



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 2020-03-04 in the Evening 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 :

Name the company that has acquired an online travel portal Yatra Online Inc., for an enterprise value of \$337.8 million, in an all-stock transaction.

Difficulty : Moderate

Average Time : 44 Seconds

Options :

1. Trivago
2. Ebix Inc.
3. Trip Advisor
4. Make my trip.com

Solution :

The correct answer is **Option 2** i.e **Ebix Inc.**

1. Ebix Inc., a supplier of on-demand software and e-commerce services, said that it has acquired online travel portal Yatra Online Inc., for an enterprise value of \$337.8 million, in an all-stock transaction.
2. The two companies have entered into a definitive agreement under which Ebix will acquire Yatra via merger.
3. The transaction will create India's largest and most profitable travel services company.
4. However, Yatra will continue to operate independently and also retain its brand and status in India



Question 2 :

The recently revoked 'Article 370' is associated with which of these states of India?

Difficulty : Moderate

Average Time : 57 Seconds

Options :

1. Sikkim
2. Nagaland
3. Assam
4. Kashmir

Solution :

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

1. Article 370 of the Indian constitution gave special status to **Jammu and Kashmir**, a region located in the northern part of Indian subcontinent which was administered by India as a state from 1954 to 31 October 2019, conferring it with the power to have a separate constitution, a state flag and autonomy over the internal administration of the state.

Question 3 :

Only one Indian batsman has scored a triple century in test cricket other than Virender Sehwag. Name this batsman.

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. Rohit Sharma
2. Karun Nair
3. Ajinkya Rahane
4. Shikhar Dhawan

Solution :

The correct answer is **Option 2** i.e **Karun Nair**

1. Karun Nair became the second Indian batsman to score a triple century, the first being Virender Sehwag.
2. Nair also became the first Indian and the third batsman overall to convert a maiden test century into a triple hundred.
3. Nair achieved this feat playing against England in Chennai.

Question 4 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. Ignorance
2. Itinerent
3. Influence
4. Impeach

Solution :

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

Let's have a look at the meaning of the given options:-

1. **Ignorance**- casual or less attentive.
2. **Itinerant**- travelling from place to place.
3. **Influence**- the power to affect, change or control somebody/something.
4. **Impeach**- (used about a court of law, especially in the US and some other countries) to officially accuse a public official of committing a serious crime while he/she is still in office.

As the chosen option is incorrectly spelt word it will be correct.

Question 5 :

Select the word which means the same as the group of words given. One who is preoccupied with his own interests

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. Egoist
2. Pessimist
3. Atheist
4. Optimist

Solution :

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

Let's have a look at the meaning of the given options-

Egoist- an arrogantly conceited person.

2. **Pessimist-** a person who always thinks that bad things will happen or that something will not be successful.
3. **Atheist-** a person who does not believe in the existence of a god or any gods.
4. **Optimist-** a person who is inclined to be hopeful and to expect good outcomes.

As the chosen option expresses the meaning of the given group of words it will be the correct answer.

Comprehension :

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. Milton Hershey returned to the village where he had been born, in the heart of dairy country. He opened his chocolate manufacturing plant (1)_____ 1905. With access to all the fresh milk he (2)_____, he began producing the finest milk chocolate. The plant (3)_____ opened in a small Pennsylvania village is today the (4)_____ chocolate factory in the world. The confections created here are (5)_____ around the world.

Question 6 :

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

Difficulty : Moderate

Average Time : 86 Seconds

Options :

1. to
2. on
3. at
4. in

Solution :

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

"**In + year**" is the correct use of the preposition.

The chosen option is the same hence, it will be our correct answer.

Question 7 :

Given below are four jumbled sentences. Select the option that gives their correct order. A. Upon returning from his travels, he was forced to live in a house where his large family lived. B. Vaikom Muhammad Basheer was a Malayalam fiction writer from Vaikom in Kerala. C. The household was always noisy and full of chaos, no place for a writer surely! D. Apart from family members, myriads of domestic animals also treated the house as their own.

Difficulty : Moderate

Average Time : 57 Seconds



Options :

1. BDCA
2. BADC
3. BCAD
4. BCDA

Solution :

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

- **Statement B** is independent and introduces the character of the paragraph "**Vaikom Muhammad Basheer**" hence, it will be the opening statement.
- **Statement A** contains "**a house**" while statement C contains "**the household**" hence, it is sure that statement containing "**the**" will come after A.
- In the given option only the chosen option is in the given arrangement hence, it will be our correct choice.
- Now we have the final arrangement i.e. **BADC.**

The chosen option is the same as the final arrangement hence, it will be correct.

Some common rules that help while solving the Para Jumbles:-

1. Read the paragraph **carefully** and try to **comprehend the idea or theme of the paragraph** and **eliminate the irrelevant options.**
2. Try to identify the opening (**Independent statement**) and closing statement (**Concluding statement**).
3. Try to **identify the mandatory pairs.** Two sentences can be connected through various connectors.
4. If a statement starts with **Pronoun**, find **the noun** for which the pronoun is used, both the statements containing **noun** and **pronoun** will form a pair respectively.

Question 8 :

Fill in the blank with the most appropriate word/group of words. Being a millionaire, he is leading a _____ life.

Difficulty : Moderate

Average Time : 100 Seconds

Options :

1. destitute
2. luxurious
3. expensive
4. conducive

Solution :

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

Let's have a look at the meaning of the given options:-

1. **destitute**- without any money, food or a home.
2. **luxurious**- very comfortable; full of expensive and beautiful things.
3. **expensive**- costing a lot of money.
4. **conductive**- helping or making something happen.

The statement is talking about a millionaire who has enough money to live his life comfortably.

The chosen option shows the same meaning hence, it will suit the given blank.

The correct sentence will be-

Being a millionaire, he is leading a luxurious life.

Question 9 :

Select the correct passive form of the given sentence. Did the problems you had to face discourage you?

Difficulty : Moderate

Average Time : 67 Seconds

Options :

1. Are you discouraged by the problems you had to face?
2. Have you been discouraged by the problems you have to face?
3. Are you being discouraged by the problems you had to face?
4. Were you discouraged by the problems you had to face?

Solution :

The correct answer is **option 4 i.e. Were you discouraged by the problems you had to face?**

Active voice- Did + subject+ v1 + object + other words.

Passive voice - Was/were + object + v3 + by + subject + other words.

As the chosen option follows this structure it will be correct.

Question 10 :

Select the ANTONYM of the given word. SPARSE

Difficulty : Moderate

Average Time : 54 Seconds

Options :



Abundant

2. Costly
3. Scanty
4. Tranquil

Solution :

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

Let's have a look at the meaning of the given options:-

1. **Sparse**- small in quantity or amount.
2. **Abundant**- existing or occurring in large amounts.
3. **Costly**- costing a lot of money; expensive.
4. **Scanty**- too small in size or amount.
5. **Tranquil**- quiet and peaceful.

As the chosen option expresses the opposite meaning of the given word it will be correct.

Comprehension :

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. Milton Hershey returned to the village where he had been born, in the heart of dairy country. He opened his chocolate manufacturing plant (1)_____ 1905. With access to all the fresh milk he (2)_____, he began producing the finest milk chocolate. The plant (3)_____ opened in a small Pennsylvania village is today the (4)_____ chocolate factory in the world. The confections created here are (5)_____ around the world.

Question 11 :

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

Difficulty : Moderate

Average Time : 81 Seconds

Options :

1. considered
2. distributed
3. kneaded
4. needed

Solution :



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

Let's have a look at the meaning of the given options:-

1. **needed**- if you need something, you want it or must have it.
2. **considered**- to think about something carefully, often before making a decision.
3. **distributed**- to give things to a number of people.
4. **kneaded**- to press and squeeze a mixture of flour and water (dough) with your hands in order to make bread, etc.

As he needs "milk" to make chocolate hence, "**needed**" will be the correct answer here.

Hence, the chosen option will be correct.

Comprehension :

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. Milton Hershey returned to the village where he had been born, in the heart of dairy country. He opened his chocolate manufacturing plant (1)_____ 1905. With access to all the fresh milk he (2)_____, he began producing the finest milk chocolate. The plant (3)_____ opened in a small Pennsylvania village is today the (4)_____ chocolate factory in the world. The confections created here are (5)_____ around the world.

Question 12 :

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

Difficulty : Moderate

Average Time : 89 Seconds

Options :

1. what
2. that
3. when
4. who

Solution :

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

- The use of the Relative Pronoun is mostly decided by the antecedent used before it.
- In the given statement antecedent is "**Plant**" which is company hence, "**that**" will be the correct Relative Pronoun for it.

Hence, the chosen option will be correct.

Comprehension :



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. Milton Hershey returned to the village where he had been born, in the heart of dairy country. He opened his chocolate manufacturing plant (1)_____ 1905. With access to all the fresh milk he (2)_____, he began producing the finest milk chocolate. The plant (3)_____ opened in a small Pennsylvania village is today the (4)_____ chocolate factory in the world. The confections created here are (5)_____ around the world.

Question 13 :

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

Difficulty : Moderate

Average Time : 71 Seconds

Options :

1. larger
2. large
3. largest
4. most largest

Solution :

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

- There is an article before the blank "**the**" that gives us a sense of using a superlative degree.
- "**The + superlative degree**" is the correct grammatical phrase.
- As the chosen option is a superlative degree it will be our correct answer.

Hence, the chosen option will be correct.

Comprehension :

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. Milton Hershey returned to the village where he had been born, in the heart of dairy country. He opened his chocolate manufacturing plant (1)_____ 1905. With access to all the fresh milk he (2)_____, he began producing the finest milk chocolate. The plant (3)_____ opened in a small Pennsylvania village is today the (4)_____ chocolate factory in the world. The confections created here are (5)_____ around the world.

Question 14 :

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

Difficulty : Moderate

Average Time : 73 Seconds

Options :

choices

2. collections

3. favourites

4. selections

Solution :

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

Let's have a look at the meaning of the given options:-

choices- an act of choosing between two or more people or things.

collections- a group of objects of a particular type that somebody has collected as a hobby.

favourites- liked more than any other.

selections- the act of choosing or selecting.

