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

Question Paper Name: TS ICET 2018 23rd May 2018 Shift 1
Subject Name: TS ICET 2018
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Display Marks: No
Calculator: None
Magnifying Glass Required?: No
Ruler Required?: No
Eraser Required?: No
Scratch Pad Required?: No
Rough Sketch/Notepad Required?: No
Protractor Required?: No
Display Number Panel: Yes
Group All Questions: No

Question Number: 1  Question Id: 9126062655  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the cost of fencing a rectangular field?

I. The dimensions of the field are 100 m x 75 m.

II. The cost of fencing is Rs. 50 per meter.
Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 2  Question Id : 9126062656  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the height of the mountain?

I. Seen from a point A on level with the foot of the mountain the angle of the elevation of the top is 30°.

II. The mountain is surrounded by a forest.
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 3  Question Id : 9126062657  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the cost of the table?

What is the cost of the table?

I. 2 tables and 3 chairs cost Rs. 5000.

II. 3 tables and 2 chairs cost Rs. 6500.
Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number: 4  Question Id: 9126062658  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  
Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

How many bricks are needed to construct a wall?

మూడు వైపుల వ్యాసమయం ఉండాలి?

I. The dimensions of the wall are 30m x 2m x 0.5m.

కొలవడాని 30 మీ. x 2 మీ. x 0.5 మీ.

II. The dimensions of the brick are 30 cm x 10 cm x 5 cm.

పీడిత స్థాయి 30 సెమీ. x 10 సెమీ. x 5 సెమీ.
Options:

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 5  Question Id : 9126062659  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the average wage of the worker in the factory?

What is the average wage of the worker in the factory?

I. The total monthly wage bill of the factory is Rs. 25 lakhs.

II. The monthly salary of the supervisor is Rs. 20000.
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

When the value of the two digit number pq is greater than 9, what is that number?

I. The sum of the digits p + q = 11.
II. The number is a multiple of 29.
Question Number : 7  Question Id : 9126062661  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the value of the odd integer p?

What is the value of the odd integer p?

I. 28 < 7p < 49.

II. 27 < 3p < 72.
Options:
1. ✔️ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 8  Question Id: 9126062662  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the sum of the terms in the arithmetic progression?

What is the sum of the terms in the arithmetic progression?

I. The first term of the progression is 5.
   అత్యధిక నాలుగు సంఖ్య 5.

II. The number of terms in the progression is 50.
   ప్రతిష్ఠాన సంఖ్య 50.
Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 9  Question Id : 9126062663  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

How many students in the class could not pass in Hindi and Telugu?

I. 12 passed in both Hindi and Telugu.

II. The number of passes in Hindi exceed that in Telugu by 15.

(a) 
(b) 
(c) 
(d)
Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 10  Question Id : 9126062664  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

Are two triangles △ABC and △DEF similar?

సమీఖ్య, △ABC, △DEF ఒకచాటీ ఉండాలి?

I. ∠A = ∠D, ∠B = ∠E.
II. ∠A + ∠B + ∠C = ∠D + ∠E + ∠F = 180°.
Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 11  Question Id : 9126062665  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the least common multiple of two positive integers a and b?

I. a and b are distinct prime numbers.
   a, b మేరకు కొండు సూచించబడింది.

II. a + b = 28.
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is the product of the 7 terms which are in geometric progression?

I. The first and last terms are $\frac{1}{2}$ and 32 respectively.

II. The common ratio of the geometric progression is 2.
Options:

1.  ✔  1
2.   ✗  2
3.   ✗  3
4.   ✗  4

Question Number : 13  Question Id : 9126062667  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

In the adjacent figure, \( \angle PRT = \angle TRS \).

Is \( PQ \) parallel to \( TR \)?

\( \angle PRT = \angle TRS \).

\( PQ, TR \) are parallel?

I. \( PR = QR \).
II. \( PR = PQ \).
Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 14  Question Id: 9126062668  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

In an election contested by three candidates A, B and C, how many votes are polled by each A, B and C?

A, B, C యొక్క సంఘర్షంలో ఎత్తు విప్లవంలేని ఏ కార్యక్రమంపై పాల్పడిన ఎంత సంఖ్య విప్లవం?

I. A got 1000 votes more than B and B got 1500 votes more than C.

C యొక్క B నాటి 1500 సంఖ్య విప్లవం B యొక్క A నాటి 1000 సంఖ్య విప్లవం

II. A total valid votes polled is 19000.

ఎంత సంఖ్య విప్లవం 19000.
Question Number : 15  Question Id : 9126062669  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

What is \(\angle Q\) in the given triangle?

\[ \text{Attached figure with triangle} \]

I. \(PQ = 8\) cm, \(PR = 10\) cm, \(\angle R = 75^\circ\).

II. \(\angle P = 60^\circ\), \(QR = 9\) cm.

\(\angle P = 60^\circ\), \(QR = 9\) cm.
Options:

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 16  Question Id: 9126062670  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

Is \(n\) a prime number?

\(n\) ఎందుకు ప్రముఖం?

I. \(n\) is of the form \(k^4 + 4, k > 1.\)

\[k^4 + 4, k > 1 \Rightarrow \text{not a} \quad \text{prime}.\]

II. \(n\) is of the form \(4k + 1.\)

\[4k + 1 \Rightarrow \text{not a} \quad \text{prime}.\]
Question Number : 17  Question Id : 9126062671  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

If a, b, c are integers, is \(3(a+c) + b\) divisible by 3?

a. \(b\) is divisible by 3.
b. \(3\) is divisible by 3.

II. \(a + b\) is divisible by 3.
a + b, 3 is divisible by 3.
Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 18  Question Id: 9126062672  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

Is the triangle $\Delta ABC$ equilateral? (a, b, c are lengths of the sides of the triangle).

Is $\Delta ABC$ isosceles? (a, b, c are lengths of the sides of the triangle).

I. $a^2 + b^2 + c^2 > 0$.
II. $a^2 + b^2 + c^2 = (ab + bc + ca)$. 

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Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

How much time will it take for two pipes A and B to fill a tank which is half full?

I. A can fill the empty tank in 12 minutes.
   
   II. B can empty the full tank in 8 minutes.
Data Sufficiency

Note: This question is followed by data in the form of two statements labeled 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.

Problem:

Let \( n \) and \( m \) be real numbers. Is \( n^2 < m^2 \)?

\[ n \text{ and } m \text{ are real numbers. } n^2 < m^2 ? \]

I. \( m > 0 \)

II. \( n < m \)
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

Mouse : Cat :: _______ : Tiger

Options:
1. Deer
2. Lion
3. Grass
4. Forest

Question Number : 22  Question Id : 9126062676  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

100 : 9999 :: 60 : ________

(1) 6599  (2) 3999  (3) 6999  (4) 3599

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

B Z : 2 2 6 :: E T :

(1) 3 19  
(2) 4 19  
(3) 5 20  
(4) 5 21

Options :

1.  
2.  
3.  
4.  

Question Number : 24  Question Id : 9126062678  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

READ : DEAR : : ____ : PINK

(1) PNKI  (2) PKNI  (3) KNPI  (4) KNIP

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 25  Question Id : 9126062679  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

7 : 63 :: 15 : _______

(1) 128  (2) 125  (3) 132  (4) 135

Options:

1. ** 1
2. ** 2
3. ** 3
4. ✓ 4

Question Number : 26  Question Id : 9126062680  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

7 : 342 :: 9 : ______

(1) 600 (2) 728 (3) 700 (4) 712

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

Driver : ESJWFS :: Helmet : ________

(1) FINMIS  (2) FGONGS
(3) IFMNFU  (4) IGNOGU

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

LJK : onm : : _______ : hgf

(1) EDC          (2) DCE          (3) ECD          (4) EDB

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

Question Number : 29  Question Id : 9126062683  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

\[ \sum_{K=1}^{n} K : \quad \frac{n(n+1)}{2} : : \sum_{K=1}^{n} K^2 : ___ \]

(1) \( \frac{n^2(n+1)^2}{4} \) \\
(2) \( \frac{n(n+1)(n+2)}{6} \) \\
(3) \( \frac{(n+1)^2(n+2)^2}{4} \) \\
(4) \( \frac{n(n+1)(2n+1)}{6} \)

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

Question Number: 30  Question Id: 9126062684  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Problem Solving — Sequence and Series

Note: The following question has a sequence of numbers or letters that follow a definite pattern is given. Each question has a blank space. This has to be filled by the correct answer from the four given options to complete the sequence without breaking the pattern.

