



# 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 2022-12-05 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 :

If  $\tan A = \frac{2}{3}$ , then what is the value of the following?  $(5 \sin^2 A - 2 \cos^2 A) \div (15 \sin^2 A + 3 \cos^2 A)$

Difficulty : Moderate

Average Time : 44 Seconds

### Options :

- $\frac{21}{47}$
- $\frac{2}{87}$
- $\frac{2}{5}$
- $\frac{3}{77}$

### Solution :

The correct answer is **option 2** i.e.  $\frac{2}{87}$

### Calculations:

$\tan A = \frac{2}{3} = \frac{\text{Perpendicular}}{\text{base}}$

$\text{Hypotenuse}^2 = 4 + 9 = 13$

$\text{Hypotenuse} = 13$

$\sin A = \frac{2}{13}$  and  $\cos A = \frac{3}{13}$

Using the values of  $\sin A$  and  $\cos A$ , we get

$(5 \sin^2 A - 2 \cos^2 A) \div (15 \sin^2 A + 3 \cos^2 A)$



$$(5 \times (2/13)^2 - 2 \times (3/13)^2) \div (15 \times (2/13)^2 + 3 \times (3/13)^2)$$

$$2/13 \div 87/13 = 2/87$$

**Comprehension :**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. The monastery in Tawang has recently undergone (1)\_\_\_\_\_ and bright paintings (2)\_\_\_\_\_ it walls. Dances and ceremonial celebrations are held in the (3)\_\_\_\_\_, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born, (4)\_\_\_\_\_ enlightenment and died. To reach Tawang, you drive for 12 hours from Assam's Tezpur town, a major Indian Forces base. The best seasons the visitor can choose for coming to Tawang is (5)\_\_\_\_\_ September to November.

**Question 2 :**

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

**Difficulty : Moderate****Average Time : 87 Seconds****Options :**

1. innovation
2. depreciation
3. termination
4. renovation

**Solution :**

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

**The meaning of the given words is:**

- **Renovation:** The process of improving or restoring a building, space, or object to a better or more modern condition.
- **Innovation:** The introduction of new ideas, methods, or products that bring about significant change or improvement.
- **Depreciation:** The decrease in value or worth of an asset over time, typically due to factors such as wear and tear or obsolescence.
- **Termination:** The act of ending or concluding something, often referring to the termination of a contract, employment, or a relationship.
- Thus, the most appropriate filler for the given blank is **renovation**.

**Therefore, the completed sentence would be:**

*The monastery in Tawang has recently undergone **renovation**...*

**Question 3 :**

Select the option that can be used as a one-word substitute for the given group of words. A very expensive and elaborately built tomb

Difficulty : Moderate

Average Time : 74 Seconds

**Options :**

1. Mausoleum
2. Cemetery
3. Mosque
4. Masterpiece

**Solution :**

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

**The meaning of the given words is:**

- **Mausoleum:** A large and stately tomb or building constructed to house the remains of a deceased person or a prominent figure.
- **Cemetery:** A designated area or land where dead bodies are buried, typically marked by grave markers or tombstones.
- **Mosque:** A place of worship for followers of Islam, where Muslims gather for prayer and religious activities.
- **Masterpiece:** An outstanding or exceptional piece of work, often used to describe a creation or accomplishment that displays great skill, creativity, or artistry.

Thus, the most appropriate one word substitution for the given set of words is **Mausoleum**.

**Question 4 :**

The fourth proportion to 12, 24 and 27 is the same as the third proportion to A and 36. What is the value of A?

Difficulty : Moderate

Average Time : 67 Seconds

**Options :**

1. 22
2. 24



26

4. 20

**Solution :**

The correct answer is **option 2** i.e. **24**

**Formula used:**

Fourth proportional of a, b and c is x then

$$x = bc/a \quad \text{---- (1)}$$

Third proportional of a, b is y then

$$y = b^2/a \quad \text{---- (2)}$$

**Calculations:**

Equating equation (1) = (2)

$$(27 \times 24)/12 = (36 \times 36)/A$$

$$A = 24$$

**Question 5 :**

Select the most appropriate option to substitute the underlined segment in the given sentence. Rearing of silk worms is called horticulture.

**Difficulty : Moderate****Average Time : 51 Seconds****Options :**

1. pisciculture
2. agriculture
3. sericulture
4. apiculture

**Solution :**

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

The meaning of the given words is:

**Horticulture:** The cultivation, management, and study of plants, especially fruits, vegetables, flowers, and ornamental plants.

- **Sericulture:** The practice of rearing silkworms for the production of silk, including their feeding, care, and harvesting of silk.
- **Pisciculture:** The breeding, rearing, and cultivation of fish, typically in controlled aquatic environments such as ponds or tanks.
- **Agriculture:** The practice and science of cultivating plants, raising animals, and other activities involved in food production, including crop cultivation, livestock farming, and related processes.
- **Apiculture:** The practice and management of beekeeping, involving the cultivation and maintenance of honey bees for the production of honey, beeswax, and other bee-related products.

Thus, the most appropriate replacement for the underlined word is **sericulture**.

**Question 6 :**

A shopkeeper offers three types of discount schemes for buyers. Which of them has the maximum discount percentage? I. Two successive discounts of 10% each. II. Successive discounts of 15% and 5%. III. 20% discount.

**Difficulty : Moderate****Average Time : 76 Seconds****Options :**

1. Only discount scheme I
2. Only discount scheme II
3. Only discount scheme III
4. All provide equal discount

**Solution :**

The correct answer is **option 3** i.e. **Only discount scheme III**

**Calculations:**

I. Two successive discounts of 10% each

$$\text{Overall discount \%} = 10 + 10 - 100/100 = 19\%$$

II. Successive discounts of 15% and 5%.

$$\text{Overall discount \%} = 15 + 5 - 75/100 = 19.25\%$$

Hence, Only discount scheme III offers the highest discount.

**Question 7 :**

A businessman cheats by using faulty weights, to the tune of 12% each time, when buying and selling material. What is



the rise in his profit percentage using faulty weights only?

Difficulty : Moderate

Average Time : 50 Seconds

Options :

1. 22%
2. 25.44%
3. 24%
4. 26.32%

Solution :

The correct answer is **option 2** i.e. **25.44%**

Concept used:

When a person is gaining profit of  $x\%$  by selling and purchasing of the same item

$$\text{Profit\%} = x + x + \frac{x^2}{100} \quad \text{---- (1)}$$

Calculations:

Using equation (1), we get

$$\text{Profit\%} = 12 + 12 + 144/100$$

$$24 + 1.44 = 25.44\%$$

Question 8 :

Study the given table (income in dollars) and answer the question that follows. Source of Income Adam Brad Christy David  
Salary 350 200 460 500 Bonus 90 40 115 130 Overtime 160 65 170 185 Arrears 200 125 145 235 Total 800 430 890 1050  
The income from bonus is how much percent of the income from arrears in the case of Adam?

Difficulty : Moderate

Average Time : 52 Seconds

Options :

1. 80%
2. 40%
3. 90%
4. 45%

Solution :



The correct answer is **option 4** i.e. **45%**

**Calculations:**

Income of adam from bonus = 90

Income of adam from arrears = 200

Required percentage =  $(90/200) \times 100 = 45\%$

**Question 9 :**

The following pie chart represents the total expenditure of Rs. 12,00,000 on several items in construction of a house in a village. The percentage of the total expenditures spent on Cement, Wood and Plastic (correct to 2 decimal places) is:

Difficulty : Moderate

Average Time : 43 Seconds

**Options :**

1. 18.65%
2. 25.25%
3. 30.25%
4. 42.22%

**Solution :**

The correct answer is **option 4** i.e. **42.22%**

**Calculations:**

Total expenditure spent on cement, wood and plastic =  $57^\circ + 50^\circ + 55^\circ = 152^\circ$

We know that  $1\% = 3.6^\circ$

Hence, required percent =  $152/3.6 = 42.22\%$

**Question 10 :**

Select the most appropriate ANTONYM of the underlined word. Beowulf was praised for his valour displayed in the battlefield.

Difficulty : Moderate

Average Time : 39 Seconds

**Options :**

1. Forbearance
2. Erudition

## Cowardice

### 4. Idiosyncrasy

#### Solution :

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

#### The meaning of the given words is:

- **Valour**: The quality of courage, bravery, or valor in the face of danger or adversity.
- **Cowardice**: The lack of bravery or courage; the tendency to display fear or timidity in the face of danger or difficulty.
- **Forbearance**: The act of showing patience, tolerance, or self-control, especially in the face of provocation, annoyance, or difficult circumstances.
- **Erudition**: Extensive knowledge or learning acquired through study, research, or experience; intellectual expertise or scholarly wisdom.
- **Idiosyncrasy**: A distinctive or peculiar characteristic, behavior, or mannerism that is unique to an individual; a personal quirk or eccentricity.

Thus, the most appropriate antonym for the underlined word is **Cowardice**.

#### Question 11 :

Select the sentence with the appropriate use of preposition.

Difficulty : Moderate

Average Time : 68 Seconds

#### Options :

1. They rise with the morning lark and labour till almost dark.
2. They rise with the morning lark and labour utmost almost dark.
3. They rise with the morning lark and labour by almost dark.
4. They rise with the morning lark and labour still almost dark.

#### Solution :

The correct answer is **option 1** i.e. **They rise with the morning lark and labour till almost dark**.

- The preposition "till" (short for until) is used to indicate the duration of an action or state, expressing the time up to which something continues.
- In this sentence, "till" is correctly used to convey that they labor until the time of almost dark.
- The use of "till" is appropriate to indicate the timeframe within which they continue their labor.





Thus, the correct sentence is:

*They rise with the morning lark and labour till almost dark.*

**Question 12 :**

Select the most appropriate idiom that can substitute the italicised words in the given sentence. He was sacked from his job because of a grave error on his part.

Difficulty : Moderate

Average Time : 74 Seconds

**Options :**

1. raining cats and dogs
2. minding one's p's and q's
3. picking holes in one's cot
4. Himalayan blunder

**Solution :**

The correct answer is **option 4** i.e. **Himalayan blunder**.

