## Ssc Cgl Tier I Previous Year Question Paper Overview

Here, you can solve all the questions asked in Ssc CgI Tier I Previous Year Question Paper on 2020-03-04 in the Morning exam. The detailed solutions are also provided for every previous year question and some of these questions can be asked again in your Ssc CgI Tier I exam. There are 100 questions in the exam and 60 minutes are provided for the Ssc CgI 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 :

Select the ANTONYM of the given word. LIBERTY

Difficulty : Moderate
Average Time : 41 Seconds
Options:

1. Independence
2. Deliverance
3. Convenience
4. Dependence

## Solution :

The correct answer is option 4 i.e. Dependence.
Let's have a look at the meaning of the given options:-

1. Liberty- liberty is the ability to do as one pleases.
2. Independence- (used about a person, country, etc.) the state of being free and not controlled by another person, country, etc.
3. Deliverance- the action of being rescued or set free.
4. Convenience- the quality of being easy, useful or suitable for somebody.
5. Dependence- the state of needing somebody/something.

As the chosen option expresses the opposite meaning of the given word it will be correct.
Question 2 :
$\qquad$ was the capital of Magadha before the 4th century BCE.

Difficulty : Moderate

## Options:

1. Varanasi
2. Pataliputra
3. Rajagriha
4. Mathura

## Solution :

The correct answer is Option 3 i.e. Rajagriha.

- Rajgir or Rajagriha was the capital of Magadha before the 4th century BCE.
- In Sanskrit, 'Rajagriha' and in Pali 'Rajagaha' was the capital of the Magadha kingdom around 600 BCE.
- It was later shifted to Pataliputra (present-day Patna).


## Question 3 :

King Harshavardhana ascended the throne of Thaneshwar and Kannauj on the death of his brother, $\qquad$ .

## Options :

1. Suryavardhana
2. Indravardhana
3. Chandravardhana
4. Rajyavardhana

## Solution :

The correct answer is Option 4 i.e. Rajyavardhana.

- With the commencement of the $7^{\text {th }}$ century, Harshavardhana (606-647 A.D.) ascended the throne of Thaneshwar and Kannauj on the death of his brother, Rajyavardhana.
- By 612 Harshavardhana consolidated his kingdom in northern India.
- Rajyavardhana, also known as Rajya Vardhan, was the eldest son of Prabhakarvardhana and a member of the Pushyabhuti dynasty.
- He ascended the throne after his father's death and was succeeded by his younger brother, Harsha.


## Question 4 :

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$\qquad$ expansion makes the Eiffel Tower taller during summers.

Difficulty : Moderate

## Options :

1. Gradient
2. Thermal
3. Chemical
4. Gravitational

## Solution :

The correct answer is Option 2 i.e Thermal

- The height of the Eiffel Tower is 324 meters on average-changes depending on the season.
- When the hot summer sun beats down on it, thermal expansion causes the metal to grow.
- The tower can swell in height by as much as 15 centimetres ( 6 inches).


## Question 5 :

What is the relationship between two organisms in which one organism benefits and the other is unaffected?

## Options :

1. Competition
2. Commensalism
3. Predation
4. Mutualism

## Solution :

The correct answer is Option 2 i.e. Commensalism

- In commensalism, two species have a long-term interaction that is beneficial to one and has no positive or negative effect on the other (+/0 interaction).
- In Mutualism, a symbiotic relationship between two species in which both partners benefit.
- In Competition, two species compete for the same limited resource. Competition has a negative effect on both of the species.
- Predation is a biological interaction where one organism (predator) kills and eats another organism (prey). This interaction is positive for the predator and negative for the prey (+/- interaction).

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## Question 6 :

The Gol Gumbad (Gumbaz) of $\qquad$ is the mausoleum of Muhammad Adil Shah.

## Average Time : 62 Seconds

## Options :

1. Bijapur
2. Allahabad
3. Agra
4. Delhi

## Solution :

The correct answer is Option 1 i.e Bijapur

- Gol Gumbaz is the most famous monument in Bijapur.
- It is the tomb of Mohammed Adil Shah (ruled 1627-1657).
- It is the second-largest dome ever built, next in size only to St Peter's Basilica in Rome.
- A particular attraction in this monument is the central chamber, where every sound is echoed seven times.


## Question 7 :

The $\qquad$ lake in Gujarat was an artificial reservoir built during the rule of the Mauryas.