54 : 88 :: 180 : ______

(1) 218  (2) 228  (3) 248  (4) 238

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number: 31  Question Id: 912662685  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Note: From the question, pick the odd thing out:

(1) (3,4,19)  (2) (4,5,29)  (3) (5,6,43)  (4) (6,7,55)

Options:
1. **1
2. **2
3. ✓ 3
4. ✗ 4

Note: From the question, pick the odd thing out:

(1) February  (2) July  (3) May  (4) November

Options:
1. ✓ 1
2. **2
Question Number : 33  Question Id : 9126062687  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Note : From the question, pick the odd thing out :

 temas:

(1) Sphere  (2) Square  (3) Cube  (4) Cone

Options :
1. ⬤ 1
2. ✔ 2
3. ⬤ 3
4. ❌ 4

Question Number : 34  Question Id : 9126062688  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Note : From the question, pick the odd thing out :

 temas:

(1) 15  (2) 17  (3) 19  (4) 23

Options :
1. ✔ 1
2. ✔ 2
3. ⬤ 3
4. ❌ 4

Question Number : 35  Question Id : 9126062689  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

TS ICET 2018
Note: From the question, pick the odd thing out:

(1) 56  (2) 42  (3) 77  (4) 45

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Note: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

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

2, 3, 5, 9, 17, 33, _____

(1) 58  (2) 63  (3) 65  (4) 56

Options:
Question Number : 37  Question Id : 9126062691  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

**Note**: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

9, 101, 999, 10001, _____, 1000001, 9999999

(1) 9999   (2) 99999   (3) 999999   (4) 9999999

**Options** :

1. ✗ 1  
2. ✔ 2  
3. ✗ 3  
4. ✗ 4

---

Question Number : 38  Question Id : 9126062692  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

**Note**: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

(26, 28, 27), (22, 24, 23), (18, 20, 19), (14, 16, 15), _____

(1) (12, 11, 10)   (2) (10, 11, 12)

(3) (10, 12, 11)   (4) (12, 10, 11)

---

**Notes**:

- Question 37 (TS ICET 2018):
  - Options:
    - 1. ✗ 1
    - 2. ✔ 2
    - 3. ✗ 3
    - 4. ✗ 4

- Question 38 (TS ICET 2018):
  - Options:
    - (1) (12, 11, 10)   (2) (10, 11, 12)
    - (3) (10, 12, 11)   (4) (12, 10, 11)
Question Number : 39  Question Id : 9126062693  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

**Note**: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

7, 13, 21, 31, 43, 57, ______

(1) 73  (2) 72  (3) 70  (4) 69

---

Question Number : 40  Question Id : 9126062694  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

**Note**: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

24.5, 18.0, 12.5, 8.0, ______, 2.0

(1) 3.5  (2) 4.0  (3) 4.5  (4) 5.0
Note: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

\[ \frac{2}{\sqrt{5}}, \frac{8}{\sqrt{5}}, \frac{11}{5}, \ldots \]

Options:
1. \( \frac{6}{\sqrt{5}} \)
2. \( \frac{3}{5\sqrt{5}} \)
3. \( \frac{14}{5\sqrt{5}} \)
4. \( \frac{15}{\sqrt{5}} \)
Note: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

لاس: [Information in Telugu]

Z, X, V, T, R, P, N, L, J ______
(1) M (2) K (3) H (4) J

Options:
1. * 1
2. * 2
3. ✓ 3
4. * 4

Question Number: 43  Question Id: 9126062697  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes
Single Line Question Option: No  Option Orientation: Vertical

Note: The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

لاس: [Information in Telugu]

2, 7, 17, 32, 52, 77, ______
(1) 85 (2) 92 (3) 107 (4) 110

Options:
1. * 1
2. * 2
3. ✓ 3
4. * 4

Question Number: 44  Question Id: 9126062698  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes
Single Line Question Option: No  Option Orientation: Vertical

TS ICET 2018
Note : The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

3, 4, 6, 8, 9, 12, 12, 16, 15, 20, 18, 24, 21, ______

(1) 27  (2) 26  (3) 24  (4) 28

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Note : The question follows a definite pattern, observe the same and fill in the blanks with suitable answers.

7, 8, 6, 9, 5, 10, 4, 11, 3, ______

(1) 10  (2) 11  (3) 9  (4) 12

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4
Problem Solving — Data Analysis

Note: The following graph summarizes production and export details of an industry over the past 6 years 2011 to 2016. Based on the data given in the graph answer the following question.

Sub questions

Question Number : 46  Question Id : 9126062701  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
For the years 2011 to 2016 what was the approximate percent of the total export in total production?

2011- 2016 సంవత్సరాలలో వాంధక విదేశాల వేదిక ప్రామాణిక భాగం ఎంత?

(1) 56  (2) 55  (3) 54  (4) 53

Options :
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

What was the percent increase in exports from 2011 to 2014?

2011 నుంచి 2014 వరకు వచ్చిన వేదికల ప్రామాణిక భాగం ఎంత?

(1) 200  (2) 220  (3) 250  (4) 270

Options :
1. ✗ 1
2. ✔ 2
3. ✔ 3
4. ✗ 4
In which year was the ratio of the production to the exports minimum?

ప్రత్యేక కాలంలో ఉపయోగించబడని ఉత్పత్తి మరియు విమితి విశేషాలు ఎలా ఉండాలి?

1. 2011  
2. 2012  
3. 2015  
4. 2014  

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Problem Solving — Data Analysis

Note: The following Pie chart details the expenditure under various heads of accounts of an Autonomous University. Based on the data given in the chart answer the questions 49 to 53.

Sub questions

Question Number : 49  Question Id : 9126062705  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
If the annual expenditure is Rs. 24 cores, then the amount of money spent of Learner Support Services is (in crores of Rupees).

(1) 4  (2) 5  (3) 5.5  (4) 6.5

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

The percentage expenditure spent under the Head E is how much more than the expenditure spent under the Head C?

E అభిముఖం ఛట్ట మాత్రమే హీడ్ C అభిముఖం ఛట్ట మాత్రమే హీడ్ కి ఎంత కేంద్రం.

(1) \(33\frac{1}{3}\)  (2) \(66\frac{2}{3}\)  (3) 50  (4) 25

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 50  Question Id : 9126062706  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Question Number : 51  Question Id : 9126062707  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
If in a particular year the expenditure under the head A is Rs. 3.6 Crores, then the amount of money available (in Crores of Rupees) for head D is?

(1) 2.5  (2) 2.9  (3) 3.0  (4) 3.1

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

The heads under which $16\frac{2}{3}\%$ of the total expenditure spent is?

(1) E  (2) C and E together  (3) C and D together  (4) B

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
If in a year the expenditure under the heads C and E put together is Rs. 8 Crores then the total expenditure on the rest of the heads put together is (in Crores of Rupees)?

(1) 36    (2) 32    (3) 28    (4) 24

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
Problem Solving — Data Analysis

In a group of 100 people who watch sports in television, 10 people watch neither cricket nor foot ball. The number of people in that group who watch at least one of cricket and foot ball is?

(1) 90  (2) 85  (3) 80  (4) 75

Options:
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 55  Question Id : 9126062711  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Data Analysis

For any set $S$, let $n(S)$ denote the number of elements in $S$. For $A \subseteq S$, let $A^\perp$ denote set $S-A$. If $A$, $B$, $C$ are three sets such that $n(A) = 80$, $n(B) = 46$, $n(C) = 38$, $n(A \cap B \cap C^\perp) = 20$, $n(B \cap C \cap A^\perp) = 9$, $n(C \cap A \cap B^\perp) = 13$. If $n(A \cap B \cap C) = 1$ then, $n(A \cup B \cup C) =$

\[
\begin{align*}
\text{Options : } & \\
1. & 115 \\
2. & 120 \\
3. & 128 \\
4. & 137
\end{align*}
\]
Problem Solving — Coding and Decoding Problems

Note: In a code the vowels of the English alphabet A, E, I, O, U are coded as 05, 04, 03, 02, 01 respectively. The consonants B, C, D, F, G, ......., X, Y, Z are coded as 26, 25, 24, 23, 22, ......., 08, 07, 06 respectively. Basing on this code answer the following question.

What is the code for ‘WATER’?

‘WATER’ ఎంతే హై?

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

TS ICET 2018
Which word is coded as 03250411?

ది వాడి 03250411 శిల్పించబడింది?

(1) ECHO  (2) ICES  (3) ICET  (4) IGET

Options:
1. ✗ 1
2. ✗ 2
3. ☑ 3
4. ✗ 4

What is the code word for ‘SPIN’?

‘SPIN’ యొక్క కోడు ఏదు?