**The meaning of the given idioms is:**

- **Himalayan blunder:** A phrase used to describe a colossal or monumental mistake or error, often with significant consequences. It originates from the military and refers to a disastrous and avoidable error.
- **Raining cats and dogs:** An idiomatic expression used to describe heavy rainfall, often characterized by its intensity or suddenness.
- **Minding one's p's and q's:** A phrase that means being careful, cautious, or attentive to one's behavior, actions, or manners, especially in social situations.
- **Picking holes in one's cot:** This phrase is not a commonly used expression in English, and its meaning is unclear. It may refer to excessively criticizing or finding faults in something, akin to finding flaws in one's sleeping arrangements. However, it is not a widely recognized or established idiom.

Thus, the most appropriate idiom for the underlined part of the given sentence is ***himalayan blunder***.

**Question 13 :**

Select the most appropriate collocation to substitute the underlined word in the given sentence. The banker warned me not to be careless from my ATM card.

Difficulty : Moderate

Average Time : 88 Seconds

**Options :**



careless beside

2. careless with

3. careless across

4. careless on

### Solution :

The correct answer is **option 2** i.e. **careless with**.

- The preposition "from" is not appropriate in this context. It does not collocate correctly with the verb "be careless" in English.
- To express the intended meaning, the correct preposition to use is "with."
- The phrase "be careless with" is the appropriate collocation, meaning to handle or use something without proper attention or caution.

Thus, the corrected sentence would be:

*The banker warned me not to be careless **with** my ATM card.*

### Question 14 :

Select the most appropriate idiom that can substitute the italicised words in the given sentence. I have been a vegetarian for a very long time.

Difficulty : Moderate

Average Time : 62 Seconds

### Options :

1. donkey's years
2. duck in the thunderstorm
3. die in harness
4. Damocles' sword

### Solution :

The correct answer is **option 1** i.e. **donkey's years**.

The meanings of the given idioms are:

- **Donkey's years**: A colloquial expression referring to a very long time, often used to emphasize a significant



duration.

- **Duck in the thunderstorm:** A metaphorical expression describing someone who remains calm or unaffected amidst chaos, adversity, or a difficult situation.
- **Die in harness:** An idiomatic phrase suggesting that someone continues to work or be actively engaged in their profession or duties until their death or retirement.
- **Damocles' sword:** A symbolic expression representing an imminent or constant threat or danger that hangs over someone, creating a sense of fear or insecurity.

Thus, the most appropriate idiom for the underlined words is **donkey's years**.

### Question 15 :

Select the most appropriate option that can substitute the underlined segment in the given sentence. Every nook and corner of the house were unclean.

Difficulty : Moderate

Average Time : 75 Seconds

### Options :

1. of a house was unclean
2. by the house were unclean
3. to the house were unclean
4. of the house was unclean

### Solution :

The correct answer is **option 4** i.e. **of the house was unclean**.

- The verb "were" is plural, but it does not agree with the subject "Every nook and corner," which is singular. In English, singular subjects require singular verbs.
- Therefore, the most appropriate option to substitute the underlined segment is "Every nook and corner of the house was unclean."
- This change ensures subject-verb agreement by using the singular verb "was" to match the singular subject.

**Therefore, the corrected sentence is:**

*Every nook and corner of the house **was** unclean.*

**Question 16 :**

Select the correct direct form of the given sentence. John said that he was there to resolve that fight for them.

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

1. John says, "I am here to resolve this fight for you."
2. John said to me, "You are here to resolve this fight for you."
3. John said, "I am here to resolve this fight for you."
4. John said, "I was here to resolve this fight for you."

**Solution :**

The correct answer is **option 3** i.e. **John said, "I am here to resolve this fight for you."**

**Following steps are followed to convert the given form of indirect sentence into its direct form:**

1. Identify the reporting verb and the reported speech. In this case, the reporting verb is "said" and the reported speech is "that he was there to resolve that fight for them."
2. Remove the reporting verb and the conjunction "that" from the reported speech.
3. Change the pronouns and verb tenses to match the change from reported speech to direct speech.
4. Adjust any other necessary changes, such as removing quotation marks and making minor adjustments for clarity and fluency.

**Thus, the direct form of the given sentence is:**

*John said, "I am here to resolve that fight for you."*

**Question 17 :**

Select the most appropriate synonym of the given word. Tyranny

**Difficulty : Moderate****Average Time : 87 Seconds****Options :**

1. Autocracy
2. Compassion



Social

#### 4. Discordance

**Solution :**

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

**The meaning of the given words is:**

- **Tyranny:** The oppressive and cruel exercise of power or control over others, often involving unjust and harsh treatment.
- **Autocracy:** A system of government where power is concentrated in the hands of a single ruler or individual, with unrestricted authority and often without accountability.
- **Compassion:** A deep feeling of empathy, care, and concern for the suffering or misfortune of others, leading to a desire to alleviate their pain or distress.
- **Social:** Relating to society, human interaction, or the way people live together in communities. It refers to the collective aspects of human life, including social norms, relationships, and interactions.
- **Discordance:** Lack of harmony, agreement, or compatibility between people or things. It implies a state of disagreement, conflict, or disharmony.

Thus, the most appropriate synonym for the given word is **autocracy**.

**Question 18 :**

Select the correct active form of the given sentence. The memorial event is expected to be attended by thousands of people.

**Difficulty :** Moderate

**Average Time :** 77 Seconds

**Options :**

1. Thousands of people was expected to attend the memorial event.
2. Thousands of people are expected to attending the memorial event.
3. Thousands of people had expected to attending the memorial event.
4. Thousands of people are expected to attend the memorial event.

**Solution :**

The correct answer is **option 4** i.e. **Thousands of people are expected to attend the memorial event**.

The following steps are followed to convert the given passive voice sentence into its active form:

Identify the subject and object in the passive sentence. In this case, the subject is "thousands of people" and the object is "the memorial event."

- Move the object ("the memorial event") to the position of the subject in the active sentence.
- Identify the appropriate active verb that corresponds to the passive form. In this case, the verb is "attend."
- Determine the tense of the verb based on the original passive sentence. In this case, the verb "attend" is in the infinitive form ("to be attended"), indicating a future action.
- Place the subject ("thousands of people") before the active verb in the appropriate tense.
- Include any necessary additional information or qualifiers. In this case, the verb "expect" can be included to indicate the anticipation of the event.

**Thus, the active form of the given sentence would be:**

*Thousands of people are expected to attend the memorial event.*

**Question 19 :**

Select the INCORRECTLY spelt word in the following sentence. Tyranny must be dead to attain harmony, tranquillity, and serenity.

**Difficulty : Moderate**

**Average Time : 102 Seconds**

**Options :**

1. tranquillity
2. tyranny
3. serenity
4. harmony

**Solution :**

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

**The correct spelling and meaning of the given words are:**

- **Tyranny:** The oppressive and cruel exercise of power or control over others, often involving unjust and harsh treatment.
- **Tranquility:** A state of calmness, peace, and quietude; absence of disturbance or agitation.
- **Serenity:** The state of being calm, peaceful, and untroubled; a feeling of tranquility and inner harmony.
- **Harmony:** The state of agreement, cooperation, and balance; the combination of different elements in a pleasing or unified way.



## Question 20 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate

Average Time : 56 Seconds

### Options :

1. Movement
2. Kecthup
3. Precise
4. Flashy

### Solution :

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

The correct spelling and meaning of the given words are:

- **Ketchup**: A popular condiment made from tomatoes, vinegar, sugar, and various spices, typically used as a topping or flavor enhancer for foods.
- **Movement**: The act or process of changing physical position or location; a group or organization promoting a particular cause or advocating for change.
- **Precise**: Exact, accurate, or clearly defined; characterized by attention to detail and accuracy.
- **Flashy**: Attracting attention through a striking or showy appearance or behavior; flamboyant or ostentatious in style.

## Question 21 :

Select the most appropriate phrasal verb to fill in the blank. The company's profits were low and they were forced to \_\_\_\_\_ staff.

Difficulty : Moderate

Average Time : 63 Seconds

### Options :

1. lisp off
2. lay off
3. lay on
4. lie on

**Solution :**

The correct answer is **option 2** i.e. **lay off**.

**The meaning of the given phrasal verbs is:**

- **Lisp off:** No specific meaning exists for this phrasal verb in standard English. However, as a standalone verb, "lisp" means to speak with a lisp. "Lisp" refers to a speech impediment characterized by the imperfect pronunciation of "s" and "z" sounds.
- **Lay off:** To dismiss or terminate employees, often due to financial constraints or organizational changes.
- **Lay on:** To provide or offer something, often in a generous or extravagant manner.
- **Lie on:** To recline or rest on a surface or object in a horizontal position.
- Thus, the most appropriate filler for the blank is **lay off**.

**Therefore, the completed sentence would be:**

*The company's profits were low and they were forced to **lay off** staff.*

**Question 22 :**

The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. After seeing that Shreya / was in trouble, / Rahul quietly stepped up to help.

Difficulty : Moderate

Average Time : 88 Seconds

**Options :**

1. Rahul quietly stepped up to help
2. After seeing that Shreya
3. was in trouble
4. No error

**Solution :**

The correct answer is **option 4** i.e. **No error**.

- The sentence is grammatically correct, and there is no error.

*Therefore, the correct answer is "No error."*

**Question 23 :**

Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution'. Santa Claus stays at the North Pole when he isn't out deliver gifts for Christmas.



Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. out to delivering
2. out delivering
3. No substitution
4. out of deliver

Solution :

The correct answer is **option 2** i.e. **out delivering**.

- The underlined segment can be substituted with "out delivering gifts for Christmas."
- This change is necessary to maintain grammatical consistency in the sentence.
- The verb "deliver" should be in the present participle form (-ing form) to match the present tense of the verb "stays."
- Therefore, the most appropriate option to substitute the underlined segment is "out delivering gifts for Christmas."

Thus, the corrected sentence is:

*Santa Claus stays at the North Pole when he isn't out delivering gifts for Christmas.*

Question 24 :

Select the most appropriate ANTONYM of the given word. Guilty

Difficulty : Moderate

Average Time : 62 Seconds

Options :

1. Remnant
2. Innocent
3. Nonchalant
4. Omnipotent

Solution :

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

The meaning of the given words is:

- **Guilty**: Being responsible for a wrongdoing or offense; having committed a crime or violation.
- **Innocent**: Not guilty of a crime, offense, or wrongdoing; free from blame or fault.
- **Remnant**: A remaining piece or part of something that has been partially destroyed or removed.



