

# Ssc Cgl Tier I Previous Year Question Paper Overview

Here, you can solve all the questions asked in Ssc Cgl Tier I Previous Year Question Paper on 2021-08-18 in the Afternoon exam. The detailed solutions are also provided for every previous year question and some of these questions can be asked again in your Ssc Cgl Tier I exam. There are 100 questions in the exam and 60 minutes are provided for the Ssc Cgl Tier I exam. The Cutoff of the exam was 140 marks hence you should try to score at least 150 marks.

## Ssc Cgl Tier I Previous Year Question Paper : Questions and Solutions

### Question 1 :

The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?

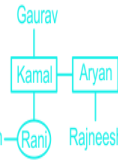
Difficulty : Moderate

Average Time : 47 Seconds

### Options :

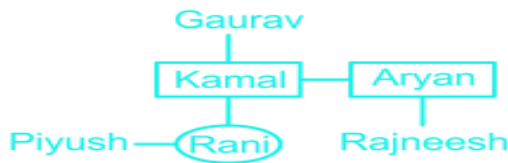
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**Solution :**



The correct answer is **option 1** Piyush—Rani—Rajneesh.

After unfolding, the paper will appear as follows:



When the paper is unfolded same pattern of cutting will appear on the right and top sides of the paper.

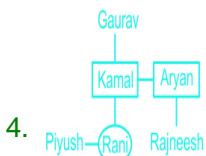
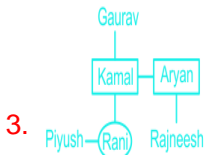
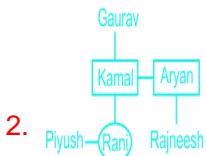
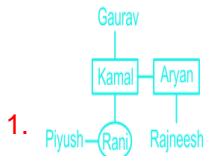
**Question 2 :**

Select the option in which the given figure is embedded (rotation is NOT allowed)

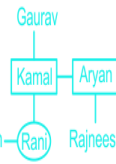
**Difficulty : Moderate**

**Average Time : 69 Seconds**

**Options :**

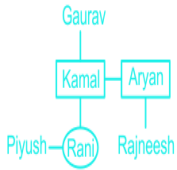


**Solution :**



The correct answer is **option 4**.

The given figure is embedded in option 4, as shown below:



**Question 3 :**

Four letter clusters have been given, out of which three are alike in some manner and one is different. Select the letter cluster that is different.

**Difficulty : Moderate**

**Average Time : 66 Seconds**

**Options :**

1. BDYF
2. XZTB
3. TVQX
4. NPKR

**Solution :**

The correct answer is **option 2** i.e. **XZTB**.

The logic used here is:

1st letter + 2 = 2nd letter

2nd letter - 5 = 3rd letter

3rd letter + 7 = 4th letter

**Option 1:** BDYF

B + 2 = D

D - 5 = Y

Y + 7 = F



This follows the logic.

**Option 2:** XZTB

$$X + 2 = Z$$

$$Z - 5 = U$$

$$U + 7 = B$$

This does not follow the logic.

Hence, **option 2** is the odd one out.

**Question 4 :**

Four number-pairs have been given, out of which three are alike in some manner and one is different. Select the number pair that is different. (Any operation on digits is not allowed)

**Difficulty :** Moderate

**Average Time :** 60 Seconds

**Options :**

1. 326: 107

2. 239: 78

3. 308: 101

4. 197: 66

**Solution :**

The correct answer is **option 4** i.e. **197: 66**.

The logic used here is:

$$\text{2nd number} \times 3 + 5 = \text{1st number}$$

**Option 1:** 326: 107

$$107 \times 3 + 5 = 326$$

This follows the logic.

**Option 2:** 239: 78

$$78 \times 3 + 5 = 239$$

This follows the logic.



**Option 3:** 308: 101

$$101 \times 3 + 5 = 308$$

This follows the logic.

**Option 4:** 197: 66

$$66 \times 3 + 5 = 203$$

This does not follow the logic.

Hence, **option 4** is the odd one out.

**Question 5 :**

Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary. 1. Gravity 2. Glycogen 3. Gestation 4. Glycerine 5. Gesture

**Difficulty :** Moderate

**Average Time :** 57 Seconds

**Options :**

1. 3, 5, 4, 2, 1

2. 3, 2, 5, 1, 4

3. 3, 1, 2, 4, 5

4. 3, 5, 2, 4, 1

**Solution :**

The correct answer is **option 1** i.e. **3, 5, 4, 2, 1**.

In this question, you need to arrange the words as they would appear in the English dictionary.

So the arrangement is;

1. Gestation

2. Gesture

3. Glycerine

4. Glycogen

5. Gravity

**Question 6 :**

Select the letter from among the given options that can replace the question mark (?) in the following series. H, Q, I, T, K,

?, N

Difficulty : Moderate

Average Time : 44 Seconds

Options :

1. Y
2. A
3. U
4. J

Solution :

The correct answer is **option 1** i.e. **Y**.

Given series: H, Q, I, T, K, ?, N

The series is alternate with two series;

1. H, I, K, N

$$H + 1 = I$$

$$I + 2 = K$$

$$K + 3 = N$$

2. Q, T, ?

$$Q + 3 = 20$$

$$T + 5 = Y$$

So, the missing term in the series is **Y**.

Question 7 :

In a certain code language, 'VIRTUE' is written as 'DBZBNX'. How will 'OMINOUS' be written

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. HBUVHNA
2. HUBVHNA
3. IBUHABM

## IUBHMBA

### Solution :

The correct answer is **option 2** i.e. **HUBVHNA**.

The logic used here is:

Vowel - 7 = Code

Consonant + 8 = Code

'VIRTUE' is written as 'DBZBNX'

V + 8 = B

I - 7 = B

R + 8 = Z

T + 8 = B

U - 7 = N

E - 7 = X

Similarly,

Code for the word OMINOUS:

O - 7 = H

M + 8 = U

I - 7 = B

N + 8 = V

O - 7 = H

U - 7 = N

S + 8 = A

Hence, **option 2** is the correct answer.

### Question 8 :

Three different positions of the same dice are shown, the faces of which are marked with letters. A, B, C, D, E, and F. Select the letter that will be on the face opposite to the face having the letter 'D'.

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. B
2. A
3. F
4. C

Solution :

The correct answer is **option 1** i.e. **B**.

Given:

In the 2nd and 3rd dice, B, and E is common, so, the remaining faces are opposite to each other so, A is opposite to F.

In the 1st and 2nd dice, A, and B is common, so, the remaining faces are opposite to each other so, C is opposite to E.

So, the remaining letter D is opposite to the letter B.

Hence, **option 1** is the correct answer.

Question 9 :

Select the option in which the words share the same relationship as that shared by the given pair of words. Jharkhand: Ranchi

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. Sikkim: Itanagar
2. Mizoram: Kohima
3. Assam: Jorhat
4. Meghalaya: Shillong

Solution :

The correct answer is **option 4** i.e. **Meghalaya: Shillong**.

The logic used here is:

Jharkhand: Ranchi



Ranchi is the capital of Jharkhand.

Similarly,

Meghalaya: Shillong

Shillong is the capital of Meghalaya.

Hence, **option 4** is the correct answer.

**Question 10 :**

Find the number of triangles in the given figure.

Difficulty : Moderate

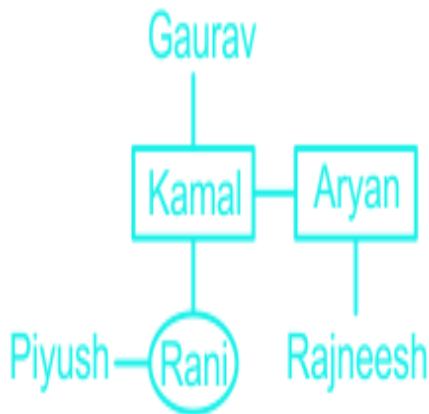
Average Time : 43 Seconds

**Options :**

1. 14
2. 16
3. 20
4. 18

**Solution :**

The correct answer is **option 4** i.e. **18**.



18 triangles: ABC, BEF, CGH, AEH, DEM, HIJ, OPK, PQQ, OQK, OLK, QKJ, CKJ, BLM, AMJ, CPQ, BON, ANQ, CQK.

**Question 11 :**

Select the option in which the numbers are related in the same way as the numbers of the following set. (4, 10, 53)

Difficulty : Moderate

Average Time : 42 Seconds

### Options :

1. (8, 20, 103)
2. (11, 31, 152)
3. (5, 13, 62)
4. (7, 19, 98)

### Solution :

The correct answer is **option 4** i.e. **(7, 19, 98)**.

The logic used here is:

$$(4, 10, 53)$$

$$4 \times 3 - 2 = 12 - 2 = 10$$

$$10 \times 5 + 3 = 53$$

#### Option 1: (8, 20, 103)

$$8 \times 3 - 2 = 22$$

$$22 \times 5 + 3 = 113$$

This does not follow the logic.

#### Option 2: (11, 31, 152)

$$11 \times 3 - 2 = 31$$

$$31 \times 5 + 3 = 158$$

This does not follow the logic.

#### Option 3: (5, 13, 62)

$$5 \times 3 - 2 = 13$$

$$13 \times 5 + 3 = 68$$

This does not follow the logic.

#### Option 4: (7, 19, 98)

$$7 \times 3 - 2 = 19$$

$$19 \times 5 + 3 = 98$$



This follows the logic.

Hence, **option 4** is the correct answer.

**Question 12 :**

Select the number from among the given options that can replace the question mark (?) in the following series. 6, 6, 8, 24, 28, 140, ?

Difficulty : Moderate

Average Time : 62 Seconds

**Options :**

1. 144
2. 146
3. 145
4. 148

**Solution :**

The correct answer is **option 2** i.e. **146**.

Given series: 6, 6, 8, 24, 28, 140, ?

The series follows the pattern:

$$6 \times 1 = 6$$

$$6 + 2 = 8$$

$$8 \times 3 = 24$$

$$24 + 4 = 28$$

$$28 \times 5 = 140$$

$$140 + 6 = 146$$

So, the next term in the series is **146**.

**Question 13 :**

Select the Venn diagram that best illustrates the relationship among the following classes. Neptune, Planet, Moon

Difficulty : Moderate

Average Time : 42 Seconds

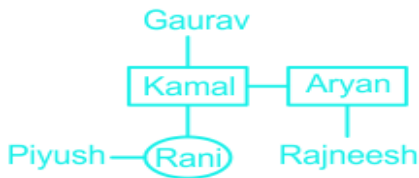
**Options :**

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

**Solution :**

The correct answer is **option 3** i.e.

The possible Venn diagram is:



All Neptunes are planets. But, the moon is a different class as it is a satellite.

Hence, the diagram given above shows the best relationship between them.