(1) 12150416  (2) 12150316  (3) 12150317  (4) 12150415

Options:
1. ✗ 1
2. ☑ 2
3. ✗ 3
4. ✗ 4

Which word is coded as 1003120522?

1003120522 యొక్క శిల్పించబడింది?

(1) VISAG  (2) VIZAG  (3) VISAK  (4) VIKAS

Options:
What is the code for ‘TUBE’?

‘TUBE’ ఎండక ఎండ?

(1) 11012605       (2) 11012603
(3) 11022604       (4) 11012604

Question Number : 61  Question Id : 9126062718  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Coding and Decoding Problems

In a certain code, if ‘SISTER’ is coded as ‘RHRSDQ’, then the code for ‘BROTHER’ is?

సీటిర్ అంటే ‘SISTER’ అంటే ‘RHRSDQ’ మరియు, ‘BROTHER’ కయ్యా?

(1) AQNSIDQ          (2) CQMRJEQ
(3) CSNQJES          (4) AQNSGDQ

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Question Number : 62  Question Id : 9126062719  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
If ‘COMPUTER’ is coded as ‘OCPMTURE’, then the code for ‘CALCULATOR’ is?

‘COMPUTER’ అ  ‘OCPMTURE’ ని రికార్డు చేసి, ‘CALCULATOR’ ని రికార్డు?

(1) ACLCLUATOR    (2) ACCLLUTARO
(3) CACLULATOR    (4) CCLLUATARO

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 63  Question Id : 9126062720  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Coding and Decoding Problems

If the code word for ‘WARANGAL’ is ‘XZSZOFBK’, then the code word for ‘NALGONDA’ will be?

‘WARANGAL’ లో క్రింద హండి ‘XZSZOFBK’ అయితే, ‘NALGONDA’ లో క్రింద హండి వాడాలి?

(1) OZMFPMEZ          (2) MBKHNOCB
(3) OBHMPOEB          (4) MBLFMFZ

Options :
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Problem Solving — Coding and Decoding Problems

If ‘SOFT’ is coded as 19150620, then what is the code for ‘HARD’?

‘SOFT’ యొక్క 19150620 అని నిశ్చితం, ‘HARD’ యొక్క ఎండా కట్టడానికి?

(1) 08011904  (2) 07011804  (3) 09011904  (4) 08011804

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Problem Solving — Date, Time & Arrangement Problems

If today is Sunday, what day of the week it was 123 days before?

స్పటికం సూదనం అయ్యిన, 123 దినాల పై ఉన్న పార్శ్వ దినం నీటి అయితే?

(1) Wednesday   (2) Thursday   (3) Friday   (4) Tuesday

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Problem Solving — Date, Time & Arrangement Problems

At what time, between 5 and 6 o’clock, will the two hands of a clock be at right angle?

5 5 എ ന ൱ ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന ന 

Options:
1. * 1
2. * 2
3. ✔ 3
4. * 4
At what angle the hands of a clock are inclined when the time is 4.20?

మే కోరకలకు 4.20 ఎక్కువ నాట్యం మాత్రమే ఇవాంసే విషయం ఎండు చేయాలి?

(1) 10°  (2) 12°  (3) 8°  (4) 20°

Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
A is the father of two sisters B and C; E is the mother of C; F is brother of E; and D is the wife of F. How B is related to F?

(1) Nephew
(2) Niece
(3) Daughter
(4) Son

Options:
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 70  Question Id : 9126062727  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Problem Solving — Date, Time & Arrangement Problems

A train $T_1$ leaves from A towards B at 2.45pm with a speed of 50 kmph. A train $T_2$ leaves B at 1.35pm goes on a different track at a rate of 60 kmph towards A. If the distance between A and B is 510kms, at what time distance from A $T_1$ meets $T_2$?

Equation: $T_1 = 50 \times 2.45$ km = 122.5 km

Equation: $T_2 = 60 \times 1.35$ km = 81 km

Distance: $A$, $B$ = 510 km

Amount $T_1$, $T_2$ meet?

(1) 200 km  (2) 210 km  (3) 240 km  (4) 260 km

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 71  Question Id : 9126062728  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
A person starts from a point A and travels 3km towards B and then turns left and travels thrice that distance to reach C. He again turns left and travels 5 times the distance he covered between A and B and reaches his destination D.

The shortest distance between his departure point and destination?

(1) 18  (2) 16  (3) 15  (4) 14

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
Seven children A, B, C, D, E, F and G are standing in a line. G is to the right of D and to the left of B. A is on the right of C. A and C have one child between them. E and B have two children between them. Who is exactly in the middle?

Options:
(1) E  (2) D  (3) G  (4) C

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 73  Question Id : 9126062730  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
If $\Box$ is defined by $a \Box b = \frac{a-b}{a+b}$, \hspace{1em} \bigcirc by $a \bigcirc b = \frac{a+b}{a-b}$, \hspace{1em} \rightarrow is defined by $a \rightarrow b = ab$,

then $\frac{(55 \Box 5) \rightarrow (77 \bigcirc 7)}{(2 \bigcirc 3) \rightarrow (4 \bigcirc 5)} = $

\[
\begin{align*}
\frac{a-b}{a+b} &\quad a \bigcirc b = \frac{a+b}{a-b} &\quad a \rightarrow b = ab.
\end{align*}
\]

\[
\begin{align*}
(1) \quad \frac{-5}{9} &\quad (2) \quad 1 &\quad (3) \quad \frac{9}{5} &\quad (4) \quad \frac{5}{9} \\
\end{align*}
\]

Options:

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Problem Solving — Date, Time & Arrangement Problems

If $+$ means $\div$, $-$ means $+$, $\times$ means $-$, and $/$ means $\times$, then the value of the expression

$$\left[\left\{(17 \times 12) - (4/2)\right\} + (23 - 4)\right]/9 =$$

$$+ \text{ రెండు రెండు} - \text{ రెండు రెండు}, \times \text{ రెండు రెండు} - \text{ రెండు రెండు}, / \text{ రెండు రెండు} \times \text{ రెండు రెండు},$$

$$\left[\left\{(17 \times 12) - (4/2)\right\} + (23 - 4)\right]/9 \text{ సమాధానం ఎలా}?

(1) $\frac{11}{3}$ (2) $\frac{12}{5}$ (3) $\frac{13}{3}$ (4) $\frac{15}{4}$

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
For integers $a$ and $b$, if

$$a \Delta b = (a + b - 3)^2 + 1 \text{ then } (1 \Delta 2) \Delta (1 \Delta 2) =$$

\(a, b \text{ where } a \Delta b = (a + b - 3)^2 + 1 \text{ satisfies,}

\(1 \Delta 2) \Delta (1 \Delta 2) =

<p>| | | | |</p>
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<tr>
<td>(1) 0</td>
<td>(2) 1</td>
<td>(3) 2</td>
<td>(4) 3</td>
</tr>
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Options:
1. **1**
2. **2**
3. ✓ 3
4. **4**
Arithmetical Ability

\[ \left( \frac{256}{25} \right)^{\frac{9}{50}} = \]

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

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Arithmetical Ability

If \( a + b + c = 0 \) then \( x^{a^2 b^{-1} c^{-1}} \cdot x^{a^{-1} b^2 c^{-1}} \cdot x^{a^{-1} b^{-1} c^2} = \)

\( a + b + c = 0 \) より \( x^{a^2 b^{-1} c^{-1}} \cdot x^{a^{-1} b^2 c^{-1}} \cdot x^{a^{-1} b^{-1} c^2} = \)

(1) 0  (2) 1  (3) \( x^3 \)  (4) \( x^2 \)

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 77  Question Id : 9126062734  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Question Number : 78  Question Id : 9126062735  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

\[4x^2 + 13y^2 + 9z^2 = 12y(x + z) \Rightarrow x : y : z =\]

1. 1:2:3
2. 2:3:1
3. 4:6:9
4. 9:6:4

Options:
1. ✔
2. ❌
3. ❌
4. ✔

Question Number : 79  Question Id : 9126062736  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Arithmetical Ability

The ratio of the present ages of A and B is 2:3. B is 6 years older than A. The ratio of their ages after 8 years will be?

A. B నుండి A నాలుగు వయాట్మకం వచ్చింది 2:3. A నుండి B కేలాము 6 వయాట్మకం వచ్చింది. 8 వయాట్మకము సంవత్సరాలు రెండు వయాట్మకం వచ్చింది?

1. 7:8
2. 8:9
3. 10:13
4. 13:15

Options:
1. ✔
2. ❌
3. ✔
4. ❌

Question Number : 80  Question Id : 9126062737  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

If $\sqrt{x} + \sqrt{y} = 13$ and $\sqrt{x} - \sqrt{y} = 7$ then $\sqrt{xy} =$?

