y - 1)^3 \Rightarrow x = 8. \]

Options:

1. \( \square \) 1
2. \( \checkmark \) 2
3. \( \square \) 3
4. \( \square \) 4

Sub-Section Number: 2
Sub-Section Id: 394484338
Question Shuffling Allowed: Yes

Question Number: 21 Question Id: 3944843350 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical

Correct Marks: 1 Wrong Marks: 0

Problem Solving
నాణయం నిర్ణయం

Sequence and Series.
శాంతినించించండి, ప్రామాణము

CAR: 040219 :: LOT: ___

(1) 131621

(2) 131520

(3) 131620

(4) 121621

Options:
Question Number : 22 Question Id : 3944843351 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Problem Solving

Sequence and Series

BMS : ZKQ :: ___ : AXY

(1) CZA
(2) DAB
(3) CYD
(4) BAD

Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 23 Question Id : 3944843352 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Problem Solving

Sequence and Series
c. ___ h. ___ t.

(1) f. n
(2) e. m
(3) d. m
(4) e. n

Options:
1. ✅ 1
2. ✅ 2
3. ✗ 3
4. ✗ 4

Question Number: 24  Question Id: 3944843353  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Is Question Mandatory: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0

Problem Solving
పరిసరం సమస్యలు

Sequence and Series
శ్రేణి తరికలు

Foot: Inch :: Year: ____
కిచ్చను: అంచనా:: సాంవత్సరికం: ____

(1) Decade
దసాబై
(2) Day
ప్రతి రోజు
(3) Week
సాప్తిక
(4) Month
మోన్థ్

Options:
1. ✅ 1
Question Number : 25 Question Id : 3944843354 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Problem Solving
acağız " "

Sequence and Series

d (6, 7) : 21 :: (8, 9) : _____

(1) 27

(2) 36

(3) 45

(4) 38

Options :
1. 21
2. 26
3. 36
4. 45

Question Number : 26 Question Id : 3944843355 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Problem Solving
antidad " "

Sequence and Series

d (6, 7) : 21 :: (8, 9) : _____

(1) 27

(2) 36

(3) 45

(4) 38

Options :
1. 21
2. 26
3. 36
4. 45
GASKET : JISFER :: PERSON : ____

(1) RUMNIQ
(2) RSMOIQ
(3) NUQTOP
(4) RUPIIS

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 27 Question Id : 3944843356 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Problem Solving

Sequence and Series

PRINT : 86 :: NOVEL : ____

(1) 78
(2) 83
(3) 85
(4) 88

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Problem Solving

Sequence and Series

___ : pon :: DCB : hgf

(1) lkj
(2) LKJ
(3) ljk
(4) LKj

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
CAM : USE :: SAT : _____

(1) KTM
(2) JRN
(3) KSL
(4) LTR

Options :
1. ☒ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4

Question Number : 30 Question Id : 3944843359 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Problem Solving

Sequence and Series

A2101U : B2002T :: C1703Q : R____S

(1) 1917
(2) 1918
(3) 1916
(4) 1919

Options :
1. ☒ 1
2. ☒ 2
3. ☐ 3
4. ☒ 4

Sub-Section Number : 3
Sub-Section Id : 394484339
Note: In questions numbered 31 to 35 pick the odd thing out.

(1) \( x^3 - 3x^2 + 3x - 1 = 0 \)
(2) \( x^3 - 3x^2 + 3x + 3 = 0 \)
(3) \( x^3 - 6x^2 + 12x - 8 = 0 \)
(4) \( x^3 + 6x^2 + 12x + 8 = 0 \)

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Note: In questions numbered 31 to 35 pick the odd thing out.

(1) \( \frac{15}{19} \)
(2) \( \frac{14}{19} \)
(3) \( \frac{11}{19} \)
(4) \( \frac{9}{19} \)

Options:
1. ✗ 1
Question Number : 33 Question Id : 3944843362 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Note : In questions numbered 31 to 35 pick the odd one out.

(1) 3223
(2) 3443
(3) 3663
(4) 3883

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 34 Question Id : 3944843363 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Note : In questions numbered 31 to 35 pick the odd one out.

(1) 3223 36 36 36 36 36 36 36 36
(2) 3443 36 36 36 36 36 36
(3) 3663 36 36 36 36 36 36
(4) 3883 36 36 36 36 36 36

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
(1) Flute
(2) Violin
(3) Veena
(4) Mandolin

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 35
Question Id: 3944843364
Question Type: MCQ
Option Shuffling: No
Display Question Number: Yes
Is Question Mandatory: No
Option Orientation: Vertical
Correct Marks: 1
Wrong Marks: 0

Note: In questions numbered 31 to 35 pick the odd thing out.

(1) Fish
(2) Frog
(3) Turtle
(4) Alligator

Options:
1. ✔ 1
9, 28, 126, 344, __________

(1) 578
(2) 742
(3) 916
(4) 1332

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Note: Each of the questions from 36 to 45 follows a definite pattern, observe the
same and fill in the blanks with suitable ones.
1. □ 1
2. ✔ 2
3. □ 3
4. □ 4

Note: Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

100, 110, 1000, 1001, ___
Question Number : 39 Question Id : 3944843368 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Note : Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

101, 103, ___, 109, 113, 127, 131

(1) 111
(2) 105
(3) 103
(4) 107

Options :

1. ❌ 1
2. ❌ 2
3. ❌ 3
4. ✔ 4

Options :

1. ❌ 1
2. ❌ 2
3. ❌ 3
4. ✔ 4

Question Number : 40 Question Id : 3944843369 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Note : Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

101, 103, ___, 109, 113, 127, 131

(1) 111
(2) 105
(3) 103
(4) 107

Options :

1. ❌ 1
2. ❌ 2
3. ❌ 3
4. ✔ 4
225, 16, 169, 36, 121, 64, 81, ____

(1) 88
(2) 92
(3) 96
(4) 100

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

---

10, 30, 150, ____ 11550, 150150

(1) 1050
(2) 10100
(3) 10350
(4) 10550

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

\[
\frac{2}{3}, \frac{2}{5}, \frac{2}{11}, \frac{2}{17}, \frac{2}{29}, \ldots
\]

(1) \(\frac{2}{42}\)

(2) \(\frac{2}{41}\)

(3) \(\frac{2}{37}\)

(4) \(\frac{2}{25}\)

Options:
1. ☑️ 1
2. ☑️ 2
3. ☑️ 3
4. ☑️ 4

Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

\[
\frac{2}{3}, \frac{2}{5}, \frac{2}{11}, \frac{2}{17}, \frac{2}{29}, \ldots
\]
CAUCHY, IKIUDY, LPPDOL

(1) FECLSL
(2) FFBSTU
(3) FFBLSL
(4) FECLSL

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number: 44 Question Id: 3944843373 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

Note: Each of the questions from 36 to 45 follows a definite pattern, observe the same and fill in the blanks with suitable ones.

ææoi, __________, ïææo, eëœia

(1) uoiæc
(2) uoiça
(3) uioæc
(4) uoëia

Options:
1. ✓ 1
2. ✗ 2
0, 6, 24, 60, ___, 210

(1) 84
(2) 96
(3) 120
(4) 180
The following graph depicts the profits earned by a company through exports in the past six years. Based on this data, answer the questions 46,47 and 48.

Sub questions

Question Number : 46 Question Id : 3944843376 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The approximate yearly average of the profits through exports (in crores of rupees) is

(1) 29
(2) 32
(3) 33
(4) 34

Options :
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 47 Question Id : 3944843377 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
In which year (2\text{nd} year to 6\text{th} year) the increase in the profits was maximum when compared to that of previous year?

(సంస్థలు సంస్థల ప్రవేశం వైపు సంస్థలు ప్రవేశం (2 సంస్థలు ప్రవేశం వైపు 6 సంస్థలు ప్రవేశం) ఆర్థిక ప్రవేశం సంచారం ఉండును?

(1) 5\text{th} year

(2) 4\text{th} year

(3) 3\text{rd} year

(4) 2\text{nd} year

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 48 Question Id : 3944843378 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0
When compared to the first 3 years what is the increase percentage in the profits to the last three years?

(1) $\frac{89\frac{1}{6}}{}$
(2) $90\frac{1}{3}$
(3) $91\frac{2}{3}$
(4) $92\frac{1}{6}$

Options :
1. $\times$ 1
2. $\times$ 2
3. $\checkmark$ 3
4. $\times$ 4

Sub-Section Number : 6
Sub-Section Id : 394484342
Question Shuffling Allowed : Yes

Question Id : 3944843379 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No
Question Numbers : (49 to 53)
The following pie-chart shows the budget allocation of a company under different heads P, Q, R, S, T in one financial year. Based on the information given, answer the questions from 49-53.

Sub questions

Question Number : 49 Question Id : 3944843380 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The amount allocated to ‘Q’ is what percent of total budget?