**Question 14 :**

Select the option that is related to the third number in the same way as the second number is related to the first number and the sixth number is related to the fifth number. 16: 8:: 21: ?:: 11: 6

**Difficulty : Moderate**

**Average Time : 75 Seconds**



### Options :

1. 11

2. 10

3. 9

4. 14

### Solution :

The correct answer is **option 2** i.e. **10**.

The logic used here is:

**16: 8**

$$16 + 4 = 20$$

$$20 \div 5 = 4$$

$$4 \times 2 = 8$$

**11: 6**

$$11 + 4 = 15$$

$$15 \div 5 = 3$$

$$3 \times 2 = 6$$

Similarly,

**21:?**

$$21 + 4 = 25$$

$$25 \div 5 = 5$$

$$5 \times 2 = 10$$

Hence, **option 2** is the correct answer.

### Question 15 :

Study the given pattern carefully and select the number that can replace the question mark (?) in it. 3 13 4 6 67 31 5 ? 20

Difficulty : Moderate

Average Time : 46 Seconds

### Options :



40

2. 45

3. 50

4. 55

**Solution :**

The correct answer is **option 2** i.e. **45**.

The logic used here is:

**Row 1:**

$$(3)^2 + 4 = 13$$

**Row 2:**

$$(6)^2 + 31 = 67$$

Similarly,

**Row 3:**

$$(5)^2 + 20 = 45$$

Hence, **option 2** is the correct answer.

**Question 16 :**

Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. Statements: Some mats are carpets. Some carpets are blankets. No blanket is a quilt. Conclusions: I. No quilt is a carpet. II. No blanket is a mat. III. Some carpets are mats.

**Difficulty : Moderate****Average Time : 58 Seconds****Options :**

1. Both conclusions I and III follow
2. Only conclusion III follows
3. Only conclusion II follows
4. Only conclusion I follows

**Solution :**

The correct answer is **option 2** i.e. **Only conclusion III follows.**

The least possible Venn Diagram for the given statements is drawn below:



**Conclusions:**

- I. No quilt is a carpet **False** (It is possible but no definite conclusion can be drawn).
- II. No blanket is a mat **False** (It is possible but no definite conclusion can be drawn).
- III. Some carpets are mats **True** (As some mats are carpets, so, some carpets are mats).

Hence, **Only conclusion III follows.**

**Question 17 :**

Select the option that is related to the third word in the same way as the second word is related to the first word. Circle:  
Arc:: Plant:?

**Difficulty : Moderate**

**Average Time : 73 Seconds**

**Options :**

- 1. Plasma
- 2. Tree
- 3. Chlorophyll
- 4. Stem

**Solution :**

The correct answer is **option 4** i.e. **Stem.**

The logic used here is:

Circle: Arc

Arc is a part of the circle.

Similarly,

Plant:?

A stem is a part of a plant.

Hence, **option 4** is the correct answer.

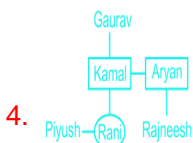
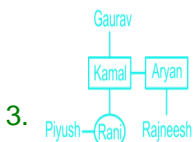
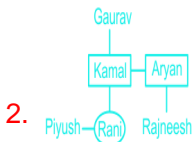
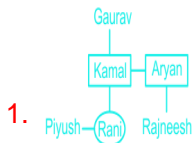
**Question 18 :**

Select the correct mirror image of the given combination when the mirror is placed as 'AB' as shown.

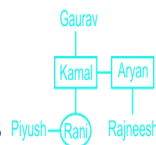
**Difficulty : Moderate**

**Average Time : 45 Seconds**

**Options :**

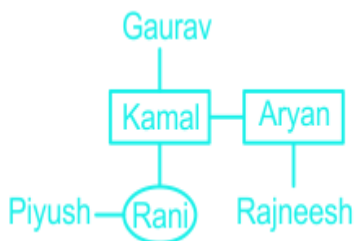


**Solution :**



The correct answer is **option 3**

The mirror image of the question figure is shown below:



Since the mirror is placed right to the question figure, the right-hand side of the original image will be now the left-hand



side of the mirror image.

Hence, **option 3** is the correct answer.

**Question 19 :**

Select the correct combination of mathematical signs that can sequentially replace the \* signs and balance the equation.

$$483 * 23 * 93 * 16 * 4 * 50$$

Difficulty : Moderate

Average Time : 74 Seconds

**Options :**

1.  $\div, +, -, =, \times$

2.  $\div, +, -, \times, =$

3.  $+, \div, -, \times, =$

4.  $\div, -, +, \times, =$

**Solution :**

The correct answer is **option 2** i.e.  $\div, +, -, \times, =$ .

**Given equation:**  $483 * 23 * 93 * 16 * 4 * 50$

Let us check all the options:

**Option 1:**  $\div, +, -, =, \times$ 

The expression becomes:

$$= 483 \div 23 + 93 - 16 = 4 \times 50$$

$$= 98 \text{ is not equal to } 200.$$

**Option 2:**  $\div, +, -, \times, =$ 

$$= 483 \div 23 + 93 - 16 \times 4 = 50$$

$$= 50 \text{ is equal to } 50.$$

As we have found our answer, we need not check the other options.

Hence, **option 3** is the correct answer.

**Question 20 :**

The present age of Ramesh is 7 years more than the present age of his wife Sangeeta. 6 years hence, the age of Ramesh will be three times that of his son Mayank. If the present age of Mayank is 10 years, then what is the present age of



Sangeeta?

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. 48 years
2. 35 years
3. 42 years
4. 30 years

Solution :

The correct answer is **option 2** i.e. **35 years**.

Let the present age of Ramesh be  $x$  years.

Let the present age of Sangeeta be  $y$  years.

Let the present age of Mayank be  $z$  years.

According to the question;

$$x = 7 + y \text{ ----- (1)}$$

$$(x + 6) = 3 (z + 6)$$

The present age of Mayank is 10 years, so,  $z = 10$  years.

$$\text{So, } (x + 6) = 3 (10 + 6)$$

$$x = 42 \text{ years} = \text{Present age of Ramesh}$$

$$\text{The present age of Sangeeta} = 42 - 7 = 35 \text{ years}$$

**Question 21 :**

Select the letter cluster from among the given options that can replace the question mark (?) in the following series. CUH, HQK, MMN, RIQ, ?

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. UDS
2. XFS



WET

4. VGT

**Solution :**

The correct answer is **option 3** i.e. **WET**.

Given series: CUH, HQK, MMN, RIQ, ?

The series follows the pattern:

CUH, HQK

$C + 5 = H$

$U - 4 = Q$

$H + 3 = K$

Similarly;

RIQ, ?

$R + 5 = W$

$I - 4 = E$

$Q + 3 = T$

So, the next term in the series is **WET**.

**Question 22 :**

In a certain code language, 'REFUSAL' is coded as '2101239103', and 'POETRY' is coded as '1067927'. How will 'PROFIT' be coded in that language?

Difficulty : Moderate

Average Time : 51 Seconds

**Options :**

1. 12186792

2. 81217629

3. 18216972

4. 21671829

**Solution :**

The correct answer is **option 1** i.e. **12186792**.

The logic used here is:

First, arrange the word in alphabetical order.

The letters with the single positional value are multiplied by 2.

The letters with the double positional value are summed to get a number.

'REFUSAL' is coded as '2101239103'

REFUSAL = AEFLRSU

$$A = 1 \times 2 = 2$$

$$E = 5 \times 2 = 10$$

$$F = 6 \times 2 = 12$$

$$L = 12 = 1 + 2 = 3$$

$$R = 18 = 1 + 8 = 9$$

$$S = 19 = 1 + 9 = 10$$

$$U = 21 = 2 + 1 = 3$$

REFUSAL = 2101239103

Similarly,

Code for the word PROFIT:

PROFIT = FIOVRT

$$F = 6 \times 2 = 12$$

$$I = 9 \times 2 = 18$$

$$O = 15 = 1 + 5 = 6$$

$$P = 16 = 1 + 6 = 7$$

$$R = 18 = 1 + 8 = 9$$

$$T = 20 = 2 + 0 = 2$$

PROFIT = 12186792

Hence, **option 1** is the correct answer.

**Question 23 :**

Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.

**Difficulty : Moderate****Average Time : 68 Seconds****Options :**

1. Zeal
2. Vision
3. Fury
4. Devotion

**Solution :**

The correct answer is **option 2** i.e. **Vision**.

The logic used here is:

Zeal means great energy or enthusiasm in pursuit of a cause or an objective.

Vision means the faculty or state of being able to see.

Fury means wild or violent anger.

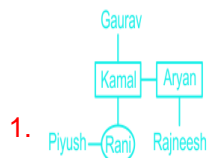
Devotion means love, loyalty, or enthusiasm for a person or activity.

Zeal, fury, and devotion are emotions whereas, vision is not an emotion.

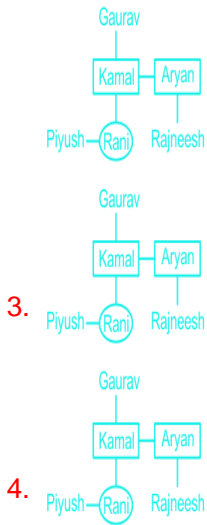
Hence, **option 2** is the odd one out.

**Question 24 :**

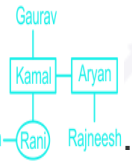
Select the figure from among the given options that can replace the question mark (?) in the following series.

**Difficulty : Moderate****Average Time : 55 Seconds****Options :**

2.



**Solution :**



The correct answer is **option 2** Piyush—(Rani) Rajneesh.

The logic used here is:

1. The position of the triangle  $\hat{+}$  is fixed.
2. The symbol at the left top corner starts moving in front of the triangle.

The series of figures:



**Question 25 :**

Rani is the sister of Piyush and the daughter of Kamal. Kamal is the son of Gaurav and the brother of Aryan. Aryan is the father of Rajneesh. How is Aryan related to Piyush?

**Difficulty :** Moderate

**Average Time :** 75 Seconds

**Options :**

1. Brother
2. Father

Paternal Grandfather

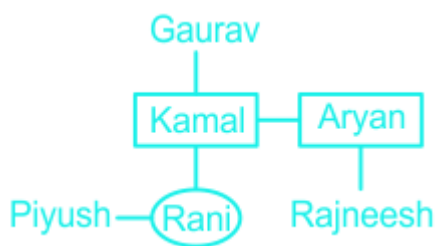
4. Paternal Uncle

**Solution :**

The correct answer is **option 4** i.e. **Paternal Uncle**.

In the diagram shown;

Square shows males, the circle shows females, vertical lines show generations, a single horizontal line shows brothers or sisters, and double lines show a couple.



From the above figure, Aryan is the paternal uncle of Piyush.

Hence, **option 4** is the correct answer.

**Question 26 :**

In which of the following years was the Indian Independence Act passed by the British Parliament?