**Nonchalant:** Displaying a relaxed and casual demeanor; appearing unconcerned or indifferent.

- **Omnipotent:** Having unlimited or infinite power; having the ability to do anything and everything.

Thus, the most appropriate antonym for the given word is **Innocent**.

**Question 25 :**

Select the option that is similar in meaning to the underlined word. The president's concern for the homeless people was superficial and ended as soon as the media left the event.

Difficulty : Moderate

Average Time : 67 Seconds

**Options :**

1. **Shallow**
2. Derogatory
3. Regardless
4. Insubstantial

**Solution :**

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

**The meaning of the given words is:**

- **Superficial:** Concerned only with surface appearances or details.
- **Shallow:** Having little depth, either physically or metaphorically.
- **Derogatory:** Expressing a disrespectful or negative attitude towards someone or something.
- **Regardless:** Without regard or consideration; in spite of any obstacles or circumstances.
- **Insubstantial:** Lacking substance or significance; not substantial or strong.

Thus, the most appropriate synonym for the given word is **Shallow**.

**Question 26 :**

Select the option that can be used as a one-word substitute for the given group of words. A place where coins and medals are made.

Difficulty : Moderate

Average Time : 61 Seconds

**Options :**

1. **Office**



Mint

3. Mine

4. Barn

**Solution :**

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

**The meaning of the given words is:**

- **Mint:** A facility or place where coins are produced or where money is created./ A strong-flavored aromatic herb, often used in culinary and medicinal applications./
- **Office:** A place or space where administrative or professional work is carried out./ A position or role within an organization or company./
- **Mine:** An underground excavation or pit used for extracting minerals, ores, or valuable materials./ A source of resources such as coal, gold, or diamonds.
- **Barn:** A large building used for storing agricultural products, livestock, or machinery./ A structure typically made of wood or metal, with a roof and walls, used for housing farm animals or storing hay.
- Thus, the most appropriate one word substitution for the given set of words is **Mint**.

**Question 27 :**

Select the correct passive voice form for the given sentence. My brother likes football.

Difficulty : Moderate

Average Time : 74 Seconds

**Options :**

1. Football was liked by my brother.
2. Football is like by my brother.
3. Football was like by my brother.
4. Football is liked by my brother.

**Solution :**

The correct answer is **option 4** i.e. **Football is liked by my brother**.

Following steps are followed to convert the given active voice sentence into its passive form:



Identify the subject and object in the active sentence. In this case, the subject is "my brother" and the object is "football."

- Move the object ("football") to the position of the subject in the passive sentence.
- Add the verb "to be" in the appropriate tense. In this case, we will use "is" because the active sentence is in the present tense.
- Add the past participle form of the main verb "like." The past participle form of "like" is "liked."
- Include the preposition "by" to indicate the doer of the action. In this case, the doer of the action is not specified, so it can be omitted.

**Thus, the most appropriate passive form of the given sentence is:**

*Football is liked by my brother.*

### Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. The monastery in Tawang has recently undergone (1)\_\_\_\_\_ and bright paintings (2)\_\_\_\_\_ it walls. Dances and ceremonial celebrations are held in the (3)\_\_\_\_\_, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born, (4)\_\_\_\_\_ enlightenment and died. To reach Tawang, you drive for 12 hours from Assam's Tezpur town, a major Indian Forces base. The best seasons the visitor can choose for coming to Tawang is (5)\_\_\_\_\_ September to November.

### Question 28 :

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

Difficulty : Moderate

Average Time : 115 Seconds

### Options :

1. expose
2. rectify
3. adore
4. adorn

### Solution :

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

**The meaning of the given words is:**

- **Adorn:** Decorate or embellish something with ornaments or accessories.



- Expose:** Make something visible or known, especially by uncovering or revealing it.
- **Rectify:** Correct or fix a problem or mistake.
  - **Adore:** Have a deep love, affection, or admiration for someone or something.
  - Thus, the most appropriate filler for the given blank is **adorn**.

**Therefore, the correct sentence is:**

*The monastery in Tawang has recently undergone **renovation** and bright paintings **adorn** it walls.*

### Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. The monastery in Tawang has recently undergone (1)\_\_\_\_\_ and bright paintings (2)\_\_\_\_\_ it walls. Dances and ceremonial celebrations are held in the (3)\_\_\_\_\_, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born, (4)\_\_\_\_\_ enlightenment and died. To reach Tawang, you drive for 12 hours from Assam's Tezpur town, a major Indian Forces base. The best seasons the visitor can choose for coming to Tawang is (5)\_\_\_\_\_ September to November.

### Question 29 :

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

Difficulty : Moderate

Average Time : 89 Seconds

### Options :

1. courtyard
2. churchyard
3. shipyard
4. junkyard

### Solution :

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

### The meaning of the given words is:

- **Courtyard:** A courtyard is an open space enclosed by buildings or walls, typically located within a building complex or surrounded by structures.
- **Churchyard:** A churchyard is a piece of land surrounding a church or chapel. It is typically used as a burial ground or cemetery where deceased individuals from the congregation or local community are interred.



**Shipyard:** A shipyard is a facility or area where ships are constructed, repaired, and maintained.

- **Junkyard:** A junkyard, also known as a salvage yard or scrapyards, is a location where old or discarded vehicles, machinery, or other items are collected, stored, and often dismantled for the purpose of salvaging or recycling usable parts or materials.
- Thus, the most appropriate filler for the given blank is **courtyard**.

**Therefore, the completed sentence is:**

*Dances and ceremonial celebrations are held in the **courtyard**, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born...*

### Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. The monastery in Tawang has recently undergone (1)\_\_\_\_\_ and bright paintings (2)\_\_\_\_\_ it walls. Dances and ceremonial celebrations are held in the (3)\_\_\_\_\_, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born, (4)\_\_\_\_\_ enlightenment and died. To reach Tawang, you drive for 12 hours from Assam's Tezpur town, a major Indian Forces base. The best seasons the visitor can choose for coming to Tawang is (5)\_\_\_\_\_ September to November.

### Question 30 :

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

Difficulty : Moderate

Average Time : 116 Seconds

### Options :

1. attained
2. displayed
3. transferred
4. received

### Solution :

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

### The meaning of the given words is:

- **Attained:** Attained refers to achieving or reaching a particular goal, position, or level through effort, skill, or



accomplishment.

- **Displayed:** Displayed refers to the act of exhibiting or presenting something for others to see.
- **Transferred:** Transferred refers to the action of moving or relocating something or someone from one place to another.
- **Received:** Received refers to the act of accepting or getting something that has been given, sent, or presented to oneself.

**Therefore, the completed sentence would be:**

...the full moon on which the Buddha was born, **attained** enlightenment and died.

### Comprehension :

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. The monastery in Tawang has recently undergone (1)\_\_\_\_\_ and bright paintings (2)\_\_\_\_\_ it walls. Dances and ceremonial celebrations are held in the (3)\_\_\_\_\_, the most important of which is held on the night of Buddha Purnima, the full moon on which the Buddha was born, (4)\_\_\_\_\_ enlightenment and died. To reach Tawang, you drive for 12 hours from Assam's Tezpur town, a major Indian Forces base. The best seasons the visitor can choose for coming to Tawang is (5)\_\_\_\_\_ September to November.

### Question 31 :

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

Difficulty : Moderate

Average Time : 92 Seconds

### Options :

1. about
2. beside
3. between
4. among

### Solution :

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

- In this sentence, we are discussing the ideal seasons for visiting Tawang.
- The phrase "between September to November" is used to specify the range of months that are considered the best seasons.
- "Between" is the correct choice for the blank because it indicates a range or interval between two points.

**Therefore, the completed sentence would be:**

The best seasons the visitor can choose for coming to Tawang is **between** September to November.

**Question 32 :**

Select the odd group of numbers. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

**Difficulty : Moderate****Average Time : 66 Seconds****Options :**

1. (6 – 60 – 1200)
2. (7 – 70 – 1600)
3. (5 – 50 – 1000)
4. (4 – 40 – 800)

**Solution :**

The correct answer is **option 2** i.e. (7 – 70 – 1600).

The logic used here is:

1st number  $\times$  10 = 2nd number

2nd number  $\times$  20 = 3rd number

**Option 1: (6 – 60 – 1200)**

$6 \times 10 = 60$

$60 \times 20 = 1200$

This follows the logic.

**Option 2: (7 – 70 – 1600)**

$7 \times 10 = 70$

$70 \times 20 = 1400$

This does not follow the logic.

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

**Question 33 :**

Select the option that is related to the fifth letter cluster in the same way as the second letter cluster is related to the first letter cluster and the fourth letter cluster is related to the third letter cluster. CAST: DCVX:: BUSH: CWVL:: ARMY:?





Difficulty : Moderate

Average Time : 62 Seconds

Options :

1. PTCB
2. CTBP
3. TBPC
4. BTPC

Solution :

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

The logic used here is:

CAST: DCVX

$$C + 1 = D$$

$$A + 2 = C$$

$$S + 3 = V$$

$$T + 4 = X$$

BUSH: CWVL

$$B + 1 = C$$

$$U + 2 = W$$

$$S + 3 = V$$

$$H + 4 = L$$

Similarly,

ARMY:?

$$A + 1 = B$$

$$R + 2 = T$$

$$M + 3 = P$$

$$Y + 4 = C$$

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

**Question 34 :**

A # B means 'A is the brother of B' A @ B means 'A is the son of B' A & B means 'A is the wife of B' A % B means 'A is the mother of B' If X @ Y & Z # U & W @ V, then how is U related to V?

Difficulty : Moderate

Average Time : 65 Seconds

**Options :**

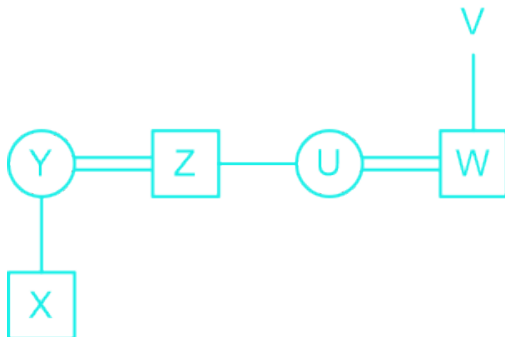
1. Sister
2. Daughter-in-law
3. Daughter
4. Wife

**Solution :**

The correct answer is **option 2** i.e. **Daughter-in-law**

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 tree, U is the daughter-in-law of V.