$\sqrt{x} + \sqrt{y} = 13, \sqrt{x} - \sqrt{y} = 7 \Rightarrow \sqrt{xy} =$?

(1) 30  (2) $\sqrt{20}$  (3) $\sqrt{30}$  (4) $3\sqrt{2}$

Options:
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4

Arithmetical Ability

If $a=\frac{\sqrt{3}-1}{\sqrt{3}+1}$ and $b=\frac{\sqrt{3}+1}{\sqrt{3}-1}$ then the value of $\frac{a^2-ab+b^2}{a^2+ab+b^2}$ is

$a=\frac{\sqrt{3}-1}{\sqrt{3}+1}, b=\frac{\sqrt{3}+1}{\sqrt{3}-1}$ \Rightarrow $\frac{a^2-ab+b^2}{a^2+ab+b^2}$ is

(1) $\frac{5}{4}$  (2) $\frac{13}{15}$  (3) $\frac{13}{14}$  (4) $\frac{4}{5}$

Options:
1. ✔ 1
2. ✔ 2
3. ✔ 3
4. ✔ 4
Arithmetical Ability

The greatest integer not exceeding 2180 which is divisible by 13 is

13 ని అగుమ్యంగా 2180 ను గల వస్తుంది?

(1) 2184  (2) 2158  (3) 2171  (4) 2169

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Question Number : 83  Question Id : 9126062740  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Arithmetical Ability

The number of positive divisors of 37800 is?

37800 ప్రపంచంలో ఎంతో విభజించబడినం?

(1) 95  (2) 96  (3) 98  (4) 102

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Question Number : 84  Question Id : 9126062741  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

What is the least square number which is divisible by 3, 4, 5 and 6?

3. 4. 5. 6 ఏం ఏర్పాటుగల రాయండా చేస్తుంది?

(1) 1600  (2) 900  (3) 800  (4) 400

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Arithmetical Ability

If 398, 436 and 542 are divided by k the respective remainders are 7, 11 and 15 then the largest value of k is?

398, 436, 542 అనే k తక్కువ వాటి విభాగాల విచారణ 7, 11, 15 అమలు క గలించడం

మేసి?

(1) 34  (2) 27  (3) 19  (4) 17

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

\[
\frac{1.75 \times 1.75 \times 1.75 + 1.25 \times 1.25 \times 1.25}{1.75 \times 1.75 - 1.75 \times 1.25 + 1.25 \times 1.25} =
\]

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

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Arithmetical Ability

\[
0.333\ldots + 0.444\ldots =
\]

(1) \(\frac{3}{7}\)  (2) \(\frac{5}{9}\)  (3) \(\frac{6}{7}\)  (4) \(\frac{7}{9}\)

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Arithmetical Ability

Question Number : 87  Question Id : 9126062744  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

\[
0.333\ldots + 0.444\ldots =
\]

(1) \(\frac{3}{7}\)  (2) \(\frac{5}{9}\)  (3) \(\frac{6}{7}\)  (4) \(\frac{7}{9}\)

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 88  Question Id : 9126062745  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

\[
0.333\ldots + 0.444\ldots =
\]

(1) \(\frac{3}{7}\)  (2) \(\frac{5}{9}\)  (3) \(\frac{6}{7}\)  (4) \(\frac{7}{9}\)

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4
Arithmetical Ability

If \( a = \frac{22}{5} \), \( b = \frac{32}{7} \), \( c = \frac{50}{11} \) and \( d = \frac{57}{13} \) then

\[ a = \frac{22}{5}, \quad b = \frac{32}{7}, \quad c = \frac{50}{11} \quad \text{and} \quad d = \frac{57}{13} \]

(1) \( a < b < c < d \) \quad (2) \( d < c < a < b \)

(3) \( a < d < b < c \) \quad (4) \( d < a < c < b \)

Options:

1. ☑ 1
2. ☑ 2
3. ☑ 3
4. ☑ 4

Question Number : 89  Question Id : 9126062746  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

What is the ascending order of the fractions \(\frac{6}{11}, \frac{5}{14}, \frac{9}{10}, \frac{8}{13}, \frac{7}{9}\) ?

(1) \(\frac{6}{11}, \frac{9}{10}, \frac{5}{14}, \frac{8}{13}, \frac{7}{9}\)

(2) \(\frac{5}{14}, \frac{6}{11}, \frac{8}{13}, \frac{7}{9}, \frac{9}{10}\)

(3) \(\frac{9}{10}, \frac{7}{9}, \frac{6}{11}, \frac{8}{13}, \frac{5}{14}\)

(4) \(\frac{7}{9}, \frac{9}{10}, \frac{8}{13}, \frac{5}{11}, \frac{5}{14}\)

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Arithmetical Ability

If 2a% of b is c then 3a% of 5b is?

b व 2a% c असे, 5b व 3a% =

(1) 10c
(2) c
(3) 7.5c
(4) 15c

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

In an examination minimum pass percentage is 40. If a candidate gets 75 marks and fails by 25 marks then the maximum mark in the examination is?

(1) 200  (2) 225  (3) 250  (4) 300

Arithmetical Ability

A person sold a table at profit of $6\frac{1}{2}\%$. Had he sold it for Rs. 1250 more, he would have gained 19%. Then the cost of that table (in rupees) is?

(1) 12500  (2) 12000  (3) 10250  (4) 10000
Arithmetical Ability

A person purchased a property and sold \( \frac{3}{4} \) th of the property with 10% profit. If he receives Rs. 120000 as profit through part of the sale, then total price of the property (in lakhs of rupees) is?

(\( \text{Rs. } 120000 \) are exceeeded \( \frac{3}{4} \) times \( 10\% \) more than \( \text{Rs. } 80000 \)).

\[ \text{(1) 25 } \quad \text{(2) 26 } \quad \text{(3) 23 } \quad \text{(4) 24 } \]

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 93  Question Id : 9126062750  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical

Question Number : 94  Question Id : 9126062751  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

P, Q and R invested capitals in the ratio 2 : 3 : 5, the timing of their investments being in the ratio 4 : 5 : 6. In what ratio would their profits be distributed?

P, Q, R యొక్క సమాధాన శ్రాధాలు 2 : 3 : 5 కు ప్రథమ సమాధాన కాలపు శ్రాధాలు నిలువు 4 : 5 : 6. ప్రభావాలు గల విభాగాలు శ్రాధాలు భాగాలు నిలువు విభాగాలు ఎలా తెలుసు?

(1) 13:15:30  (2) 8:12:30  (3) 8:15:25  (4) 8:15:30

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

Question Number : 95  Question Id : 9126062752  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

Ravi and Shyam are partners in a business. Ravi contributes $\frac{1}{4}$ of the capital for 15 months and Shyam receives $\frac{2}{3}$ of the total profits. For how long Shyam’s money was in the business?

(1) 10 months  (2) 8 months  (3) 9 months  (4) 6 months

10 మీస్సి 8 మీస్సి 9 మీస్సి 6 మీస్సి

Options:
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Arithmetical Ability

Three taps P, Q, R can separately fill a cistern in 6 min, 12 min and 15 min respectively. While a fourth tap S can empty the cistern in 4 min. If all the four taps are opened together when the cistern is empty, in what time (in minutes) the cistern is full?

(1) 10    (2) 12    (3) 15    (4) 20

Options:
1. ★ 1
2. ★ 2
3. ✔ 3
4. ★ 4

Question Number : 97  Question Id : 9126062754  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

Pipes P and Q can fill a cistern in 12 minutes and 15 minutes respectively. Both are opened together but after 3 minutes P is turned off. After how much more time (in minutes) will the cistern be filled?

Options:

(1) 8
(2) $9\frac{1}{2}$
(3) 9
(4) $8\frac{1}{4}$

Question Number : 98  Question Id : 9126062755  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

A man travels $\frac{1}{2}$ of the total distance with a speed of 40 kmph, $\frac{1}{3}$ distance at a speed of 50 kmph and the remaining distance at a speed of 100 kmph. Then the average speed in kmph is?

$\text{Average Speed} = \frac{\frac{1}{2} \times 40 + \frac{1}{3} \times 50 + \frac{1}{3} \times 100}{\frac{1}{2} + \frac{1}{3} + \frac{1}{3}}$

(1) 64  (2) 48  (3) 56  (4) 72

Options:
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 99  Question Id : 9126062756  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
A person travels from his home to office at a speed of 20 kmph and reaches office late by 15 min. Next day he travels at a speed of 30 kmph and reaches office 15 min early. Then the distance from his home to office in k.m.s is?