**Difficulty : Moderate**

**Average Time : 54 Seconds**

**Options :**

1. 1945
2. 1947
3. 1942
4. 1946

**Solution :**

The correct answer is **Option 2** i.e. **1947**.

**In 1947 was the Indian Independence Act passed by the British Parliament.**

- On July 18, 1947, the Indian Independence Act of 1947 became law after receiving royal approval.
- The British Parliament passed the Indian Independence Act of 1947, which divided India into the sovereign nations of India and Pakistan.

**Question 27 :**

The total membership of the Constituent Assembly was 389, of which \_\_\_\_\_ were representatives of princely states.

**Difficulty : Moderate****Average Time : 45 Seconds****Options :**

1. 84
2. 109
3. 93
4. 102

**Solution :**

The correct answer is **option 3** i.e. **93**.

The total membership of the Constituent Assembly was 389, of which 93 were representatives of princely states.

- The Indian Constituent Assembly was chosen to draught the country's constitution.
- The provincial assembly selected it.
- Its members served as the first parliament of India following its 1947 separation from the British Empire.

**Question 28 :**

Who among the following became the co-chair of the 17th ASEAN-India Summit in November 2020?

**Difficulty : Moderate****Average Time : 45 Seconds****Options :**

1. The Prime Minister of India
2. The Chief Justice of India
3. The Speaker of the Lok Sabha
4. The President of India

**Solution :**

The correct answer is **option 1** i.e. **The Prime Minister of India**.

- The Prime Minister of India became the co-chair of the **17th** ASEAN-India Summit in November 2020.
- On November 12, 2020, the 17th ASEAN-India Summit was co-chaired by Prime Minister Shri Narendra Modi and Prime Minister of Vietnam, HE Nguyen Xuan Phuc.





The Summit includes participation from the leaders of all 10 ASEAN member states.

Prime Minister Shri Narendra Modi participated in the **18th** India-ASEAN Summit at the invitation of His Majesty Sultan Haji Hassanal Bolkiah of Brunei, the current Chair of ASEAN.

**Question 29 :**

Which of the following states' tourism ministry announced the launch of India's first Labour Movement Museum in January 2021?

Difficulty : Moderate

Average Time : 63 Seconds

**Options :**

1. West Bengal
2. Odisha
3. Kerala
4. Karnataka

**Solution :**

The correct answer is **option 3** i.e. **Kerala**

- The first Labor Movement Museum in India was open in January 2021, according to the tourist ministry of Kerala.
- State Museums Odisha - Netaji Birth Place Museum, Odisha Maritime Museum, Regional Museum of Natural History.
- West Bengal - Victoria Memorial Hall, Himalayan Mountaineering Institute, Rail Museum.
- Karnataka - Visvesvaraya Industrial and Technological Museum, The Heritage Centre & Aerospace Museum, Madikeri Fort.

**Question 30 :**

Which of the following is a coarse-grained igneous rock that contains quartz and feldspar?

Difficulty : Moderate

Average Time : 51 Seconds

**Options :**

1. Granite
2. Basalt
3. Andesite
4. Marble

**Solution :**



The correct answer is **option 1** i.e. **Granite**.

- Quartz, feldspar, and mica minerals make up the majority of the coarse-grained, light-colored intrusive igneous rock known as granite.
- The igneous rock known as granite has light-colored granules that are large enough to be seen with the naked eye.
- Magma beneath the surface of the Earth slowly crystallizes to become it.
- With trace amounts of mica, amphiboles, and other minerals, granite is mostly made of quartz and feldspar.
- Gujarat, Andhra Pradesh, Rajasthan, Karnataka, Tamil Nadu, and other states typically produce the bulk of the world's granite, both raw and processed.

**Question 31 :**

\_\_\_\_\_ is the pattern of veins in the blade of a leaf.

**Difficulty : Moderate**

**Average Time : 57 Seconds**

**Options :**

1. Cytology
2. Anthology
3. Morphology
4. Venation

**Solution :**

The correct answer is **option 4** i.e. **Venation**.

**Venation is the pattern of veins in the blade of a leaf.**

- Venation describes the way veins are arranged in leaves.
- Within each leaf, the vascular tissue creates veins.
- The venation pattern refers to how the veins are arranged in a leaf. The veins in monocot leaves are parallel to one another.
- Parallel venation is a characteristic of such leaves.
- Bananas, grass, and wheat, for example.
- Veins and veinlets in dicot leaves are dispersed erratically across the entire lamina, creating a network.
- Mango and peepal, for example.

**Question 32 :**

Which of the following acids is used in the purification of gold and silver?

**Difficulty : Moderate**

**Average Time : 59 Seconds**

**Options :**

Formic acid

2. Nitric acid

3. Maleic acid

4. Acetic acid

**Solution :**

The correct answer is **option 2** i.e. **Nitric acid**.

**Nitric acid is used in the purification of gold and silver.**

- The purifying of gold involves the use of nitric acid.
- Aqua regia, often known as royal water, is an acidic liquid that dissolves gold and is used to purify scrap alloy that contains gold.
- Nitric acid and hydrochloric acid are combined in a 3:1 ratio to create aqua regia.

**Question 33 :**

Which of the following states inaugurated its first bird festival 'Kalrav' in January 2021?

**Difficulty : Moderate**

**Average Time : 52 Seconds**

**Options :**

1. Tripura
2. Odisha
3. Assam
4. Bihar

**Solution :**

The correct answer is **option 4** i.e. **Bihar**

**Bihar inaugurated its first bird festival 'Kalrav' in January 2021.**

Bird sanctuaries in Bihar are:

- Salim Ali-Jubba Sahni Bird Sanctuary.
- Pant Wildlife Sanctuary.
- Kanwar Lake Bird Sanctuary.
- Nagi Bird Sanctuary.

**Question 34 :**

What was the name of the women's regiment in the Indian National Army founded by Subhash Chandra Bose?



Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. Rani Ahalyabai Regiment
2. Rani of Didda Regiment
3. Rani of Jhansi Regiment
4. Rani Padmawati Regiment

Solution :

The correct answer is **option 3** i.e. **Rani of the Jhansi Regiment**.

- Rani of Jhansi Regiment is the name of the women's regiment in the Indian National Army founded by Subhash Chandra Bose.
- The Indian National Army, an armed force established by Indian nationalists in Southeast Asia in 1942, had a women's regiment called the Rani of Jhansi Regiment.
- On all sides of the Second World War, it was one of the all-female fighting regiments.
- The unit, which was commanded by Captain Lakshmi Swaminathan, was formed in July 1943 with the help of volunteers from the Indian expatriate community in Southeast Asia.
- On July 12, 1943, Bose announced the formation of this unit.

Question 35 :

What was the name of the first artificial satellite launched by India in 1975?

Difficulty : Moderate

Average Time : 64 Seconds

Options :

1. Sushruta
2. Panini
3. Charaka
4. Aryabhatta

Solution :

The correct answer is **option 4** i.e. **Aryabhatta**

- India's first satellite was the Aryabhata spacecraft, which was launched by a Soviet Kosmos-3M rocket from Kapustin Yar on April 19, 1975.
- It was named after the well-known Indian astronomer.

**Question 36 :**

In which of the following states is the Kolleru Lake located?

Difficulty : Moderate

Average Time : 40 Seconds

**Options :**

1. Tamil Nadu
2. Kerala
3. Madhya Pradesh
4. Andhra Pradesh

**Solution :**

The correct answer is **option 4** i.e. **Andhra Pradesh**

- One of India's largest freshwater lakes, Kolleru Lake, is situated in the Andhra Pradesh region, 15 kilometers from Eluru.
- Between the Krishna and Godavari deltas is where Kolleru is located.

**Question 37 :**

Who was appointed as the middle and long distance coach of the Indian athletics team in January 2021?

Difficulty : Moderate

Average Time : 43 Seconds

**Options :**

1. Radhakrishnan Nair
2. Adille Sumariwalla
3. Nikolai Snesarev
4. Amrish Kumar

**Solution :**

The correct answer is **option 3** i.e. **Nikolai Snesarev**

**Nikolai Snesarev was appointed as the middle and long-distance coach of the Indian athletics team in January 2021.**

- Avinash Sable, a 3000m steeplechaser who has already qualified for the Olympics, and another middle- and long-distance runners were being coached by Snesarev in their quest to make the Tokyo Olympics.
- In February 2019, he announced his resignation as the long and middle-distance coach for Indian athletics after



Sable decided to train with Army coach Amrish Kumar instead.

- Preeja Sreedharan and Kavita Raut finished first and second in the 10,000-meter race at the 2010 Asian Games under Snesev's coaching, and Sudha Singh won the steeplechase.

**Question 38 :**

In which of the following Indian states will you find the 'Kunchikal Falls'?

Difficulty : Moderate

Average Time : 62 Seconds

**Options :**

1. **Telangana**
2. **Kerala**
3. **Tamil Nadu**
4. **Karnataka**

**Solution :**

The correct answer is **option 4** i.e. **Karnataka**.

- The Karnataka state's Kunchikal Falls, also known as Kunchikal Abbe, is situated close to Masthikatte-Hulikal, which borders the Udupi-Shimoga districts.
- The Varahi River creates Kunchikal Falls.
- The Kunchikal Falls has a total height of 455 meters.

**Question 39 :**

SP Balasubramaniam was a \_\_\_\_\_ who was conferred with the Padma Vibhushan posthumously in January 2021.

Difficulty : Moderate

Average Time : 43 Seconds

**Options :**

1. **singer**
2. **scientist**
3. **archaeologist**
4. **painter**

**Solution :**

The correct answer is **option 1** i.e. **singer**

- An Indian playback singer, television host, music director, actor, and film producer, SP Balasubrahmanyam primarily



contributed to Telugu, Tamil, Kannada, Hindi, and Malayalam films.

- On June 4, 1946, SP Balasubrahmanyam was born in Nellore, Madras Presidency, British India.

**Question 40 :**

Who among the following Indian actors was honoured with the 'Best Actor' award at the Indo-German Film week held in Europe in 2020?

Difficulty : Moderate

Average Time : 45 Seconds

**Options :**

1. Shah Rukh Khan
2. Adil Hussain
3. Salman Khan
4. Sanjay Dutt

**Solution :**

The correct answer is **option 2** i.e. **Adil Hussain**

- For his recent performances in Pareeksha and Nirvana Inn, actor Adil Hussain won the Best Actor prize at the Indo-German Film Week in Berlin.
- Prakash Jha directed Pareeksha while Vijay Jayapal had helmed Nirvana Inn.
- Adil most recently appeared in Prakash Jha's film as Buchchi, a rickshaw driver who makes all attempts to provide for his child's best education.

**Question 41 :**

When we cut an onion, the vegetable emits an odour and our eyes tear up. Which of the following compounds is responsible for the tears and odour resulting from freshly cut onions?