## Options:

1. Loktak
2. Sudarshana
3. Pushkar
4. Lonar
5. None of the above

## Solution :

The correct answer is Option 2 i.e. Sudarshana

- The Junagarh inscription gives information about the Sudarshan Lake that the lake was an artificial reservoir, and was built by the Mauryan emperors for checking floods.
- Around 150 AD, the lake was repaired by the Shaka ruler Rudradaman-I.

And, it was again repaired under Skandgupta's reign (415 AD-455 AD) by his governor Parnadatta.

## Question 8 :

Article 17 of the Constitution of India deals with the abolition of $\qquad$ .

Difficulty : Moderate
Average Time : 52 Seconds
Options :

1. Untouchability
2. Titles
3. Slavery
4. Sati

## Solution :

The correct answer is Option 1 i.e. Untouchability.
Article 17 states: Abolition of Untouchability
"Untouchability" is abolished and its practice in any form is forbidden. The enforcement of any disability arising out of "Untouchability" shall be an offence punishable in accordance with the law.

| Abolition of titles | Article 18 |
| :--- | :--- |
| Abolition of forced <br> labour | Article 23 |
| Abolition of Sati | Done in 1829 by Lord <br> Bentinck |

## Question 9

Select the most appropriate meaning of the given idiom. Back to square one

## Options :

1. Come to the original point
2. Neglect something
3. Draw a square
4. Move ahead

## Solution :

The correct answer is option 1 i.e. Come to the original point.
The meaning of the given idiom is-
Back to square one- back to where one started, with no progress having been made.
As the meaning of the given idiom is same as the chosen option 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 number. 'A stitch in time saves nine'. This wise saying suggests that an (1) action taken on time to rectify an error rules (2) $\qquad$ the possibility of accumulation of such errors and future
(3) $\qquad$ . Wisdom, therefore lies in correcting the error as soon as it is (4) $\qquad$ . There is no point-in allowing the
(5) $\qquad$ to grow and then take hasty actions to set things right.

## Question 10 :

Select the most appropriate option for blank no. 1

Difficulty : Moderate

## Average Time : 69 Seconds

## Options :

1. superficial
2. wrong
3. opposite
4. appropriate

## Solution :

The correct answer is option 4 i.e. appropriate.
Let's have a look at the meaning of the given options:-

1. superficial- not studying or thinking about something in a deep or complete way.
2. wrong- not correct; in a way that is not correct.
3. opposite- in a position on the other side of somebody/something; facing.
4. appropriate- suitable or right for a particular situation, person, use, etc.
5. "A stitch in time saves nine"- if you sort out a problem immediately it may save a lot of extra work later.

The given phrase is giving an idea about using the word in the blank space.
The chosen option is matching with the blank hence, it will be correct.

## Question 11 :

Select the most appropriate word to substitute the underlined word of the given sentence. If substitution is not required select 'No improvement'. To fight on the battlefield for the sake of one's country needs a great strongness.

Difficulty : Moderate

## Average Time : 77 Seconds

## Options :

1. great courage
2. a lots of strength
3. No improvement
4. the greatest strongness

## Solution :

The correct answer is option 1 i.e. great courage.

- "Article + adjective + noun" is the correct noun phrase.
- Only the chosen option follows this structure hence, it will be correct.

The correct sentence will be-
To fight on the battlefield for the sake of one's country needs great courage.

## Question 12 :

Select the correct active form of the given sentence. This beautiful story was written by Maya.

## Options :

1. Maya is writing this beautiful story.
2. Maya writes this beautiful story.
3. Maya wrote this beautiful story.
4. Maya was writing this beautiful story.

## Solution :

The correct answer is option 3 i.e. Maya wrote this beautiful story.
Passive voice - Subject+ was/were + v3 + by + Object+ other words.
Active voice- Object + v2+ S+ other words.
As the chosen option follows this structure it will be correct.

## Question 13 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate

## Average Time : $\mathbf{4 5}$ Seconds

## Options :

1. Tamarind
2. Tresure
3. Truthful
4. Turmoil

## Solution :

The correct answer is option 2 i.e. Tresure.
Let's have a look at the meaning and spelling of the given word-

1. Tamarind- a hardwood tree known scientifically as Tamarindus indica.
2. Treasure- a collection of very valuable objects, for example, gold, silver, jewellery, etc.
3. Truthful- (used about a person) who tells the truth; honest.
4. Turmoil- a state of great noise or confusion.

As the chosen option is incorrectly spelt 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 number. 'A stitch in time saves nine'. This wise saying suggests that an (1) $\qquad$ action taken on time to rectify an error rules (2) $\qquad$ the possibility of accumulation of such errors and future
(3) $\qquad$ . Wisdom, therefore lies in correcting the error as soon as it is (4) $\qquad$ There is no point-in allowing the
(5) $\qquad$ to grow and then take hasty actions to set things right.