(1) 25  (2) 30  (3) 35  (4) 40

Options :
1. * 1
2. ✔ 2
3. * 3
4. * 4

Question Number : 100  Question Id : 9126062757  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

Mr. A alone can finish a piece of work in 24 days. For the same work, to finish alone B and C require 18 days and 12 days respectively. The 3 persons worked for 4 days and then A left the job, then the number of days required to finish the remaining work by B and C together is?

A కేవలం మేలో 24 దినులలో కావించు వచ్చు. అది తో బంగారు B, C కేవలం 18, 12 దినులలో కావించారని. మరియు ఆమె మేలో 4 దినాల పంటి అయితే. A మేలో మాత్రమే. అందువల్ల మేలో B, C కేవలం కావించు వచ్చు తప్పని దినులు?

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

Options : 
1. ✔  1
2. ✔  3
3. ✔  4
4. ✔  4
Arithmetical Ability

If a person requires 36 hours to do $\frac{4}{5}$ th of a work the number of additional hours required to complete the work is?

(1) 6  (2) 8  (3) 9  (4) 18

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Arithmetical Ability

The sides of a rectangular plot of land are in the ratio 2:3 and its area is 29400 sq meters. The cost (in rupees) of the putting up a fence around the plot at the rate of Rs. 50 per meter is?

2:3 $\frac{2\times3}{2\times3} = \frac{2}{3}$  $\text{面积} = \frac{2}{3} \times 29400 \text{ 平方米。}$

$\text{周长} = 2 \times (2 \times 50 + 3 \times 50) \text{ (元/米)}$

(1) 35000  (2) 36000  (3) 40000  (4) 42000

Options :
Arithmetical Ability

If a rhombus has diagonals of length 18 cm and 24 cm, then its area (in sq.cm) is

\[
\frac{1}{2} \times 18 \times 24 = 216
\]

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

Question Number : 104  Question Id : 9126062761  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Arithmetical Ability

A rectangular sheet of dimensions 22 m X 10 m is rolled into a cylinder so that the smaller side becomes the height. The volume of the cylinder (in cu. cm) is

\[
\frac{22\times10\times\pi\times1000}{\pi} = 22\times10\times1000
\]

Options :
1. \(\frac{13200}{\pi}\)  
2. \(\frac{1250}{\pi}\)  
3. \(\frac{1210}{\pi}\)  
4. \(\frac{1000}{\pi}\)

Question Number : 105 Question Id : 9126062762 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a circle of radius 7 cm, the area of a sector is \(\frac{77}{3}\) sq. cm. The sectorial angle is

\[
7 \times \frac{22}{7} = 11 \times \frac{77}{3} \times \frac{77}{3} \times \frac{77}{3} = 77^0
\]

Options :
1. \(30^0\)  
2. \(45^0\)  
3. \(60^0\)  
4. \(90^0\)
The height of a cylindrical drum is 7 cm and the difference between the outer and inner surface areas is 44 sq cm. The thickness of the drum is? (Take $\pi = \frac{22}{7}$)

7 సెంచి. విస్త్రశీలి వేయబడిన నిర్మాణ మేంద్ర చెట్టు జాయంతి కంటే కుడికి వేయబడిన చెట్టుకు వేయబడిన వేయం 44 సెంచి. సెంచి. విస్త్రశీలి వేయబడిన చెట్టు జాయంతి కంటే కుడికి వేయబడిన వేయం? ($\pi = \frac{22}{7}$ కా సంఖ్యలు)

(1) 0.5 cm  (2) 0.75 cm  (3) 1.0 cm  (4) 1.25 cm

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

The area of a rhombus whose side and height are 12 cm and 26 cm respectively.

(1) 284 sq.cm   (2) 340 sq.cm   (3) 234 sq.cm   (4) 312 sq.cm

284 సమీకృతి   340 సమీకృతి   234 సమీకృతి   312 సమీకృతి

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Arithmetical Ability

The smallest side of a triangle is 9 cm and its angles are 90°, 60°, 30°. Then the area of the triangle (in square centimeters)

90°, 60°, 30° అంమ సమీఖ్యా కోషి వ్యతిరేకంగా అధికంగా మిది సంఖ్య ముందు మిది

9 సమీకృతి. అనాధికంగా కోషి క్షాత్రం (సమీకృతి. 90°)

(1) \(\frac{91}{2}\) \(\sqrt{3}\)   (2) 81   (3) \(\frac{81}{2}\)   (4) 81\(\sqrt{3}\)

Options :
1. ✔ 1
If $1397 \equiv \gamma \pmod{144}$ and $0 \leq \gamma \leq 143$ then $\gamma =$

$$1397 = \gamma \pmod{144}$$

(1) 101   (2) 145   (3) 245   (4) 201

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

(110110011)$_2 =$

(1) 531   (2) 443   (3) 439   (4) 435

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
If p and q are two statements then \( \sim(p \land q) \) is equivalent to

\[
\begin{align*}
1. & \quad (\sim p) \land q \\
2. & \quad (\sim p) \land (\sim q) \\
3. & \quad p \lor (\sim q) \\
4. & \quad p \lor q
\end{align*}
\]

Options :

1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

\( \sim(p \lor (\sim p \land q)) \) is equivalent to

\[
\begin{align*}
1. & \quad p \land (\sim q) \\
2. & \quad \sim p \land q \\
3. & \quad \sim p \land (\sim q) \\
4. & \quad \sim p \lor (\sim q)
\end{align*}
\]

Options :

1. ✗ 1
2. ✔ 2
3. ✔ 3
4. ✗ 4
Algebraic and Geometrical Ability

If \( f(x) = \frac{x}{\sqrt{1-x^2}} \) and \( g(x) = \frac{x}{\sqrt{1+x^2}} \) then \((f \circ g)(x) = \)

\[ f(x) = \frac{x}{\sqrt{1-x^2}} \quad \text{and} \quad g(x) = \frac{x}{\sqrt{1+x^2}} \quad \text{then} \quad (f \circ g)(x) = \]

(1) \( \frac{1-x^2}{1+x^2} \) \quad (2) \( \frac{1+x^2}{1-x^2} \) \quad (3) \( x^2 \) \quad (4) \( x \)

Options:
1. \( \star \) 1
2. \( \star \) 2
3. \( \star \) 3
4. \( \star \) 4

Algebraic and Geometrical Ability

If \( |x| < 1 \) and \( f(x) = 1 + x + x^2 + \ldots \) then \( f^{-1}(x) = \)

\[ |x| < 1 \quad \text{then} \quad f(x) = 1 + x + x^2 + \ldots \quad \text{then} \quad f^{-1}(x) = \]

(1) \( \frac{x+1}{x} \) \quad (2) \( \frac{x}{x+1} \) \quad (3) \( \frac{x-1}{x} \) \quad (4) \( \frac{x}{x-1} \)

Options:
1. \( \star \) 1
Algebraic and Geometrical Ability

The domain of the function \( f(x) = \frac{1}{x^2+1} \) is

\[ f(x) = \frac{1}{x^2+1} \]

The domain is \([-\infty, \infty]\) as there are no restrictions on \(x\) except that \(x^2 + 1 > 0\) for all real numbers.

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

---

Question Number : 116  Question Id : 9126062773  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

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2. ✗ 2
3. ✓ 3
4. ✗ 4

---

Question Number : 116  Question Id : 9126062773  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Algebraic and Geometrical Ability

The area of the region (in sq. units) bounded by $y = |x| - 5$ with the coordinates axes is

$y = |x| - 5$, విడిపోయిన రేఖారుత్తత్వ కోనాల విద్యుతులు 5 అంకే అంకే (తెలుగు మాధ్యమం)

(1) 15  (2) 20  (3) 25  (4) 50

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
Algebraic and Geometrical Ability

The equation of the line passing through the point of intersection of the lines
3x+4y+5=0 and 4x+y-2=0 and perpendicular to the line \( \frac{x}{5} + \frac{y}{2} = 1 \) is

\( 3x+4y+5=0 \) and \( 4x+y-2=0 \) can be solved to find the point of intersection as \( \frac{x}{5} + \frac{y}{2} = 1 \)

(1) \( 2x-5y-12=0 \) \hspace{1cm} (2) \( 2x+5y+8=0 \)

(3) \( 5x+2y-1=0 \) \hspace{1cm} (4) \( 5x-2y-9=0 \)

Options:
1. \( \boxed{1} \)
2. \( \boxed{2} \)
3. \( \boxed{3} \)
4. \( \boxed{4} \)

Question Number : 118  Question Id : 9126062775  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Algebraic and Geometrical Ability

If \( 2 \cot \theta = 3 \), then \( \frac{2 \cos \theta - \sin \theta}{2 \cos \theta + \sin \theta} = \)

(1) \( \frac{1}{\sqrt{2}} \) \hspace{1cm} (2) \( \frac{1}{2} \) \hspace{1cm} (3) \( \frac{2}{3} \) \hspace{1cm} (4) \( \frac{2}{\sqrt{3}} \)

Options:
1. \( \boxed{1} \)
Algebraic and Geometrical Ability

(1 + \tan 17^\circ)(1 + \tan 28^\circ) =

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

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

Algebraic and Geometrical Ability

\[
\frac{3 \tan A - \tan^3 A}{1 - 3 \tan^2 A} =
\]

(1) \cot 3A  (2) \tan 2A  (3) \tan 3A  (4) \cot 2A

Options:
1. 1
2. 2
3. 3
4. 4
Algebraic and Geometrical Ability

A person walking along a straight road towards a hill observes at two points with distance $\sqrt{3}$ km, between them the angles of elevation of the hill to be $30^0$ and $60^0$. What is the height of the hill?