Difficulty : Moderate

Average Time : 56 Seconds

**Options :**

1. Ascorbic acid
2. Sulphuric acid
3. Citric acid
4. Acetic acid

**Solution :**



The correct answer is **option 2** i.e. **Sulphuric acid**.

When we cut an onion, the vegetable emits an odour and our eyes tear up. Sulphuric acid is responsible for the tears and odour resulting from freshly cut onions.

**Question 42 :**

Makaravilakku is an annual festival held on Makar Sankranti in which of the following states?

Difficulty : Moderate

Average Time : 41 Seconds

**Options :**

1. Tamil Nadu
2. Odisha
3. Karnataka
4. Kerala

**Solution :**

The correct answer is **option 4** i.e. **Kerala**.

At the Sabarimala Ayyappa temple in Kerala, Makaravilakku is an annual celebration that takes place on Makara Sankranti.

**Question 43 :**

According to Malthusian theory which of the following grows in geometric progression?

Difficulty : Moderate

Average Time : 36 Seconds

**Options :**

1. Food supply
2. Population
3. Employment
4. Poverty

**Solution :**

The correct answer is **option 2** i.e. **Population**

- The exponential population growth and arithmetic increase in the food supply are two concepts in the Malthusian Theory of Population.
- Thomas Robert Malthus came up with the hypothesis.





He thought that proactive and constructive checks may create a balance between population expansion and food availability.

**Question 44 :**

Who among the following was the first Finance Minister of Independent India?

Difficulty : Moderate

Average Time : 45 Seconds

**Options :**

1. R.K. Shanmukham Chetty
2. CD Deshmukh
3. Liaquat Ali Khan
4. K.C. Neogy

**Solution :**

The correct answer is **option 1** i.e. **R.K. Shanmukham Chetty**.

- India's first finance minister was R.K. Shanmukham Chetty.
- On October 17, 1892, R.K. Shanmukham Chetty was born in Coimbatore.
- R.K. Shanmukham Chetty, the nation's first finance minister, delivered an interim budget for Independent India on November 26, 1947.

**Question 45 :**

On which of the following days is National Disaster Response Force Raising Day celebrated annually?

Difficulty : Moderate

Average Time : 47 Seconds

**Options :**

1. 23 October
2. 19 January
3. 21 September
4. 6 March

**Solution :**

The correct answer is **option 2** i.e. **19 January**

- On January 19, the National Disaster Response Force (NDRF) Raising Day is observed to commemorate the organization's founding.



The NDRF celebrated its 17th NDRF Raising Day in 2022.

- On January 19, 2006, the NDRF was established.
- A specialist task force has been established to provide an unique reaction to a disaster or a disaster threat.

**Question 46 :**

Which of the following articles of the Constitution of India defines a separate secretarial staff for each House of Parliament?

**Difficulty : Moderate****Average Time : 49 Seconds****Options :**

1. Article 34
2. Article 98
3. Article 155
4. Article 123

**Solution :**

The correct answer is **option 2** i.e. **Article 98**.

1. Article 98 of the Constitution of India defines a separate secretarial staff for each House of Parliament.
2. Article 34 of Part III provides for the restrictions on fundamental rights while martial law is in force in any area within the territory of India.
3. Article 155 of the Indian Constitution deals with the appointment of a Governor.
4. Article 123 deals with the ordinance-making power of the President.

**Question 47 :**

Which of the following states launched the scheme 'Sujal - Drink from Tap Mission' that aims to provide quality drinking water directly from tap to all households in urban areas?

**Difficulty : Moderate****Average Time : 54 Seconds****Options :**

1. Odisha
2. West Bengal
3. Uttar Pradesh
4. Bihar

**Solution :**

The correct answer is **option 1** i.e. **Odisha**

- On October 13, 2020, the government of Odisha announced the "Sujal- Drink From Tap Mission" to provide drinking water from the tap to the entire state.
- Odisha became the first state in India to adopt the programme, which aims to supply water suitable for direct consumption in metropolitan areas.

**Question 48 :**

Who has been re-appointed as the MD and CEO of the RBL Bank in January 2021 for three years?

**Difficulty : Moderate**

**Average Time : 47 Seconds**

**Options :**

1. Deepak Ruiya
2. Rajeev Arora
3. Rajeev Ahuja
4. Vishwvir Ahuja

**Solution :**

The correct answer is **option 4** i.e. **Vishwvir Ahuja**

- In January 2021, Vishwvir Ahuja was reappointed for a three-year term as the MD and CEO of the RBL Bank.
- An Indian private sector bank with its headquarters in Mumbai is RBL Bank, sometimes referred to as Ratnakar Bank.
- Rajeev Ahuja was named as the company's acting MD and CEO on December 25, 2021, in accordance with the March 2022, after regular MD and CEO Vishwvir Ahuja left the company for medical reasons.

**Question 49 :**

Who among the following established the Rashtrakuta Kingdom?

**Difficulty : Moderate**

**Average Time : 51 Seconds**

**Options :**

1. Dantidurga
2. Krishna I
3. Ashoka
4. Amoghavarsha

**Solution :**

The correct answer is **option 1** i.e. **Dantidurga**

- The Rashtrakuta kingdom of Manyakheta was established by Dantidurga, also known as Dantivarman.
- His capital was in the Karnataka province of Gulbarga.
- When Dantidurga was in power, the Elichpur clan, a feudatory of the Badami Chalukyas, ousted the Chalukya Kirtivarman II and established an empire with the Gulbarga region.

**Question 50 :**

In which of the following countries was the headquarters of the International Olympic Committee located as of February 2021?

**Difficulty : Moderate****Average Time : 47 Seconds****Options :**

1. China
2. The US
3. Japan
4. Switzerland

**Solution :**

The correct answer is **option 4** i.e. **Switzerland**.

A non-governmental sports organization with its headquarters in Lausanne, Switzerland, is the International Olympic Committee.

According to Articles 60 to 79 of the Swiss Civil Code, it is organized as a federation.

It is the body in charge of planning the modern (summer, winter, and youth) Olympic Games. It was founded in 1894 by Pierre de Coubertin and Demetrios Viquelas.

The International Olympic Committee (IOC) is the entity in charge of overseeing the National Olympic Committees (NOCs) and the global Olympic movement.

**Question 51 :**

Select the option that expresses the given sentence in indirect speech. Raj said to his friend, "Please help me in this task."

**Difficulty : Moderate****Average Time : 56 Seconds****Options :**

1. Raj requested his friend to help him in that task.
2. Raj ordered his friend to help him in this task.



Raj threatened his friend to help him in this task.

4. Raj said to his friend please help me in this task.

### Solution :

The correct answer is **option 1** i.e. **Raj requested his friend to help him in that task.**

- The basic rules for converting a direct speech into indirect speech are as follows.

1. The **commas, inverted commas** are not used.
2. Reports are typically made using **to-infinitive** i.e. **here, to help**.
3. **'Please'** in the sentence shows request hence, reporting verb should be used instead of **'Please'** followed by the **object**.
4. The **first person pronoun** becomes the **third person pronoun** in this case **'me'** will become **'him'** and **'this'** will become **'that'**.

The correct solution is-

*Raj requested his friend to help him in that task.*

### Question 52 :

Select the most appropriate option to fill in the blank. She knew that to apologise would \_\_\_\_\_ to admitting she had failed.

Difficulty : Moderate

Average Time : 79 Seconds

### Options :

1. tantamount
2. tandem
3. tantalising
4. tangible

### Solution :

The correct answer is **option 1** i.e. **tantamount**

- Meaning of the word **'Tantamount'** is **similar in impact or worth to something**.
- The above sentence shows **a belief that apologizing is equivalent to failure**.
- Hence, **'Tantamount'** is the most appropriate word.

The correct solution is-

*She knew that to apologise would **tatamount** to admitting she had failed.*

### Question 53 :



Select the most appropriate option to fill in the blank. It was difficult to \_\_\_\_\_ Gopal to watch a horror movie.

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1. consult
2. dissuade
3. persuade
4. confer

Solution :

The correct answer is **option 3** i.e. **persuade**

- The above sentence talks about the **difficulty in influencing Gopal to watch a horror movie**.
- The meaning of the word '**Persuade**' is **offering someone convincing justification to induce action**.
- Hence, the most suitable word for the blank is '**Persuade**'.

The correct solution is-

It was difficult to **persuade** Gopal to watch a horror movie.

Question 54 :

Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select 'No substitution'. Fifty litres of milk are donated by the committee to the orphanage every week.

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. are donated by a committee
2. are being donated by the committee
3. No substitution
4. is donated by the committee

Solution :

The correct answer is **option 4** i.e. **is donated by the committee**

- In the above statement the plural form of the verb '**are**' is incorrect.
- With uncountable noun in this case '**milk**' singular form of verb is used.
- With **plural noun, plural verb** should be used.

Hence, **the singular verb 'is'** should be used in place **plural form of verb i.e. 'are'**.

**The correct solution is-**

*Fifty litres of milk **is** donated by the committee to the orphanage every week.*

**Question 55 :**

Select the option that can be used as a one-word substitute for the given group of words. An imaginary ideal society free of poverty and suffering

**Difficulty : Moderate**

**Average Time : 67 Seconds**

**Options :**

1. Dreamland
2. Heaven
3. Paradise
4. Utopia

**Solution :**

The correct answer is **option 4** i.e. **Utopia**

- **The meaning of word 'Utopia' is a imaginary ideal society free of poverty.**

Meaning of all the words are as follows.

1. **Dreamland-** A made-up, overly perfect universe.
2. **Heaven-** A setting or circumstance that makes you incredibly joyful.
3. **Paradise-** The ideal location.
4. **Utopia-** A imaginary ideal society free of poverty.

**The correct solution is-**

*The one word substitution for the above group of words is '**Utopia**'*

**Question 56 :**

The following sentence has been split into four segments. Identify the segment that contains a grammatical error. The weather / is much / more warmer / than it was a few days before.

**Difficulty : Moderate**

**Average Time : 64 Seconds**

**Options :**



than it was a few days before

- is much
- The weather
- more warmer

### Solution :

The correct answer is **option 4** i.e. **more warmer**

- In the above sentence the use of the word '**more**' is not required.
- Words like '**more**' and '**warmer**' are **double comparatives** and should not be used in the same sentence.
- '**Much**' is used for **uncountables**.
- '**Than**' in the sentence indicates **comparison**.
- Hence, '**More**' will be eliminated from the sentence.

The correct solution is-

*The weather is much **warmer** than it was a few days before.*

### Question 57 :

Select the most appropriate meaning of the given idiom. Fair and square

Difficulty : Moderate

Average Time : 61 Seconds

### Options :

- Calm and quiet
- Beautiful in appearance
- By any means available
- According to the rules

### Solution :

The correct answer is **option 4** i.e. **According to the rules**

- The meaning of the above idiom '**Fair and square**' is '**In an honest and fair manner**'.
- Hence, from the above options '**According to the rules**' has a similar meaning.