(1) 22 \frac{7}{18}
(2) 23 \frac{11}{19}
(3) 22 \frac{13}{18}
(4) 23 \frac{7}{19}
If the amount allocated to the head ‘S’ is Rs. 18 lakhs, in a year, then the amount allocated to the head ‘P’ in that year (in rupees of lakhs) is

(1) 20
(2) 24
(3) 30
(4) 32
The amount allocated to the head ‘R’ is Rs. 24 ½ lakhs in a year, then the total budget in that year (in crores) is

2.5 లక్షలపై రాయబడిన జాబితా 24 ½ లక్షలు ఉండేవి అయితే

అనుసంధానం లక్షలు ఉండేవి (కోట్లు)

(1) 1.08
(2) 1.12
(3) 1.20
(4) 1.26

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number: 52 Question Id: 3944843383 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

If the total budget in an year is Rs. 2.7 crores, then the difference between the allocations of heads S and T (in lakhs) is

2.7 లక్షల వివిధ జాబితాలు మధ్య పరిశీలన చేసే స్థాయిలు లక్షలు వివిధ జాబితాలు ఉండవచ్చు (కోట్లు పరిశీలన చేసే)

(1) 12.5
(2) 12.25
(3) 11.5
(4) 11.25
The total amount allocated to heads ‘P’ and ‘S’, put together is what percent of the total amount allocated to the remaining heads?

(1) 75
(2) 78
(3) 80
(4) 90

Options :
1. 1
2. 2
3. 3
4. 4
Consider the following venn diagram representing three sets A, B, C. Based on the information given, answer the questions 54 and 55.

A- Students of a school play Football

B- Students of the same school play Basket ball

C- Students of the same school that play Cricket.

Sub questions

Question Number : 54 Question Id : 3944843386 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The number of students who play Cricket and Football but not Basket ball is

(1) 7
(2) 9
(3) 5
(4) 12
The number of students who play either Football or Basketball is:

(1) 63
(2) 70
(3) 68
(4) 75
English alphabets (26) are arranged along a circle. Then each vowel is coded to its next second vowel in clockwise direction while each consonant is coded to its next consonant in clockwise direction. For decoding the inverse process can be followed.

Using this coding procedure answer the questions 61-65

Sub questions

Question Number : 56 Question Id : 3944843389 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Code word for LARGE is

LARGE သား သား သား သား

(1) MISHU
(2) MISHO
(3) MISHA
(4) MISHE

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 57 Question Id : 3944843390 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Code word for SMALL is

SMALL సంగ్రహం సంగ్రహం

(1) TNAOO
(2) TMIOO
(3) TNINN
(4) TNIMM

Options :
1. ✖ 1
2. ✖ 2
3. ✗ 3
4. ✔ 4

Question Number : 58 Question Id : 3944843391 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which word is coded as CITO?

వివిధులం CITO నియంత్రించడానికి?

(1) BATE
(2) BOSE
(3) BASE
(4) BESA

Options :
1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 59 Question Id : 3944843392 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Code word for QUARANTINE is

QUARANTINE  quê  rẹ́n  ṣèèràn

(1) REISIP'UPO
(2) REISIOVUPO
(3) REISIUVOPO
(4) REISIRVUPO

Options :
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 60 Question Id : 3944843393 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Code word for CORONA VIRUS is

CORONA VIRUS  nè  rẹ́n  ṣèèràn

(1) DASAPI WUSET
(2) DASAPI WUSIT
(3) DASAPI WUSIV
(4) DASAPI WUSIW

Options :
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Sub-Section Number : 9
Sub-Section Id : 394484345
Question Shuffling Allowed : Yes

Question Number : 61 Question Id : 3944843394 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
In a certain code, CALIFORNIA is coded as GWPEJKVJMW. The code word for ANDHRA is

Andhra యునికొంత క్రిందంగా కలుపుతోంది. ANDHRA యు రెండు సంఖ్యలు

(1) EHVJDW
(2) EJDHVW
(3) EJHDVW
(4) AHJVDW

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 62 Question Id : 3944843395 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

If 18907 is coded as BIAH then the code for 25836 is

18907 యొక్క BIAH తో ఇది 25836 యొక్క కోడు

(1) FJKLM
(2) CFIDG
(3) DCGHI
(4) EHJVDW

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
If TRIGONOMETRY is coded as UTLKTTVUNDCK, then TRIANGLE will be coded as

TRIGONOMETRY → UTLKTTVUNDCK, TRIANGLE → DCK

Options:
1. # 1
2. # 2
3. # 3
4. ✔ 4

If BLACK is coded as 2515262416, then RED is coded as

BLACK → 2515262416, RED → 2126241525

(1) 092223
(2) 082122
(3) 072021
(4) 092122
If 'HIGH' is coded as 08090708, then 'DARE' is coded as

HIGH యె 08090708 న నిర్భరం, DARE యె 04011805 నిర్భరం

(1) 04011805
(2) 04011705
(3) 04011605
(4) 04011505
In a certain leap year the first day of the year was Sunday. On what day was the 2nd of March in that year?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(1) Thursday</td>
<td>(1) త్రివంతం</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>(2) Friday</td>
<td>(2) వందం</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(3) Saturday</td>
<td>(3) కొనం</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(4) Sunday</td>
<td>(4) రోషం</td>
<td></td>
</tr>
</tbody>
</table>

Options:
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4

Question Number : 67 Question Id : 3944843400 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems:

ప్రపంచ ఆధునిక సాంస్కృతిక నిష్పత్తులు
The angle between minutes hand and hours hand in wall clock (in radians) at 9.56 am is

9.56 గూడుల నంతా గుండా గుండా బిగుడి మూడు ఎక్కడ మాత్రం ఉంటే, గుండా బిగుడి

మూడు ఎక్కడ ఉంటే (హింసంప్రవేగం)

(1) \( \frac{19\pi}{90} \)
(2) \( \frac{\pi}{5} \)
(3) \( \frac{\pi}{4} \)
(4) \( \frac{17\pi}{90} \)

Options :
1. ✓ 1
2. ❌ 2
3. ❌ 3
4. ❌ 4

Question Number : 68 Question Id : 3944843401 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems:
స్థాన, సమయం, సంఘర్షమార్గం
A clock gains time uniformly. It was observed to be 2 minutes slow at 12:00 pm on Monday and was 4 minutes 48 seconds fast at 2:00 pm on the next Monday. When did the watch show the correct time?

Options:
1. Wednesday
2. Thursday
3. Friday
4. Tuesday

(1) Friday (1) శుక్రవారం
(2) Thursday (2) మంగిలవరం
(3) Wednesday (3) ప్రతివారం
(4) Tuesday (4) వారం

Question Number : 69 Question Id : 3944843402 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems: సమయం, సమయ నిర్ధారణ ప్రారంభం
A is B’s sister, C is B’s mother, D is C’s father and E is D’s mother, then how is A related to D?

B సారుతున్నా A, B సారుతున్నా C, C సారుతున్నా D, D సారుతున్నా E సారుతున్నా; D సారుతున్నా A సారుతున్నా ఎలా సారుతున్నా?

(1) Grand father  (1) మామలుడు
(2) Grand mother  (2) అన్ననుడు
(3) Daughter      (3) మాతుడు
(4) Grand daughter (4) మామలుడు

Options :
1. ☑ 1
2. ☑ 2
3. ☑ 3
4. ☑ 4

Question Number : 70 Question Id : 3944843403 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems

ఎంత, సమయం, సమాంతర సమాచారం
Mr. A left home for the bus stop 25 minutes earlier than usual. It takes 15 minutes for A to reach the bus stop. A reaches bus stop at 8.30 am. What time does A usually leave house for the bus stop?

A అనగా సమయంలో 25 మినుటుల సమయానికి అభినందకం అనగా సమయంలో అతను హుందేయాడు. అది ప్రతి పాత్ర అభినందకం ఆడుతూ అభినందకం అయితే కాలం అయితే అనేక ఆడుతుంది. తరువాత అనే విధంగా అనేక ఆడుతుంది. తదంతరాం అంశం 15 మినుటులు నిలబడి, ఆనేక సమయంలో అనేక ఆడుతుంది?

1. 9.00 am
2. 8.50 am
3. 8.40 am
4. 8.35 am

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 71 Question Id : 3944843404 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problem:
సైటులు, తినే సమయం పరిమాణం
Mr A came 34 minutes before the time at which a board meeting is scheduled. Mr B arrives to the meeting 25 minutes later than Mr. C who arrived 7 minutes before the scheduled time of that board meeting. If B arrived at 11.03 am, then the time of arrival of Mr. A is

(1) 10.11 am
(2) 10.45 am
(3) 10.38 am
(4) 11.03 am

Options:
1. ✓
2. ✗
3. ✗
4. ✗

Question Number : 72 Question Id : 3944843405 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems:

సంప్రదాయం, లాంటి సమస్యలు
A church bell rings at regular intervals of 50 minutes. It rang at 7.00 am after that there was a technical problem with the bell and it was rectified at 8.45 am. When will the bell ring between 10 am and 11 am?