Meaningfully the chosen option is correct.

Hence, the chosen option will be correct.

Question 15 :

In the sentence identify the segment which contains the grammatical error. I am believing you have submitted all the necessary documents.

Difficulty : Moderate

Average Time : 58 Seconds

Options :

1. I am believing
2. you have submitted
3. all the
4. necessary documents

Solution :

The correct answer is **option 1 i.e. I am believing.**

1. The error lies in **part 1** of the statement because of the wrong use of "**Tense**".
2. We need to replace "**Am believing**" with "**Believe**" for making the statement grammatically correct.

Grammatical Concept:-

- There are some verbs that are not used in the continuous tense



These verbs are called "Non-continuous Verbs".

1. **Feeling:** hate, like, love, prefer, want, wish.
2. **Senses:** appear, feel, hear, see, seem, smell, sound, taste.
3. **Communication:** agree, deny, disagree, mean, promise, satisfy, surprise.
4. **Thinking:** believe, imagine, know, mean, realize, recognize, remember, understand.

- In the given statement the main verb belongs to the same category hence, we need to write in the simple present tense.
- **The chosen option contains the error hence, it will be the correct answer.**

The correct sentence will be-

I believe you have submitted all the necessary documents.

Question 16 :

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement'. Your advice will benefit to me.

Difficulty : Moderate

Average Time : 93 Seconds

Options :

1. benefit me
2. benefit for me
3. No improvement
4. benefit from me

Solution :

The correct answer is **option 1 i.e. benefit me.**

- "**Benefit**" is a transitive verb and we don't use a preposition after a transitive verb.
- As only the chosen is without the preposition it will improve the statement correctly.

The correct sentence will be-

Your advice will benefit me.

Question 17 :

Select the most appropriate meaning of the given idiom. Bring to light

Difficulty : Moderate

Average Time : 49 Seconds



Options :

1. Cheer someone
2. Praise in public
3. Brighten up
4. Reveal clearly

Solution :

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

The meaning of the given idiom is-

Bring to light- Reveal clearly.

As the meaning of the given idiom is the same as the chosen option it will be correct.

Question 18 :

In the sentence identify the segment which contains the grammatical error. No sooner did we receive your message when we heaved a sigh of relief.

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. did we receive
2. when we heaved
3. your message
4. a sigh of relief

Solution :

The correct answer is **option 2 i.e. when we heaved.**

1. The error lies in **part 2** of the statement because of the wrong use of "**Conjunction**".
2. We need to replace "**When**" with "**Than**" for making the statement grammatically correct.

Grammatical Concept:-

- **No sooner** _____ **than**_____ is the correct pair of conjunction and always occurs together.
- Hence, we need to replace "**when**" with "**Than**".
- **The chosen option contains the error hence, it will be the correct answer.**

The correct sentence will be-



No sooner did we receive your message than we heaved a sigh of relief.

Question 19 :

Select the SYNONYM of the given word. SOLITARY

Difficulty : Moderate

Average Time : 70 Seconds

Options :

1. Singular
2. Sensible
3. Stubborn
4. Splendid

Solution :

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

Let's have a look at the meaning of the given options-

1. **Solitary**- done alone, without other people.
2. **Singular**- in the form that is used for talking about one person or thing only.
3. **Sensible**- (used about people and their behaviour) able to make good judgements based on reason and experience; practical.
4. **Stubborn**- not wanting to do what other people want you to do; refusing to change your plans or decisions.
5. **Splendid**- very good; excellent.

As the chosen option expresses the best meaning of the given word it will be correct.

Question 20 :

Select the SYNONYM of the given word. FURY

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. Sin
2. Crime
3. Anger
4. Risk

Solution :



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

Let's have a look at the meaning of the given options-

1. **Fury**- very great anger.
2. **Sin**- an action or way of behaving that is not allowed by religion.
3. **Crime**- something which is illegal and which people are punished for, for example, by being sent to prison.
4. **Anger**- the strong feeling that you have when something has happened or somebody has done something that you do not like.
5. **Risk**- a possibility of something dangerous or unpleasant happening; a situation that could be dangerous or have a bad result.

As the chosen option expresses the best meaning of the given word it will be correct.

Question 21 :

Select the **INCORRECTLY** spelt word.

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. **Diliver**
2. **Denial**
3. **Decision**
4. **Deter**

Solution :

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

Let's have a look at the meaning of the given options:-

1. **Deliver**- to take something (goods, letters, etc.) to the place requested or to the address on it.
2. **Denial**- a statement that something is not true.
3. **Decision**- a choice or judgement that you make after thinking about various possibilities.
4. **Deter**- to make somebody decide not to do something, especially by telling him/her that it would have bad results.

As the chosen option is incorrectly spelt word it will be correct.

Question 22 :

Select the most appropriate option to fill in the blank. Children under five years are _____ from passport biometrics.

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. exempted
2. escaped
3. allowed
4. acquitted

Solution :

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

Let's have a look at the meaning of the given word:-

1. **exempted**- to say officially that somebody does not have to do something or pay for something.
2. **escaped**- having got free.
3. **allowed**- to give permission for somebody/something to do something or for something to happen.
4. **acquitted**- to decide officially in a court of law that someone is not guilty of a particular crime.

The statement is expressing the meaning that children will not have a biometric checkup and the same meaning is being shown by the chosen option hence, it will suit the given blank.

The correct sentence will be-

Children under five years are exempted from passport biometrics.

Question 23 :

Select the ANTONYM of the given word. FRIENDSHIP

Difficulty : Moderate

Average Time : 70 Seconds

Options :

1. Slavery
2. Enmity
3. Amity
4. Arrogance

Solution :

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

Let's have a look at the meaning of the given options:-

1. **Friendship**- a relationship between people who are friends.



Slavery- the condition of being legally owned by someone else and forced to work for or obey them.

3. **Enmity**- the feeling of hatred towards an enemy.

4. **Amity**- friendly relations.

5. **Arrogance**- an attitude of superiority manifested in an overbearing manner or in presumptuous claims or assumptions.

As the chosen option expresses the opposite meaning of the given word it will be correct.

Question 24 :

Select the correct indirect form of the given sentence. The lawyer said to me, "There is no proof of your involvement in this case."

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. The lawyer told that there is no proof of my involvement in that case.
2. The lawyer told me that there is no proof of your involvement in this case.
3. The lawyer told me that there was no proof of my involvement in that case.
4. The lawyer said me that there was no proof of my involvement in this case.

Solution :

The correct answer is **option 3 i.e. The lawyer told me that there was no proof of my involvement in that case.**

- As the reported speech is in "**Assertive sentence**" we need to make changes according to this.
- There will be a change in the reporting verb and it will be changed into "**Told**".
- The inverted comma will be changed into "**THAT**".
- The tense of the reported speech will be changed into "**SIMPLE Past Tense**".
- "**This case**" will be changed into "**that case**".

As all the rules are followed by the chosen option it will be correct.

Question 25 :

Given below are four jumbled sentences. Select the option that gives their correct order. A. Even the most ill-equipped laboratory would have been better than their shed. B. Thus, they did not allow any difficulties to come in their way. C. But their mind was set upon the discovery of radium. D. The Curies had to work in extreme poverty.

Difficulty : Moderate

Average Time : 92 Seconds

Options :

1. ADBC



DACB

3. ABCD

4. DBCA

Solution :

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

- **Statement D** is independent and introduces the theme of the paragraph "**The Curies** " hence, it will be the opening statement.
- **Statement B** should come at the end of the statement as it starts with "**THUS**" which shows the conclusion of the paragraph.
- According to the option, only option 2 is remaining hence, it will be our correct choice.
- Now we have the final arrangement i.e. **DACB**.

The chosen option is the same as the final arrangement hence, it will be correct.

Some common rules that help while solving the Para Jumbles:-

1. Read the paragraph **carefully** and try to **comprehend the idea or theme of the paragraph** and **eliminate the irrelevant options**.
2. Try to identify the opening (**Independent statement**) and closing statement (**Concluding statement**).
3. Try to **identify the mandatory pairs**. Two sentences can be connected through various connectors.
4. If a statement starts with **Pronoun**, find **the noun** for which the pronoun is used, both the statements containing **noun** and **pronoun** will form a pair respectively.

Question 26 :

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No improvement. Where you left your bag yesterday?

Difficulty : Moderate

Average Time : 99 Seconds

Options :

1. Where did you leave
2. Where were you leaving
3. Where did you left
4. No improvement

Solution :



The correct answer is **option 1 i.e. Where did you leave.**

- There is an adverb at the end of the statement that confirms that the statement will be written in the simple past tense.
- The correct structure for the interrogative simple past tense is:-
- **Wh-word + did + subject + v1 + object + other words?**
- As the chosen option follows this rule it will improve the statement correctly.

The correct sentence will be-

Where did you leave your bag yesterday?

Question 27 :

Select the word which means the same as the group of words given. A geometrical figure with eight sides.

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. Pentagon
2. Hexagon
3. Octagon
4. Heptagon

Solution :

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

Let's have a look at the meaning of the given options-

1. **Pentagon**- a shape that has five straight sides.
2. **Hexagon**- a shape with six sides.
3. **Octagon**- a shape that has eight straight sides.
4. **Heptagon**- a flat shape with seven straight sides.

As the chosen option expresses the meaning of the given group of words it will be the correct answer.

Question 28 :

Select the most appropriate meaning of the given idiom. Hold water

Difficulty : Moderate

Average Time : 55 Seconds

Options :



To be valid

2. To be deep
3. To be fickle
4. To be busy

Solution :

The correct answer is **option 1 i.e. To be valid**

The meaning of the given idiom is-

Hold water- To be valid.

As the meaning of the given idiom is the same as the chosen option it will be correct.