The correct solution is-

*Meaning of the idiom '**Fair and square**' is '**According to the rules**'.*





## Question 58 :

Select the option that will improve the underlined part of the given sentence. In case no improvement is needed select 'No improvement required'. He fell over in studies owing to his illness.

Difficulty : Moderate

Average Time : 59 Seconds

### Options :

1. **fell behind**
2. fell for
3. No improvement required
4. fell out

### Solution :

The correct answer is **option 1** i.e. **fell behind**

- The verbal phrase '**fell over**' in the above statement is incorrect.
- The sentence talks about a **student who failed to keep up with his studies due to illness**.
- The verb '**fell over**' means **collapsing**.
- Hence, verb '**fell behind**' should be used instead of '**fell over**'.
- The verb '**fell behind**' means **failing to do a work on time**.

The correct sentence is-

He **fell behind** in studies owing to his illness.

## Question 59 :

Select the most appropriate ANTONYM of the given word. Hassled

Difficulty : Moderate

Average Time : 59 Seconds

### Options :

1. Annoyed
2. Worried
3. **Relaxed**
4. Stressed

### Solution :

The correct answer is **option 3** i.e. **Relaxed**



The word '**Hassled**' means to annoy somebody.

Meaning of all the other words are as follows.

1. **Annoyed**- Angry
2. **Worried**- Thinking that something awful might occur or has already occurred
3. **Relaxed**- Not worried, Calm.
4. **Stressed**- To give something extra weight or focus because it is crucial.

The corrected solution is-

Word '**Relaxed**' and '**Hassled**' have opposite meanings hence, are antonyms.

**Question 60 :**

Select the most appropriate synonym of the given word. Calm

Difficulty : Moderate

Average Time : 57 Seconds

Options :

1. Cranky
2. Relaxed
3. Joyful
4. Clean

**Solution :**

The correct answer is **option 2** i.e. **Relaxed**.

- The word 'Calm' means **to be quiet**.

Meaning of rest of words are as follows.

1. **Cranky**- Strange.
2. **Relaxed**- Not tensed.
3. **Joyful**- Feeling happiness.
4. **Clean**- Innocent.

The correct solution is-

The word '**Relaxed**' has a has a similar meaning to word '**Calm**' hence is a synonym.



## Question 61 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate

Average Time : 53 Seconds

### Options :

1. Sentimentally
2. Substantially
3. Subsequently
4. Solicitation

### Solution :

The correct answer is **option 3** i.e. **Subsequently**

- The correct spelling is **Subsequently** which means 'later'.

Rest of the words are spelled correctly with following meanings.

1. **Sentimentally**- In a manner that is affected by or connects to emotional experiences.
2. **Substantially**- A big deal or significantly.
3. **Solicitation**- The action of requesting something from someone or making an attempt to do so.

The correct solution is-

Correct spelling is **Subsequently**.

## Question 62 :

Select the option that expresses the given sentence in active voice. I am paid weekly by my organisation.

Difficulty : Moderate

Average Time : 58 Seconds

### Options :

1. My organisation paid me weekly.
2. My organisation would pay me weekly.
3. My organisation will pay me weekly.
4. My organisation pays me weekly.

### Solution :

The correct answer is **option 4** i.e. **My organisation pays me weekly**.



The sentence emphasizes on the **subject and performing an action in active voice**.

- In **passive voice**, the emphasis is on the **object of the sentence or the action**.
- The above sentence is in **passive voice** and **present simple tense**.
- When a sentence is converted into active voice, the **subject is converted into the object**, in this case 'I' into 'me' and the **object becomes the subject** i.e. 'my organisation' in this case.
- Passive format i.e. **am+V3(paid)** will be converted into **V1** i.e. **(pays)**.

The correct sentence is-

*My organisation pays me weekly.*

**Question 63 :**

Select the most appropriate synonym of the given word. Poignant

Difficulty : Moderate

Average Time : 74 Seconds

Options :

1. Quiet
2. Beautiful
3. Touching
4. Happy

**Solution :**

The correct answer is **option 3** i.e. **Touching**

- The meaning of the word '**Poignant**' is **sympathetic, something that touches your emotions deeply**.
- Meaning of the other words are as follows.

1. **Quiet**- No noise.
2. **Beautiful**- Attractive.
3. **Touching**- Feelings of sympathy.
4. **Happy**- Feeling pleasure.

The correct solution is-

***Touching** is the word similar to **Poignant**. Hence, is a **synonym** of it.*

**Question 64 :**

Select the INCORRECTLY spelt word.



Difficulty : Moderate

Average Time : 55 Seconds

Options :

1. Approval
2. Censure
3. Criticism
4. Helicopter

Solution :

The correct answer is **option 4** i.e. **Helicopter**

- The correct spelling is **Helicopter** which means **a small aircraft with a straight upward flight path.**
  - The rest words are spelt correctly with following meanings.
1. **Approval**- Agreement.
  2. **Censure**- To firmly and formally inform someone that they have acted improperly.
  3. **Criticism**- A statement of what you find objectionable about someone or something

The correct solution is-

*Helicopter is the correct spelling.*

Question 65 :

Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph. A. When it was time to divide the spoils, the lion took one portion for his title as king of the forest. B. He took another portion because he was a partner, and yet another because he was the strongest. C. He took the last portion because an accident would befall anyone who laid a paw upon it. D. Once a lion went hunting with three other beasts.

Difficulty : Moderate

Average Time : 80 Seconds

Options :

1. CABD
2. DABC
3. BDCA
4. DCBA

Solution :



The correct answer is **option 2** i.e. **DABC**.

- A paragraph's first sentence is usually **independent** and contains a **general statement**.
- Sentence **A and D** are independent statements.
- Sentence **D** is truly **independent** while **A** provides more information given by **D**.
- Hence, **A** must come after **D**.
- The only option with this order is **option 2**.

**The correct paragraph is-**

*Once a lion went hunting with three other beasts. When it was time to divide the spoils, the lion took one portion for his title as king of the forest. He took another portion because he was a partner, and yet another because he was the strongest. He took the last portion because an accident would befall anyone who laid a paw upon it.*

**Question 66 :**

Select the most appropriate ANTONYM of the given word. Fallacy

**Difficulty : Moderate**

**Average Time : 74 Seconds**

**Options :**

1. Cheat
2. Flaw
3. Trick
4. Truth

**Solution :**

The correct answer is **option 4** i.e. **Truth**.

- The word '**Fallacy**' means **wrong idea or a false belief**.

Let's examine the meaning of all the other options.

- **Cheat**- To behave dishonestly or unfairly.
- **Flaw**- A mistake in something that makes it unsatisfactory.
- **Trick**- To mislead someone into thinking something that is false.
- **Truth**- The fact.

**The correct solution is-**

*The antonym of **Fallacy** is **Truth**.*

**Question 67 :**



Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph. A. The festival is named after the Indian Hornbill. B. The Hornbill festival is the most anticipated cultural carnival of this state. C. Located in Northeast India, Nagaland is very a beautiful and an ethnically diverse state. D. The Hornbill is often displayed on the traditional tribal headgears worn during Naga festivities.

Difficulty : Moderate

Average Time : 75 Seconds

Options :

1. ACBD
2. BCAD
3. ABCD
4. CBAD

Solution :

The correct answer is **option 4** i.e. **CBAD**.

- The sentence '**C**' is giving a general information about the state of **Nagaland**. Hence is an **independent sentence**, therefore will come first.
- The sentence '**B**' will be the next as it talks about the **most anticipated cultural carnival of the state**.
- The sentence '**A**' **talks about how this festival got its name** hence, will be next.
- The sentence '**D**' gives information about **where and how hornbill is displayed**, hence, is the **concluding** part.

The correct paragraph is-

*Located in Northeast India, Nagaland is very a beautiful and an ethnically diverse state. The Hornbill festival is the most anticipated cultural carnival of this state. The festival is named after the Indian Hornbill. The Hornbill is often displayed on the traditional tribal headgears worn during Naga festivities.*

Question 68 :

Select the option that can be used as a one-word substitute for the given group of words. A dynamic campaign for political, social or religious change

Difficulty : Moderate

Average Time : 78 Seconds

Options :

1. Conflict
2. War



Mutiny

4. Crusade

**Solution :**

The correct answer is **option 4** i.e. **Crusade**.

- Let's examine the meaning of options available.
  - 1. **Conflict**- A fight or an argument.
  - 2. **War**- A situation in which two groups are battling.
  - 3. **Mutiny**- A behaviour in which a group of people disobeys the person in charge.
  - 4. **Crusade**- A fight for or against something that you believe in, good or bad.
- Hence, from the above mentioned meanings '**Crusade**' is the correct option.

**The correct solution is-**

The one word substitute for the above sentence is '**Crusade**'

**Question 69 :**

The following sentence has been split into four segments. Identify the segment that contains a grammatical error. The visitors complained / at the poor accommodation / they were provided / during the tour.

**Difficulty : Moderate**

**Average Time : 69 Seconds**

**Options :**

1. at the poor accommodation
2. The visitors complained
3. during the tour
4. they were provided

**Solution :**

The correct answer is **option 1** i.e. **at the poor accommodation**.

- In the above sentence use of the preposition '**at**' is incorrect.
- When describing a **location or time of arrival**, the preposition "**at**" is used.
- The word '**Complained**' indicates that someone is not satisfied with something.
- Hence, preposition '**about**' should be used instead of '**at**' as about means **concerning or on the subject of**.





The correct sentence is-

The visitors complained **about the poor accomadation** they were provided during the tour.

**Question 70 :**

Select the most appropriate meaning of the given idiom. Sit on the fence

Difficulty : Moderate

Average Time : 63 Seconds

**Options :**

1. Poke fun at people
2. Protect something
3. Create conflicts
4. Avoid making a decision

**Solution :**

The correct answer is **option 4** i.e. **Avoid making a decision.**

- The meaning of the above idiom is **to put off or postpone making a choice or decision.**
- Hence, from the choices given '**Avoid making a decision**' is the correct option.

The correct statement is-

*Avoid making a decision.*

**Comprehension :**

Directions: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses. Not only did they (2)\_\_\_\_\_ fire to keep warm and cook their food; they (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted. Eventually they learned that the burning of brush produced better grasslands and therefore more game.

**Question 71 :**

Select the most appropriate option to fill in blank number 1.

Difficulty : Moderate

Average Time : 76 Seconds

**Options :**

its

2. his

3. your

4. their

### Solution :

The correct answer is **option 1** i.e. **its**

- The above sentence The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses tells about the many ways in which humans used fire.
- The most suitable word is '**its**' as in the sentence the **pronoun** (its) refers to the noun '**FIRE**'.