(1) 10.20 am
(2) 10.30 am
(3) 10.50 am
(4) 10.40 am

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
For \( \frac{a}{b} < 1 \), define \( a \ast b = \frac{a}{b} + \frac{a^2}{b^2} + \frac{a^3}{b^3} + \ldots \) then \( 4 \ast 6 = \)

\[
\frac{a}{b} < 1 \Rightarrow a \ast b = \frac{a}{b} + \frac{a^2}{b^2} + \frac{a^3}{b^3} + \ldots \]\

(1) \( \frac{1}{2} \)

(2) \( \frac{2}{3} \)

(3) 1

(4) \( \frac{6}{5} \)

Options:
1. \( \ast 1 \)
2. \( \ast 2 \)
3. \( \ast 3 \)
4. \( \checkmark 4 \)

Question Number : 74 Question Id : 3944843407 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems:

చెప్పండి, కదురుగా కదురుగా.
If \( x \Delta y = |x| y + x |y| - (x+y) \) for \( x, y \in \mathbb{R} \), then \( \frac{-3}{2} \Delta \frac{1}{2} = \)

\[ x, y \in \mathbb{R} \implies \forall x, y \Delta y = |x| y + x |y| - (x+y) \implies \forall x, y \Delta y, \quad \frac{-3}{2} \Delta \frac{1}{2} = \]

\[(1) 1\]

\[(2) \frac{-1}{2}\]

\[(3) \frac{1}{2}\]

\[(4) \frac{1}{4}\]

Options:
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 75 Question Id : 3944843408 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Date, Time & Arrangement Problems:

ıldığı, 2023-04-13 23:00:00
If $\alpha, \beta, \gamma$ and $\delta$ denote the arithmetical operations $+, -, \times$ and $\div$ respectively then

\[(10 \gamma 4) \alpha (4\gamma 4)\beta 6 \delta (50) =
\]

\[\alpha, \beta, \gamma \text{ and } \delta \text{ are the operations for } +, -, \times, \text{ and } \div \text{ respectively}.
\]

**Options:**
1. 1
2. 2
3. 3
4. 4

**Mathematical Ability**

**Section Id:** 39448450
**Section Number:** 2
**Section Type:** Online
**Mandatory or Optional:** Mandatory
**Number of Questions:** 75
**Number of Questions to be attempted:** 75
**Section Marks:** 75
**Mark As Answered Required?** Yes
**Sub-Section Number:** 1
**Sub-Section Id:** 394484347
**Question Shuffling Allowed:** Yes

**Question Number:** 76 **Question Id:** 3944843409 **Question Type:** MCQ **Option Shuffling:** No **Display Question Number:** Yes **Is Question Mandatory:** No **Option Orientation:** Vertical

**Correct Marks:** 1 **Wrong Marks:** 0

**Arithmetical Ability**

అగించి విధానాలు
\[ \{ 3 - \{ 1 - (1-x^2)^{-1}\}^{-1}\}^{-1/2} \]

(1) 1  
(2) \( x \)  
(3) \( 1/x \)  
(4) \( \sqrt{x} \)

Note: For this question, discrepancy is found in question/answer. So, this question is ignored for all candidates.

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

Question Number: 77  
Question Id: 3944843410  
Question Type: MCQ  
Option Shuffling: No  
Display Question Number: Yes  
Is Question Mandatory: No  
Option Orientation: Vertical  
Correct Marks: 1  
Wrong Marks: 0

Arithmetical Ability

If \[ \frac{(2^{n+1})^m \cdot (2^{2n}) (2^n)}{(2^{m+1})^n \cdot (2^{2m})} = 1 \], then \( m = \)

\[ \frac{(2^{n+1})^m \cdot (2^{2n}) (2^n)}{(2^{m+1})^n \cdot (2^{2m})} = 1 \Leftrightarrow m = \)

(1) \( \frac{n}{2} \)  
(2) \( n \)  
(3) \( 2n \)  
(4) \( n^2 \)

Options: 
1. \( \not\equiv 1 \)
2. # 2
3. ✔ 3
4. ✔ 4

Question Number : 78 Question Id : 3944843411 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability

If \( a : b = 3 : 7 \) and \( b : c = 5 : 4 \), then \( 2a : 3b : 4c = \)

\[ a : b = 3 : 7 \quad b : c = 5 : 4 \quad 2a : 3b : 4c = \]

\[ (1) \ 6 : 21 : 16 \]

\[ (2) \ 15 : 35 : 28 \]

\[ (3) \ 30 : 105 : 112 \]

\[ (4) \ 30 : 70 : 81 \]

Options :
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4

Question Number : 79 Question Id : 3944843412 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability
Four men can do as much work as eight women, and three women can do as much work as four children. If twenty-four women finish a work in 52 days, in how many days, will the same work be finished by 8 men, 4 women and 8 children?

Options:
1. 48
2. 38
3. 50
4. 40

Question Number : 80 Question Id : 3944843413 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
అరిథ్మెటికల్ సాధనాలు
\[
\frac{2}{\sqrt{10} + 2\sqrt{21}} + \frac{1}{\sqrt{12} - 2\sqrt{35}} + \frac{1}{\sqrt{8} - 2\sqrt{15}}
\]

(1) \(\sqrt{7}\)
(2) \(\sqrt{5}\)
(3) \(\sqrt{3}\)
(4) 0

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 81 Question Id : 3944843414 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability

If \(x = 17 + 12\sqrt{2}\) then \(x^2 + \frac{1}{x^2} = \)

\(x = 17 + 12\sqrt{2}\) \(\Rightarrow\) \(x^2 + \frac{1}{x^2} = \)

(1) \(289 + 24\sqrt{2}\)
(2) 287
(3) \(34 + 24\sqrt{2}\)
(4) 1154

Options :
1. ✗ 1
The number of divisors of 2160 which is of the form 3k, where k is a positive integer is

(1) 10
(2) 20
(3) 30
(4) 40
The remainder when $5! + 6! + 7! + \cdots + 100!$ is divided by 35 is ___

$5! + 6! + 7! + \cdots + 100 \equiv 35 \pmod{35}$

(1) 0
(2) 1
(3) 2
(4) 3

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 84 Question Id : 3944843417 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability
అగ్రామ కౌశల

The LCM and GCD of two numbers are 4641 and 21 respectively. If one is greater than 300, then find the other number.

ఒక రిండి సంఖ్య రేచారు అవి గ్రేహుడు 4641 మాత్రమే 21. ఒకపై
సంఖ్య రేచారు 300 రేచకు ఉండి అదే రిండి లేదా

(1) 273
(2) 283
(3) 293
(4) 299

Options:
1. ✓ 1
2. ✗ 2
If the GCD of two positive integers \( m, n \) is 5, then the GCD of 201\( m \) and 2697\( n \) is

(1) 5
(2) 10
(3) 15
(4) 20

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
\[
5 + \frac{1}{6 + \frac{1}{8 + \frac{1}{10}}} =
\]

(1) \(\frac{10}{496}\)
(2) \(\frac{81}{496}\)
(3) \(\frac{119}{496}\)
(4) \(\frac{165}{496}\)

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

Question Number: 87 Question Id: 3944843420 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

Arithmetical Ability

\[
(11 \div 2\frac{1}{5}) \div \frac{11}{5} \text{ of } \div 5\frac{1}{2} - 3\frac{1}{2} =
\]

(1) \(\frac{3}{11}\)
(2) 5
(3) \(\frac{9}{2}\)
(4) 9

Options:
1. 1
2. 2
The ascending order of the following fractions

\[ \frac{1}{2}; \quad \frac{2}{9}; \quad \frac{7}{13}; \quad \frac{12}{10} \]

is

(1) a, b, c, d
(2) b, a, c, d
(3) d, c, b, a
(4) c, d, a, b

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
If \( a \leq b \leq c \leq d \leq e \leq a \) and \( e = 39 \), then possible value of \( c \) is

\[
\begin{align*}
& a \leq b \leq c \leq d \leq e \leq a \\
& \text{and } e = 39 \\
\end{align*}
\]

Options:
1. 29
2. 39
3. 49
4. 59

Question Number: 90 Question Id: 3944843423 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0

Arithmetical Ability

అగ్రమటిక నాణ్యత సేవలు
In a mixture of 450 kg of two food grains A and B, A is 15%. How much quantity of B (in kg) is to be added to this mixture so that A will be 5% in the resulting quantity?

450 కి.గా రాయడానికి ఉన్నాం A, B యొక్క భాగంలో A, 15% తో ఉంటుంది. అంటే వాటిని ఎంత చిత్తం ఉండాలి? B (కి.గా) యొక్క భాగంలో A యొక్క భాగంలో ఎంత చిత్తం ఉండాలి?