Question 29 :

Who is the only scientist in the world to have won the Nobel Prize in Chemistry twice?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Madame Curie
2. Roger D. Kornberg
3. Linus Carl Pauling
4. Frederick Sanger

Solution :

The correct answer is **Option 4 i.e. Frederick Sanger**

1. Frederick Sanger is the only scientist in the world to have won the Nobel Prize in Chemistry twice.
2. In 1958, he was awarded a Nobel Prize in Chemistry "for his work on the structure of proteins, especially that of insulin". In 1980, Walter Gilbert and Sanger shared half of the chemistry prize "for their contributions concerning the determination of base sequences in nucleic acids".
3. Two laureates who have been awarded twice but not in the same field are:
 - a. Marie Curie (Physics and Chemistry)
 - b. Linus Pauling (Chemistry and Peace)

Question 30 :



Former union minister and former Karnataka CM, D.V. Sadananda Gowda is a cabinet minister in the current central cabinet (February-2020). What is his portfolio?

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. Tribal Affairs
2. Law and Justice
3. Public Distribution
4. Chemicals and Fertilizers

Solution :

The correct answer is **Option 4** i.e **Chemicals and Fertilizers**

1. Devaragunda Venkappa Sadananda Gowda (born 18 March 1953) is an Indian politician serving as the Minister of Chemicals and Fertilizers in the Government of India in the Second Modi Ministry representing the Bangalore North constituency.
2. He had also served as the 20th Chief Minister of Karnataka.
3. He has previously served as the Minister of Law and Justice, having been shifted from the Ministry of Railways in the cabinet reshuffle of 5 July 2016.
4. At the end of the previous Lok Sabha, he was the Minister of Statistics and Program Implementation.

Question 31 :

When does the entire earth experience equal days and nights?

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. Day of summer solstice
2. At orbital plane
3. Day of equinox
4. Day of winter solstice

Solution :

The correct answer is **Option 3** i.e **Day of Equinox**

1. There are only two times of the year when the Earth's axis is tilted neither toward nor away from the sun, resulting in a "nearly" equal amount of daylight and darkness at all latitudes.
2. These events are referred to as Equinoxes.
3. The word equinox is derived from two Latin words - aequus (equal) and nox (night).
4. At the equator, the sun is directly overhead at noon on these two equinoxes.
5. The "nearly" equal hours of day and night is due to refraction of sunlight or a bending of the light's rays that causes the sun to appear above the horizon when the actual position of the sun is below the horizon.

Question 32 :

Who is the author of the delightful and anecdotal history of Indian cricket titled - 'A Corner of a Foreign Field: The Indian History of a British Sport'?

Difficulty : Moderate**Average Time : 71 Seconds****Options :**

1. Ramachandra Guha
2. Romila Thapar
3. Sanjay Singh
4. Bipin Chandra

Solution :

The correct answer is **option 1** i.e. **Ramachandra Guha**.

1. A Corner of a Foreign Field: The Indian History of a British Sport is a 2002 book by Indian historian Ramachandra Guha that offers a historical account of cricket in the Indian subcontinent.
2. Some critics have called it one of the finest books on cricket.

Some notable books by:

Romila Thapar	The Past Before Us, Somanatha, Indian tales
Sanjay Singh	The Environmental Crisis of Delhi, The Invasion of Delhi, Portraits of India

Bipin Chandra	India's struggle for Independence, Communalism in Modern India
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Question 33 :

Which of the following is an INCORRECT sequence of Mughal rulers?

Difficulty : Moderate

Average Time : 63 Seconds

Options :

1. Akbar, Jahangir, Shah Jahan
2. Babur, Humayun, Akbar
3. Akbar, Shah Jahan, Jahangir
4. Jahangir, Shah Jahan, Aurangzeb

Solution :

The correct answer is **Option 3** i.e. **Akbar, Shah Jahan, Jahangir**.

The chronological order of Mughal emperors is as follows:

- Babur (AD 1526-1530)
- Humayun (AD 1530-1556)
- Akbar (AD 1556-1605)
- Jahangir (AD 1605-1627)
- Shah Jahan (AD 1628-1658)
- Aurangzeb (Alamgir) (AD 1658-1707).

Question 34 :

Bhavai and Kalbelia as traditional dance forms, owe their genesis to which Indian state?

Difficulty : Moderate

Average Time : 47 Seconds

Options :

1. Assam
2. Rajasthan
3. Punjab
4. Odisha

**Solution :**

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

1. Bhawai is a folk dance with swaying and twirling movements that are performed by women from certain tribes from the state of Rajasthan.
2. This folk dance is one of the state's most exciting dance performances as it involves tricky balancing acts, right from balancing seven to nine brass pots on the head to balancing oneself (along with the pots) on narrow and unstable objects like a glass bottle, brass plate or the edge of a sword.
3. Kalbelia or Kabeliya is a dance from Rajasthan, performed by the tribe of the same name. The dance is an integral part of their culture and performed by men and women.

Notable dance forms of other states:

Assam	Bihu, Deodhani, Bagurumba, Bhortal
Punjab	Giddha, Bhangra
Odisha	Chhau, Chaiti, Medha, Changu

Question 35 :

The 3rd Khelo India Youth Games 2020 is hosted by which Indian state?

Difficulty : Moderate

Average Time : 75 Seconds

Options :

1. Kerala
2. Punjab
3. Karnataka
4. Assam

Solution :

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

1. The third Khelo India Youth Games was held from 10 January 2020 and 22 January 2020 in Guwahati, Assam, India.
2. It got off to a colourful start, as Chief Minister Sarbananda Sonowal inaugurated the youth games in presence of Union Minister for Youth Affairs and Sports Kiren Rijiju at Indira Gandhi Athletic Stadium, Sarusajai in Guwahati.

Question 36 :



Who among the following is the current (January 2020) Governor of Kerala?

Difficulty : Moderate

Average Time : 45 Seconds

Options :

1. Satya Pal Mallik
2. Lalji Tandon
3. Arif Mohammad Khan
4. B.D Mishra

Solution :

The correct answer is **Option 3** i.e **Arif Mohammad Khan**

1. The current governor of Kerala is Arif Mohammad Khan.
2. In accordance with the Constitution of India, the governor is a state's de jure head, but de facto executive authority rests with the chief minister.
3. Following elections to the Kerala Legislative Assembly, the state's governor usually invites the party (or coalition) with a majority of seats to form the government.
4. The governor appoints the chief minister, whose council of ministers are collectively responsible to the assembly.

Question 37 :

Four multi-storied illegal constructions - Jain Coral Cove, H2O Holy Faith, Alfa Serene and Golden Kayaloram - were razed to the ground in January 2020 following Supreme Court instructions. In which state did this happen?

Difficulty : Moderate

Average Time : 61 Seconds

Options :

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

Solution :

The correct answer is **Option 1** i.e **Kerala**

1. The two high rises--Holy Faith H2O and the twin towers of Alfa Serene Apartment--were demolished using controlled



implosion method.

2. The two other apartments--Jain Coral Cove and Golden Kayaloram-- were also brought down on, in compliance with the Apex Court order.

3. It happened in Maradu municipality of Kerala.

Question 38 :

Iranian Major General Qasem Soleimani was recently (2020) assassinated by the US military in _____.

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. Saudi Arabia
2. Pakistan
3. Iraq
4. United Arab Emirates

Solution :

The correct answer is **Option 3** i.e **Iraq**

1. Iran's top security and intelligence commander was killed in a drone strike at Baghdad International Airport, Iraq, that was authorized by the U.S President, Donald Trump.

2. The commander, Maj. Gen. Qassim Suleimani, who led the powerful Quds Force of the Islamic Revolutionary Guards Corps, was killed along with several officials from Iraqi militias backed by Tehran when an American MQ-9 Reaper drone fired missiles into a convoy that was leaving the airport.

Question 39 :

Name the author of the 2019 released book - 'The Scent of God'.

Difficulty : Moderate

Average Time : 54 Seconds

Options :

1. Nayantara Sehgal

Saikat Majumdar

3. Githa Hariharan

4. Himanjali Sankar

Solution :

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

1. Saikat Majumdar has authored the book 'The Scent of God'.

Other notable novels:

Author	Notable novels
Nayantara Sehgal	Rich like Us, Prison and Chocolate cakes
Saikat Majumdar	Prose of the World: Modernism and the Banality of Empire, The Firebird
Githa Hariharan	The thousand faces of night, When dreams travel
Himanjali Sankar	The lies we tell, Talking of Muskaan,

Question 40 :

Name the two Indian actors who shared the National Best Actor Award (Male) in the 66th National Film Awards 2019.

Difficulty : Moderate

Average Time : 64 Seconds

Options :

1. Ayushmann Khurrana and Vicky Kaushal
2. Nana Patekar and Mohanlal
3. Ranbir Kapoor and Akshay Kumar
4. Amitabh Bachchan and Ranbir Kapoor

Solution :

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The correct answer is **Option 1** i.e **Ayushmann Khurrana and Vicky Kaushal**

1. Ayushmann Khurrana and Vicky Kaushal shared the 'Best Actor' award for their performances in Andhadhun and Uri: The Surgical Strike.
2. Ayushmann Khurrana-Radhika Apte starrer Andhadhun has won the 'Best Film' award in the 66th National Film Awards announced on Friday.
3. Aditya Dhar's-directorial debut Uri: The Surgical Strike has bagged four awards - best actor, best background music, best sound design and best direction in the 66th National Film Awards 2019.

Question 41 :

What is the name of the phenomena in physics and astronomy which involves the splitting of a spectral line into two or more components of slightly different frequency when the light source is placed in a magnetic field?

Difficulty : Moderate**Average Time : 63 Seconds****Options :**

1. Zeeman Effect
2. Raman Effect
3. Lumen Effect
4. Alpenglow Effect

Solution :

The correct answer is **Option 1** i.e **Zeeman Effect**

1. Zeeman Effect is the effect of splitting of a spectral line into two or more components of slightly different frequency when the light source is placed in a magnetic field.
2. It was first observed in 1896 by the Dutch physicist Pieter Zeeman as a broadening of the yellow D-lines of sodium in a flame held between strong magnetic poles.

A	B
Raman Effect	Raman effect is the inelastic scattering of photons by matter, meaning that there is an exchange of energy and a change in the light's direction.