### The correct solution is-

*The first human beings to control fire gradually learned **its** many uses.*

### Comprehension :

Directions: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses. Not only did they (2)\_\_\_\_\_ fire to keep warm and cook their food; they (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted. Eventually they learned that the burning of brush produced better grasslands and therefore more game.

### Question 72 :

Select the most appropriate option to fill in blank number 2.

Difficulty : Moderate

Average Time : 78 Seconds

### Options :

1. use
2. ready
3. used
4. prepare

### Solution :

The correct answer is **option 1** i.e. **use**

- The sentence Not only did they (2)\_\_\_\_\_ fire to keep warm and cook their food; tells us where they used fire.

The most suitable word is '**Use**' which means **utilize**.

**The correct solution is-**

*Not only did they **use** fire to keep warm and cook their food.*

**Comprehension :**

Directions: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses. They (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted. Eventually they learned that the burning of brush produced better grasslands and therefore more game.

**Question 73 :**

Select the most appropriate option to fill in blank number 3.

**Difficulty : Moderate**

**Average Time : 71 Seconds**

**Options :**

1. **instead**
2. **also**
3. **well**
4. **alternative**

**Solution :**

The correct answer is **option 2** i.e. **also**

- The above sentence They (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects shows what they used fire for.
- The most suitable word is '**also**' as it adds information to what is already known.

The correct solution is-

*They **also** learned to use it in hunting or warfare, to kill insects,*

**Comprehension :**

Directions: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses. Not only did they (2)\_\_\_\_\_ fire to keep warm and cook their food; they (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted. Eventually they learned that the burning of brush produced better grasslands and therefore more



game.

**Question 74 :**

Select the most appropriate option to fill in blank number 4.

Difficulty : Moderate

Average Time : 75 Seconds

**Options :**

1. attain
2. acquire
3. safeguard
4. obtain

**Solution :**

The correct answer is **option 3** i.e. **safeguard**

- **The above sentence** Not only did they use fire to keep warm and cook their food; they also learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game could be better seen and hunted shows how humans in those times used fire for these use.
- The word '**Safeguard**' is most appropriate as this sentence tells how they **protected** there food and themselves.

**The correct solution is-**

*Not only did they use fire to keep warm and cook their food; they also learned to use it in hunting or warfare, to kill insects, to **safeguard** berries, and to clear forests of underbrush so that game could be better seen and hunted shows how humans in those times used fire for these use.*

**Comprehension :**

Directions: In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. The first human beings to control fire gradually learned (1)\_\_\_\_\_ many uses. Not only did they (2)\_\_\_\_\_ fire to keep warm and cook their food; they (3)\_\_\_\_\_ learned to use it in hunting or warfare, to kill insects, to (4)\_\_\_\_\_ berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted. Eventually they learned that the burning of brush produced better grasslands and therefore more game.

**Question 75 :**

Select the most appropriate option to fill in blank number 5.

Difficulty : Moderate

Average Time : 98 Seconds

**Options :**



must

2. shall

3. could

4. will

### Solution :

The correct answer is **option 3** i.e. **could**

- **The sentence** Not only did they use fire to keep warm and cook their food; they also learned to use it in hunting or warfare, to kill insects, to safeguard berries, and to clear forests of underbrush so that game (5)\_\_\_\_\_ be better seen and hunted shows how animals, mammals and birds are **hunted for food and sport**.
- Exploring all the options.

1. **Shall**- Is used for something that will definitely happen.
2. **Will**- Is used for assertion regarding the future.
3. **Must**- is used for saying something necessary that must happen.
4. **Could**- Is used for something that has a possibility.

### The correct answer is-

*Not only did they use fire to keep warm and cook their food; they also learned to use it in hunting or warfare, to kill insects, to safeguard berries, and to clear forests of underbrush so that game **could** be better seen and hunted shows how animals, mammals and birds are hunted for food and sport.*

### Comprehension :

Study the table and answer the question. The data given in the table shows the number of students studying in four different disciplines in 5 institutes. Institutes Arts Science Commerce Computer Science A 36 48 59 57 B 45 54 55 48 C 55 36 56 51 D 45 48 55 53 E 48 44 52 55

### Question 76 :

Number of students studying commerce in institute D is what percent of the total number of students of the 5 institutes?

Difficulty : Moderate

Average Time : 96 Seconds

### Options :

1. 5.5
2. 5.3
3. 27.7

## 20.1

### Solution :

The correct answer is **option 1** i.e. **5.5**.

Number of students studying commerce in institute D = 55

Total number of students of the five institute = 1000

required % =  $55/1000 \times 100 = 5.5\%$

### Question 77 :

In  $(\Delta)ABC$ , AB and AC are produced to points D and E respectively. If the bisectors of angle CBD and angle BCE meet at point O, such that  $(\angle)BOC = 63^\circ$ , then  $(\angle)A = ?$

Difficulty : Moderate

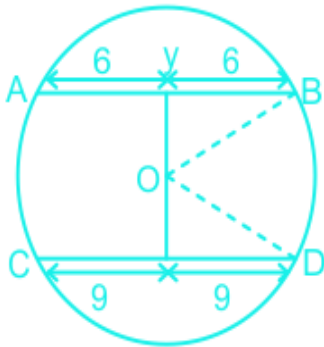
Average Time : 43 Seconds

### Options :

1.  $36^\circ$
2.  $27^\circ$
3.  $54^\circ$
4.  $63^\circ$

### Solution :

The correct answer is **option 3** i.e.  **$54^\circ$**



$$\angle BOC = 90 - \frac{1}{2} \times \angle BAC$$

$$63 - 90 = - \frac{1}{2} \times \angle BAC.$$

$$-27 \times 2 = - \angle BAC$$



$\angle BAC = 54^\circ$

**Question 78 :**

Simplify the expression  $(441 \div [270 \div (\frac{3}{7} + (17 \div (\frac{1}{3}) - (8 \frac{1}{2} - \frac{5}{2}))])$

**Difficulty : Moderate**

**Average Time : 53 Seconds**

**Options :**

1.  $\frac{39}{75}$
2.  $\frac{29}{75}$
3.  $\frac{19}{75}$
4.  $\frac{49}{75}$

**Solution :**

The correct answer is **option 4** i.e.  $\frac{49}{75}$

$$(441 \div [270 \div (\frac{3}{7} + (17 \div (\frac{1}{3}) - (8 \frac{1}{2} - \frac{5}{2}))])]$$

$$(441 \div [270 \div (\frac{3}{7} + (17 \div (\frac{1}{3}) - (6))])]$$

$$(441 \div [630 + 51 - 6])]$$

$$(441 \div [675]) = \frac{49}{75}$$

**Question 79 :**

Points A and B are on a circle with centre O. Point C is on the major arc AB. If  $\angle OAC = 35^\circ$  and  $\angle OBC = 45^\circ$ , then what is the measure (in degrees) of the angle subtended by the minor arc AB at the centre?

**Difficulty : Moderate**

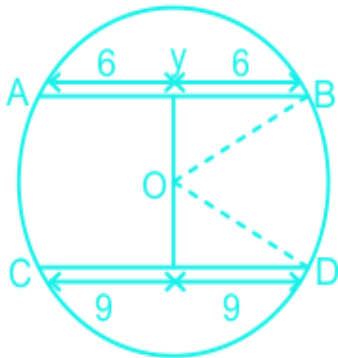
**Average Time : 61 Seconds**

**Options :**

1. 70
2. 160
3. 80
4. 100

**Solution :**

The correct answer is **option 2** i.e. **160**



$OA = OB = OC = \text{Radius}$

$\angle OAC = \angle OCA = 35^\circ$  and  $\angle OBC = \angle OCB = 45^\circ$

$\angle ACB = 35 + 45 = 80^\circ$ .

$\angle AOB = 2 \times 80 = 160^\circ$ .

### Comprehension :

The given Pie- Chart shows the degree wise breakup of expenditure of a family in a month. Total income of a family is Rs. 43200.

### Question 80 :

Expenditure on food is what percent more than expenditure on rent?

Difficulty : Moderate

Average Time : 65 Seconds

### Options :

1.  $\frac{200}{3}\%$
2.  $\frac{100}{3}\%$
3. 50%
4.  $\frac{50}{3}\%$

### Solution :

The correct answer is **option 3** i.e. **50%**

Expenditure on food =  $\frac{105}{360} \times 43200 = 12600$ .

Expenditure on rent =  $\frac{70}{360} \times 43200 = 8400$

required % =  $\frac{12600 - 8400}{8400} \times 100 = 50\%$

### Question 81 :





Five men can complete a work in 20 days. Ten women can complete the same work in 15 days. Two men and six women started working together. After 5 days, three women left the work and a new man joined the work. The group continued working together till the end of the work. In how many days they be able to do the remaining work?

**Difficulty : Moderate**

**Average Time : 51 Seconds**

**Options :**

1.  $16\frac{2}{3}$
2. 14
3.  $18\frac{1}{3}$
4. 19

**Solution :**

The correct answer is **option 2** i.e. **14**

Let the efficiency of 1 man = 'm' units and efficiency of 1 woman = 'w' units

$$5m \times 20 = 10w \times 15$$

$$m/w = 3/2.$$

The efficiency of 1 man = 3 units/day and the efficiency of 1 woman = 2 units.

Total work =  $5 \times 3 \times 20 = 300$  units.

2 men and 6 women start working,

They completes  $2 \times 3 + 6 \times 2 = 18$  units of work daily.

In 5 days, 90 units of work completed.

Now 3 women left and 1 new men joined the group.

They complete  $3 \times 3 + 3 \times 2 = 15$  units of work each day.

Remaining work =  $300 - 90 = 210$  units.

Time taken by them to finish the work =  $210/15 = 14$  days.

**Question 82 :**

A T.V. is sold at 8% gain. Had it been sold for Rs. 2553 less, there would have been loss of 15%. To gain 18% the selling price (in Rs.) of T.V. would be:

**Difficulty : Moderate**

**Average Time : 67 Seconds**

**Options :**

1. 13098
2. 15000
3. 9102
4. 11100

**Solution :**

The correct answer is **option 1** i.e. **13098**.

Let the CP of a TV =  $100x$

Now according to the question,

$$108x - 85x = 2553$$

$$23x = 2553$$

$$x = 111.$$

To get the gain of 18% the selling price must be  $118x$ .

$$118x = 118 \times 111 = \text{Rs. } 13098.$$

**Question 83 :**

If a train runs with the speed of 72 km/h, it reaches its destination late by 15 minutes. However, if its speed is 90 km/h, it is late by only 5 minutes. The correct time to cover its journey in minutes is:

**Difficulty : Moderate****Average Time : 48 Seconds****Options :**

1. 45
2. 40
3. 35
4. 32

**Solution :**

The correct answer is **option 3** i.e. **35**

The ratio of the speeds =  $72 : 90 = 4 : 5$

As distance is constant,



The ratio of their time = 5 : 4.