(1) 540
(2) 600
(3) 860
(4) 900

Options:
1. ☑ 1
2. ☒ 2
3. ☒ 3
4. ☑ 4

Question Number : 91 Question Id : 3944843424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
అరథమెటిక్యల్ అబిలిటీ
If 25% of 640 is 11 less than x% of 15, then x =

15० व x% तालुका 640० 25% 11 निक्षेप 11 तालुका 640०, x =

(1) 57
(2) 114
(3) 1140
(4) 570

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Arithmetical Ability
అరిధ్యపాతాలు

If the cost price of 20 articles is equal to the sale price of 16 articles, then the profit percentage is

20 సమాధానం ఎన్నీ, 16 సమాధానం ఎన్నీసార్లు ఎన్నో కల్పన

(1) 25
(2) 27\(\frac{1}{2}\)
(3) 30
(4) 32\(\frac{1}{3}\)

Options:
1. ✓ 1
The marked price of article A is Rs.1200 more than its cost price. When a discount of Rs.300 is allowed, a profit of 20% is earned. To earn a profit of 25%, the price at which the article A should be sold is (in Rupees).

(1) 5120
(2) 5400
(3) 5625
(4) 6200

Options:
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4
A, B, C started a partnership business where A invests 3 times as much as B and B invests \( \frac{2}{3} \) of what C invests. The ratio of their profits at the end of the year is

A, B, C ఏ పార్ట్నేర్‌ప్రార్థన అయితే మెరుగుదంతె B మార్గదర్శకాలు మెరుగుదంతె B మార్గదర్శకాలు అయితే 3 మార్గదర్శకాలు మెరుగుదంతె B మార్గదర్శకాలు అయితే

(1) 2 : 3 : 6
(2) 3 : 2 : 4
(3) 6 : 2 : 3
(4) 6 : 1 : 2

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 95 Question Id : 3944843428 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
అగ్స్టీపియన్ ఎవెన్త్ సామర్థ్యం
In a partnership business with A, B, C as partners, the capital of A is $\frac{3}{4}$ of the capital of $B + C$ and capital of B is $\frac{1}{3}$ of the capital of $C + A$. The ratio of the annual share of their profits is

A : B : C = 2 : 3 : 4

B + C = $\frac{3}{4}$ and capital of A = $\frac{1}{3}$ of capital of C + A

B = $\frac{3}{4}$ of capital of A

(1) 5 : 8 : 11
(2) 7 : 10 : 11
(3) 11 : 9 : 8
(4) 12 : 7 : 9

Options :
1. ✗️ 1
2. ✗️ 2
3. ✗️ 3
4. ✔️ 4

Question Number : 96 Question Id : 3944843429 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability
అరిథ్మేటికల్ సాధనాలు
A tank has two taps A and B. The taps A and B can empty a full tank in 6 hours and 8 hours respectively. Both are opened at same instant and after 2 hours, B is closed.

Total time taken to fill the empty tank (in hours) is

(1) $2\frac{1}{2}$

(2) 3

(3) $3\frac{1}{2}$

(4) $4\frac{1}{2}$

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 97 Question Id : 3944843430 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability

అరిథ్మెటిక్ ప్రశ్నాంశం
A pipe can fill a tank in 16 minutes and a second one fill it in 24 minutes. A third pipe can empty that full tank in 8 minutes. The first two pipes are kept open for 4 minutes in the beginning and then the third pipe is opened. Then the time in which the tank will be emptied after all the three pipes started working simultaneously (in minutes)?

(1) 20
(2) 24
(3) 28
(4) 32

Options:
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 98 Question Id : 3944843431 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
సంఖ్యాసాధనాలు
Initially Mandeep is at place X and Sandeep is at place Y and these two places are separated by a distance of 825 kms. Mandeep started his journey at 35 kph for 3 hours earlier than Sandeep to meet each other. If the speed of Sandeep is 45 kmph and they met at place Z between X and Y; the distance between Y and Z (in kms) is

(1) 505
(2) 460
(3) 435
(4) 405

Options:
1. ≠ 1
2. ≠ 2
3. ≠ 3
4. ✔ 4

Question Number : 99 Question Id : 3944843432 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
అధికారితీయ శాస్త్రానికి
A person walking at a speed of 10 kmph stops and rests for 2 minutes after every kilometer. How much time will he take to cover 6 kms?

అండా ప్రేమకుగా 10 కిమీ. ప్రత్యేకంగా 2 మినుటి ప్రతి కిమీ ప్రాంతం ప్రత్యేకంగా 2 మినుటి ప్రతి కిమీ ప్రాంతం ప్రతి తప్పించి కంటే 6 కిమీ తోను ఎంత సమయం మీదుగాలు చేయడానే?

Options:
1. 55 minutes
2. 50 minutes 36 seconds
3. 46 minutes
4. 35 minutes 36 seconds

Arithmetical Ability
35 persons can plant 1500 trees in 7 hours. In how many hours 45 persons can plant 2500 trees?

(1) 15
(2) 12
(3) 8
(4) 10

Options:
1. ✔ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4

Question Number : 101 Question Id : 3944843434 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability

సిద్ధంగా వ్యవహరించండి
Two persons A and B undertook to do a piece of work for Rs.6534. A alone can do it in 12 days and B alone can do it in 18 days. If they finished that with the help of C in 6 days, then the share of C in that work is (in rupees)

(1) 1484
(2) 1268
(3) 1089
(4) 936

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 102 Question Id : 3944843435 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
కొలువులపై సమాధానం
The area of a rhombus if its perimeter is 40 cm and one of its diagonals is 16 cm (in sq.cm) is

40 రోం. మ. యొక్క పైంట్ మూడిగా 40 రోం.మ. యి రోం మీదని నిర్ధారించాలి (స్క్వేర్ సెమీస్)

(1) 84
(2) 90
(3) 92
(4) 96

Options:
1. ☑ 1
2. ☑ 2
3. ☑ 3
4. ✗ 4

Question Number : 103 Question Id : 3944843436 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability
అతిరిక్త శాంఖిచారిత్యులు
Around a circular field of radius 5 meters, there is a path of 2 meters wide. Then the area of the path (in sq. m) is

(1) $12\pi$
(2) $15\pi$
(3) $18\pi$
(4) $24\pi$

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 104 Question Id : 3944843437 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
అరిధ్యాపిత సమస్యలు
Two metallic right circular cones with same base with the radius 2.1 cm, and height 4.1 cm and 4.3 cm, have been melted and recast into a sphere. The surface area (in sq.cm) of that sphere is

1. $10.12$ 2. $11.04$ 3. $11.88$ 4. $12.72$

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number: 105  Question Id: 3944843438  Question Type: MCQ  Option Shuffling: No Display
Question Number: Yes  Is Question Mandatory: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0

Arithmetical Ability
అరైఠ్ణ విశ్వస్థాపన
The ratio of the curved surface area and the total surface area of a right circular cylinder is 1 : 2. If its total surface area is 616 sq.cm., then the volume (in cm$^3$) of that cylinder is

$\frac{\text{Curved Surface Area}}{\text{Total Surface Area}} = \frac{1}{2}$

Total Surface Area = 616 sq.cm. 

Volume of cylinder = $\pi r^2 h = \frac{616}{2} = 308 \text{ cm}^2$ 

Options:
1. 1240
2. 1078
3. 1028
4. 976
If four circular plates of radius 5 cm are placed such that each plate touches two other.

Then the area of the hallow space between them, in cm², is (take \( \pi = \frac{22}{7} \))

(1) 21.43

(2) 78.57

(3) 39.28

(4) 60.72

Options:
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 107 Question Id : 3944843440 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Arithmetical Ability
సంఖ్యా శాల కృతి
A window is in the shape of a rectangle and mounted by a semi circle. If the length of the rectangle is 150 cm and the breadth of the rectangle on which the semi circular part stands is 70 cm. Then the area of the window, in sq.cm. is (take $\pi = \frac{22}{7}$)

(1) 10,500
(2) 14,350
(3) 12,425
(4) 18,200

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 108 Question Id : 3944843441 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Arithmetical Ability
అధిష్ఠాన రీతి క్షేత్రాలు
A cylindrical vessel of radius 10 cm contains water up to a depth of 25 cm. A spherical iron ball is dropped into the vessel and the level of water is raised by 45 cm.

The radius of the iron ball (in cms) is

10 \text{ cm} \times \frac{45}{25} = 18 \text{ cm}

Options:
1. 12
2. 15
3. 16
4. 18

Arithmetical Ability

(102)_3 + (103)_4 =

(1) (11100)_2
(2) (11110)_2
(3) (10110)_2
(4) (11001)_2

Options:
1. 1
Let \( m \in \mathbb{Z}^+ \) be such that \( m = 29 \pmod{72} \). If \( m = r \pmod{12} \) and \( 0 \leq r < 12 \), then \( \frac{r}{12} = \).

\[
m = 29 \pmod{72} \\
\Rightarrow m = 29 + 72k, \text{ for some } k \\
m = r \pmod{12}, 0 \leq r < 12. \\
\Rightarrow \frac{r}{12} = \]

\begin{align*}
(1) & \ 5 \\
(2) & \ \frac{1}{2} \\
(3) & \ 10 \\
(4) & \ \frac{5}{12}
\end{align*}

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✔ 4

Sub-Section Number: 2
Sub-Section Id: 394484348
Question Shuffling Allowed: Yes

Algebraic and Geometrical Ability
Which one of the following implications is false?