(1) $\frac{\sqrt{3}}{2}$ km  (2) $\frac{1}{2}$ km  (3) 1 km  (4) $\frac{3}{2}$ km

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4
Algebraic and Geometrical Ability

\\[ \sqrt{(ab - ac - bc)^2 + 4abc(a + b)} = \]

(1) \( ab + bc + ca \)  
(2) \( ab - bc + ca \)  
(3) \( ab + bc - ca \)  
(4) \( ab - bc - ca \)

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Algebraic and Geometrical Ability

\\[ a + b + c = 9; \ a^2 + b^2 + c^2 = 27 \Rightarrow ab + bc + ca = \]

(1) 24  
(2) 25  
(3) 27  
(4) 28

Options:
1. ✗ 1
2. ✔ 2
3. ✔ 3
4. ✗ 4
If \( x^2 - 3x + 2 \) is a factor of \( x^3 - 6x^2 + ax + b \), then \( (a, b) = ? \)

\[ x^3 - 6x^2 + ax + b \text{ नक्चे } x^2 - 3x + 2 \text{ एक यथिरो प्रतिमा } (a, b) = ? \]

(1) (-11, -6)  (2) (11, 6)  (3) (-11, 6)  (4) (11, -6)

---

The remainder obtained when \( 9^{19} + 6 \) is divided by 8 is

\[ 9^{19} + 6 \mod 8 \text{ उहाते } \]

(1) 3  (2) 5  (3) 7  (4) 4

Options :
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✔ 4
Algebraic and Geometrical Ability

If \( \frac{6}{x+y} + \frac{15}{x-y} = 8 \) and \( \frac{10}{x+y} - \frac{9}{x-y} = 2 \) then \( 3x + 2y = \)

\[ \frac{6}{x+y} + \frac{15}{x-y} = 8 , \quad \frac{10}{x+y} - \frac{9}{x-y} = 2 \quad \text{so}\quad 3x + 2y = \]

(1) 6  (2) 6\( \frac{1}{2} \)  (3) 7  (4) 7\( \frac{1}{2} \)

Options:
1. ✗ 1
2. ✔️ 2
3. ✗ 3
4. ✗ 4
Algebraic and Geometrical Ability

In a triangle PQR, \( \angle P = x^0, \angle q = 3x^0, \angle R = y^0 \). If \( 3y - 5x = 30 \), then the triangle is

(1) Equilateral

(2) Isosceles

(3) Right angled

(4) Not a right angled

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 128  Question Id : 9126062785  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Algebraic and Geometrical Ability

If -22 is the \(n^{th}\) term of the arithmetic progression 5, 2, -1, \ldots\, then \(n = \) 

\[\begin{align*}
\text{(1) } 12 & \quad \text{(2) } 11 & \quad \text{(3) } 9 & \quad \text{(4) } 10
\end{align*}\]

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 129  Question Id : 9126062786  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Algebraic and Geometrical Ability

If the sum of the first three terms of a geometric progression is $\frac{39}{10}$ and if their product is 1. Then common ratio is

$$\frac{\text{common ratio}}{\text{first term}} = \frac{\text{second term}}{\text{first term}} = \frac{\text{third term}}{\text{second term}} = \frac{39}{10}$$

\[\frac{1}{2}, \frac{5}{2}, 5, \frac{3}{2}\]

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

---

Algebraic and Geometrical Ability

If the $21^{\text{st}}$ and $22^{\text{nd}}$ terms in the expansion of $(1 + x)^{44}$ are equal then $x =$

\[(1 + x)^{44} \text{ నకు} 21\text{ మొ} 22 చిన్నతో \text{కాశి కుది}. \text{ అంచి,} x =
\]

\[\frac{1}{7}, \frac{1}{8}, \frac{7}{8}, \frac{1}{8}\]

Options:
1. $\frac{1}{7}$
2. $\frac{1}{8}$
3. $\frac{7}{8}$
4. $\frac{1}{56}$
Algebraic and Geometrical Ability

\[(1 + \sqrt{3})^6 + (1 - \sqrt{3})^6 = \]

(1) 436  (2) 386  (3) 368  (4) 416

Options :
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✓ 4

Question Number : 131  Question Id : 9126062788  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Algebraic and Geometrical Ability

If \( A = \begin{pmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 1 & 0 & 0 \end{pmatrix} \) and \( B = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \) then \( A^{15}B^{17} + A^{17}B^{15} = \)

\( A = \begin{pmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 1 & 0 & 0 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \) \( \Rightarrow A^{15}B^{17} + A^{17}B^{15} = \)

(1) 2A  (2) 2B  (3) A+B  (4) 2(A+B)

Options:
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Algebraic and Geometrical Ability

If \( a, b, c \) are three distinct positive real numbers and if \( \Delta = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix} \) then

\[ a, b, c \text{ are in geometric progression} \quad \Delta = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix} \] is always

\( (1) \Delta > 0 \quad (2) \Delta \geq 0 \quad (3) \Delta \leq 0 \quad (4) \Delta < 0 \)

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Algebraic and Geometrical Ability

if \[ \lim_{x \to 1} \frac{x^2 - 5x + 4}{x^2 - 3x + 2} = \] then

\( (1) 0 \quad (2) 2 \quad (3) 3 \quad (4) 4 \)
Algebraic and Geometrical Ability

\[ y = \tan^{-1}\left(\frac{1 + \tan x}{1 - \tan x}\right) \Rightarrow \frac{dy}{dx} = \]

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

Options:
1. ✅ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number: 135  Question Id: 9126062792  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical

Question Number: 136  Question Id: 9126062793  Question Type: MCQ  Option Shuffling: No  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical
Algebraic and Geometrical Ability

PQRS is a square with diagonal $a + b$. The perimeter of the square whose area is twice that of PQRS is

PQRS పతికం $a + b$ ను అడ్డపంటాయి. PQRS నిఘదన విచిత్రం జాతికి వచ్చును వాటాం

(1) $2(a+b)$  (2) $4(a+b)$  (3) $\sqrt{8} (a+b)$  (4) $8ab$

Options :
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
In a triangle the point of concurrence of internal bisectors of its angles is called its

(1) Centroid

(2) Circum-centre

(3) Ortho-centre

(4) In-centre

Options:
1. ⬜️ 1
2. ⬜️ 2
3. ⬜️ 3
4. ✅ 4
Algebraic and Geometrical Ability

A, B, C, D are four points on a circle AC and BD intersect at E such that
∠BEC = 130° and ∠ECD = 20°. Then ∠BAC =

A, B, C, D అనే చివరలు అనేక వేర్వేరు రేఖలు. AC, BD ముందే E యే వందరాయితశిఖితే. ∠BEC = 130°, ∠ECD = 20° అని సాధారణం. అంటే ∠BAC =

1. 90°
2. 100°
3. 110°
4. 120°

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4
Algebraic and Geometrical Ability

The area (in sq units) of the triangle formed by the points (1, 2), (3, 4) and the origin is

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

Options : 
1. ✓ 1  
2. × 2  
3. × 3  
4. × 4  

Algebraic and Geometrical Ability

If the points A(1, 2), B(3, -4), C(5, -6) and D(11, -8) lie on a circle, then the center of the circle is

(1) (11, 2)  (2) (-11, 2)  (3) (-11, -2)  (4) (11, -2)