Alpenglow Effect	<p>It is an optical phenomenon that appears as a horizontal reddish glow near the horizon opposite to the Sun when the solar disk is just below the horizon.</p> <p>This effect is easily visible when mountains are illuminated, but can also be seen when clouds are lit through backscatter.</p>
------------------	--

Question 42 :

Which of the following is an Indian Research Station in the Antarctica Region?

Difficulty : Moderate**Average Time : 81 Seconds****Options :**

1. Orcadas
2. Maitri
3. Hope Bay
4. Mawson

Solution :

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

1. India has two research stations in Antarctica: **Bharati** (commissioned in 2012) and **Maitri** (since 1988).

Research Stations	About
Orcadas	Base Orcadas is an Argentine scientific station in Antarctica, and the oldest of the stations in Antarctica still in operation.



Hope Bay	It is the site of the Argentinian Antarctic settlement Esperanza Base, established in 1952.
Mawson	It is one of three permanent bases and research outposts in Antarctica managed by the Australian Antarctic Division (AAD).

Question 43 :

From which of the following states does 2019 Padma Vibhushan winner, Teejan Bai hail?

Difficulty : Moderate

Average Time : 66 Seconds

Options :

1. Telangana
2. Chhattisgarh
3. Odisha
4. Gujarat

Solution :

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

1. Teejan Bai (born 8 August 1956) is an exponent of Pandavani, a traditional performing art form, from Chhattisgarh, in which she enacts tales from the Mahabharata, with musical accompaniments.
2. She has been awarded the Padma Shri in 1987, Padma Bhushan in 2003, and Padma Vibhushan in 2019 by Government of India.

Question 44 :

Who among the following is known as the 'father of Muslim renaissance' in Bengal?



Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. Sir Sayed Ahmed Khan
2. Nawab Abdul Latif Khan
3. Ameer Ali
4. Nawab Salimullah Khan

Solution :

The correct answer is **Option 2** i.e **Nawab Abdul Latif Khan**

1. Nawab Abdul Latif Khan: (1828-1893) a prominent personality of mid 19th century Bengal, the pioneer of Muslim modernization and the architect of the Muslim Renaissance, was one of those great men who appeared as saviours of their frustrated, humiliated, demoralized and disorganised fellow countrymen under colonial rule.
2. His chief contribution was in the field of education.
3. He was among the first to understand that young Bengali Muslims should receive modern education.
4. He understood that the Muslims of Bengal had fallen behind in everything because of their prejudices against modern education.
5. He devoted his whole life to removing this self-destructive prejudice from their minds.

Question 45 :

The American scientist Edwin Hubble's name is associated with which of these theories?

Difficulty : Moderate

Average Time : 65 Seconds

Options :

1. Quantum Chromodynamics Theory
2. The Big Bang Theory
3. Partial Coherence of Light Theory
4. Lattice Gauge Theory

Solution :

The correct answer is **Option 2** i.e **The Big Bang Theory**



1. Edwin Hubble, for whom the Hubble Space Telescope is named, was one of the leading astronomers of the twentieth century.
2. His discovery in the 1920s that countless galaxies exist beyond our own Milky Way galaxy revolutionized our understanding of the universe and our place within it.

Question 46 :

How many members did the International Monetary Fund (IMF) have as of 2022?

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. 164
2. 174
3. 182
4. 190

Solution :

The correct answer is **Option 4** i.e **190**

- 1. The *International Monetary Fund* (IMF) is an organization of 190 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.
- 2. As of January, there were **189** countries. Recently, **Andorra** became the 190th member on October 16, 2020

Question 47 :

What is the name of the phenomenon (driven by the scattering of light) in which mountain tops acquire a rosy or orange hue around sunrise and sunset?

Difficulty : Moderate

Average Time : 50 Seconds

Options :

1. Brillouin scattering
2. Barrel distortion
3. Alpenglow
4. Circle of confusion

Solution :

The correct answer is **Option 3** i.e. **Alpenglow**.

1. Alpenglow is an optical phenomenon that appears as a horizontal reddish glow near the horizon opposite to the Sun when the solar disk is just below the horizon.

2. This effect is easily visible when mountains are illuminated, but can also be seen when clouds are lit through backscatter.

Question 48 :

Which of these is the energy conversion that happens in the process called photosynthesis?

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

1. Heat energy to chemical energy
2. Light energy to chemical energy
3. Heat energy to light energy
4. Potential energy to chemical energy

Solution :

The correct answer is **Option 2** i.e **Light energy to chemical energy**

1. Photosynthesis in plants converts solar energy into chemical energy using electrons and protons from water i.e light energy to chemical energy.

Question 49 :

Who was the then Governor-General of British India, when 'Sati Pratha' became illegal and punishable?

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

1. Warren Hastings
2. Lord William Bentinck
3. Lord Wellesley
4. Lord Cornwallis

**Solution :**

The correct answer is **Option 2** i.e **Lord William Bentinck**

1. The Bengal Sati Regulation, or Regulation XVII, in India under East India Company rule, by the Governor-General Lord William Bentinck, which made the practice of Sati or suttee illegal in all jurisdictions of India and subject to prosecution.
2. The Bengal Sati Regulation which banned the Sati practice in all jurisdictions of British India was passed on December 4, 1829 by the then Governor-General Lord William Bentinck.
3. The regulation described the practice of Sati as revolting to the feelings of human nature.

Question 50 :

The city of Vijayawada lies on the banks of which of these rivers?

Difficulty : Moderate

Average Time : 55 Seconds

Options :

1. Godavari
2. Mahanadi
3. Tapti
4. Krishna

Solution :

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

- Vijayawada, also known as Bezawada is a city in the Indian state of Andhra Pradesh.
- It lies on the banks of River Krishna surrounded by the hills of the Eastern Ghats known as Indrakeeladri Hills in Krishna District.
- It geographically lies on the centre spot of Andhra Pradesh.
- The city has been described as the commercial, political, educational and media capital of Andhra Pradesh, second largest city in Andhra Pradesh and is one of the rapidly growing urban areas in India.

Question 51 :

Select the number that can replace the question mark (?) in the following series. 1537, 1539, 1543, ? , 1557, 1567

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. 1549

1546

3. 1553

4. 1550

Solution :The correct answer is **option 1** i.e **1549**.**Understanding**

Given series: 1537, 1539, 1543, ? , 1557, 1567

The logic used here is:

$$1537 + 2 = 1539$$

$$1539 + 4 = 1543$$

$$1543 + 6 = 1549$$

$$1549 + 8 = 1557$$

$$1557 + 10 = 1567$$

The missing term in the series is **1549**.**Hence, option 1 is the correct answer.****Question 52 :**

Select the option that depicts how the given transparent sheet of paper would appear if it is folded at the dotted line.

Difficulty : Moderate

Average Time : 53 Seconds

Options :



Solution :



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

Understanding

When the transparent sheet is folded, the sheet appears as;



Hence, option 1 is the correct answer.

Question 53 :

A product was marked for sale with a label price, which is at a 20% discount on the printed price. At the time of sale, the shopkeeper gave an additional 10% discount on the label price. If a customer bought the product at Rs. 468, then what is the printed price of the product?

Difficulty : Moderate

Average Time : 87 Seconds

Options :

1. Rs. 650
2. Rs. 700
3. Rs. 600



Rs. 520

Solution :

The correct answer is **option 1** i.e **Rs. 650**.

Understanding

Let the printed price = $100x$

Labelled price = $100x - 100x$ of $20\% = 80x$

10% discount on labelled price = $80x - 80x$ of
 $10\% = 72x$

According to the question;

$$468 = 72x$$

$$x = 6.5$$

$$\text{Printed price} = 100x = 100 \times 6.5 = 650$$

Question 54 :

Select the letter-cluster that can replace the question mark (?) in the following series. DAG, FCI,?, JGM, LIO

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. HEK
2. HKE
3. IFL
4. GDJ

Solution :

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

Understanding

Given series: DAG, FCI,?, JGM, LIO

The logic used here is:

DAG, FCI

$(D + 2) = F$

$(A + 2) = C$

$(G + 2) = I$

Similarly, FCI,?

$(F + 2) = H$

$(C + 2) = E$

$(I + 2) = K$

The missing term in the series is **HEK**.

Hence, option 1 is the correct answer.

Question 55 :

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

Difficulty : Moderate

Average Time : 61 Seconds

Options :





Solution :



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

Understanding

The given figure is embedded in option 1, as shown below:



Question 56 :

In a certain code language, 'JUPITER' is written as 'JVOJSFR'. How will 'NEPTUNE' be written as in that language?

Difficulty : Moderate

Average Time : 77 Seconds

Options :

1. NFOUTOE
2. NDPSVME
3. NGOUTOE
4. NFOSTOE

Solution :

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

Understanding

Application

The logic used here is: 'JUPITER' is written as 'JVOJSFR' J = J U + 1 = V P - 1 = O I + 1 = J T - 1 = S E + 1 = F R = R	Similarly, Code for the word NEPTUNE: N = N E + 1 = F P - 1 = O T + 1 = U U - 1 = T N + 1 = O E = E NEPTUNENFOUTOE Hence, option 1 is the correct answer.
---	--

Question 57 :

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

Difficulty : Moderate

Average Time : 78 Seconds

Options :

1. IJN
2. MNR
3. FGL
4. ABF

Solution :

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

Understanding

The logic used here is;

IJN $I + 1 = J$; $J + 4 = 14$

MNR $M + 1 = N$; $N + 4 = R$

FGL $F + 1 = G$; $G + 4 = K$

ABF $A + 1 = B$; $B + 4 = F$

Hence, **FGL** is the odd one out.

Question 58 :

'Wheat' is related to 'Bread' in the same way as 'Sugarcane' is related to ' _____ '.

Difficulty : Moderate

Average Time : 56 Seconds

Options :

1. Grass
2. Mayonnaise
3. Ketchup
4. Jaggery

Solution :

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

Understanding	Application
Bread is made up of wheat.	Similarly, Jaggery is made up of sugarcane. Hence, option 4 is the correct answer.

Question 59 :

Study the given pattern carefully and select the number that can replace the question mark (?) in it.