(1) if $3 + 2 = 5$ then $1 \times 0 = 0$
   
   $3 + 2 = 5 \quad \Rightarrow \quad 1 \times 0 = 0$

(2) if $3 \times 6 = 20$ then $2 + 7 = 9$
   
   $3 \times 6 = 20 \quad \Rightarrow \quad 2 + 7 = 9$

(3) if $5 \times 7 = 30$, then $2 \div 1 = 2$
   
   $5 \times 7 = 30 \quad \Rightarrow \quad 2 \div 1 = 2$

(4) if $6 \times 7 = 42$ then $6 \div 2 = 4$
   
   $6 \times 7 = 42 \quad \Rightarrow \quad 6 \div 2 = 4$

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
The inverse of the statement \((p \land q) \rightarrow (q \rightarrow r)\)

\((p \land q) \rightarrow (q \rightarrow r)\)  అనగా  ఈపేక్ష

1. \(p \land (q \rightarrow r)\)
2. \(r \land (p \rightarrow q)\)
3. \(q \land (r \rightarrow p)\)
4. \(r \land (q \rightarrow p)\)

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 113 Question Id : 3944843446 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Let \(N\) denote the set of natural numbers. Define

\(N\) అనే సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల సంఖ్యల

\(A = \{ x \mid x = 4n, n \in N\}\) and \(B = \{ x \mid x = 6n, n \in N\}\) then \(A \cap B =\)

\(A = \{ x \mid x = 4n, n \in N\}\) అంచనా బాయి \(B = \{ x \mid x = 6n, n \in N\}\) అంచనా \(A \cap B =\)

1. \(\{ x \mid x = 24n, n \in N\}\)
2. \(\{ x \mid x = 12n, n \in N\}\)
3. \(\{ x \mid x = 2n, n \in N\}\)
4. The empty set

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
If $A = \{p, q, r, s\}$ then a relation on $A$, which is not transitive among the following?

$A = \{p, q, r, s\}$ ఎందుకంటే ప్రతి విశేషాంశాలు అభయ కోసం నియమాలు జరుగుతుందనే చేస్తాయి?

1. $\theta_1 = \{(p, q), (q, s), (p, s)\}$
2. $\theta_2 = \{(p, p), (q, q), (r, r)\}$
3. $\theta_3 = \{(p, p), (q, q), (p, p)\}$
4. $\theta_4 = \{(p, p), (r, s)\}$

Options:
1. #1
2. #2
3. #3
4. #4
If a set A has 6 elements, then the number of reflexive relations on A that are not symmetric is

(1) $2^{36} - 2^6$
(2) $2^{30} - 2^{15}$
(3) $2^{30} - 2^{21}$
(4) $2^{21}$

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

The equation of a line passing through the points (2, 5) and (4, 7) is

(2,5) (4,7) నుండి రేఖ గొంతు నిర్దిష్ట రేఖాంశాలు

(1) $2x - 3y - 7 = 0$
(2) $3x + 2y + 7 = 0$
(3) $x - y + 3 = 0$
(4) $x + y + 3 = 0$

Options:
1. ✗ 1
An equation of a line passing through (4, 3) and making intercepts on coordinate axes whose sum is equal to -1 is

(4, 3) దిశలో కేంద్ర నడుమ వితరణ అతికే రేఖ అంతే అంతే
మిశ్రమ -1 తో పుట్టిని నిర్మించి ప్రేమించండి

(1) \( x - y - 1 = 0 \)
(2) \( x + 3y - 13 = 0 \)
(3) \( 2x - y - 5 = 0 \)
(4) \( x - 2y + 2 = 0 \)

Options:
1. \# 1
2. \# 2
3. \# 3
4. \# 4
\[ \sec \theta + \tan \theta = \]

1. \( \cos \theta + \sin \theta \)
2. \( \frac{1}{\sec \theta - \tan \theta} \)
3. \( \frac{1}{\sec \theta + \tan \theta} \)
4. \( \cos \theta - \sin \theta \)

Options:
1. \( \checkmark \) 1
2. \( \checkmark \) 2
3. \( \times \) 3
4. \( \times \) 4

Question Number : 119 Question Id : 3944843452 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

\[ \sin 12^\circ \sin 24^\circ \sin 48^\circ \sin 84^\circ = \]

1. \( \frac{1}{16} \)
2. \( \frac{2}{15} \)
3. \( \frac{3}{15} \)
4. \( \frac{5}{16} \)

Options:
1. \( \checkmark \) 1
2. \( \times \) 2
3. \( \times \) 3
4. \( \times \) 4

Question Number : 120 Question Id : 3944843453 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
If \( A + C = B \), then \( \tan A \cdot \tan B \cdot \tan C = \)

\[ A + C = B \implies \tan A \cdot \tan B \cdot \tan C = \]

(1) \( \tan A - \tan B - \tan C \)

(2) \( \tan B - \tan C - \tan A \)

(3) \( \tan C - \tan A - \tan B \)

(4) \( \tan A + \tan B + \tan C \)

Options:
1. \( \times \) 1
2. \( \checkmark \) 2
3. \( \times \) 3
4. \( \times \) 4

Question Number : 121 Question Id : 3944843454 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0
A straight high way leads to the foot of a tower. Anil standing at the top of the tower observes a car at an angle of depression 30°. Six seconds later, the angle of depression of the car is found to be 60°. If the car is approaching the foot of tower with a uniform speed, the time taken by the car to reach the foot of that tower from this, the later point (in seconds) is

\[\text{(1) } 2\]
\[\text{(2) } 3\]
\[\text{(3) } 3 \frac{1}{2}\]
\[\text{(4) } 4\]

Options :
1. # 1
2. ✔ 2
3. # 3
4. # 4

Question Number : 122 Question Id : 3944843455 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Algebra and Geometrical Ability
భారతీయ సంఖ్యాశాస్త్రం మరియు జీయమ్యాంగిక శాస్త్రం
If $a + b + c = 15$ and $a^2 + b^2 + c^2 = 77$ then $ab + bc + ca =$

$\text{(1) } 85$

$\text{(2) } 81$

$\text{(3) } 72$

$\text{(4) } 74$

Options:
1. **1**
2. **2**
3. **3**
4. ✔️ 4

Question Number : 123 Question Id : 3944843456 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Algebraic and Geometrical Ability

If $x^4 + 6x^2 + ax^2 + 12x + b$ is a perfect square, then $3a - 2b =$

$x^4 + 6x^2 + ax^2 + 12x + b \text{ 했깨 } 3a - 2b =$

$\text{(1) } 47$

$\text{(2) } 19$

$\text{(3) } 31$

$\text{(4) } 28$

Options:
1. **1**
2. **2**
3. ✔️ 3
If the remainder when a certain integer \( x \) is divided by 5 is 2, then each one of the following could also be an integer, except

\[ \frac{x}{11} \]

\[ \frac{x}{10} \]

\[ \frac{x}{6} \]

\[ \frac{x}{3} \]

Options:

1. ✔️
2. X
3. ✔️
4. ✔️
The remainder if \( 73 \times 74 \times 75 \times 76 \) is divided by 14 is

\[ 73 \times 74 \times 75 \times 76 \equiv 14 \pmod{14} \]

(1) 13
(2) 12
(3) 10
(4) 9

Options :
1. ①
2. ②
3. ✅ ③
4. ④

Question Number : 126 Question Id : 3944843459 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Algebraic and Geometrical Ability

If \( \frac{4}{x+y} + \frac{3}{x-y} = 2, \quad \frac{2}{x+y} - \frac{1}{x-y} = \frac{1}{2}, \) then \((x, y) =

\[ \frac{4}{x+y} + \frac{3}{x-y} = 2, \quad \frac{6}{x+y} - \frac{1}{x-y} = \frac{3}{2}, \quad \text{solve for} \quad (x, y) =

(1) (-5, -3)
(2) (-5, -5)
(3) (3, 5)
(4) (5, 3)

Options :
1. ①
2. ②
3. ③
4. ✅ ④

Question Number : 127 Question Id : 3944843460 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
If the difference of $\frac{7}{12}$ th of a positive integer and $\frac{8}{15}$ of the same positive integer is 6, then the number of distinct primes that divide that positive integer is

\[ \frac{7}{12} \text{ of a positive integer} - \frac{8}{15} \text{ of the same positive integer} = 6 \]

(1) 1
(2) 2
(3) 3
(4) 4

Options:
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4

Question Number: 128 Question Id: 3944843461 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0
The sum of the infinite G.P. is

\[ \frac{20}{7}, \frac{80}{49}, \frac{320}{243}, \ldots \]

(1) \( \frac{25}{3} \)

(2) \( \frac{35}{3} \)

(3) \( \frac{100}{3} \)

(4) \( \frac{113}{3} \)

Options:
1. ☒ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4

Question Number: 129 Question Id: 3944843462 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0

Algebraic and Geometrical Ability

ప్రాంగాం, రాష్ట్రానికి సమాధానం
The sum to infinite terms of a G.P. is 15 and the sum of their squares is 150. If r is the common ratio of the G.P., then 100 r^2 =