According to the question,

$$5x - 4x = 15 - 5$$

$$x = 10 \text{ minutes}$$

$$5x = 5 \times 10 = 50 \text{ minutes.}$$

Correct time = 50 - 15 = **35 minutes.**

**Question 84 :**

What is the length (in cm) of the smallest altitude of the triangle whose sides are 5 cm, 12 cm and 13 cm? (correct to one decimal place)

**Difficulty : Moderate**

**Average Time : 45 Seconds**

**Options :**

1. 12.0

2. 5.1

3. 2.6

4. 4.6

**Solution :**

The correct answer is **option 4** i.e. **4.6**

The sides of the triangle are 5, 12 and 13.

Area of triangle =  $\sqrt{s(s-a)(s-b)(s-c)}$ , where  $s = 15$

$$= \sqrt{15(15-5)(15-12)(15-13)}$$

$$= 5 \times 3 \times 2$$

$$= 30 \text{ cm}^2.$$

As one knows the base and their corresponding height is inversely proportional.

$$30 = \frac{1}{2} \times 13 \times h$$

$$h = 4.6.$$

**Question 85 :**

In a right angled triangle ABC, the lengths of the sides containing the right angle are 5 cm and 12 cm respectively. A circle



is inscribed in the triangle ABC. What is the radius of the circle (in cm)?

**Difficulty : Moderate**

**Average Time : 55 Seconds**

**Options :**

1. 2
2. 2.8
3. 2.5
4. 3

**Solution :**

The correct answer is **option 1** i.e. **2**

The side which contains the right angle are 12 and 5.

The hypotenuse of the triangle =  $144 + 25 = 169 = 13$  cm.

Inradius = (Area of triangle)/(semi - perimeter)

Area of triangle ABC =  $1/2 \times 12 \times 5 = 30$

Semi perimeter =  $(12 + 5 + 13)/2 = 15$

Inradius =  $30/15 = 2$  cm.

**Question 86 :**

Alloy A contains metals x and y in the ratio 5 : 2 and alloy B contains these metals in the ratio 3 : 4. Alloy C is prepared by mixing A and B in a ratio 4 : 5. The percentage of y in alloy C is:

**Difficulty : Moderate**

**Average Time : 49 Seconds**

**Options :**

1.  $55\left(\frac{5}{9}\right)\%$
2.  $33\left(\frac{4}{9}\right)\%$
3.  $44\left(\frac{4}{9}\right)\%$
4.  $66\left(\frac{4}{9}\right)\%$

**Solution :**

The correct answer is **option 3** i.e.  $44\left(\frac{4}{9}\right)\%$



In A = component of x and component of y be 5 units and 2 units = 7 units.

In B = component of x and component of y be 3 units and 4 units = 7 units.

Quantity will be the same in A and B (i.e., if it is not equal then one must make them equal before moving to the next step).

Now to prepare C one mix 4 parts of A and 5 parts of B.

From A, the Components of x and y will be  $5 \times 4$  and  $2 \times 4$  respectively.

From B, the Components of x and y will be  $3 \times 5$  and  $4 \times 5$  respectively.

Component of x and y in C =  $20 + 15 = 35$  units.

Components of y in C =  $20 + 8 = 28$  units.

% of y in C =  $\frac{28}{63} \times 100 = 44\left(\frac{4}{9}\right)\%$ .

**Question 87 :**

Keshav, Surjeet and Thomas started a business with investments in the ratio 2 : 3 : 4. The ratio of their period of investments is 5 : 6 : 9. Twenty percent of the profit was spent on rent and maintenance of the office. Remaining profit was distributed among themselves. If the difference in the shares of profit of Keshav and Surjeet is Rs. 7264, then how much is the total profit (in Rs.)?

**Difficulty : Moderate****Average Time : 86 Seconds****Options :**

1. 72640
2. 46490
3. 51060
4. 58112

**Solution :**

The correct answer is **option 1** i.e. **72640**

We know that,

Total profit = Investment  $\times$  time period

The ratio of their investment = 2 : 3 : 4

Let their investment will be 2x, 3x and 4x.

The ratio of their time period = 5 : 6 : 9

Let the time period be 5y, 6y and 9y.

Ratio of their profit =  $10xy : 18xy : 36xy$

80% of total profit =  $10xy + 18xy + 36xy = 64xy$

100% profit =  $80xy$ .

Difference of the profit of Keshav and Surjeet =  $18xy - 10xy = 8xy$

$8xy = 7264$ .

$xy = 908$

Total profit =  $80 \times 908 = 72640$ .

**Question 88 :**

If  $a + b + c = 0$ , then what is the value of  $(\frac{(b+c)^2}{bc} + \frac{(c+a)^2}{ca} + \frac{(a+b)^2}{ab}) = ?$

Difficulty : Moderate

Average Time : 58 Seconds

**Options :**

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

**Solution :**

The correct answer is **option 4** i.e. **3**

$$\frac{(b+c)^2}{bc} + \frac{(c+a)^2}{ca} + \frac{(a+b)^2}{ab}$$

$$\frac{a(b+c)^2}{abc} + \frac{b(c+a)^2}{abc} + \frac{c(a+b)^2}{abc}$$

Let  $b + c = -a$ ,  $a + c = -b$  and  $a + b = -c$ .

$$\frac{a^3 + b^3 + c^3}{abc} = \frac{(a+b+c)(a^2+b^2+c^2-ab-bc-ca) + 3abc}{abc}$$

Here  $a + b + c = 0$

So,  $\frac{(a+b+c)(a^2+b^2+c^2-ab-bc-ca) + 3abc}{abc} = 0$ .

**Question 89 :**

If  $(x - \sqrt[3]{x}) = \sqrt{77}$ , then one of the values of  $(x^3 + \sqrt[3]{x^3})$  is:

**Difficulty : Moderate****Average Time : 61 Seconds****Options :**

1.  $80\sqrt{77}$

2. 702

3.  $77\sqrt{77}$

4.  $3\sqrt{77}$

**Solution :**The correct answer is **option 2** i.e. **702**

$$\left(x - \frac{1}{x}\right) = \sqrt{77}$$

on squaring both sides we get,

$$x^2 + \left(\frac{1}{x^2}\right) - 2 = 77$$

On adding 2 both sides we get,

$$(x + \frac{1}{x})^2 = 77 + 4$$

$$(x + \frac{1}{x}) = 9$$

On cubing both sides,

$$x^3 + \frac{1}{x^3} + 3(x + \frac{1}{x}) = 729.$$

$$\left(x^3 + \frac{1}{x^3}\right) = 729 - 27 = \mathbf{702}.$$

**Question 90 :**

The average daily production of toys in a factory in the month of December is 512. If the average production during first 20 days is 515 and that of the last 13 days is 510, then what is the average of production on 19 and 20 December?

**Difficulty : Moderate****Average Time : 62 Seconds****Options :**

1. 1058

2. 513

3. 529

4. 512

**Solution :**

The correct answer is **option 3** i.e. **529**.

There are 31 days in the month of December

Total production of toys in the month of December =  $31 \times 512 = 15872$ .

The total production of toys in the first 20 days =  $20 \times 515 = 10300$ .

The total production of toys in the last 13 days (from 19 to 31) =  $13 \times 510 = 6630$

The sum of total production in first 20 days and the last 13 days =  $10300 + 6630 = 16930$ .

Production of toys on 19 and 20 December =  $16930 - 15872 = 1058$

Average production of toys on the 19 and 20 December = 529.

**Question 91 :**

A sum of money was lent in two parts in the ratio 4 : 5 for 4 years and 5 years respectively, both at the rate of 8% per annum simple interest. If the difference between the interests earned from the two parts is Rs. 4680, then what was the total sum lent (in Rs.)?

**Difficulty : Moderate**

**Average Time : 60 Seconds**

**Options :**

1. 58500
2. 42120
3. 46800
4. 65000

**Solution :**

The correct answer is **option 1** i.e. **58500**

Let the money be  $4x$  and  $5x$ .

According to the question,

$$(5x \times 5 \times 8)/100 - (4x \times 4 \times 8)/100 = 4680$$

$$25x/100 - 16x/100 = 585$$

$$9x/100 = 585$$

$$9x = 585 \times 100 = 58500.$$



**Question 92 :**

A shopkeeper bought a machine for Rs. 4600 and spent Rs. 500 on its repair and transport. He marked the machine at 8% above the overall cost price. If he sold the machine for Rs. 4681 after giving  $x\%$  discount, then the value of  $x$  is:

**Difficulty : Moderate****Average Time : 47 Seconds****Options :**

1. 15
2. 20
3. 12
4. 18

**Solution :**

The correct answer is **option 1** i.e. **15**

Total cost of Machine for shopkeeper =  $4600 + 500 = 5100$

MP of Machine =  $5100 \times 108/100 = 5508$

SP of the Machine = 4681

$5508 \times (100 - x)/100 = 4681$

On solving further we get,

$5508 - 55.08x = 4681$

$55.08x = 5508 - 4681$

$x = 827/55.08$

$x \sim 15$ .

**Question 93 :**

In a circle with centre O, AB and CD are parallel chords on the opposite sides of a diameter. If AB = 12 cm, CD = 18 cm and the distance between the chords AB and CD is 15 cm, then find the radius of the circle (in cm).

**Difficulty : Moderate****Average Time : 50 Seconds****Options :**

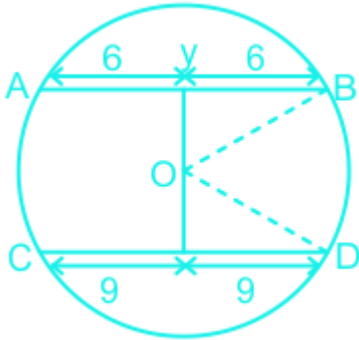
1.  $9\sqrt{13}$
2. 9

$$3\sqrt{13}$$

4. 12

**Solution :**

The correct answer is **option 3** i.e.  $3\sqrt{13}$ .



OA is perpendicular to AB and OX is perpendicular to CD.

OB = OD = radius.