Difficulty : Moderate

Average Time : 51 Seconds

Options :



74

2. 64

3. 96

4. 82

Solution :The correct answer is **option 1** i.e **74**.**Understanding**

The logic used here is;

$$4 + 6 = 10$$

$$10 + 10 = 20$$

$$20 + 14 = 34$$

$$34 + 18 = 52$$

$$\mathbf{52 + 22 = 74}$$

$$74 + 26 = 100$$

$$100 + 30 = 130$$

The missing term is **74**.Hence, **option 1** is the correct answer.**Question 60 :**

Select the letter that can replace the question mark (?) in the following series. A, E, J, ?, W

Difficulty : Moderate

Average Time : 49 Seconds

Options :

1. R

2. Q

3. P

4. S

Solution :

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

Understanding
Given series: A, E, J, ?, W
The logic used here is:
$A + 4 = E$
$E + 5 = J$
$J + 6 = P$
$P + 7 = W$
The missing term in the series is P .
Hence, option 3 is the correct answer.

Question 61 :

A + B means 'A is the wife of B'; A - B means 'B is the daughter of A'; A x B means 'B is the brother of A'; A ÷ B means 'A is the father of B'; If, P + R x T - Q + S ÷ U, then how is P related to the mother of U?

Difficulty : Moderate**Average Time : 70 Seconds****Options :**

1. Aunt
2. Mother
3. Maternal grandmother
4. Paternal grandmother

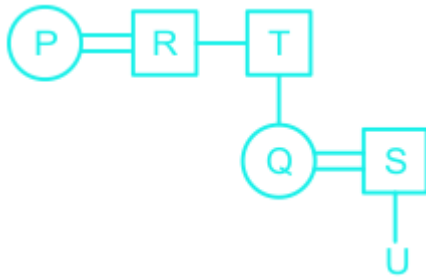
Solution :

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

Understanding	Application
---------------	-------------

In the diagram shown;

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



Thus considering the figure, P is the aunt to the mother of U.

Considering all the four options the most appropriate is option 1.

Question 62 :

Three different positions of the same dice are shown. Select the symbol that will be on the face opposite to the one showing '='.

Difficulty : Moderate

Average Time : 67 Seconds

Options :

1. #
2. \$
3. *
4. %

Solution :

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

From dice 2 and 3.

dice 2: % \$ *

dice 3: % = +

Hence, = is opposite to \$.

Question 63 :

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

Difficulty : Moderate

Average Time : 40 Seconds

Options :

1. Chennai
2. Aurangabad
3. Gangtok
4. Hyderabad

Solution :

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

Understanding

Chennai, Gangtok, Hyderabad are capitals of the state Tamil Nadu, Sikkim and Telangana respectively. Aurangabad is not the capital of any state.

Hence, **Aurangabad** is the odd one out.

Question 64 :

Select the option related to the third term in the same way as the second term is related to the first term and the sixth term is related to the fifth term. 72: 14:: 87: ? :: 96: 54

Difficulty : Moderate

Average Time : 53 Seconds

Options :

1. 56
2. 52
3. 29
4. 15

Solution :

The correct answer is **option 1** i.e **56**.

Understanding	Application
The logic used here is; 72: 14 $7 \times 2 = 14$ 96: 54 $9 \times 6 = 54$	Similarly, 87:? $8 \times 7 = 56$ Hence, option 1 is the correct answer.

Question 65 :

How many rectangle are there in the given figure?

Difficulty : Moderate

Average Time : 51 Seconds

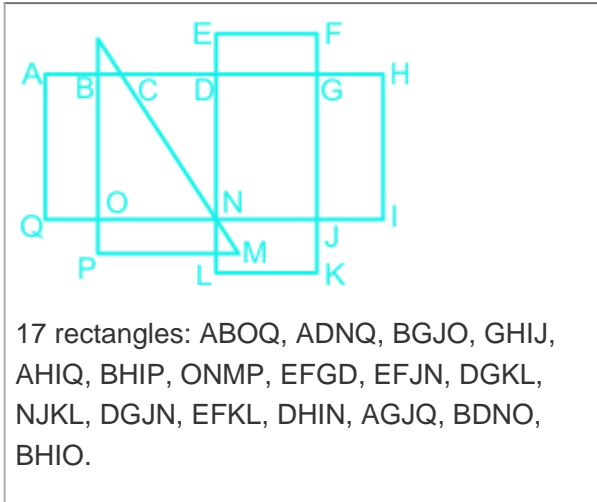
Options :

1. 13
2. 15
3. 17
4. 11

Solution :

The correct answer is **option 3** i.e 17.

Understanding



Question 66 :

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

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. Biology : Astrology
2. Line : Circle
3. Algebra : Geometry
4. Chemistry : Science

Solution :

The correct answer is **option 4** i.e **Chemistry: Science**.

Understanding

Chemistry is a branch of science whereas other options do not have this kind of logic.

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

Question 67 :

Select the correct mirror image of the given figure when a mirror is placed on the right side of the figure.

Difficulty : Moderate

Average Time : 49 Seconds

Options :

-
- 2.
- 3.
- 4.

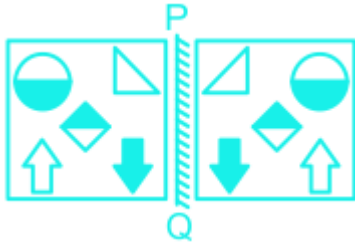
Solution :



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

Understanding

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.

Question 68 :

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

Difficulty : Moderate

Average Time : 84 Seconds

Options :

1. 11: 146
2. 17: 290
3. 14: 227
4. 10: 123

Solution :

The correct answer is **option 2** i.e **17: 290**.

Understanding

Application

The logic used here is;	
11:146	Similarly,
11: $12^2 + 2$	17: 290
14: 227	17: $18^2 + 2$
14: $15^2 + 2$	Hence, option 2 is the odd one out.
10: 123	
10: $11^2 + 2$	

Question 69 :

In a certain code language, 'EARTH' is coded as '8201815'. How will 'ORBIT' be coded as in that language?

Difficulty : Moderate

Average Time : 58 Seconds

Options :

1. 37681026
2. 20921815
3. 18172372
4. 17113912

Solution :

The correct answer is **option 2** i.e **20921815**.

Understanding

Application

<p>The logic used here is:</p>	<p>Similarly,</p> <p>Code for the word ORBIT:</p> <p>Hence, option 2 is the correct answer.</p>
--------------------------------	--

Question 70 :

Read the given statement(s) 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. Statements: All singers are dancers. No dancer is a plumber. Conclusions: I. No plumber is a singer. II. Some Singers are plumbers. III. Some dancers are singers.

Difficulty : Moderate

Average Time : 73 Seconds

Options :

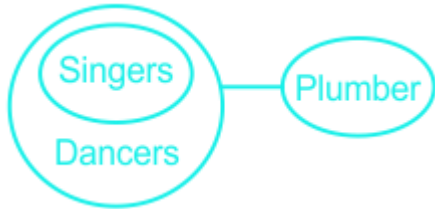
1. Only conclusion II follows.
2. Only conclusion I follows.
3. Only conclusions II and III follow.
4. Only conclusions I and III follow.

Solution :

The correct answer is **option 4** i.e **Only conclusions I and III follow.**

Understanding

The least possible Venn diagram is shown below:



Conclusions:

I. No plumber is a singer: **True** (As all singer are part of dancers and no singer is plumber).

II. Some Singers are plumbers: **False** (As all singer are part of dancers and no singer is plumber).

III. Some dancers are singers: **True** (As all singer are part of dancers, so some dancers are singers).

Hence, **Only Conclusion I and III follows.**

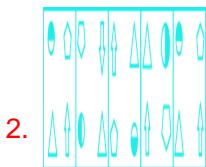
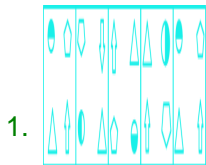
Question 71 :

Select the figure that can replace the question mark (?) in the following series.

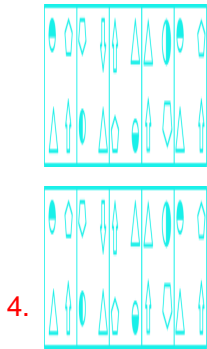
Difficulty : Moderate

Average Time : 77 Seconds

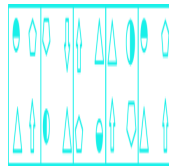
Options :



3.



Solution :



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

Understanding

The pentagon and arrow rotate 180 degrees in each figure and the whole figure rotates 90 degrees in the anticlockwise direction.

The sequence of figures:



Question 72 :

Arrange the following words in a logical and meaningful order (according to population). 1. Andhra Pradesh 2. Madhya Pradesh 3. Arunachal Pradesh 4. Uttar Pradesh 5. Odisha

Difficulty : Moderate

Average Time : 77 Seconds

Options :

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

Solution :

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

Understanding

In this question, you need to arrange the states in decreasing order in terms of population.

So the arrangement is;

1. Uttar Pradesh - 20.42 crores
2. Madhya Pradesh - 7.33 crores
3. Andhra Pradesh - 4.94 crores
4. Odisha - 4.37 crores
5. Arunachal Pradesh - 12.6 lakhs

Question 73 :

In the given Venn diagram, the 'rectangle' represents 'engineers', the 'circle' represents 'managers', and the 'triangle' represents 'married'. The numbers given in the diagram represent the number of persons in that particular category. How many people are married but are NOT engineers?

Difficulty : Moderate

Average Time : 68 Seconds

Options :

1. 29
2. 13
3. 16
4. 70

Solution :

The correct answer is **option 1** i.e **29**.

Understanding



The number of people who are married but are NOT engineers = Number of persons in the triangle who are not in the rectangle = $13 + 16 = 29$

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

Question 74 :

Which two signs should be interchanged to make the given equation correct? $121 + 11 - 42 \times 6 \div 7 = 83$

Difficulty : Moderate

Average Time : 48 Seconds

Options :

1. + and \div
2. \div and \times
3. - and \times
4. + and -

Solution :

The correct answer is **option 2** i.e \div and \times .