(1) 4
(2) 8
(3) 12
(4) 16

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

The numerically greatest term in the expansion of \((2x - 3y)^{12}\),

when \(x = 1, y = \frac{5}{3}\)

\(x = 1, y = \frac{5}{3}\) లో ఉన్న 12తో ప్రతిభా ఎంచుకునే 

(1) 8
(2) 9
(3) 10
(4) 11

Options:
The term independent of $x$ in the expansion of $\left(3x^3 - \frac{1}{2x^4}\right)^7$ is (1) No term is independent of $x$
(2) $5^{th}$ term
(3) $4^{th}$ term
(4) $3^{rd}$ term

Options:
1. % 1
2. % 2
3. % 3
4. % 4
A square matrix $A$ is called an orthogonal matrix if $A$ satisfies

1. $A^T = A$
2. $A^T = -A$
3. $A^T = A^{-1}$
4. $A^T = A^2$

**Options:**
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

**Question Number**: 133  
**Question Id**: 3944843466  
**Question Type**: MCQ  
**Option Shuffling**: No Display  
**Question Number**: Yes  
**Is Question Mandatory**: No  
**Orientation**: Vertical  
**Correct Marks**: 1  
**Wrong Marks**: 0

Algebraic and Geometrical Ability

A is a $3 \times 3$ matrix and $B$ is its adjoint matrix. If the determinant of $B$ is 64, then the determinant of $A$ is

$A$ is a $3 \times 3$ matrix and $B$ is its adjoint matrix. If the determinant of $B$ is 64, then the determinant of $A$ is

1. $4$
2. $\pm 4$
3. $8$
4. $\pm 8$
Question Number : 134 Question Id : 3944843467 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

\[ \lim_{x \to \infty} (\sqrt{x^2 + x + 1} - \sqrt{x^2 + 1}) = \]

1. \(\infty\)
2. -1
3. \(\frac{1}{2}\)
4. 1

Question Number : 135 Question Id : 3944843468 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

\[ \text{Algebraic and Geometrical Ability} \]

1. \(1\)
2. \(\infty\)
3. \(3\)
4. \(4\)
If \( 3x^2 + 2xy + y^2 = 6 \), then \( \frac{dy}{dx} \) at \((-1, 2)\) is

\[
3x^2 + 2xy + y^2 = 6, \quad \text{at } (-1, 2) \quad \Rightarrow \quad \frac{dy}{dx} =
\]

1. 0
2. \( \frac{1}{2} \)
3. 1
4. \( \frac{3}{2} \)

Options:
1. ✗ 1
2. ✗ 2
3. ✔️ 3
4. ✗ 4

Question Number : 136 Question Id : 3944843469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Algebraic and Geometrical Ability

A right angled triangle is to be constructed such that the sum of lengths of perpendicular sides can’t be greater than 24 cm and the area is to be maximum. Then the length of hypotenuse (in cm) is

\[
\text{Let } \text{the leg of length } a \text{cm and the leg of length } b \text{ cm be the sides of the right triangle. Then,}
\]

\[
24 = a + b + \sqrt{a^2 + b^2} \quad \Rightarrow \quad \sqrt{a^2 + b^2} = 24 - a - b
\]

\[
\text{The area of the triangle is } \frac{1}{2}ab = \frac{1}{2}(24 - a - b)b = 12b - \frac{a^2}{2} - \frac{b^2}{2}
\]

\[
\frac{dA}{db} = 12 - a - b = 0 \quad \Rightarrow \quad b = 12 - a
\]

\[
\text{Substituting } b \text{ in the equation for area, we get}
\]

\[
A = 12(12 - a) - \frac{a^2}{2} - \frac{(12 - a)^2}{2}
\]

\[
\text{To maximize } A, \text{we differentiate } A \text{ with respect to } a \text{ and set it equal to zero.}
\]

\[
\frac{dA}{da} = -a + (12 - a) - \frac{a}{2} - \frac{2(12 - a)}{2} = 0
\]

\[
\frac{dA}{da} = -a + 12 - a - \frac{a}{2} - 12 + a = 0
\]

\[
\frac{dA}{da} = -a - \frac{a}{2} = 0 \quad \Rightarrow \quad a = 0
\]

\[
\text{Substituting the value of } a \text{ in the equation for } b, \text{we get}
\]

\[
b = 12 - 0 = 12
\]

\[
\text{The length of the hypotenuse is } \sqrt{a^2 + b^2} = \sqrt{0^2 + 12^2} = 12 \text{ cm.}
\]

1. 36
2. 18
3. \( 18\sqrt{2} \)
4. \( 12\sqrt{2} \)
The diagonals of a trapezium PQRS intersect at the point A. If the ratio PA : PR is 3 : 7, then the ratio of lengths of its parallel sides is

Options:
1. 3 : 7
2. 4 : 7
3. 3 : 4
4. 2 : 7
Two circles have radii 13 cm and 29 cm, and the distance between their centres is 15 cm, then the number of common tangents that can be drawn to the two circles is

(1) 0
(2) 1
(3) 2
(4) 4

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 139  Question Id : 3944843472  Question Type : MCQ  Option Shuffling : No Display
Question Number : Yes  Is Question Mandatory : No  Option Orientation : Vertical
Correct Marks : 1  Wrong Marks : 0

Algebraic and Geometrical Ability
సాంయక గణితానికి సామాధిస్తుంది
If the points $A(3, 2); B(-3, 2)$ and $C(0, h)$ form the vertices of an equilateral triangle, then one value of $h$ is

$A(3, 2); B(-3, 2)$ మీది $C(0, h)$ వైపులు ఎక్కడ గల కృతియని (తేడాపిన మైనించండి).

$3 - 2\sqrt{3}$

(1) $3 - 2\sqrt{3}$

(2) $2 - 3\sqrt{3}$

(3) $3\sqrt{3}$

(4) $2\sqrt{3}$

Options:

1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number: 140 Question Id: 3944843473 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0

Algebraic and Geometrical Ability
సంఖ్యాత్మక మాధ్యమానికి సమరం ప్రాంతం
The distance of point \((a, b)\) to the line \(ax + by + c = 0\) is

\[ \frac{a+b}{\sqrt{a^2+b^2}} \]

Options:
1. \(\times\) 1
2. \(\times\) 2
3. \(\checkmark\) 3
4. \(\times\) 4

Sub-Section Number: 3
Sub-Section Id: 394484349
Question Shuffling Allowed: Yes

Question Number: 141 Question Id: 3944843474 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0

Statistical Ability

మాధ్యమిక ప్రత్యేకతలు
The mean of the following frequency distribution is

<table>
<thead>
<tr>
<th>Class</th>
<th>0-4</th>
<th>4-8</th>
<th>8-12</th>
<th>12-16</th>
<th>16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

(1) 6
(2) 8
(3) 10
(4) 12

Options:
1. ✗ 1
2. ☑ 2
3. ✗ 3
4. ✗ 4

Question Number : 142 Question Id : 3944843475 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Statistical Ability
Which one of the following is NOT true?

కింది సమస్యలు వింత ఉండటం చేసే మాట్లాడాలు?

1. Mode is not affected by change of origin and scale.
   మాడో మిగిలినది, లేదు పండిలిందు పరిమాణానికి మాటిరియలో ఉంటుంది.

2. Mean is affected by change of origin and scale.
   మధ్యస్థితి మిగిలినది, లేదు పండిలిందు పరిమాణానికి మాటిరియలో ఉంటుంది.

3. Median is affected by change of origin and scale.
   మీడియన్ మిగిలినది, లేదు పండిలిందు పరిమాణానికి మాటిరియలో ఉంటుంది.

4. Standard deviation is not affected by change of origin and scale.
   సాంచాలక విదేశా మిగిలినది, లేదు పండిలిందు పరిమాణానికి మాటిరియలో ఉంటుంది.