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

**Question 35 :**

Three of the following letter clusters are alike in some manner and hence form a group. Which letter cluster does not belong to that group?

Difficulty : Moderate

Average Time : 55 Seconds

**Options :**



AMRW

2. XFIK

3. PBGL

4. KWBG

**Solution :**

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

The logic used here is:

1st letter + 12 = 2nd letter

3rd letter + 5 = 4th letter

**Option 1: AMRW**

A + 12 = M

R + 5 = W

This follows the logic.

**Option 2: XFIK**

X + 12 = H

I + 5 = N

This does not follow the logic.

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

**Question 36 :**

By Interchanging the given two numbers which of the following equation will be not correct? 3 and 4

Difficulty : Moderate

Average Time : 52 Seconds

**Options :**

1.  $3 + 5 \times 4 - 6 \div 2 = 16$

2.  $4 \times 6 - 3 + 9 \div 1 = 25$

3.  $3 \times 7 - 8 \div 2 + 4 = 27$

4.  $9 \times 3 \div 6 + 4 - 8 = 1$

**Solution :**

The correct answer is **option 2** i.e.  $4 \times 6 - 3 + 9 \div 1 = 25$ .

**Given conditions:** 3 and 4

After interchanging the expression becomes:

**Option 1:**  $3 + 5 \times 4 - 6 \div 2 = 16$

$$= 4 + 5 \times 3 - 6 \div 2$$

$$= 4 + 5 \times 3 - 3$$

$$= 4 + 15 - 3$$

$$= 16 \text{ is equal to } 16.$$

**Option 2:**  $4 \times 6 - 3 + 9 \div 1 = 25$

$$= 3 \times 6 - 4 + 9 \div 1$$

$$= 3 \times 6 - 4 + 9$$

$$= 18 - 4 + 9$$

$$= 14 + 9$$

$$= 23 \text{ is not equal to } 25.$$

As we have found our answer, so, there is no need of checking further options.

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

**Question 37 :**

In a certain code language, 'complete the drawing' is coded as '837', 'do not leave early' is coded as '2355', and 'we need break' is coded as '245'. How will 'kindly stand straight' be coded in that language?

**Difficulty :** Moderate

**Average Time :** 69 Seconds

**Options :**

1. 856

2. 658

3. 456

4. 769

**Solution :**



The correct answer is **option 2** i.e. **658**.

The logic used here is:

'complete the drawing' is coded as '837'

'do not leave early' is coded as '2355'

'we need break' is coded as '245'

Code for the each word is the number of letters in that word.

Hence, code for the phrase 'kindly stand straight' is 658.

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

**Question 38 :**

Select the option that is related to the fourth term in the same way as the first term is related to the second term and the fifth term is related to the sixth term. 11: 91::? : 154:: 15: 127

Difficulty : Moderate

Average Time : 55 Seconds

**Options :**

1. 16

2. 18

3. 14

4. 24

**Solution :**

The correct answer is **option 2** i.e. **18**.

The logic used here is:

11: 91

$11 \times 9 = 99$

$99 - 8 = 91$

15: 127

$15 \times 9 = 135$

$135 - 8 = 127$



Similarly,

$$? : 154$$

$$a \times 9 = 154 + 8$$

$$a \times 9 = 162$$

$$a = 18$$

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

**Question 39 :**

By interchanging the given two signs and numbers which of the following equation will be correct? + and -, 7 and 3

**Difficulty : Moderate**

**Average Time : 46 Seconds**

**Options :**

1.  $7 + 3 \times 9 - 8 \div 2 = 30$

2.  $9 \times 7 + 3 - 4 \div 2 = 18$

3.  $3 \times 4 \div 2 + 7 - 5 = 16$

4.  $3 + 7 \div 1 - 4 \times 2 = 16$

**Solution :**

The correct answer is **option 3** i.e.  $3 \times 4 \div 2 + 7 - 5 = 16$ .

**Given conditions:** + and -, 7 and 3

**Option 1:**  $7 + 3 \times 9 - 8 \div 2 = 30$

After interchanging the expression becomes:

$$= 3 - 7 \times 9 + 8 \div 2$$

$$= 3 - 7 \times 9 + 4$$

$$= 3 - 63 + 4$$

$$= -56 \text{ is not equal to } 30.$$

**Option 2:**  $9 \times 7 + 3 - 4 \div 2 = 18$

After interchanging the expression becomes:

$$= 9 \times 3 - 7 + 4 \div 2$$



$$= 9 \times 3 - 7 + 2$$

$$= 27 - 7 + 2$$

= 22 is not equal to 18.

**Option 3:  $3 \times 4 \div 2 + 7 - 5 = 16$**

After interchanging the expression becomes:

$$= 7 \times 4 \div 2 - 3 + 5$$

$$= 7 \times 2 - 3 + 5$$

$$= 14 - 3 + 5$$

= 16 is equal to 16.

As we have found our answer, so, there is no need of checking further options.

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

**Question 40 :**

Select the option that represents the correct order of the given words as they would appear in an English dictionary. 1. Humility 2. Humbug 3. Humanoid 4. Humidity 5. Humoresque 6. Humanity 7. Humectants

**Difficulty : Moderate**

**Average Time : 78 Seconds**

**Options :**

1. 6, 3, 2, 7, 4, 1, 5

2. 6, 3, 2, 7, 1, 4, 5

3. 6, 3, 7, 2, 1, 4, 5

4. 6, 3, 7, 2, 4, 1, 5

**Solution :**

The correct answer is **option 1** i.e. 6, 3, 2, 7, 4, 1, 5.

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

1. Humanity

2. Humanoid

3. Humbug

4. Humectants
5. Humidity
6. Humility
7. Humoresque

### Question 41 :

In a certain code language, 'DAISY' is written as 'FCIQW', and 'ROSES' is written as 'TQSCQ'. How will 'LOTUS' be written in that language?

**Difficulty : Moderate**

**Average Time : 44 Seconds**

### Options :

1. NQSTQ
2. NQTSQ
3. NPTSP
4. NQTSP

### Solution :

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

The logic used here is:

'DAISY' is written as 'FCIQW'

$$D + 2 = F$$

$$A + 2 = C$$

$$I = I$$

$$S - 2 = Q$$

$$Y - 2 = W$$

'ROSES' is written as 'TQSCQ'

$$R + 2 = T$$

$$O + 2 = Q$$

$$S = S$$





$$E - 2 = C$$

$$S - 2 = Q$$

Similarly;

Code for the word LOTUS:

$$L + 2 = N$$

$$O + 2 = Q$$

$$T = T$$

$$U - 2 = S$$

$$S - 2 = Q$$

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

**Question 42 :**

Which two signs should be interchanged to make the given equation correct?  $(50 \div 3) \times 15 + 25 - 10 = 25$

**Difficulty :** Moderate

**Average Time :** 61 Seconds

**Options :**

1.  $\div$  and  $\times$

2.  $+$  and  $\times$

3.  $\div$  and  $\times$

4.  $+$  and  $\times$

**Solution :**

The correct answer is **option 3** i.e.  $\div$  and  $\times$ .

**Given equation:**  $(50 \div 3) \times 15 + 25 - 10 = 25$

**Option 1:  $\div$  and  $\times$** 

After interchanging the expression becomes:

$$= (50 - 3) \times 15 + 25 \div 10 = 25$$

$$= 47 \times 15 + 25 \div 10$$

$$= 707.5 \text{ is not equal to } 25.$$

**Option 2: + and ×**

After interchanging the expression becomes:

$$= (50 \div 3) + 15 \times 25 \quad 10 = 25$$

= 381.66 is not equal to 25.

**Option 3: ÷ and ×**

After interchanging the expression becomes:

$$= (50 \times 3) \div 15 + 25 \quad 10 = 25$$

$$= 150 \div 15 + 25 \quad 10$$

$$= 10 + 25 \quad 10$$

= 25 is equal to 25.

As we have found our answer, so, there is no need of checking further options.

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

**Question 43 :**

Select the set in which the numbers are related in the same way as the numbers of the given set. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.) (23, 161, 207) (47, 329, 423)

**Difficulty : Moderate**

**Average Time : 82 Seconds**

**Options :**

1. (64, 448, 576)

2. (84, 442, 570)

3. (29, 112, 782)

4. (33, 97, 297)

**Solution :**

The correct answer is **option 1** i.e. (64, 448, 576).

The logic used here is:

(23, 161, 207)



$$207 - 161 = 46$$

$$46 \div 2 = 26$$

(47, 329, 423)

$$423 - 329 = 94$$

$$94 \div 2 = 47$$

Similarly,

(64, 448, 576)

$$576 - 448 = 128$$

$$128 \div 2 = 64$$

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

**Question 44 :**

Which of the following numbers will replace the question mark (?) in the given series? 1, 3, 6, 18, 36, 108, ?

**Difficulty : Moderate**

**Average Time : 43 Seconds**

**Options :**

1. 196
2. 224
3. 236
4. 216

**Solution :**

The correct answer is **option 4** i.e. **216**.

Given series: 1, 3, 6, 18, 36, 108, ?

The series follows this pattern:

$$1 \times 3 = 3$$

$$3 \times 2 = 6$$

$$6 \times 3 = 18$$

$$18 \times 2 = 36$$

$$36 \times 3 = 108$$

$$108 \times 2 = 216$$

So, the next term in the series is **216**.

**Question 45 :**

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: I. Some violins are pianos. II. All violins are flutes. III. No violin is a guitar. Conclusions: I. No guitar is a piano. II. Some flutes are pianos. III. All flutes are guitars.

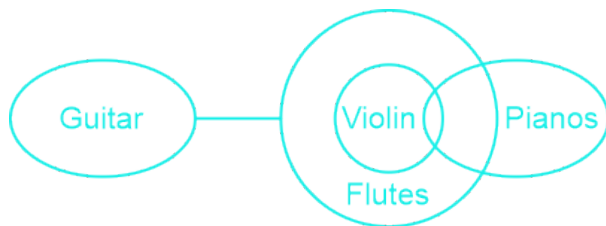
**Difficulty : Moderate****Average Time : 59 Seconds****Options :**

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

**Solution :**

The correct answer is **option 3** i.e. **Only conclusion II follows**.

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

**Conclusions:**

I. No guitar is a piano **False** (It is possible, but no definite conclusion can be drawn.)

II. Some flutes are pianos **True** (As all violins are flutes and some violins are pianos, so, some flutes are pianos is also true.)