Understanding

Given equation: $121 + 11 - 42 \times 6 \div 7 = 83$

Check all the options:

Option 1: + and \div

After replacement the equation becomes;

$$= 121 \div 11 - 42 \times 6 + 7$$

$$= -234 \text{ is not equal to } 83.$$

Hence, **option 1** is not the correct answer.

**Understanding****Option 2: \div and \times**

After replacement the equation becomes;

$$= 121 + 11 - 42 \div 6 \times 7$$

= 83 is equal to 83.

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

Option 3: - and \times

After replacement the equation becomes;

$$= 121 + 11 \times 42 - 6 \div 7$$

= 582.14 is not equal to 83.

Hence, **option 3** is not the correct answer.

Option 4: + and -

After replacement the equation becomes;

$$= 121 - 11 + 42 \times 6 \div 7$$

= 146 is not equal to 83.

Hence, **option 4** is not the correct answer.

Question 75 :

Select the option in which the number set shares the same relationship as that shared by the given number set. (17, 24, 45)

Difficulty : Moderate

Average Time : 101 Seconds

Options :

1. (12, 19, 40)
2. (18, 23, 46)
3. (15, 20, 43)
4. (19, 26, 34)

Solution :

The correct answer is **option 1** i.e (12, 19, 40).

Understanding

The logic used here is;

Difference between 1st and 2nd number = 7

Difference between 2nd and 3rd number = 21

Given set: (17, 24, 45)

$$24 - 17 = 7$$

$$45 - 24 = 21$$

Option 1: (12, 19, 40)

$$19 - 12 = 7$$

$$40 - 19 = 21$$

Option 2: (18, 23, 46)

$$23 - 18 = 5$$

$$46 - 23 = 23$$

Option 3: (15, 20, 43)

$$20 - 15 = 5$$

$$43 - 20 = 23$$

Option 4: (19, 26, 34)

$$26 - 19 = 7$$

$$34 - 26 = 8$$

Option 1 follows the same logic.

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

Question 76 :

The value of $((\cos 90^\circ + \sin 810^\circ)(\sec 90^\circ + \operatorname{cosec} 810^\circ)) / (2 \sin 2630^\circ + 1 + 2 \sin 2270^\circ)$ is:

Difficulty : Moderate

Average Time : 67 Seconds

Options :

1. $4/3$
2. 1
3. $1/2$
4. 2

Solution :

The correct answer is **Option 1** i.e $4/3$.

Understanding/Application

$$\frac{((\cos 9^{\circ} + \sin 81^{\circ})(\sec 9^{\circ} + \operatorname{cosec} 81^{\circ}))}{(2\sin^2 63^{\circ} + 1 + 2\sin^2 27^{\circ})}$$

$$= \frac{\{(\cos(90 - 81) + \sin 81^{\circ})(\sec(90 - 81) + \operatorname{cosec} 81^{\circ})\}}{\{2\sin^2 63^{\circ} + 1 + 2\sin^2(90 - 63)\}}$$

$$= \frac{\{(\sin 81^{\circ} + \sin 81^{\circ})(\operatorname{cosec} 81^{\circ} + \operatorname{cosec} 81^{\circ})\}}{(2\sin^2 63^{\circ} + 1 + 2\cos^2 63^{\circ})}$$

$$= \frac{\{(2\sin 81^{\circ})(2\operatorname{cosec} 81^{\circ})\}}{(3)}$$

$$= 4/3$$

Question 77 :

Four men and 6 women can complete a certain piece of work in 5 days whereas three men and 4 women can complete it in 7 days. How many men should assist 25 women to complete times the same work in 5 days?

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

1. 4
2. 8
3. 10
4. 5

Solution :

The correct answer is **Option 4** i.e **5**.

Understanding/Application

According to the question -

$$(4m + 6w)5 = (3m + 4w)7$$

$$20m + 30w = 21m + 28w$$

$$1m = 2w$$

(Here, m = men and w = women)

$$\text{Total work done to be done} = (8w + 6w)5 = 70 \text{ units}$$

$$\text{Work to be done} = 70(5)/2 = 175 \text{ units}$$

$$\text{Work done by 25 women in 5 days} = 25(5) = 125 \text{ units}$$

$$\text{Work left to be done in 5 days by men} = 175 - 125 = 50 \text{ units}$$

$$\text{Work done by 1 women} = 1 \text{ unit}$$

$$\text{Work done by 1 man in 1 day} = \text{Double of that by 1 woman} = 2 \text{ units}$$

$$\text{Work done by 1 man in 5 days} = 2(5) = 10 \text{ units}$$

$$\text{Total number of men who assist work} = \text{Remaining work/Work done by 1 man in 5 days} = 50/10 = 5 \text{ men}$$

Question 78 :

If $\sec \theta + \tan \theta = p$, $0 < \theta < 90^\circ$, then $(p^2 - 1)/(p^2 + 1)$ is equal to:

Difficulty : Moderate**Average Time : 71 Seconds****Options :**

1. Sin
2. Cos

Cosec

4. 2Cosec

Solution :

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

Understanding/Application

$$\sec + \tan = p$$

sq. both sides -

$$(\sec + \tan)^2 = p^2 \dots(1)$$

$$(p^2 - 1)/(p^2 + 1)$$

$$\{(\sec + \tan)^2 - 1\}/\{(\sec + \tan) + 1\}$$

$$(\sec^2 + \tan^2 + 2\sec\tan - 1)/(\sec^2 + \tan^2 + 2\sec\tan + 1)$$

$$\{(\sec^2 - 1) + \tan^2 + 2\sec\tan\}/\{\sec^2 + 2\sec\tan + (\tan^2 + 1)\}$$

$$(2\tan^2 + 2\sec\tan)/(2\sec^2 + 2\sec\tan)$$

$$(\tan^2 + \sec\tan)/(\sec^2 + \sec\tan)$$

$$\{\tan(1 + \sec)\}/\{\sec(1 + \tan)\}$$

$$(\tan/\sec)$$

$$\sin$$

Question 79 :

A sum of Rs.8,000 invested at 10% p.a. amounts to Rs.9,261 in a certain time, interest compounded half-yearly. What will be the compound interest (in Rs) on the same sum for the same time at double the earlier rate of interest, when interest is compounded annually?

Difficulty : Moderate

Average Time : 92 Seconds

Options :

1. Rs.2,500



Rs.2,560

3. Rs.2,520

4. Rs.2,480

Solution :

The correct answer is **Option 2** i.e **Rs.2,560**.

Understanding/Application

As half-yearly -

$$r = 10/2 = 5 \%$$

Amount = Rs. 9261

p = Rs. 8000

$$A = p(1 + r/100)^t$$

$$9261 = 8000(1 + 5/100)^t$$

$$9261/8000 = (105/100)^t$$

$$(21/20)^3 = (21/20)^t$$

On comparing -

$$t = 3 \text{ years}$$

Time = 3/2 years

$$R = 2r = 2(10) = 20\%$$

$$\begin{aligned} \text{C.I.} &= p(1 + r/100)^t - p \\ &= 8000(1 + 20/100)^{3/2} - 8000 \\ &= 8000(6/5)^{3/2} - 8000 \\ &= 10560 - 8000 \\ &= \text{Rs. } 2560 \end{aligned}$$

Question 80 :

If the selling price of an article is 8% more than the cost price and the discount offered is 10% on the marked price of the article, then what is the ratio of the cost price to the marked price?

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

1. 8 : 9
2. 5 : 6
3. 3 : 4
4. 4 : 5

Solution :The correct answer is **Option 2** i.e **5 : 6**.**Understanding/Application**

Profit = 8%

Let the C.P. be Rs. 100

S.P. = Rs. 108

Discount on marked price = 10%

S.P. = 100 - 10 = 90%

90% = 108

Marked Price (100%) = $108(100)/90 = \text{Rs. } 120$ Thus, the ratio of the cost price to the marked price = $100: 120 = 5 : 6$ **Question 81 :**In ABC , $B = 72^\circ$ and $C = 44^\circ$. Side BC is produced to D. The bisectors of B and ACD meet at E. What is the measure of BEC ?**Difficulty : Moderate****Average Time : 56 Seconds****Options :**

1. 32°
2. 36°

46° 4. 58° **Solution :**The correct answer is **Option 1** i.e 32° .**Understanding/Application**

In triangle ABC,

$$A + B + C = 180^\circ \text{ (Angles sum property)}$$

$$A = 180 - 72 - 44 = 64^\circ$$

By the angle bisector property -

$$BEC = A/2$$

$$BEC = 64/2$$

$$BEC = 32^\circ$$

Question 82 :

The given table represents the production of different types of motorcycles (in thousands) over a period of six years. Study the table carefully and answer the question that follows. Year 2013 2014 2015 2016 2017 2018
Motorcycles (type) A 95 84 85 89 80 98 B 98 87 89 88 96 92 C 104 89 95 92 100 110 D 103 100 102 95 104 120
What is the percentage increase in the total production of all types of motorcycles from 2014 to 2018?

Difficulty : Moderate**Average Time : 67 Seconds****Options :**

1. $14\frac{3}{7}$

2. $16\frac{2}{3}$

3. $14\frac{2}{7}$

4. $17\frac{1}{3}$

Solution :The correct answer is **Option 2** i.e $16\frac{2}{3}$.**Understanding/Application**



Total production of all types in 2014 = $(84 + 87 + 89 + 100) = 360$

Total production of all types in 2018 = $(98 + 92 + 110 + 120) = 420$

Percentage increase = $[(420 - 360) \times 100] / 360$

= $(6000 / 360)$

= $(1000 / 60)$

= $(100 / 6)$

= $16 \frac{4}{6}$

= $16 \frac{2}{3}$

Question 83 :

The given table represents the production of different types of motorcycles (in thousands) over a period of six years. Study the table carefully and answer the question that follows. Year 2013 2014 2015 2016 2017 2018 Motorcycles (type) A 95 84 85 89 80 98 B 98 87 89 88 96 92 C 104 89 95 92 100 110 D 103 100 102 95 104 120 What is the ratio of the total number of motorcycles of types B produced in 2016 and 2018 to the total number of motorcycles of type D produced in 2013, 2015 and 2016?