Options:
1. ✔
2. ✗
3. ✗
4. ✗
If the mean and Mode of a data are 97 and 100 respectively, then the Median is

(1) 97
(2) 98
(3) 99
(4) 101

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number: 144 Question Id: 3944843477 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical Correct Marks: 1 Wrong Marks: 0

Statistical Ability

The variance of 147, 149, 151, 153, ..., 183 is

147, 149, 151, 153, ..., 183 విభేదం విభేదం

(1) 120
(2) 90
(3) 60
(4) 30

Options :
1. ✔ 1
2. ✗ 2
The standard deviation of three consecutive integers is

(1) $\sqrt{3}$

(2) $\sqrt{2}$

(3) $\sqrt{1}$

(4) $\sqrt{2}$

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
The rank correlation for the following data is

\[
\begin{array}{c|c|c|c|c|c|c|c}
X & 2 & 4 & 5 & 6 & 8 & 11 \\
Y & 18 & 12 & 10 & 8 & 7 & 5 \\
\end{array}
\]

(1) -1
(2) 0.96
(3) 0.93
(4) 1

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 147 Question Id : 3944843480 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Statistical Ability

నియంత్రణ సాధనాలు
If A and B are events with $P(A) = 0.5$, $P(B) = 0.4$ and $P(A \cap B) = 0.3$, then the probability that neither A nor B occurs is

1. $P(A) = 0.5$, $P(B) = 0.4$, $P(A \cap B) = 0.3$ implies $P(\overline{A} \cap \overline{B}) = 0.5 + 0.4 - 0.3 = 0.6$
2. $P(\overline{A} \cap \overline{B}) = 0.6$
3. $P(\overline{A} \cap \overline{B}) = 0.5$
4. $P(\overline{A} \cap \overline{B}) = 0.3$

Options:
1. $\checkmark$ 1
2. $\times$ 2
3. $\times$ 3
4. $\times$ 4

Question Number: 148  Question Id: 3944843481  Question Type: MCQ Option Shuffling: No Display  Question Number: Yes  Is Question Mandatory: No  Option Orientation: Vertical
Correct Marks: 1  Wrong Marks: 0

Statistical Ability

సంఖ్యాశాస్త్ర శక్తి
A problem in statistics is given to three students A, B and C whose chances of solving it independently are $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ respectively. The probability that exactly one of them is able to solve that problem is

(1) $\frac{11}{24}$

(2) $\frac{9}{24}$

(3) $\frac{7}{24}$

(4) $\frac{1}{4}$

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 149 Question Id : 3944843482 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Statistical Ability
In a simultaneous throw of two dice, the probability of getting a total of 10 or 11 is

(1) \(\frac{1}{4}\)

(2) \(\frac{5}{36}\)

(3) \(\frac{7}{12}\)

(4) \(\frac{1}{96}\)

Options:
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Correct Marks: 1 Wrong Marks: 0

Statistical Ability
If the letters of the word MINISTER are permuted at random, then the probability that all three vowels come together is

MINISTER కండి ఒకపోయిన అడిగిన సంఖ్యలు సగాతాన్ని అనే
మార్పు పదార్ధ వింత అర్థితి కలిగి మారిను

(1) \(\frac{3}{56}\)
(2) \(\frac{3}{29}\)
(3) \(\frac{3}{14}\)
(4) \(\frac{3}{7}\)

Options :
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Communication Ability

Section Id : 39448451
Section Number : 3
Section type : Online
Mandatory or Optional : Mandatory
Number of Questions : 38
Number of Questions to be attempted : 38
Section Marks : 50
Mark As Answered Required? : Yes
Sub-Section Number : 1
Sub-Section Id : 394484350
Question Shuffling Allowed : Yes

Question Number : 151 Question Id : 3944843484 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word/Phrase/Verb/Preposition
Importune

(1) Urge
(2) Poor
(3) Indecisive
(4) Important

Options:
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 152 Question Id : 3944843485 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

Mercurial

(1) Forgetful
(2) Changeable
(3) Chemical
(4) Weather

Options:
1. ✗ 1
2. ✅ 2
3. ✗ 3
4. ✗ 4

Question Number : 153 Question Id : 3944843486 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

Egress

(1) Short cut
(2) Entrance
(3) Backwards
(4) Exit

Options:
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase /Verb /Proposition

1. Shambles
   (1) Bubble
   (2) Confusion
   (3) Trouble
   (4) Cuddle

Options :
1. ❌ 1
2. ✔ 2
3. ❌ 3
4. ❌ 4

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase /Verb /Proposition

2. Belligerent
   (1) Aggressive
   (2) Mournful
   (3) Longing
   (4) Cheerful

Options :
1. ✔ 1
2. ❌ 2
3. ❌ 3
4. ❌ 4
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Proposition

Circumvent

(1) Encompass
(2) Invent
(3) Prevent
(4) Convert

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Sub-Section Number : 2
Sub-Section Id : 394484351
Question Shuffling Allowed : Yes

Question Number : 157 Question Id : 3944843490 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Proposition

The ongoing festivities ___ the peace of the neighbourhood

(1) Distracted
(2) Deferred
(3) Disturbed
(4) Distressed

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 158 Question Id : 3944843491 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Swarna has a ____ for science, while her brother is more interested in the arts.

(1) Tenet  
(2) Geniality  
(3) Resonance  
(4) Pecchant

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

He knows many languages. He is a ____.

(1) Polytheist  
(2) Polygamist  
(3) Polyphonist  
(4) Polyglot

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Netizens decried the _____ with which the government doctor treated the patients.

(1) Compassion
(2) Complaisance
(3) Hunger
(4) Callousness

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Sub-Section Number : 3
Sub-Section Id : 394484352
Question Shuffling Allowed : Yes

Question Number : 161 Question Id : 3944843494 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

A small piece of semiconductor used to carry integrated circuits is known as _____.

(1) Micro computer
(2) Microchip
(3) Microdot
(4) Microfilm

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 162 Question Id : 3944843495 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition
To obtain or retrieve information from a storage device is known as _____.

(1) Access
(2) Adapter
(3) Add-on
(4) Address

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 163 Question Id : 3944843496 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

Inventor of daisy wheel printer is _____.

(1) Andrew Marvel
(2) Joseph Edison
(3) William Caxton
(4) David S Lee

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 164 Question Id : 3944843497 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition
A socket on a computer into which an external device can be plugged in is known as 
_____

(1) Point
(2) Port
(3) Pointer
(4) Post

Options :
1. ☒ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4

Question Number : 165 Question Id : 3944843498 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word/Phrase/Verb/Preposition

ASCII is expanded as ____________________________.

(1) Australian Standard Computing International Interchange
(2) American Software Computer Interlining Interface
(3) American Standard Code for Information Interchange
(4) Automatic Standard Code for Information Initiative

Options :
1. ☒ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4

Question Number : 166 Question Id : 3944843499 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word/Phrase/Verb/Preposition

Analysing and solving serious problem for a company or organisation is called _____.

(1) Arbitrating
(2) Trouble shooting
(3) Trouble making
(4) Mediating
Encryption is being used primarily with ____.

(1) Transaction entry
(2) Computer processing
(3) Data communication
(4) File retention.

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

A Model in which one physical property is used to represent another physical property is known as ____

(1) Analog Model
(2) Deterministic Model
(3) Iconic Model
(4) Decision Theory Model

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

___________ is not a peripheral of a computer.

1. Keyboard
2. CPU
3. Printer
4. Scanner

Options:
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 170 Question Id : 3944843503 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

___________ is a trade test.

1. Interview
2. Interest test
3. Aptitude test
4. Achievement test

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Sub-Section Number : 4
Sub-Section Id : 394484353
Question Shuffling Allowed : Yes

Question Number : 171 Question Id : 3944843504 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
A: After finishing your Marine Engineering degree course, what do you think you'll do?

B: It is difficult for me to answer for I'm quite at sea

In this conversation B implies that he is

(1) Unwell
(2) Displeased
(3) Perplexed
(4) In danger

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 172 Question Id : 3944843505 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Proposition

PT Usha bore away the gold medals in all track events.

The underlined phrasal verb means:

(1) Sustained
(2) Won
(3) Missed
(4) Narrowly missed

Options:
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 173 Question Id : 3944843506 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Our new office is equipped with all the latest gadgets. What is the meaning of ‘equip with’?

(1) provide
(2) get rid of
(3) spoil
(4) tamper

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

A: The people in the organisation were bent upon exhibiting their superiority.
B: Multiplicity of leadership gives way to decline.
A: True, too many cooks spoil the broth.

‘A’ means that

(1) There should not be more than one cook in the kitchen
(2) Many cooks made better gruel
(3) No organisation can afford too many bosses
(4) An organisation thrives on contrary opinions

Options:
1. ✗ 1
2. ✔ 2
3. ✔ 3
4. ✗ 4

Question Number : 174 Question Id : 3944843507 Question Type : MCQ Option Shuffling : No Display
Correct Marks : 1 Wrong Marks : 0

A: The people in the organisation were bent upon exhibiting their superiority.
B: Multiplicity of leadership gives way to decline.
A: True, too many cooks spoil the broth.

‘A’ means that

(1) There should not be more than one cook in the kitchen
(2) Many cooks made better gruel
(3) No organisation can afford too many bosses
(4) An organisation thrives on contrary opinions

Options:
1. ✗ 1
2. ✔ 2
3. ✔ 3
4. ✗ 4

Question Number : 175 Question Id : 3944843508 Question Type : MCQ Option Shuffling : No Display
With Ramana’s new venture failing completely, he is down in the dumps.

The underlined expression means, Ramana

(1) Fell from grace
(2) Packed up
(3) Is bed-ridden
(4) Appeared miserable

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

A rough and clumsy person is considered

(1) A horse in a French shop
(2) A dog in the mall
(3) An elephant in a German store
(4) A bull in a China shop

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
The authorities took him to task for his negligence.

The underlined expression means

(1) Reprimanded him
(2) Forced him to resign
(3) Gave him additional work
(4) Suspended his assignment

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Sub-Section Number: 5
Sub-Section Id: 394484354
Question Shuffling Allowed: Yes

Correct Marks: 1 Wrong Marks: 0

He has been writing a letter ____ three hours.