III. All flutes are guitars **False** (It is possible, but no definite conclusion can be drawn.)

Hence, **Only conclusion II follows**.

**Question 46 :**

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

Difficulty : Moderate

Average Time : 70 Seconds

Options :

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



Solution :



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

The given figure is embedded in option 3, as shown below:



**Question 47 :**

Select the correct mirror image of the given figure when the mirror is placed at MN as shown.

Difficulty : Moderate

Average Time : 63 Seconds

**Options :**

1. m ε ε̄ κ γ b
2. w ε ε̄ k y p
3. w ε ε̄ κ y b
4. w ε ε̄ κ γ p

**Solution :**

The correct answer is **option 1** i.e. m ε ε̄ κ γ b.

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 1** is the correct answer.

**Question 48 :**

Select the option that is related to the fourth term in the same way as the first term is related to the second term and the fifth term is related to the sixth term. 18: 234::? : 176:: 14: 126

Difficulty : Moderate

Average Time : 78 Seconds

**Options :**

1. 16



15

3. 20

4. 14

**Solution :**

The correct answer is **option 1** i.e. **16**.

The logic used here is:

18: 234

$$18 \times (18 - 5) = 18 \times 13 = 234$$

14: 126

$$14 \times (14 - 5) = 14 \times 9 = 126$$

Similarly,

? : 176

$$a \times (a - 5) = 176$$

Check with the options.

**Option 1: 16**

$$16 \times (16 - 5) = 16 \times 11 = 176$$

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

**Question 49 :**

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

Difficulty : Moderate

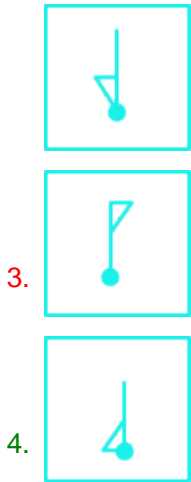
Average Time : 49 Seconds

**Options :**

1.



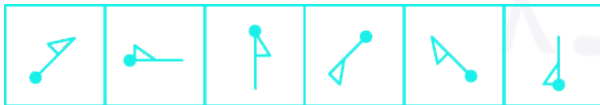
2.



**Solution :**



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



For figure: It is rotating 45 degrees and 90 degrees alternatively in the clockwise direction.

For the triangle: It moves opposite direction of the line when the figure moves 45 degrees but remain at the same place when moves 90 degrees.

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

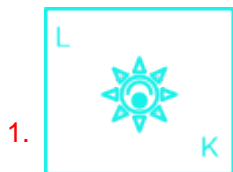
**Question 50 :**

Select the letter cluster from the options that can replace the question mark (?) in the following series.

**Difficulty : Moderate**

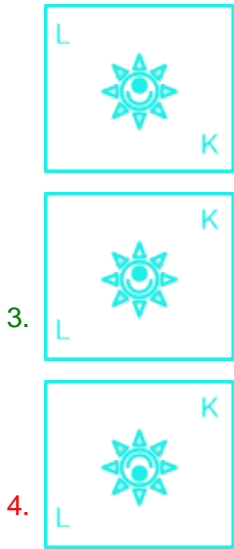
**Average Time : 73 Seconds**

**Options :**



2.





**Solution :**

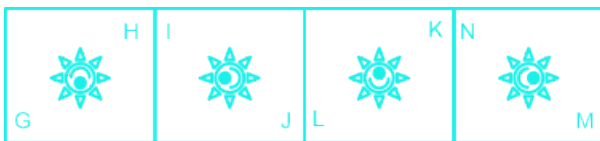


The correct answer is **option 3** i.e.

The logic used here is:

1. The figure at the center of the square is rotating in a clockwise direction.
2. The letters inside the square are moving in an anticlockwise direction and are increased by one position in the English alphabetical series.

The series of figures is:



**Question 51 :**

Select the option that is related to the third word in the same way as the second word is related to the first word. (The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.) Lens: Camera:: Cartridge:?

**Difficulty : Moderate**

**Average Time : 84 Seconds**

**Options :**



Printer

2. Ink
3. Paper
4. Computer

**Solution :**

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

The logic used here is:

Lens: Camera

The lens is used in the camera.

Similarly,

Cartridge:?

The cartridge is used in the printer.

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

**Question 52 :**

Three different positions of the same dice are shown (figures 1 to 3). Find the number on the face opposite to the face having '3'.

**Difficulty : Moderate**

**Average Time : 46 Seconds**

**Options :**

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

**Solution :**

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

In the first and second dice, 2 and 5 are common. So, the remaining face will be opposite to each other. Hence, 1 is opposite to 6.

In the second and third dice, 1 and 2 are common. So, the remaining face will be opposite to each other. Hence, 4 is



opposite to 5.

So, the remaining opposite pair is 3 and 2.

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

**Question 53 :**

Which letter cluster will replace the question mark (?) to complete the given series? BLJS, FOLT, ?, NUPV, RXRW

Difficulty : Moderate

Average Time : 50 Seconds

**Options :**

1. KRMU
2. JRNU
3. KRNU
4. JRMU

**Solution :**

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

Given series: BLJS, FOLT, ?, NUPV, RXRW

The series follows this pattern:

BLJS, FOLT

$B + 4 = F$

$L + 3 = O$

$J + 2 = L$

$S + 1 = T$

Similarly;

FOLT, ?

$F + 4 = J$

$O + 3 = R$

$L + 2 = N$

$T + 1 = U$

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

**Question 54 :**

In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements. Statements: I. Some seconds are time. II. All times are minute. Conclusion: I. No minute is time. II. No time is second. III. No second is a minute.

Difficulty : Moderate

Average Time : 68 Seconds

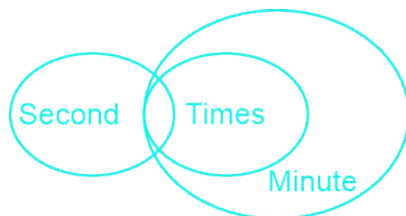
**Options :**

1. Only conclusion I follows
2. All conclusion follows
3. Neither conclusion follows
4. Both conclusions I and II follows

**Solution :**

The correct answer is **option 3** i.e. **Neither conclusion follows**.

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

**Conclusions:**

- I. No minute is time **False** (It is possible, but no definite conclusion can be drawn.)
- II. No time is second **False** (It is possible, but no definite conclusion can be drawn.)
- III. No second is a minute **False** (It is possible, but no definite conclusion can be drawn.)

Hence, **Neither conclusion follows**.

**Question 55 :**

If  $A \times B$  means that A is the father of B,  $A + B$  means that A is the mother of B,  $A - B$  means that A is the brother of B. Then which of the following expression shows that Q is the brother of P?

Difficulty : Moderate

Average Time : 75 Seconds

Options :

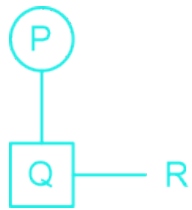
1.  $P + Q - R$
2.  $P - Q + R$
3.  $P \times R - Q$
4.  $P - Q \times R$

Solution :

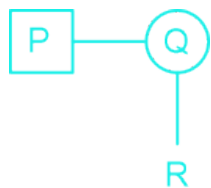
The correct answer is **option 4** i.e.  $P - Q \times R$ 

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.

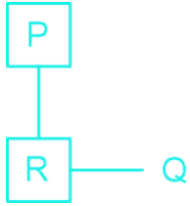
Option1:  $P + Q - R$ 

From the above tree, Q is the son of P.

Option 2:  $P - Q + R$ 

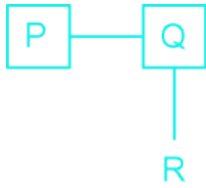
From the above tree, Q is the sister of P.

Option 3:  $P \times R - Q$



From the above tree, Q is the son/daughter of P.

**Option 4: P – Q × R**



From the above tree, Q is the brother of P.

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

**Question 56 :**

A series is given with one term missing. Select the correct alternative from the given ones that will complete the series. CABQ, CEJC, CIRO, CMZA, ?

**Difficulty : Moderate**

**Average Time : 95 Seconds**

**Options :**

1. CQIM
2. CMNP
3. CQHM
4. CMRT

**Solution :**

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

Given series: CABQ, CEJC, CIRO, CMZA, ?

The series follows this pattern:

CABQ, CEJC

C = C



$$A + 4 = E$$

$$B + 8 = J$$

$$Q + 12 = C$$

Similarly;

CMZA, ?

$$C = C$$

$$M + 4 = Q$$

$$Z + 8 = H$$

$$A + 12 = M$$

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

**Question 57 :**

Match Column - A with Column - B  
Column – A (Organelle) Column – B (Function)  
i. Mitochondria a. Protein synthesis  
ii. Ribosomes b. Regulation of activity of a cell  
iii. Nucleus c. Digestive system of a cell  
iv. Lysosomes d. Energy generation

Difficulty : Moderate

Average Time : 58 Seconds

**Options :**

1. i-c, ii-a, iii-d, iv-c
2. i-b, ii-a, iii-c, iv-d
3. i-a, ii-b, iii-c, iv-d
4. i-d, ii-a, iii-b, iv-c

**Solution :**

The correct answer is **option 4** i.e. **i-d, ii-a, iii-b, iv-c**.

- Mitochondria make most of the energy for the cell and have their own genetic material that is different from the genetic material found in the nucleus.
- A ribosome is an intercellular structure made of both RNA and protein, and it is the site of protein synthesis in the cell.
- The nucleus serves both as the repository of genetic information and as the cell's control center.
- A lysosome has three main functions: the breakdown/digestion of macromolecules (carbohydrates, lipids, proteins, and nucleic acids), cell membrane repairs, and responses against foreign substances such as bacteria, viruses and other antigens.

**Question 58 :**

Which state government has launched the novel 'Chief Minister's Breakfast Scheme' in September 2022?

Difficulty : Moderate

Average Time : 72 Seconds

**Options :**

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

**Solution :**

The correct answer is **option 2** i.e. **Tamil Nadu**.

- The Chief Minister's Breakfast Scheme, where students of classes 1 to 5 in government schools across the state has to be given breakfast on all working days.
- The scheme was on September 15, 2022 by Chief Minister M.K. Stalin.
- "In its pilot phase, the scheme will be introduced in 1,545 schools across the state from September 16 onwards following the inauguration.
- Ahead of the scheme being rolled out, the Department of Social Welfare and Women Empowerment had asked for officials in districts to take stock of the facilities available for cooking breakfast which include central kitchens as well as kitchens attached to the schools that have been chosen.