Options :
1. ✓ 1

TS ICET 2018
Statistical Ability

If the arithmetic mean of 17, 2a-b, 2b-c and 2c-a is 20 then the arithmetic mean of a, b, c is

\[17, 2a-b, 2b-c, 2c-a = \text{arithmetic mean} = 20\]

\[\text{arithmetic mean of } a, b, c = ?\]

(1) 17 \hspace{1cm} (2) 19 \hspace{1cm} (3) 21 \hspace{1cm} (4) 23

Options:

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

Statistical Ability

The median of the observations 7, 5, 2, 6, 4, 3, 15, 14, 19, 25, 8, 11, 13 is

\[7, 5, 2, 6, 4, 3, 15, 14, 19, 25, 8, 11, 13 = \text{median}\]

(1) 15 \hspace{1cm} (2) 14 \hspace{1cm} (3) 8 \hspace{1cm} (4) 7

Options:
Statistical Ability

The mode of the following data

<table>
<thead>
<tr>
<th>X:</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>7</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative frequency</td>
<td>21</td>
<td>44</td>
<td>68</td>
<td>74</td>
<td>105</td>
<td>123</td>
</tr>
</tbody>
</table>

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

Question Number : 143  Question Id : 9126062800  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Statistical Ability

The standard deviation of 12, 16, 23, 18, 24, 15 is

12, 16, 23, 18, 24, 15 ብ የ Rarity ያተገነዝባል

\[
\begin{align*}
(1) & \sqrt{\frac{45}{3}} \\
(2) & \sqrt{\frac{110}{3}} \\
(3) & \sqrt{\frac{55}{6}} \\
(4) & \sqrt{\frac{55}{3}}
\end{align*}
\]

Options:
1. * 1
2. * 2
3. * 3
4. ✔ 4

Statistical Ability

If \( x \neq 0 \) then the variance of \( x + 1, x + 2, x + 3, x + 7, x + 8, x + 9 \) is

\[ x \neq 0 \text{ የ Rarity } x + 1, x + 2, x + 3, x + 7, x + 8, x + 9 \text{ ብ ያስፋፏ}
\]

\[
\begin{align*}
(1) & \frac{29x}{3} \\
(2) & \frac{29}{3} \\
(3) & \sqrt{\frac{29}{3}} \\
(4) & 5
\end{align*}
\]

Options:
1. * 1
2. ✔ 2
3. * 3
4. * 4

Question Number : 145  Question Id : 9126062802  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

Question Number : 146  Question Id : 9126062803  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical
Statistical Ability

From a well-shuffled deck of playing cards the probability of choosing a card at random which is either a red card or an ace, is

\[ \frac{1}{2} \] \hspace{1cm} \frac{4}{13} \hspace{1cm} \frac{6}{13} \hspace{1cm} \frac{7}{13} \]

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

Statistical Ability

The probability for a number chosen at random from the first 32 natural numbers to be a composite, is

\[ \frac{5}{8} \] \hspace{1cm} \frac{11}{32} \hspace{1cm} \frac{21}{32} \hspace{1cm} \frac{21}{31} \]

Options :
1. 1
A bag contains 8 white balls and 6 red balls. The probability of drawing at random two balls of the same colour is

(1) \( \frac{43}{88} \)  (2) \( \frac{43}{91} \)  (3) \( \frac{43}{93} \)  (4) \( \frac{46}{93} \)
A six sided fair die is rolled 3 times. Then the probability that the face with the number 6 on it will not face upward on the three occasions is

\[
\text{(1) } \frac{1}{216} \quad \text{(2) } \frac{2}{3} \quad \text{(3) } \frac{17}{18} \quad \text{(4) } \frac{215}{216}
\]
The probability that P and Q get the scholarship are 0.6 and 0.8 respectively.

Then the probability that exactly one of P, Q gets the scholarship is

\[
P, Q \text{  దిద్దుతున్నాం కాని  ఒకటి ఉండడానికి  సాధారణం 0.6 లేదు 0.8. తిరువగం}
P, Q కు ఒకటి ఉండడానికి సాధారణం లేదు ఎంతకంటే
\]

(1) \(\frac{18}{25}\)  
(2) \(\frac{16}{25}\)  
(3) \(\frac{12}{25}\)  
(4) \(\frac{11}{25}\)

Choose the correct meaning of the word given:

Surmise

(1) summarise  
(2) guess  
(3) submit  
(4) refine
Choose the correct meaning of the word given:

Replete

(1) pause
(2) repeat
(3) full of
(4) plead

Choose the correct meaning of the word given:

Squalid

(1) slippery
(2) dirty
(3) careless
(4) sleepy
Choose the correct meaning of the word given:

**Liaise**

1. accomplish
2. responsible
3. cooperate
4. uniform

Options:
1. ✗ 2
2. ✔ 3
3. ✗ 4

Choose the correct meaning of the word given:

**Nonplussed**

1. confused
2. ridiculous
3. frightened
4. happy

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Choose the correct meaning of the word given:

Postulate

(1) post
(2) holy
(3) effective
(4) suggest

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Fill in the blank choosing the correct word:

Studies show that there is a/an _________ between obesity and food habits.

(1) link
(2) apathy
(3) aversion
(4) racket

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Fill in the blank choosing the correct word:

On important religious festival days, there is huge _______ of worshippers at the temples.

(1) syndicate  
(2) constellation  
(3) swarm  
(4) congregation

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

The basic __________ of a democracy is that it treats all people equal.

(1) tenacity  
(2) tenet  
(3) texture  
(4) tenure

Options :
1. ** 1  
2. ✔️ 2  
3. ** 3  
4. ** 4
Fill in the blank choosing the correct word:

A member of the opposition has made ________ remarks about his leader.

(1) diligent
(2) depraved
(3) derogatory
(4) dwindling

Choose the correct answer:

FTP stands for

(1) File Transfer Portability
(2) File Transfer Protocol
(3) File Transparent Protocol
(4) File Transfer Practice

Choose the correct answer:

A code of good conduct on the internet is referred to as

(1) netiquette
(2) net protocol
(3) net code
(4) net manners
Choose the correct answer:

DRAM stands for

(1) Dynamic Running Access Memory
(2) Dynamic Random Access Memory
(3) Dynamic Reference Access Module
(4) Digital Robot Access Memory

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

Choose the correct answer:

What is meta data?

(1) data about data
(2) graphical data
(3) data collected through survey
(4) data in a file

Options:
1. 1
2. 2
3. 3
4. 4
Choose the correct answer:

From an information systems audit perspective, which of the following is the most valuable asset in an information systems facility?

(1) Hardware
(2) Database
(3) Personnel
(4) Software

Members of the Board of Directors of a company are part of the

(1) management of the company
(2) staff strength of the company
(3) advisors and consultants to the company
(4) marginal stakeholders of the company
Choose the correct answer:

The policy guidelines for sharing revenues between central government and state governments is formulated by

(1) Finance Ministry  
(2) Finance Commission  
(3) RBI  
(4) SEBI

Options :
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Choose the correct answer:

WTO is an organization for promoting

(1) Bilateral trade between countries  
(2) Multilateral trade between countries  
(3) Thrift in spending at international level  
(4) International service

Options :
1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4
Choose the correct answer:

With increasing consumption of a product, its marginal utility
(1) goes up
(2) remains the same
(3) goes down
(4) keeps fluctuating

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

Choose the correct answer:

Which among the following media of advertisement is most interactive?
(1) Television
(2) Bill board
(3) Print media
(4) Internet

Options:
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4
Choose the correct answer:

The passive form of the sentence, “They have not addressed themselves to the task, properly” is

(1) The task has not addressed them properly
(2) The task has not been addressed by them properly
(3) The tasks have not been addressed by them properly
(4) The task was not addressed by them properly

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Choose the correct answer:

Set aside all your negative feelings and listen with an open mind. This sentence implies that one should be

(1) tolerant
(2) indifferent
(3) passive
(4) biased

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Choose the correct answer:

A: ‘Are n’t you cut up with me for the mess I created for you last Monday’?
B: ‘Let bygones be by gone’.

‘B’ is

(1) remorseful
(2) agitated
(3) careless
(4) forgiving

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Choose the correct answer:

A: “I presume your new boss is a great achiever and he’ll bring in a turnaround”.
B: “Well, I can only say that you are living in a fool’s paradise”.

‘B’

(1) agrees with ‘A’
(2) implies that his new boss is a fool
(3) partially agrees with ‘A’
(4) completely disagrees with ‘A’

Options :
1. ✗ 1
2. ✗ 2
3. ✗ 3
Choose the correct answer:

No matter how sorry Alex for what happened, or how many times he apologised or tried to make up for it, he couldn’t remove the hurt.