(1) Since
(2) By
(3) For
(4) At

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number: 179 Question Id: 3944843512 Question Type: MCQ Option Shuffling: No Display
Question Number: Yes Is Question Mandatory: No Option Orientation: Vertical
Correct Marks: 1 Wrong Marks: 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

I will go home ____ the end of the movie

(1) In
(2) At
(3) On
(4) About

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 180 Question Id : 3944843513 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

The noise interferes _____ my work

(1) With
(2) At
(3) In
(4) On

Options :
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 181 Question Id : 3944843514 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition
I saw him as I _____ down the lane

(1) Go
(2) Going
(3) Was going
(4) Is going

Options:
1. ※ 1
2. ※ 2
3. ✔ 3
4. ※ 4

Question Number : 182  Question Id : 3944843515  Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

He seems to be _____. I saw him in an expensive suit.

(1) Better off
(2) Well of
(3) Best off
(4) Well off

Options:
1. ※ 1
2. ※ 2
3. ※ 3
4. ✔ 4

Question Number : 183  Question Id : 3944843516  Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0
Choose the correct word/Correct Meaning of the Word/Fill in the Blanks with correct word /Phrase / Verb / Preposition

He has ____________ as CEO of the organization very recently

(1) Taken off
(2) Taken over
(3) Taken up
(4) Taken in
Thanks to the good food in hostel. Raju _____ some weight.

(1) Put on
(2) Put up
(3) Put up with
(4) Put down

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

We _____ the matter for an hour but without any result.

(1) Talked out of
(2) Talked over
(3) Talked back
(4) Talked down

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
Patriotism is a very complex feeling, built up out of primitive instincts and highly intellectual convictions. There is love of home, family and friends, making us peculiarly anxious to preserve our own country from invasion. There is the mild instinctive liking for compatriots as against foreigners. There is pride which is bound up with the success of community to which we feel that we belong. There is a belief, suggested by pride but reinforced by history that one's own nation represents a great tradition and stands for ideals that are important for human race. But besides all these, there is another element, at once nobler and more open to attack, an element of worship, of willing sacrifice, of joyful merging of the individual life with the life of the nation. This religious element in patriotism is essential to the strength of the State since it enlists the best that is in most men on the side of national sacrifice.

Sub questions

Question Number : 186 Question Id : 3944843520 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

We try to protect our country because?

1. ☑️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 187 Question Id : 3944843521 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0
The word ‘compatriot’ means

(1) Fellow countrymen
(2) Fellow human beings
(3) Fellow villagers
(4) Fellow townsmen

**Options:**
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

**Question Number : 188 Question Id : 3944843522 Question Type : MCQ Option Shuffling : No Display**
**Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0**

Which of the following statements about patriotism is false according to the passage?

(1) It is a noble belief
(2) It expects sacrifice
(3) It is an invulnerable idea
(4) It is essential for the strength of the State

**Options :**
1. ✗ 1
2. ✗ 2
3. ✔️ 3
4. ✗ 4

**Question Number : 189 Question Id : 3944843523 Question Type : MCQ Option Shuffling : No Display**
**Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical**
**Correct Marks : 1 Wrong Marks : 0**

The attitudes of the speaker of the passage is?

(1) Satirical
(2) Analytical
(3) Persuasive
(4) Disapproving

**Options :**
1. ✗ 1
2. ✔️ 2
3. ✗ 3
4. ✗ 4
Which of the following statements is false?

(1) We often like our countrymen than others.
(2) There is a religious element in patriotism.
(3) Our patriotism is directly linked to the success of our country.
(4) We believe that all nations epitomize ideals that are important for human race.

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Sub-Section Number: 7
Sub-Section Id: 394484356
Question Shuffling Allowed: Yes

Read the following passage and answer questions.
A study found that music therapy sessions have a positive effect on the neurorehabilitation of acute stroke patients. The research was carried out on a 26-bed stroke and rehabilitation unit at a hospital in the UK. In total, 177 patients took part in 675 Neurologic Music Therapy (NMT) sessions over a two-year period. According to the researchers, music therapy is understood to help stroke patients through mood regulation, improved concentration, and promoting changes in the brain to improve function, known as neural reorganisation. Lots of repetition or “massed practice”, is central to neurorehabilitation. In addition to playing physical instruments (keyboard, drums and hand-held percussion), touch screen instruments were used in the trial to help patients with hand rehabilitation, through improving finger dexterity, and cognitive training.

NMT sessions were run alongside existing stroke rehabilitation treatment, including physiotherapy, occupational therapy, speech therapy, and clinical psychology. Of the 139 patients, relatives and hospital staff who completed mood-scale questionnaires, the average response was that NMT was helpful or very helpful. And of the 52 patients who completed mood-scale questionnaires, there was a reduction in sadness and an increase in happy responses immediately following a session. Speech and language therapists observed a positive impact on patient engagement and reported that it may help patients overcome low mood and fatigue – both common following stroke – and therefore be beneficial for their rehabilitation.

“The fact 675 sessions were carried out in two years is in itself an indication of the success of the treatment. It shows that staff are referring patients because they understand the mechanisms of the exercise and can see how it can benefit their patients. It also shows that patients are willing to do the exercises, with each one participating in an average of five sessions”, a researcher said.

Sub questions

Question Number : 191 Question Id : 3944843526 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What was the duration of the research experiment?

(1) 26 weeks
(2) One year and eight months
(3) Two years
(4) Five years

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 192 Question Id : 3944843527 Question Type : MCQ Option Shuffling : No Display
How many sessions of the therapy were carried out?

(1) 52  
(2) 675  
(3) 177  
(4) 139

Options:  
1. ✗ 1  
2. ☑ 2  
3. ✗ 3  
4. ✗ 4

What is central to the rehabilitation process?

(1) Repetition  
(2) Mood swings  
(3) Happy responses  
(4) Finger dexterity

Options:  
1. ☑ 1  
2. ✗ 2  
3. ✗ 3  
4. ✗ 4

How many patients respond to the mood-scale questionnaires?

(1) 177  
(2) 26  
(3) 139  
(4) 52

Options:  
1. ✗ 1  
2. ✗ 2  
3. ✗ 3
Which fact is not mentioned as evidence of the success of the research?

(1) More patients were being referred  
(2) More patients were willing to do the exercises  
(3) Each patient did the exercises without fatigue  
(4) Each patient took part in an average of 5 sessions

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Sub-Section Number: 8
Sub-Section Id: 394484357
Question Shuffling Allowed: Yes
Thailand brings to mind turquoise blue waters, highest landscapes, and thriving wildlife. My journey began at Don Muong airport as I took the flight to Phuket.

The first day had me travelling to Big Buddha, one of the revered landmarks on the island. It sits atop a hill and is a 45-meter-tall white marble statue of Buddha. Driving up hill I came across an elephant safari and opted not to do the ride for ethical reasons but you could go feed the elephants, play with them and that truly was out of the world. The elephants were tamed and did the sweetest actions like kissing the tourists, asking for food and I would like to believe that they did it of their own accord. The elephant I met was called Anda and he was a baby, terribly cute and his mannerisms were unlike any animals I have seen. The route is dotted with many cafes that have a spectacular view of the ocean and a nice mocktail coupled with the cold breeze and the sounds of waves was a beautiful way to spend the afternoon.

Phuket was all about exploring beaches and the best part is that it is so close to the many other islands that are just a boat trip away. I decided to go on an island-hopping adventure and took a speed boat to the first island, Panak. In one of the many islands on Phang Nga Bay the resort owner told me that the experience would be like no other.

The island had limestone formations and looked absolutely stunning. We had to take a look at the island from the boat. As the boat went close to the rocks, I observed something moving in the water, it jumped back on to the rock. It was a monkey. The island had monkeys around that very simply jumped into the water, swam and came back on the rocks. For someone who encountered monkeys in the wild as notorious little animals that mostly live on trees, this was pretty fascinating. It wasn’t the monkeys but the landscape they lived in that had us, many Indians included, in awe.

Sub questions

Question Number : 196 Question Id : 3944843532 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What was the name of the first island on the island-hopping trip?

1. Phuket
2. Don Muong
3. Phang Nga
4. Panak

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

Question Number : 197 Question Id : 3944843533 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Where, according to the writer, should one spend one’s afternoons?

(1) In a boat
(2) At a café
(3) On a hill
(4) At the beach

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 198 Question Id : 3944843534 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What was the Big Buddha made of?

(1) Marble
(2) Stone
(3) Metal
(4) Wood

Options :
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 199 Question Id : 3944843535 Question Type : MCQ Option Shuffling : No Display
Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The unusual feature the writer noticed during the boat trip was ______

(1) Man-made rock formations
(2) People on peaceful beaches
(3) Monkeys
(4) Colourful view of the ocean

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
Why did the writer decide not to undertake the elephant ride?

(1) The writer preferred to stay far away from all animals
(2) The writer played with them from a distance
(3) The writer wanted to watch the tourists feeding them
(4) The writer did not approve of the taming of the elephants

Options:
1. ☑ 1
2. ☑ 2
3. ☑ 3
4. ☑ 4