**Question 59 :**

Where was the FIH Men's Indoor Hockey World Cup 2018 organised?

Difficulty : Moderate

Average Time : 64 Seconds

**Options :**

1. Berlin, Germany
2. Poznan, Poland
3. Vienna, Austria
4. Leipzig, Germany

**Solution :**

The correct answer is **option 1** i.e. **Berlin, Germany**.





- The fifth edition of the Indoor Hockey World Cup was hosted in Berlin, Germany between 7th – 11th February 2018.
- Kazakhstan faced Australia, Trinidad and Tobago, Poland, Germany and Czech Republic in Pool A.
  - In Pool B, Iran was against Austria, Belgium, Russia, South Africa and Switzerland.

**Question 60 :**

How many fundamental duties are provided in the Indian Constitution?

Difficulty : Moderate

Average Time : 47 Seconds

**Options :**

1. 11
2. 12
3. 14
4. 17

**Solution :**

The correct answer is **option 1** i.e. **11**.

- Originally ten fundamental duties were listed.
- Later on, by virtue of 86th Constitution the Amendment in year 2002, 11th duty was added.
- Fundamental duties are intended to serve as a constant reminder to every citizen that while the constitution specifically conferred on them certain Fundamental Rights, it also requires citizens to observe certain basic norms of democratic conduct and democratic behaviour because rights and duties are co-relative.
- The inclusion of Fundamental Duties brought our Constitution in line with article 29 (1) of the Universal Declaration of Human Rights and with provisions in several modern Constitutions of other countries.
- The concept of Fundamental duties was taken from the USSR.

**Question 61 :**

In the context of India, tropical cyclones originate over the \_\_\_\_\_.

Difficulty : Moderate

Average Time : 61 Seconds

**Options :**

1. Arabian Sea
2. Pacific Ocean
3. Bay of Bengal
4. Mediterranean Sea

**Solution :**

The correct answer is **option 3** i.e. **Bay of Bengal**.

- A tropical cyclone is a rapid rotating storm originating over tropical oceans from where it draws the energy to develop.
- It has a low pressure centre and clouds spiraling towards the eyewall surrounding the "eye", the central part of the system where the weather is normally calm and free of clouds.

**Question 62 :**

Which of the following UT/states have the highest density/km<sup>2</sup>, according to census 2011?

**Difficulty : Moderate**

**Average Time : 49 Seconds**

**Options :**

1. Pondicherry
2. Chandigarh
3. Uttar Pradesh
4. Bihar

**Solution :**

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

- The records of population density 2011 of India state that the density 2011 has increased from a figure of 324 to that of 382 per square kilometer.
- Bihar is the most thickly populated state (1106 persons/sq km.) followed by west bengal-1028 and Kerala 860.
- Population density increased at the rate of 17.54 from 2001 to 2011.

**Question 63 :**

Which college was established in Banaras in 1791?

**Difficulty : Moderate**

**Average Time : 45 Seconds**

**Options :**

1. Dayanand College
2. Shivaji College
3. Hindu College
4. Sanskrit College

**Solution :**

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

- The Hindu college was established in the year 1791 in Banaras.
- It was established with an aim to promote and increase the study of ancient Sanskrit texts.

**Question 64 :**

Which country is the leading producer of rice?

**Difficulty : Moderate**

**Average Time : 41 Seconds**

**Options :**

1. China
2. Japan
3. India
4. Egypt

**Solution :**

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

- China is the largest rice producer in the world with 211,090,813 tonnes production volume per year.
- Worldwide 742,541,804 tonnes of rice is produced per year.
- India comes second with 158,756,871 tonnes yearly production.

**Question 65 :**

Who has been appointed as new director of AIIMS, New Delhi in September 2022?

**Difficulty : Moderate**

**Average Time : 41 Seconds**

**Options :**

1. Raj Subramaniam
2. M. Srinivas
3. Krishnan Ramanujam
4. Nitin Chugh

**Solution :**

The correct answer is **option 2** i.e. **M. Srinivas**.

- Dr M. Srinivas is an Indian medical practitioner from Karnataka, India.



On 9 September 2022, he was appointed as the director of AIIMS for a period of five years or till attaining the age of 65, whichever is earlier.

**Question 66 :**

The Winter Olympics - 2026 will be hosted by \_\_\_\_\_.

**Difficulty : Moderate****Average Time : 43 Seconds****Options :**

1. Russia
2. Canada
3. Italy
4. France

**Solution :**

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

- The next Olympic Games will be held in Milan and Cortina d'Ampezzo, in Italy, in 2026.
- Skating sports and ice hockey will be held in Milan, while most alpine skiing events will take place in the resort of Cortina. Other snow sports will be held in other venues in the Italian Alps, including Bormio and Livigno.
- The 2026 Winter Olympics will take place from 6 to 22 February and the 2026 Winter Paralympics will be held from 6 to 15 March.

**Question 67 :**

Whom among the following Indian classical musicians is an auditorium in Teheran, Iran named after?

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

1. Ustad Bismillah Khan
2. Ustad Sultan Khan
3. Ustad Zakir Hussain
4. Ustad Vilayat Khan

**Solution :**

The correct answer is **option 1** i.e. **Ustad Bismillah Khan**.

- In Teheran, an auditorium was named after him – Tahar Mosiquee Ustaad Bismillah Khan.



Bismillah Khan had the rare honor of playing his Shehnai on the eve of India's independence in the year 1947. He performed at the Red Fort in Delhi and since then, continued to play every year on the 15th of August, right after the speech by the Prime Minister of India.

- He was awarded with Bharat Ratna in 2001, Padma Vibhushan in 1980, Padma Bhushan in 1968 etc.

**Question 68 :**

Which type of rock can be considered as a biological sedimentary rock?

Difficulty : Moderate

Average Time : 58 Seconds

**Options :**

1. Bauxite
2. Marble
3. Granite
4. Limestone

**Solution :**

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

- Biologic sedimentary rocks form when living organisms die, pile up, and are then compressed and cemented together.
- Types of biologic sedimentary rock include coal (accumulated plant material that is carbon-rich), or limestone and coquina (rocks made of marine organisms).

**Question 69 :**

Who discovered three chemical elements: cerium, thorium and selenium, and devised the modern method by which one or two letters are used to symbolise elements?

Difficulty : Moderate

Average Time : 46 Seconds

**Options :**

1. Hennig Brand
2. Niels Bohr
3. Jacob Berzelius
4. John Dalton

**Solution :**

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



An avid and methodical experimenter, Jöns Jakob Berzelius (1779–1848) conducted pioneering experiments in electrochemistry and established the law of constant proportions.

- The experiment states that the elements in inorganic substances are bound together in definite proportions by weight.

**Question 70 :**

With respect to India's foreign trade, which year is referred to as the year of divide?

**Difficulty : Moderate****Average Time : 46 Seconds****Options :**

1. 2010
2. 1991
3. 1981
4. 1996

**Solution :**

The correct answer is **option 2** i.e. **1991**.

- The year 1921, is a year of the great divide in the demographic history of India when mortality started to decline leading to acceleration in the rate of population growth.
- The year 1921 is known as the 'Year of Great Divide' for India's population as population starts increasing. During 1951, population growth rate has come down from 1.33% to 1.25%.
- Hence it is known as 'Year of Small divide'. In 1961, population of India started increasing at the rate of 1.96% i.e, 2%.

**Question 71 :**

The elections to the Panchayati Raj institutions are conducted by the \_\_\_\_\_.

**Difficulty : Moderate****Average Time : 52 Seconds****Options :**

1. Central election commission
2. State government
3. State election commission
4. Central government

**Solution :**



The correct answer is **option 3** i.e. **State election commission.**

- The State Election Commission is an autonomous constitutional authority responsible for administering elections to the 3rd tier of governance i.e. the Local Self Government, which includes the Panchayati Raj Institutions and the Urban Local Bodies.
- State Election Commission consists of a State Election Commissioner, who is appointed by the Governor for a fixed tenure of 5 years and cannot be removed from his office except in like manner and on the like grounds as a Judge of a High Court.
- As per the constitutional provision, 'superintendence, direction and control of the conduct of Elections to Urban & Rural Local bodies vest in State Election Commission.

**Question 72 :**

Money multiplier can be expressed as \_\_\_\_\_.

Difficulty : Moderate

Average Time : 62 Seconds

**Options :**

1. Statutory liquidity ratio / Cash Reserve Ratio
2. 1/ Statutory liquidity ratio
3. Cash reserve ratio – Statutory liquidity ratio
4. 1/ Cash Reserve Ratio

**Solution :**

The correct answer is **option 4** i.e. **1/ Cash Reserve Ratio.**

- The increase in the money supply is the money multiplier. Money is either currency held by the public or bank deposits:  $M = C + D$ .
- The monetary base is either held by the public as currency or held by the banks as reserves:  $B = C + R$ .
- Cash Reserve Ratio (CRR) is the percentage of a bank's total deposits that it needs to maintain as liquid cash

**Question 73 :**

Who among the following is supposed to compile both the Puranas and the Mahabharata?

Difficulty : Moderate

Average Time : 57 Seconds

**Options :**

1. Sage Vasishtha
2. Sage Bharadwaja

### Sage Vyasa

#### 4. Sage Valmiki

**Solution :**

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

- According to the Mahabharata, the *sage Vyasa* was the son of Satyavati and Parashara.
- During her youth, Satyavati was a fisherwoman who used to drive a boat.
- Vyasa is the legendary author of the Mahabharata, Vedas and Puranas, some of the most important works in the Hindu tradition.

**Question 74 :**

Sultan Mahmud came to India from which of the following city of Afghanistan?

Difficulty : Moderate

Average Time : 48 Seconds

**Options :**

1. Ghazni
2. Jalalabad
3. Kabul
4. Kandahar

**Solution :**

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

- Mahmud of Ghazni also Known as Yamin ad-Dawlah Abdul-Qasim Mahmud ibn Sabuktegin was the first sultan in history.
- The greatest emperor of the Ghaznavids, Sultan Mahmud was the conquerer of India. He was an intellectual and art lover, who contributed greatly to the spread of Islam in Asian territories

**Question 75 :**

In which year did Langmuir reform the Lewis concept by abandoning the idea of a stable cubical arrangement of the octet and introducing the term 'covalent bond'?