This sentence means that in undoing the hurt, Alex was

(1) partly successful
(2) quite successful
(3) unsuccessful
(4) careless

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✔ 4

Choose the correct answer:

The government is mulling over a new tax regime

The underlined phrase means

(1) considering
(2) cancelling
(3) waiving
(4) postponing

Options:
1. ✔ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Choose the correct answer:

A: “The volume of traffic on our city roads has risen by a hundred percent in the last one year.”

B: “Really?”

B’s answer shows that he

(1) does not believe what ‘A’ says
(2) is surprised to hear the information
(3) thinks ‘A’ is not telling the truth
(4) assumes the figures are made up

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

Fill in the blanks with the appropriate phrase / verb / preposition:

The boy is certainly bent __________ mischief.

(1) on
(2) off
(3) through
(4) across

Options:
1. ✔ 1
2. ✗ 2
Fill in the blanks with the appropriate phrase / verb / preposition:

Poverty should not prevent a person ________ attempting to succeed in life.

(1) into  
(2) from  
(3) after  
(4) with

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

Fill in the blanks with the appropriate phrase / verb / preposition:

He showed a preference ________ ready money.

(1) for  
(2) at  
(3) in  
(4) of

Options:
1. ✔ 1  
2. ✗ 2  
3. ✗ 3  
4. ✗ 4
Fill in the blanks with the appropriate phrase / verb / preposition:

I don’t know for how long I can ________ with his rudeness.

(1) put up
(2) run down
(3) run after
(4) stand in

Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Fill in the blanks with the appropriate phrase / verb / preposition:

Recent medical research has made a ________ in traditional medical treatment.

(1) blow up
(2) break through
(3) run through
(4) play down

Options :
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
Fill in the blanks with the appropriate phrase / verb / preposition:

Why don’t you __________ for a course that you have an aptitude for?

1. put up
2. go in
3. get around
4. open up

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

The snake was __________ fast to catch its prey.

1. walking
2. slithering
3. shearing
4. feeding

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4
Fill in the blanks with the appropriate phrase / verb / preposition:

True religion does not require one to __________ through force.

(1) proselytise
(2) persuade
(3) commend
(4) confuse

Options:
1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4
PART- 4

Read the following passage and answer questions 36-40:

It is very likely that at one point or another during your employment, you have been, or will be, asked to work on group projects. Although they can be interesting and challenging at times, it can become a stressful situation when the members of the team do not pull their fair share of the load. Some do less than others because their participation in the project does not require as much input, but other co-workers might try to pawn their share of the work on their members of the team. Unless you have the skill and inner strength to say ‘No’ to these individuals who ask you to do their work for them, you are going to be in deep trouble. However, sometimes getting overburdened has nothing to do with people asking you to take more on, but instead it is you not being able to tell yourself ‘No’ – that is stopping yourself from taking on more than what is actually your responsibility because you may of the type that likes to take charge of situations. If the problem lies with being asked to do more by one or more members of the team, then you need to work on learning how to say ‘No’ to their requests. You need to be straightforward yet polite. You do not want to give them any negotiating room.

Sub questions

Question Number : 186  Question Id : 9126062844  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical

When can group projects become troublesome?

(1) When it is boring
(2) When it is difficult
(3) When others do not do their share of work
(4) When nobody bothers

Options:
1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4
When does ‘........try to pawn their share of work .......’ mean?

(1) exchange their work  
(2) exploit others  
(3) bargain with others  
(4) humiliate others

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

When can one be in ‘deep trouble’?

(1) if one is too accommodating  
(2) if one does not have the skill  
(3) if one is too lazy  
(4) if one does not participate

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

Why do some people ‘overburden themselves’?

(1) They have too much work  
(2) They enjoy work  
(3) They like to be in control  
(4) They like to punish themselves

Options:
1. ✗ 1  
2. ✗ 2  
3. ✔ 3
How can one prevent oneself from being taken advantage of?

(1) by being rude
(2) by being inefficient
(3) by being aggressive
(4) by learning to refuse politely

Options:
1. ☒ 1
2. ☒ 2
3. ☒ 3
4. ☒ 4
Read the following passage and answer questions 41-45:

‘Raviz Hotels and Resorts’ has been a name to reckon with in the hospitality industry. Its commitment to providing traditional Kerala hospitality coupled with world-class luxury, multi-cuisine dishes and unblemished service has gained many an accolade for the group.

Situated in four different locations in Kerala, ‘Raviz’ stands tall and proud in offering riverside, lakeside, seafront and city stays to its guests. ‘Raviz’ by far has been one of the most favourite holiday spots because of its diligent selection of serene surroundings, proximity to water bodies and exquisite facilities.

It is a ‘Raviz custom’ that everything traditional in its originality, must be provided to guests who seek it. Expert physicians, proper administration of therapies and a number of other authentic Ayurveda treatments can be experienced at ‘Raviz’. For reservations call toll free 180042522200.

Sub questions

**Question Number : 191  Question Id : 9126062850  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical**

What is the above passage?

(1) It is an essay  
(2) It is an advertisement  
(3) It is a review  
(4) It is a travelogue

**Options :**

1. **1**
2. ✔️ 2
3. ✔️ 3
4. ☑️ 4

**Question Number : 192  Question Id : 9126062851  Question Type : MCQ  Option Shuffling : No  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical**
What is ‘Raviz’?

(1) It is name of a place
(2) It is an Ayurveda brand of medicine
(3) It is a hotel
(4) It is a tourist spot

Options:
1. ✗ 1
2. ✗ 2
3. ✔ 3
4. ✗ 4

How many branches does ‘Raviz’ have in Kerala?

(1) three
(2) four
(3) two
(4) one

Options:
1. ✗ 1
2. ✔ 2
3. ✗ 3
4. ✗ 4

What is not mentioned as a feature of ‘Raviz’?

(1) It provides traditional Kerala hospitality
(2) It provides Ayurveda therapies
(3) It provides only Kerala cuisine
(4) It provides excellent service

Options:
1. ✗ 1
2. ✗ 2
Which is not stated as a reason for ‘Raviz’ being a favourite holiday spot?

(1) availability of expert surgeons
(2) serene surroundings
(3) world class facilities
(4) Its close location to a waterbody

Options:
1. ✓ 1
2. 2
3. 3
4. 4
Read the following passage and answer questions 46-50:

A new US study has warned that adolescents who take performance enhancing anabolic steroids are more likely to have adverse neural and behavioural consequences like aggression and moodiness because of the steroids effect on the underdeveloped brain and nervous system. The study by Northern University in US, centered around a brain chemical called serotonin, which is linked to mood. Lower levels of serotonin are associated with depression and aggression. For the study, experiments were carried out on a strain of Syrian hamsters. This breed has similar neurological circuitry to humans, so experts felt it might be a good model for humans in this respect. The hamsters were given a high dose of anabolic steroids over the course of the month – which corresponded to five years repeated dosage in humans. The researchers found that the hamsters were more aggressive than those not given steroids and these aggressive tendencies were mellowed if Prozac – a drug which boosts serotonin “uptake” – was given. However, subsequent analysis showed significantly lower than normal serotonin levels in the neural connections of the hamster’s brains. This suggests there may be long-term effects of taking steroids while the brain is still developing. Professor Richard Melloni who helped run the study, was quoted as saying by BBC: “We know steroids affect the development of serotonin nerve cells, which in turn, decreases serotonin availability in the brain. The serotonin neural system is developing during adolescence and the use of anabolic steroids during this critical period appears to have immediate neural and behavioural consequences”.

Sub questions

Question Number : 196 Question Id : 9126062856 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Upon which breed of mammals were the experiments carried out?

(1) adolescents  
(2) Syrian hamsters  
(3) Sicilian gangsters  
(4) Italian hamsters

Which is the drug used for boosting serotonin ‘uptake’?

(1) Penicillin  
(2) Melanin  
(3) Enthrocyes  
(4) Prozac

Why do adolescents develop neural disorders?

(1) The effect of steroids hampers the growth of the brain  
(2) Due to decrease in the level of serotonin in the blood  
(3) Steroids affect the underdeveloped brain more  
(4) Prozac makes adolescents aggressive
What was the specific characteristic of the ‘breed’ selected for the experiment?

(1) They were similar to human in their metabolic function.
(2) They were easily available.
(3) They have a similar neurological circuitry as human beings.
(4) They can withstand high dose of steroids.

Options:
1. ☑ 1
2. ☑ 2
3. ☑ 3
4. ☑ 4

How would one best describe the passage?

(1) philosophical
(2) scientific
(3) speculative
(4) seminary

Options:
1. ✗ 1
2. ✗ 2
3. ☑ 3
4. ✗ 4