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

1. 3 : 5

2. 1 : 2

3. 2 : 3

4. 3 : 4

Solution :

The correct answer is **Option 1** i.e **3 : 5**.

Understanding/Application

Total bikes of type B produced in 2016 and
2018 = $(88 + 92) = 180$

Total bikes of type D produced in 2013, 2015,
and 2016 = $(103 + 102 + 95) = 300$

Thus, the ratio will be -

180: 300

9: 15

3: 5

Question 84 :

If $7\cos^2 + 3\sin^2 = 6$, then the value of $(\cot^2 + \sec^2)/(\tan^2 - \sin^2)$ is:

Difficulty : Moderate

Average Time : 51 Seconds

Options :

1. 26/15
2. 28/27
3. 52/27
4. 49/45

Solution :

The correct answer is **Option 3** i.e **52/27**.

Understanding/Application



$$7\cos^2 + 3\sin^2 = 6$$

$$7(1 - \sin^2) + 3\sin^2 = 6$$

$$7 - 7\sin^2 + 3\sin^2 = 6$$

$$4\sin^2 = 1$$

$$\sin = 1/2$$

$$\text{For, } 0^\circ \text{ } 90^\circ$$

$$= 30^\circ$$

$$(\cot^2 2 + \sec^2 2)/(\tan^2 2 - \sin^2 2)$$

$$= (\cot^2 2(30) + \sec^2 2(30))/(\tan^2 2(30) - \sin^2 2(30))$$

$$= (\cot^2 60^\circ + \sec^2 60^\circ)/(\tan^2 60^\circ - \sin^2 60^\circ)$$

$$= \{(1/3)^2 + 2^2\}/\{(3)^2 - (3/2)^2\}$$

$$= (1/3 + 4)/(3 - 3/4)$$

$$= (13/3)/(9/4)$$

$$= 52/27$$

Question 85 :

Two circles of radii 7 cm and 5 cm intersect each other at A and B, and the distance between their centres is 10 cm. The length (in cm) of the common chord AB is:

Difficulty : Moderate**Average Time : 81 Seconds****Options :**

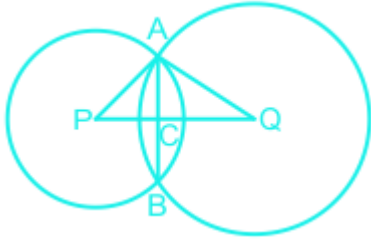
1. $(2(74))/5$
2. $(3(66))/5$
3. $(4(66))/5$
4. $(3(74))/5$

Solution :

The correct answer is **Option 3** i.e $(4(66))/5$.



Understanding/Application



AP = 5 cm, AQ = 7 cm, PQ = 10 cm

Let CQ be x cm.

$$PC = (10 - x)$$

Triangle ACQ is a right-angled triangle.

$$AQ^2 = AC^2 + CQ^2$$

$$7^2 = AC^2 + x^2$$

$$AC^2 = 49 - x^2 \quad \dots(1)$$

Triangle APC is a right-angled triangle.

$$AP^2 = AC^2 + PC^2$$

$$5^2 = AC^2 + (10 - x)^2$$

$$AC^2 = 25 - (10 - x)^2 \quad \dots(2)$$



From eq 1 and 2, we get -

$$49 - x^2 = 25 - (10 - x)^2$$

$$24 - x^2 = - (10 - x)^2$$

$$x^2 = 24 + 100 + x^2 - 20x$$

$$20x = 124$$

$$x = 6.2 \text{ cm}$$

From eq (1), we get -

$$AC^2 = 49 - (6.2)^2$$

$$AC^2 = 49 - 38.44$$

$$AC^2 = 10.56 = 1056/100 = 264/25$$

$$AC = (266)/5$$

$$\text{Chord AB} = 2(266)/5 = (466)/5$$

Question 86 :

A sum of Rs.x was divided between A, B, C and D in the ratio $1/3 : 1/5 : 1/6 : 1/9$. If the difference between the shares of B and D is Rs.832, then the value of x is:

Difficulty : Moderate**Average Time : 161 Seconds****Options :**

1. Rs.7,696
2. Rs.7,592
3. Rs.7,488
4. Rs.7,384

Solution :

The correct answer is **Option 2** i.e **Rs.7,592**.

Understanding/Application



The ratio of A, B, C, and D are $1/3 : 1/5 : 1/6 : 1/9 = 30 : 18 : 15 : 10$

Let their common ratio be z .

Difference between shares of B and D = 832

$$18z - 10z = 832$$

$$8z = 832$$

$$z = 104$$

$$x = 30z + 18z + 15z + 10z$$

$$x = 73z$$

$$x = 73(104)$$

$$x = \text{Rs. } 7592$$

Question 87 :

The chords AB and CD of a circle intersect at E. If $AE = 12$ cm, $BE = 20.25$ cm and $CE = 3 DE$, then the length (in cm) of CE is:

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

1. 27
2. 25.5
3. 28.5
4. 18

Solution :

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

Understanding/Application

By the property, the chords of a circle which cut each other -

$$AE \times EB = DE \times CE$$

$$12 \times 20.25 = DE \times 3DE$$

$$243 = 3DE^2$$

$$DE^2 = 81$$

$$DE = 9 \text{ cm}$$

$$CE = 3DE = 3(9) = 27 \text{ cm}$$

Question 88 :

The given table represents the production of different types of motorcycles (in thousands) over a period of six years. Study the table carefully and answer the question that follows.

Year	2013	2014	2015	2016	2017	2018
Motercycles (type) A	95	84	85	89	80	98
B	98	87	89	88	96	92
C	104	89	95	92	100	110
D	103	100	102	95	104	120

By what percentage the total production of type A motorcycles, over six years, is less than the total production of all types of motorcycles in 2013 and 2016?

Difficulty : Moderate**Average Time : 83 Seconds****Options :**

1. 32.8
2. 31.6
3. 30.5
4. 32.2

Solution :

The correct answer is **Option 3** i.e **30.5**.

Understanding/Application

Total type A bikes produced over 6 years = $95 + 84 + 85 + 89 + 80 + 98 = 531$

Total production of all bikes in the year 2013 and 2016 = $95 + 98 + 104 + 103 + 89 + 88 + 92 + 95 = 764$

Thus, the required percentage = $[(764 - 531) \times 100] / 764 = (233 \times 100) / 764 = 30.5\%$

**Question 89 :**

A sells an article to B at a loss of 20%, B sells it to C at a profit of 12.5% and C sells it to D at a loss of 8%. If D buys it for Rs.248, then what is the difference between the loss incurred by A and C?

Difficulty : Moderate

Average Time : 55 Seconds

Options :

1. Rs.39.20
2. Rs.36.80
3. Rs.38.40
4. Rs.42.60

Solution :

The correct answer is **Option 3** i.e. **Rs.38.40**.

Understanding/Application

C.P. for D = Rs. 248.40

Loss for C = 8%

C.P. for C = Rs. $(248.40 \times 100)/92 = \text{Rs. } 270$

Loss of C = $270 - 248.40 = \text{Rs. } 21.60$

S.P. for B = Rs. 270

Profit = 12.5%

C.P. for B = $(270 \times 100)/112.5 = \text{Rs. } 240$

S.P. for A = Rs. 240

Loss = 20%

C.P. for A = $(240 \times 100)/80 = \text{Rs. } 300$

Loss for A = $300 - 240 = \text{Rs. } 60$

Difference between loss for A and C = $60 - 21.60 = \text{Rs. } 38.40$

**Question 90 :**

The value of is:

Difficulty : Moderate

Average Time : 59 Seconds

Options :

1. 16/170
2. 2/17
3. 17/8
4. 8/3

Solution :The correct answer is **Option 4** i.e **8/3**.**Understanding/Application**

$$\begin{aligned} & [8 \div [(8 - 3) \div \{(4 \div 4 \times 8) + 4 - 4 \times 4 \div 8\} - 2]] / (8 \times 8 \div 4 - 8 \div 8 \times 2 - 7) \\ &= [8 \div [(5) \div \{(4 \div 32) + 4 - 4 \times 4 \div 8\} - 2]] / (8 \times 8 \div 4 - 8 \div 16 - 7) \\ &= [8 \div \{(5) \div (1/8 + 4 - 2) - 2\}] / (16 - 1/2 - 7) \\ &= [8 \div \{5 \div 17/8 - 2\}] / (17/2) \\ &= [8 \div (40/17 - 2)] / (17/2) \\ &= (8 \div 6/17) / (17/2) \\ &= (8 \times 17/2) / (17/2) \\ &= 8/3 \end{aligned}$$

Question 91 :

How many numbers are there from 200 to 800 which are neither divisible by 5 nor by 7?

Difficulty : Moderate

Average Time : 58 Seconds

Options :

1. 407

410

3. 411

4. 413

Solution :The correct answer is **Option 3** i.e **411**.**Understanding/Application**

$$\text{Total numbers} = 800 - 200 + 1 = 601$$

Number of terms which divide by 5

$$l = 800$$

$$a = 200$$

$$d = 5$$

$$l = a + (n - 1)d$$

$$800 = 200 + (n - 1)5$$

$$n - 1 = 120$$

$$n = 121$$

Number of terms which divide by 7

$$l = 798$$

$$a = 203$$

$$d = 7$$

$$l = a + (n - 1)d$$

$$798 = 203 + (n - 1)7$$

$$n - 1 = 85$$

$$n = 86$$

Number of terms which divide by 5 and 7

$$l = 770$$

$$a = 210$$

$$d = 35$$

$$l = a + (n - 1)d$$

$$770 = 210 + (n - 1)35$$

$$n - 1 = 16$$

$$n = 17$$

Number of terms which divide by either 5 or 7

$$= 121 + 86 - 17 = 190$$

Number of terms which does not divide by

$$\text{either 5 or 7} = 601 - 190 = 411$$

Question 92 :

Places A and B are 144 km apart. Two cars start simultaneously, one from A and the other from B. If they move in the same direction, they meet after 12 hours, but if they move towards each other they meet after $9/8$ hours. The speed (in km/h) of the car moving at a faster speed, is:

Difficulty : Moderate**Average Time : 84 Seconds****Options :**

1. 70

72

3. 60

4. 64

Solution :The correct answer is **Option 1** i.e **70**.**Understanding/Application**Speed of faster car = V Speed of slower car = v

Case 1 -

When cars travel in the same direction.