Difficulty : Moderate

Average Time : 50 Seconds

**Options :**

1. 1919



1915

3. 1921

4. 1917

**Solution :**

The correct answer is **option 1** i.e. **1919**.

- Langmuir , in 1919 improved the Lewis concept by suggesting that when both the atoms taking part in a chemical combination are short of electrons than the nearest noble gas configuration , they can share their electrons in order to complete their octet.
- A covalent bond consists of the simultaneous attraction of two nuclei for one or more pairs of electrons. The electrons located between the two nuclei are bonding electrons.

**Question 76 :**

Jagoi and cholom are the two main divisions in which Classical dance?

Difficulty : Moderate

Average Time : 50 Seconds

**Options :**

1. Bharatanatyam
2. Odissi
3. Manipuri
4. Mohiniyattam

**Solution :**

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

- Also known as Mrindanga Kirtan or Dhumal or Drum Dance, Pung Cholom is a famous dance style of Manipur that involves dancing and playing a drum at the same time.
- Paos Jagoi performed in Manipur is associated with an equally fascinating Meitei (Manipuri language and its old culture) myth which is as follows : God Atinga Shidaba had three sons; Amiba, Ashiba, and Achiba. He asked his sons to create the Universe.

**Question 77 :**

Guru Kelucharan Mohapatra, who was awarded the Padma Vibhushan in 2000, was an exponent of which of the following classical dances of India?

Difficulty : Moderate

Average Time : 54 Seconds



### Options :

1. Kathakali
2. Odissi
3. Kathak
4. Mohiniyattam

### Solution :

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

- Guru Kelucharan Mohapatra, along with his wife, founded the Odissi dance school Srjan, a premier training institution, in Bhubaneswar, in 1993.
- Mohapatra was also the first person from Odisha to be conferred the Padma Vibhushan.
- He was awarded Sangeet Natak Akademi Award in 1966 and Padma Shree in 1975. In 1981, he was conferred a Doctorate by the Akhil Bharatiya Gandharva Mahavidyalaya.
- In 1987, he was awarded the Kalidas Samman instituted by the Madhya Pradesh government. He received the Padma Bhushan in 1988 and the Padma Vibhushan in the year 2000.

### Question 78 :

How much purse money was given to a recipient of the Akademi Award in 2019?

Difficulty : Moderate

Average Time : 56 Seconds

### Options :

1. Rs. 1 lakh
2. Rs. 4 lakh
3. Rs. 2 lakh
4. Rs. 3 lakh

### Solution :

The correct answer is **option 1** i.e. **Rs. 1 lakh**.

- Shashi Tharoor, Nand Kishore Acharya to receive Sahitya Akademi Award 2019; win Rs 1 lakh cash prize.
- Every year since its inception in 1954, the Sahitya Akademi Award prizes to the most outstanding books of literary merit published in any of the major Indian languages recognised by the Akademi.

### Question 79 :

Who has been appointed as a brand ambassador of Panyakoti Dattu Yojana?



Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. Rana Daggubati
2. Kichcha Sudeep
3. Mahesh Babu
4. Sonu Sood

Solution :

The correct answer is **option 2** i.e. **Kichcha Sudeep**.

- Kichcha Sudeep appointed as a brand ambassador of Punyakoti Dattu Yojana.
- Minister of Animal Husbandry, Prabhu B Chauhan, has stated that the government has announced the Punyakoti Dattu Yojana (cow adoption programme) to give an opportunity for the people to join hands with the government to care for our cows and make our goshalas atma nirbhar.

Question 80 :

The second volume of the Akbar Nama recorded the \_\_\_\_\_.

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. Akbar's ancestors
2. Akbar's administration
3. Events of Akbar's reign
4. Akbar's battles

Solution :

The correct answer is **option 3** i.e. **Events of Akbar's reign**.

- The Akbar Nama is divided into three books: The first book dealt with Akbar's ancestors. The second recorded the events of Akbar's reign. The third is the Ain-i Akbari.
- Ain-i-Akbari is a 16<sup>th</sup> century document written by: Akbar's court historian Abu'l Fazl in Persian language.

Question 81 :

Which of the following is a local wind?



Difficulty : Moderate

Average Time : 52 Seconds

Options :

1. Loo
2. Westerlies
3. Monsoon
4. Easterlies

Solution :

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

- Loo is a powerful hot and dry local wind that blows across north India and Pakistan's western Indo-Gangetic plain.
- Loo winds are a common occurrence in India.
- They blow at noon time and continue till evening. It not only gets unbearable; it also increases the risk of heatstroke and other health issues.

Question 82 :

Simplify the following  $253 - 753 + 503$

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. -281250
2. 281350
3. 271250
4. -281450

Solution :

The correct answer is **option 1** i.e. **-281250**

Formula used:

$$x^3 + y^3 + z^3 = 3xyz \quad \text{---- (1)}$$

when  $x + y + z = 0$

Calculations:



Using equation (1), we get

$$25 - 75 + 50 = 0$$

Hence,  $x = 25$ ,  $y = -75$  and  $z = 50$

$$25^3 - 75^3 + 50^3 = 3 \times 25 \times (-75) \times 50$$

$$- 291250$$

**Question 83 :**

Find the greatest 5-digit number which is divisible by 11, 33, 99 and 121.

Difficulty : Moderate

Average Time : 52 Seconds

**Options :**

1. 90099
2. 99990
3. 99099
4. 90909

**Solution :**

The correct answer is **option 3** i.e. **99099**

**Calculations:**

LCM of 11, 33, 99 and 121 = 1089

Highest 5 digit number = 99999

When dividing 99999 by 1089 we get 900 as remainder

Hence, the greatest 5 digit number divisible by 11, 33, 99 and 121 =  $99999 - 900 = 99099$

**Question 84 :**

The given bar-graph shows the data of production of pulses (in lakh tonnes) by three different countries X, Y and Z over the years. Study the bar graph and answer the question that follows. For which country is the average production (in lakh tonnes) for five years the maximum?

Difficulty : Moderate

Average Time : 48 Seconds

**Options :**

1. X



Z

3. Y

4. Y and Z both

**Solution :**

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

**Calculations:**

Average production of country X =  $(13 + 15 + 12 + 14 + 11)/5 = 65/5 = 13$

Average production of country Y =  $(12 + 14 + 13 + 15 + 13)/5 = 67/5 = 13.4$

Average production of country Z =  $(14 + 13 + 15 + 12 + 15)/5 = 69/5 = 13.8$

Hence, average production (in lakh tonnes) for five years is the maximum in country Z.

**Question 85 :**

If  $\theta$  is an acute angle and  $\tan \theta + \cot \theta = 2$ , then the value of  $\tan^2 \theta + \cot^2 \theta + 2 \tan^5 \theta \cot^4 \theta$  is:

**Difficulty :** Moderate

**Average Time :** 46 Seconds

**Options :**

1. 3

2. 4

3. 1

4. 2

**Solution :**

The correct answer is **option 2** i.e. 4

**Calculations:**

We know that,  $\tan \theta + \cot \theta = 2$  when  $\theta = 45^\circ$

Hence,  $\tan 45 = 1$  and  $\cot 45 = 1$

$\tan^2 45 + \cot^2 45 + 2 \tan^5 45 \cdot \cot^4 45$

$1 + 1 + 2 \times 1 \times 1 = 4$

**Question 86 :**



The lengths (in cm) of three sides of a triangle are, respectively, 48, 55 and 73. What is the length (in cm) of the median joining the mid-point of the longest side to its opposite vertex?

**Difficulty : Moderate**

**Average Time : 48 Seconds**

**Options :**

1. 27.5
2. 73
3. 24
4. 36.5

**Solution :**

The correct answer is **option 4** i.e. **36.5**

**Formula used:**

In a right angled triangle,

length of the median joining the mid-point of the longest side to its opposite vertex = Hypotenuse/2

**Calculations:**

48, 55 and 73 are the sides of a right angled triangle because it follows pythagoras theorem.

length of the median joining the mid-point of the longest side to its opposite vertex = Hypotenuse/2

$$73/2 = 36.5 \text{ cm}$$

**Question 87 :**

What is the smallest number that should be added to 4567 so that the sum is divisible by 7?

**Difficulty : Moderate**

**Average Time : 51 Seconds**

**Options :**

1. 7
2. 5
3. 6
4. 4

**Solution :**

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

**Calculations:**

When dividing 4567 by 7, we get 3 as remainder

Hence, when dividing  $3/7$ , we need to add 4 to the remainder such that it is divisible by 7

Therefore, the required number is 4.

**Question 88 :**

Select the correct algebraic expression.

Difficulty : Moderate

Average Time : 38 Seconds

**Options :**

1.  $ab - a - b + 1 = (a - 1)(b - 1)$
2.  $ab + a - b + 1 = (1 - a)(1 - b)(1 - a)(1 + b)$
3.  $ab - a - b + 1 = (1 - a)(b - 1)$
4.  $ab - a - b + 1 = (a - 1)(1 - b)$

**Solution :**

The correct answer is **option 1** i.e.  $ab - a - b + 1 = (a - 1)(b - 1)$

**Calculations:**

Taking option (1), we get

$$ab - a - b + 1 = (a - 1)(b - 1)$$

Taking RHS

$$(a - 1)(b - 1)$$

$$ab - a - b + 1$$

Hence, LHS = RHS

**Question 89 :**

What is the value of  $(100^2 - 99^2 + 98^2 - 97^2 + 96^2 - 95^2 + 94^2 - 93^2 + \dots + 12^2 - 11^2)$ ?

Difficulty : Moderate

Average Time : 54 Seconds

**Options :**



5050

2. 4985

3. 4995

4. 4950

**Solution :**

The correct answer is **option 3** i.e. **4995**

**Formula used:**

$$\text{Sum} = n/2(a + l) \quad \text{---- (1)}$$

Where n = number of terms, a = first term and l = last term

**Calculations:**

$$\sqrt{(100^2 - 99^2 + 98^2 - 97^2 + 96^2 - 95^2 + 94^2 - 93^2 \dots 12^2 - 11^2)}$$

Can be written as;

$$(100 + 99)(100 - 99) + (98 + 97)(98 - 97) + \dots (12 + 11)(12 - 11)$$

$$100 + 99 + 98 + 97 + \dots + 12 + 11$$

Where, n = 90

l = 11 and a = 100

Using equation (1), we get

$$\text{Sum} = 90/2(100 + 11)$$

4995

**Question 90 :**

Mr. X has a monthly income of \$26,500 and his monthly expenditure is \$20,500. The next year, his salary is increased by 12% and expenditure is increased by 6%. His savings increase by how much percent?