In triangle OBY,

$$OB^2 = OY^2 + 6^2$$

$$OB^2 = OY^2 + 36.....(1)$$

In triangle ODX,

$$OD^2 = OX^2 + 9^2$$

$$OD^2 = OX^2 + 81... (2)$$

From Equation (1) and (2) we get,

$$OX^2 + 81 = OY^2 + 36$$

$$81 - 36 = OY^2 - OX^2$$

$$45 = (OY + OX)(OY - OX)$$

Here  $OY + OX = 15.....(3)$

So one can say that  $OY - OX = 3.....(4)$

From equation 3 and 4 we get,

$OX = 6$  cm and  $OY = 9$ .



$$OB^2 = OY^2 + 36$$

$$OB^2 = 81 + 36 = 117$$

$$OB = 3\sqrt{13}$$

**Question 94 :**

If  $\sin(A + B) = 1$  and  $\cos(A - B) = \frac{\sqrt{3}}{2}$ ,  $A + B \leq 90^\circ$  and  $A > B$ , then the value of  $(\frac{5\sin^2 B + 4\cos^2 A}{2\sin B \cos A})$  is:

**Difficulty : Moderate****Average Time : 89 Seconds****Options :**

1.  $16\sqrt{2}$
2. 18
3. 20
4.  $26\sqrt{2}$

**Solution :**

The correct answer is **Option 4** i.e.  $26\sqrt{2}$ .

$$\sin(A + B) = 1$$

$$A + B = 90^\circ \dots\dots(1)$$

$$\cos(A - B) = \frac{\sqrt{3}}{2}$$

$$A - B = 30^\circ \dots\dots(2)$$

On solving both equations we get,

$$A = 60^\circ \text{ and } B = 30^\circ$$

Now,  $(\frac{5\sin^2 B + 4\cos^2 A}{2\sin B \cos A})$

$$(\frac{5\sin^2 30 + 4\cos^2 60}{2\sin 30 \cos 60})$$

$$(\frac{5 \times \frac{1}{4} + 4 \times 3}{2 \times \frac{1}{2} \times \frac{\sqrt{3}}{2}}) = (5/4 + 12)/(1/2) = 26\sqrt{2}$$

**Question 95 :**

If  $\sin 6(\theta) + \cos 6(\theta) = \frac{1}{3}$ ,  $0^\circ < \theta < 90^\circ$ , then what is the value of  $\sin(\theta) \cos(\theta)$  ?

**Difficulty : Moderate****Average Time : 65 Seconds****Options :**

$$\left(\frac{\sqrt{2}}{3}\right)$$

2.  $\left(\frac{\sqrt{6}}{6}\right)$

3.  $\left(\frac{\sqrt{2}}{\sqrt{3}}\right)$

4.  $\left(\frac{2}{9}\right)$

**Solution :**

The correct answer is **option 1** i.e.  $\left(\frac{\sqrt{2}}{3}\right)$

$$(\sin^2(\theta))^3 + (\cos^2(\theta))^3 = 1/3$$

$$(\sin^2(\theta) + \cos^2(\theta))^3 - 3\sin^2(\theta)\cos^2(\theta)(\sin^2(\theta) + \cos^2(\theta)) = 1/3$$

$$(1)^3 - 3\sin^2(\theta)\cos^2(\theta) \times 1 = 1/3$$

$$1 - 3\sin^2(\theta)\cos^2(\theta) = 1/3$$

$$3\sin^2(\theta)\cos^2(\theta) = 2/3$$

$$\sin(\theta)\cos(\theta) = \left(\frac{\sqrt{2}}{3}\right).$$

**Question 96 :**

If  $a^3 - b^3 = 2349$  and  $(a - b) = 9$ , then  $(a+b)^2 - ab$  is equal to:

Difficulty : Moderate

Average Time : 83 Seconds

**Options :**

1. 280

2. 244

3. 261

4. 229

**Solution :**

The correct answer is **option 3** i.e. **261**.

We know that,  $(a - b)^3 = a^3 - b^3 - 3ab(a - b)$

$$(a - b)^3 = a^3 - b^3 - 3ab(a - b) = (9)^3 = 2349 - 3ab(9)$$

$$729 = 2349 - 27ab$$

$$ab = 60$$



We know that,

$$(a - b)^2 = (a + b)^2 - 4ab$$

$$(9)^2 = (a + b)^2 - ab - 3ab$$

$$81 + 180 = (a + b)^2 - ab$$

$$(a + b)^2 - ab = \mathbf{261}.$$

**Question 97 :**

If a number P is divisible by 2 and another number Q is divisible by 3, then which of the following is true?

**Difficulty : Moderate**

**Average Time : 61 Seconds**

**Options :**

1. P + Q is divisible by 6
2. P + Q is divisible by 5
3. P × Q is divisible by 6
4. P × Q is divisible by 5

**Solution :**

The correct answer is **option 3** i.e. **P × Q is divisible by 6.**

If a number P is divisible by 2, then the required number is in the form of 2a.

If a number is divisible by 3, then the required number is in the form of 3b.

Their product  $P \times Q = 2a \times 3b = 6ab$ .

Now one can clearly say that  $P \times Q$  is always divisible by **6**.

**Comprehension :**

Study the table and answer the question. The table shows the daily income of 50 persons. Income (Rs) No. of persons  
less than 200 12 less than 250 26 less than 300 34 less than 350 40 less than 400 50

**Question 98 :**

How many persons earn Rs. 250 or more but less than Rs. 350 daily?

**Difficulty : Moderate**

**Average Time : 64 Seconds**

**Options :**

1. 18

24

3. 28

4. 14

**Solution :**

The correct answer is **option 4** i.e. **14**

Number of person who earns less than 200 = 12

No of person who earns less than 250 = 26

No of person who earns less than 250 and more than 200 = 26 - 12 = 14

No of person who earns less than 300 = 34

No of person who earns less than 300 but more than 250 = 34 - 26 = 8

No of person who earns less than 350 = 40

No of person who earns less than 350 and more than 300 = 40 - 34 = 6

Number of person who earns more than 250 and less than 350 = 8 + 6 = **14**

**Question 99 :**

$((\sec \theta + \tan \theta)^2 + \frac{1 + \operatorname{cosec} \theta}{1 - \operatorname{cosec} \theta}) (\theta \neq 90^\circ)$  is:

**Difficulty : Moderate****Average Time : 53 Seconds****Options :**

1. 0

2. -2

3. 1

4. 2

**Solution :**

The correct answer is **option 1** i.e. **0**

$$\left( (\sec \theta + \tan \theta)^2 + \frac{1 + \operatorname{cosec} \theta}{1 - \operatorname{cosec} \theta} \right)$$
$$\left[ \left( \frac{1}{\cos \theta} + \frac{\sin \theta}{\cos \theta} \right)^2 - \frac{\operatorname{cosec} \theta + 1}{\operatorname{cosec} \theta - 1} \right]$$
$$\left[ \frac{(1 + \sin \theta)^2}{\cos^2 \theta} - \frac{1 + \sin \theta}{1 - \sin \theta} \right]$$

$$\left(\frac{1 + \sin(\theta)}{\cos(\theta)}\right)^2 - \left(\frac{1 + \sin\theta}{1 - \sin\theta}\right) \times \left(\frac{1 + \sin\theta}{1 + \sin\theta}\right)$$

$$\left(\frac{1 + \sin(\theta)}{\cos(\theta)}\right)^2 - \left(\frac{(1 + \sin\theta)^2}{(1 - \sin^2\theta)}\right)$$

$$\left(\frac{1 + \sin(\theta)}{\cos(\theta)}\right)^2 - \left[\frac{1 + \sin(\theta)}{\cos(\theta)}\right]^2 = 0$$

**Comprehension :**

The following table shows the daily seats occupancy in different classes of a train. Numbers in bracket represent the total seats available for a particular class. Day 2nd Class Non - AC (900) 1st Class Non - AC (500) AC III Tier (500) AC II Tier (250) AC 1st Class (150) Monday 850 460 480 240 145 Tuesday 840 400 450 230 120 Wednesday 830 390 480 220 130 Thursday 790 480 490 250 125 Friday 840 470 500 210 130

**Question 100 :**

What is the ratio of number of seats that remained vacant in all the Non-AC classes on Wednesday and Thursday taken together to number of seats remained vacant in AC classes on Monday, Tuesday and Friday?

**Difficulty : Moderate****Average Time : 100 Seconds****Options :**

1. 62 : 35
2. 39 : 62
3. 62 : 39
4. 35 : 62

**Solution :**

The correct answer is **option 3** i.e. **62 : 39**

The number of seats that remained vacant in all the Non-AC classes on Wednesday and Thursday taken together = 70 + 110 + 110 + 20 = 310

The number of seats remained vacant in AC classes on Monday, Tuesday and Friday = 35 + 100 + 60 = 195

Required ratio = 310 : 195 = 62 : 39.

## Ssc Cgl Tier I Previous Year Question Paper Analysis

The analysis of Ssc Cgl Tier I Previous Year Question Paper held on 2021-08-18 in the Afternoon exam is as follows:

1. 100 questions were moderate.
2. The safe score is 140 marks.



25 questions were asked from Logical Reasoning, 25 questions were asked from General Awareness, 25 questions were asked from English Language and 25 questions were asked from Quantitative Aptitude

4. 19 questions should have been skipped if you were short of time.

# Ssc Cgl Tier I Previous Year Question Paper Topic Wise Weightage

## Logical Reasoning

1. Coding Decoding - 2
2. Analogy - 4
3. Classification - 3
4. Blood Relations - 1
5. Syllogism - 1
6. Venn Diagrams - 1
7. Dictionary Based - 1
8. Figure Based - 5
9. Matrix - 1
10. Series - 3
11. Mathematical Reasoning - 2
12. Cubes And Dice - 1



## General Awareness

1. History - 3
2. Polity - 2
3. Economics - 1
4. Science - 3
5. GK Misc - 16

## English Language

1. Reading Comprehension - 4
2. Spotting Error - 2
3. Parajumbles - 2
4. Idioms - 2
5. One Word Substitution - 3





- Parts Of Speech - 1
- 7. Sentence Improvement - 1
- 8. Synonym - 2
- 9. Antonym - 2
- 10. Filler (Vocab) - 1
- 11. Incorrectly Spelt - 5
- 12. Incorrectly Spelt - 5

## Quantitative Aptitude

- 1. Simplification - 1
- 2. Average - 1
- 3. Data Interpretation - 4
- 4. Time And Work - 1
- 5. Time Speed And Distance - 1
- 6. Interest - 1
- 7. Ratios And Proportion - 1
- 8. Geometry - 5
- 9. Trigonometry - 3
- 10. Algebra - 3
- 11. Number System - 1
- 12. Mixtures And Alligations - 1
- 13. Profit And Loss - 2



# Ssc Cgl Tier I Previous Year Question Paper Tips and Tricks



1. Try to solve Ssc Cgl Tier I Previous Year Question Paper without taking any help from the solutions.
2. Ssc Cgl Tier I Previous Year Question Paper require proper usage of concept so firstly read the question thoroughly and then use the right concept.
3. In case you're not able to solve the question in less than 30 seconds in the exam then you should skip the question and move to the next question.

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## Further Guidance on Ssc Cgl Tier I Previous Year Question Paper

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### About Neetu Mam

Neetu Mam is primarily passionate for the English language and teaching from the last 20 years however for the Ssc Cgl Tier I Previous Year Question Paper. She has guided her team to provide the best explanation for the question.