Distance = 144 km

 $T = 12$ hoursRelative speed = $V - v$ $V - v = 144/12 = 12 \dots(1)$

Case 2 -

When cars travel in the opposite direction.

Distance = 144 km

Time = $9/8$ hoursRelative speed = $V + v$ $V + v = 144(8)/9 = 128 \dots(2)$

Subtracting eq 1 and 2, we get -

 $2V = 12 + 128$ $2V = 140$ $V = 70$ km/hr**Question 93 :**

If $2x^2 + y^2 + 8z^2 - 2(2yz) + 4(2yz) - 8zx = (Ax + y + Bz)^2$, then the value of $(A^2 + B^2 - AB)$ is:

Difficulty : Moderate

Average Time : 67 Seconds

Options :

1. 16
2. 18
3. 14
4. 6

Solution :

The correct answer is **Option 3** i.e **14**.

Understanding/Application

$$2x^2 + y^2 + 8z^2 - 2(2yz) + 4(2yz) - 8zx = (Ax + y + Bz)^2$$

$$(-2x)^2 + y^2 + (22z)^2 + 2(-2x)(y) + 2y(22z) + 2(-2x)(22z) = (Ax + y + Bz)^2$$

$$(-2x + y + 22z)^2 = (Ax + y + Bz)^2$$

$$A = -2$$

$$B = 22$$

$$(A^2 + B^2 - AB)$$

$$= \{(-2)^2 + (22)^2 - (-2 \times 22)\}$$

$$= (2 + 8 + 4)$$

$$= 14$$

Question 94 :

The average age of a number of persons in a group was calculated as 35 years, which was 2.5 years more than the correct average as there was an error in recording the age of two persons as 38.5 years and 40 years instead of 29 years and 22 years respectively. The number of persons in the group was:

Difficulty : Moderate

Average Time : 78 Seconds

**Options :**

1. 11
2. 12
3. 13
4. 15

Solution :

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

Understanding/Application

Let the total number of people be x .

Wrong average of people = 35

Total age of wrong average people = $35x$

Correct average = $35 - 2.5 = 32.5$

Total age for correct average = $32.5x$

Correct age of 2 persons = $29 + 22 = 51$

Wrong age of 2 persons = $38.5 + 40 = 78.5$

Difference = $78.5 - 51$

$35x - 32.5x = 27.5$

$x = 27.5/2.5$

$x = 11$

Question 95 :

In ABC, AC = 8.4 cm and BC = 14 cm. P is a point on AB such that CP = 11.2 cm and $\angle ACP = \angle B$. What is the length (in cm) of BP?

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

1. 3.78
2. 3.6



2.8

4. 4.12

Solution :The correct answer is **Option 1** i.e **3.78**.**Understanding/Application**Triangle ACP ~ Triangle ABC (Angle A is
common and $\angle C = \angle B$)

$$AB/AC = BC/CP = AC/AP$$

From first 2, we get -

$$AB/AC = BC/CP$$

$$AB/8.4 = 14/11.2$$

$$AB = 10.5 \text{ cm}$$

From last 2, we have -

$$BC/CP = AC/AP$$

$$14/11.2 = 8.4/AP$$

$$AP = 6.72 \text{ cm}$$

Hence,

$$BP = AB - AP = 10.5 - 6.72 = 3.78 \text{ cm}$$

Question 96 :If $12x^2 - 21x + 1 = 0$, then what is the value of $9x^2 + (16x^2) - 1$?**Difficulty : Moderate****Average Time : 76 Seconds****Options :**

1. 429/8

2. 465/16

3. 417/16

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453/8

Solution :The correct answer is **Option 3** i.e **417/16**.**Understanding/Application**

$$12x^2 - 21x + 1 = 0$$

Dividing it by $4x -$

$$3x - 21/4 + 1/4x = 0$$

$$3x + 1/4x = 21/4$$

On squaring both sides -

$$(3x + 1/4x)^2 = (21/4)^2$$

$$9x^2 + 1/16x^2 + 2(3x)(1/4x) = 441/16$$

$$9x^2 + 1/16x^2 = 441/16 - 3/2$$

$$9x^2 + (16x^2)^{-1} = (441 - 24)/16 = 417/16$$

Question 97 :The area of a field in the shape of a regular hexagon is 24003 m². The cost of fencing the field at Rs.16.80/ metre is:**Difficulty : Moderate****Average Time : 60 Seconds****Options :**

1. Rs.3,024
2. Rs.4,536
3. Rs.3,528
4. Rs.4,032

Solution :The correct answer is **Option 4** i.e **Rs.4,032**.**Understanding/Application**



Let the side be x .

$$\text{Area of a hexagon} = 33x^2/2$$

$$24003 = 33x^2/2$$

$$x^2 = 1600$$

$$x = 40 \text{ m}$$

$$\text{Perimeter of a hexagon} = 6x = 6(40) = 240 \text{ m}$$

$$\text{The cost of fencing the field} = 16.8(240) = \text{Rs. } 4032$$

Question 98 :

A, B and C denote 8%, 7% and 9%, of their salaries, respectively to a charitable trust. The salaries of A and B are same and the difference between their donations is Rs.259. The total donation of A and B is Rs.1,185 more than that of C. The total donation of A and C is what percentage of the total salaries of A, B and C? (Correct to one decimal price)

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

1. 6.2%
2. 7.1%
3. 6.4%
4. 5.8%

Solution :

The correct answer is **Option 4** i.e **5.8%**.

Understanding/Application



Let the salaries of A, B, and C be a, a, and c respectively.

Donation of A, B, and C are $0.08x$, $0.07x$, and $0.09y$

$$0.08x - 0.07x = 259$$

$$x = 259/0.01 = 25900$$

Total donation of A and B = Donation of C + 1185

$$0.08x + 0.07x = 0.09y + 1185$$

$$0.15x = 0.09y + 1185$$

$$0.09y = 0.15(25900) - 1185$$

$$0.09y = 2700$$

$$y = 2700/0.09 = 30000$$

Total donation of A and C = $0.08x + 0.09y$

$$= 0.08(25900) + 0.09(30000)$$

$$= 2072 + 2700$$

$$= 4772$$

Total salaries of A, B, and C = $25900 + 25900 + 30000 = 81800$

Thus, the percentage = $[(4772 \times 100)]/81800 = 5.8\%$

Question 99 :

The given table represents the production of different types of motorcycles (in thousands) over a period of six years. Study the table carefully and answer the question that follows. Year 2013 2014 2015 2016 2017 2018 Motorcycles (type) A 95 84 85 89 80 98 B 98 87 89 88 96 92 C 104 89 95 92 100 110 D 103 100 102 95 104 120 During 2015, the production of which type of motorcycle was more than 25% of the total production of all types of motorcycles in 2017?

Difficulty : Moderate**Average Time : 75 Seconds****Options :**

- A
2. C
3. B
4. D

Solution :

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

Understanding/Application

Total production of all types of motorcycles in 2017 = $80 + 96 + 100 + 104 = 380$

25% of all bikes in 2017 = $[(380 \times 25)/100] = 95$

During 2015, the production of D type was more than 25% of total production in 2017 of all types.

Question 100 :

If $x + y + z = 3$, and $x^2 + y^2 + z^2 = 101$, then what is the value of $(x^3 + y^3 + z^3 - 3xyz)$?

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

1. 21
2. 28
3. 19
4. 24

Solution :

The correct answer is **Option 1** i.e **21**.

Understanding/Application

$$x + y + z = 3$$

$$x^2 + y^2 + z^2 = 101$$

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z)[(x + y + z)^2 - 3(xy + yz + zx)] \dots(1)$$

$$(x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + zx)$$

On putting the above values -

$$3^2 = 101 + 2(xy + yz + zx)$$

$$(xy + yz + zx) = -92/2$$

$$(xy + yz + zx) = -46$$

From eq.1 we get -

$$x^3 + y^3 + z^3 - 3xyz = (3)[(3)^2 - 3(-46)]$$

$$x^3 + y^3 + z^3 - 3xyz = 441$$

$$(x^3 + y^3 + z^3 - 3xyz) = 441 = 21$$

Ssc Cgl Tier I Previous Year Question Paper Analysis

The analysis of Ssc Cgl Tier I Previous Year Question Paper held on 2020-03-04 in the Evening exam is as follows:

1. 100 questions were moderate.
2. The safe score is 140 marks.
3. 25 questions were asked from General Awareness, 25 questions were asked from English Language, 25 questions were asked from Logical Reasoning and 25 questions were asked from Quantitative Aptitude
4. 26 questions should have been skipped if you were short of time.

Ssc Cgl Tier I Previous Year Question Paper Topic Wise Weightage

General Awareness



- History - 5
- 2. Polity - 2
- 3. Science - 2
- 4. Environment - 1
- 5. Geography - 1
- 6. GK Misc - 10
- 7. Current Affairs - 4

English Language

- 1. Cloze Test - 25

Logical Reasoning

- 1. Coding Decoding - 2
- 2. Analogy - 4
- 3. Classification - 3
- 4. Missing Characters - 1
- 5. Blood Relations - 1
- 6. Syllogism - 1
- 7. Venn Diagrams - 1
- 8. Dictionary Based - 1
- 9. Figure Based - 1
- 10. Paper-cutting, Folding, Punching - 1
- 11. Mirrors And Water Reflection - 1
- 12. Configuration, Fitting Pieces, Odd Pieces - 2
- 13. Series - 3
- 14. Mathematical Reasoning - 2
- 15. Data Sufficiency - 1

Quantitative Aptitude

- 1. Geometry - 4
- 2. Data Sufficiency - 21

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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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.