**Difficulty :** Moderate

**Average Time :** 58 Seconds

**Options :**

1. 32.5%

2. 27.3%



32.0%

4. 34.7%

**Solution :**

The correct answer is **option 1** i.e. **32.5%**

**Given:**

Mr. X has a monthly income of \$26,500 and his monthly expenditure is \$20,500

**Calculations:**

Savings of Mr. X = 26500 - 20500 = 6000

Next year,

Increased salary = 112% of 26500 = 29680

Increased expenditure = 106% of 20500 = 21730

Savings = 29680 - 21730 = 7950

Percentage savings increased =  $[(7950 - 6000)/6000] \times 100 = 32.5\%$

**Question 91 :**

The given table shows the number of new employees who joined in different categories of employees in an organisation and also the number of employees from these categories who left the organisation every year since the foundation of the organisation in 2015. Study the table and answer the questions that follow. Business Analysts Accountants Sales Representatives Peons

Year	Business Analysts	Accountants	Sales Representatives	Peons	Year	Business Analysts	Accountants	Sales Representatives	Peons																	
2015	80	0	35	0	50	0	73	0	2016	63	21	26	16													
2017	78	28	15	5	38	15	48	29	2018	42	39	20	38	34	0	14	12	2019	67	44	14	24	22	30	21	30

What was the total number of accountants working in the organisation in the year 2019?

Difficulty : Moderate

Average Time : 63 Seconds

**Options :**

1. 27
2. 193
3. 110
4. 83

**Solution :**

The correct answer is **option 1** i.e. **27**

**Calculations:**

From year 2015 to 2019

Number of accountants who joined and left =  $35 - 0 + 26 - 16 + 15 - 5 + 20 - 38 + 14 - 24 = 27$

Hence, total number of accountants working in the organisation in the year 2019 = 27

**Question 92 :**

The perimeter of a triangle with sides of integer values is equal to 13. How many such triangles are possible?

Difficulty : Moderate

Average Time : 41 Seconds

**Options :**

1. 5

2. 8

3. 7

4. 6

**Solution :**

The correct answer is **option 1** i.e. 5

**Given:**

Perimeter = 13

**Formula used:**

Number of triangles possible =  $(P + 3)^2/48$  ---- (1)

**Calculations:**

Using equation (1), we get

Number of triangles possible =  $(P + 3)^2/48$

$(13 + 3)^2/48$

$16^2/48 = 16/3 = 5.33$

Nearest integer value is 5.

**Question 93 :**

A sum of money invested at simple interest becomes  $17/10$  of itself in 2 years and 6 months. What is the rate of interest per annum?



Difficulty : Moderate

Average Time : 50 Seconds

Options :

1. 22 percent
2. 16 percent
3. 28 percent
4. 34 percent

Solution :

The correct answer is **option 3** i.e. **28 percent**

Formula used:

$$SI = \frac{PRT}{100} \quad \text{---- (1)}$$

Where, P = principal, R = rate and T = time

Calculations:

If Principal is 10x

Amount = 17x

$$SI = A - P = 17x - 10x = 7x$$

Using equation (1), we get

$$7x = \frac{(10x \times 5/2 \times R)}{100}$$

$$7 = R/4$$

$$R = 28\%$$

Question 94 :

A hollow sphere has an outer radius of 4 cm and inner radius of 1 cm. What is the volume of this hollow sphere?

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1.  $84\pi \text{ cm}^3$
2.  $68\pi \text{ cm}^3$
3.  $48\pi \text{ cm}^3$



92p cm<sup>3</sup>

**Solution :**

The correct answer is **option 1** i.e. **84p cm<sup>3</sup>**

**Formula used:**

Volume of sphere with inner and outer radius =  $(4/3)(R^3 - r^3)$  ---- (1)

Where R = outer radius and r = inner radius

**Calculations:**

Using equation (1), we get

Volume of sphere =  $4/3 \times p \times (4^3 - 1^3)$

$4/3 \times p \times (64 - 1)$

**84p cm<sup>3</sup>**

**Question 95 :**

A person travels from P to Q at a speed of 50 km/h and returns by increasing his speed by 60%. What is his average speed for both the trips?

**Difficulty : Moderate**

**Average Time : 61 Seconds**

**Options :**

1. 35.61 km/h

2. 61.53 km/h

3. 31.56 km/h

4. 16.53 km/h

**Solution :**

The correct answer is **option 2** i.e. **61.53 km/h**

**Formula used:**

Average speed = Total distance/total time ---- (1)

**Calculations:**

Let the distance from P to Q be 50 km

Hence total distance = 100 km

Time taken from P to Q =  $50/50 = 1$  h

Increased speed = 160% of 50 = 80 km/h

Time taken from Q to P =  $50/80 = 5/8$  h

Using equation (1), we get

Average speed =  $100/(1 + 5/8) = 800/13$

61.53 km/h

**Question 96 :**

Which of the following is NOT a correct statement?

Difficulty : Moderate

Average Time : 53 Seconds

**Options :**

1. The speed of 20 m/s is less than the speed of 85 km/h.
2. Time may be calculated by dividing the distance by the speed.
3. Covering the same distance in lesser time implies a higher speed.
4. The speed of 99 km/h is less than the speed of 24 m/s.

**Solution :**

The correct answer is **option 4** i.e. **The speed of 99 km/h is less than the speed of 24 m/s.**

**Calculations:**

I. The speed of 20 m/s is less than the speed of 85 km/h.

20 m/s in km/h =  $20 \times (18/5) = 72$  km/h

Hence, first statement is true

II. We know that, Speed = Distance/time

Hence, time = Distance/speed

Second statement is also true.

III. We know that, if distance is constant then speed is inversely proportional to time.

Hence, less time means more speed.



Third statement is also true.

IV.  $99 \text{ km/h}$  in  $\text{m/s} = 99 \times \frac{5}{18} = 27.5 \text{ m/s}$

we can see that  $27.5 \text{ m/s}$  is greater than  $24 \text{ m/s}$

Hence, fourth statement is false.

**Question 97 :**

In a  $\triangle ABC$ , the internal bisectors of the angle B and the angle C intersect at an angle of  $105^\circ$ . What is the value of the angle A?

**Difficulty : Moderate**

**Average Time : 83 Seconds**

**Options :**

1.  $52.5^\circ$
2.  $75^\circ$
3.  $15^\circ$
4.  $30^\circ$

**Solution :**

The correct answer is **option 4** i.e.  $30^\circ$

**Formula used:**

In a triangle ABC, I is an incentre then

$$\angle BIC = 90 + \frac{1}{2}A \quad \text{----- (1)}$$

**Calculations:**

Using equation (1), we get

$$105 = 90 + \frac{1}{2}A$$

$$15 = \frac{1}{2}A$$

$$A = 30$$

**Question 98 :**

$\cot 2A - \cos 2A$  is equal to:

**Difficulty : Moderate**

**Average Time : 45 Seconds**

**Options :**



$$\cos^2 A \cdot \sin^2 A$$

2.  $\cos^2 A \cdot \cot^2 A$

3. 1

4. 0

**Solution :**

The correct answer is **option 2** i.e.  $\cos^2 A \cdot \cot^2 A$ .

**Calculations:**

$$\cot^2 A - \cos^2 A$$

$$\cos^2 A / \sin^2 A - \cos^2 A$$

$$\cos^2 A ((1 - \cos^2 A) / \sin^2 A)$$

$$\cos^2 A (\cos^2 A / \sin^2 A)$$

$$\cos^2 A \cdot \cot^2 A$$

**Question 99 :**

The volume of the hemisphere is 19,404 cm<sup>3</sup>. The radius of the hemisphere is \_\_\_\_\_.

**Difficulty : Moderate**

**Average Time : 57 Seconds**

**Options :**

1. 14 cm

2. 19 cm

3. 21 cm

4. 17 cm

**Solution :**

The correct answer is **option 3** i.e. **21 cm**

**Formula used:**

$$\text{Volume of sphere} = (4/3)r^3 \quad \text{----- (1)}$$

**Calculations:**

Using equation (1), we get





$$19404 = (4/3) \times (22/7) \times r^3$$

$$r^3 = 21 \times 21 \times 21$$

$$r = 21$$

**Question 100 :**

40 men can complete a work in 15 days. Three days after they started working, 20 more men joined them. In how many days the total work will be completed?

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

1. 12

2. 13

3. 11

4. 10

**Solution :**

The correct answer is **option 3** i.e. 11

**Concept used:**

Work = Number of people  $\times$  number of days

**Calculations:**

$$\text{Total work} = 40 \times 15 = 600 \text{ units}$$

$$40 \text{ men worked for 3 days, work done} = 40 \times 3 = 120 \text{ units}$$

$$\text{Remaining work} = 600 - 120 = 480 \text{ units}$$

$$20 \text{ more men joined the work, total men} = 40 + 20 = 60$$

$$\text{Time taken} = 480/60 = 8$$

$$\text{Total time} = 3 + 8 = 11 \text{ days}$$

## Ssc Cgl Tier I Previous Year Question Paper Analysis

The analysis of Ssc Cgl Tier I Previous Year Question Paper held on 2022-12-05 in the Afternoon exam is as follows:

- 100 questions were moderate.
2. The safe score is 140 marks.
3. 25 questions were asked from Quantitative Aptitude, 25 questions were asked from English Language, 25 questions were asked from Logical Reasoning and 25 questions were asked from General Awareness
4. 23 questions should have been skipped if you were short of time.

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

## Quantitative Aptitude

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

## English Language

1. Cloze Test - 5
2. Spotting Error - 2
3. Idioms - 2
4. One Word Substitution - 2
5. Narration - 1
6. Voice - 2
7. Sentence Improvement - 4
8. Synonym - 2
9. Antonym - 2
10. Filler (Grammar) - 1

- Incorrectly Spelt - 2  
12. Incorrectly Spelt - 2

## Logical Reasoning

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

## General Awareness

1. Art And Culture - 25

# 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.

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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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.



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