Question 14 :
Select the most appropriate option for blank no. 2

## Options:

1. at
2. in
3. for

## Solution :

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

- Rules out- to stop considering something as a possibility:
- Statement and the chosen option both have the meaning related to "possibility" hence, the chosen option will suit the blank.

Hence, the chosen option will be correct.

## Question 15 :

Select the INCORRECTLY spelt word.

## Options :

1. Consumation
2. Compromise
3. Competence
4. Chronology

## Solution :

The correct answer is option 1 i.e. Consumation.
Let's have a look at the meaning and spelling of the given word-

1. Consumption- the amount of fuel, etc. that something uses.
2. Compromise- an agreement that is reached when each person gets part, but not all, of what he/she wanted.
3. Competence- the fact of having the ability or skill that is needed for something.
4. Chronology- the order in which a series of events happened; a list of these events in order

As the chosen option is incorrectly spelt 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 number. 'A stitch in time saves nine'. This wise saying suggests that an (1) action taken on time to rectify an error rules (2) $\qquad$ the possibility of accumulation of such errors and future
(3) $\qquad$ . Wisdom, therefore lies in correcting the error as soon as it is (4) $\qquad$ There is no point-in allowing the
(5) $\qquad$ to grow and then take hasty actions to set things right.

Question 16 :

Select the most appropriate option for blank no. 3

Difficulty : Moderate
Average Time : 84 Seconds

## Options :

1. facilities
2. qualities
3. advantages
4. damages

## Solution :

The correct answer is option 4 i.e. damages.
Let's have a look at the meaning of the given options:-

1. facilities- a service, building, piece of equipment, etc. that makes it possible to do something.
2. qualities- how good or bad something is.
3. advantages- something that may help you to do better than other people.
4. damages- harm or injury caused when something is broken or spoiled.
"Errors and damages" in this error is a negative word and we need to choose another word of the same tone as well.
In the given option only the chosen option has a negative meaning.
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 number. 'A stitch in time saves nine'. This wise saying suggests that an (1) $\qquad$ action taken on time to rectify an error rules (2) $\qquad$ the possibility of accumulation of such errors and future
(3) $\qquad$ Wisdom, therefore lies in correcting the error as soon as it is (4) $\qquad$ . There is no point-in allowing the
(5) $\qquad$ to grow and then take hasty actions to set things right.

## Question 17 :

Select the most appropriate option for blank no. 4

## Options :

1. invented
discovered
2. managed
3. proposed

## Solution :

The correct answer is option 2 i.e. discovered.
Let's have a look at the meaning of the given options:-

1. invented- to think of or make something for the first time.
2. discovered- to find or learn something that nobody had found or knew before.
3. managed- to succeed in doing or dealing with something difficult; to be able to do something.
4. proposed- to formally suggest something as a possible plan or action.
we can correct something only if we discover that thing.
Here "discover" makes a suitable appearance with the blank space.

## 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 number. 'A stitch in time saves nine'. This wise saying suggests that an (1) $\qquad$ action taken on time to rectify an error rules (2) $\qquad$ the possibility of accumulation of such errors and future
(3) $\qquad$ . Wisdom, therefore lies in correcting the error as soon as it is (4) $\qquad$ There is no point-in allowing the (5) $\qquad$ to grow and then take hasty actions to set things right.

## Question 18 :

Select the most appropriate option for blank no. 5

## Options :

1. parody
2. remedy
3. melody
4. malady

## Solution :

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

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

1. parody- a piece of writing, speech or music that copies the style of somebody/something in a funny way.
2. remedy- something that makes you better when you are ill or in pain.
3. melody- a song or tune; the main tune of a piece of music.
4. malady- a serious problem.
"We can not allow the problem to grow" this statement suits the paragraph.
Hence, the chosen option will be correct.

## Question 19 :

Select one word for the following group of words. Open refusal to obey orders

## Options :

1. Defiance
2. Compliance
3. Adherence
4. Obedience

## Solution :

The correct answer is option 1 i.e. Defiance.
Let's have a look at the meaning of the given words-

1. Defiance- behaviour in which you refuse to obey someone or something.
2. Compliance-formal. the act of obeying an order, rule, or request.
3. Adherence- the act, action, or quality of adhering.
4. Obedience- an act or instance of obeying.

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

## Question 20 :

Select the ANTONYM of the given word. BROAD

## Options :

1. Narrow

Wide
3. Long
4. Large

## Solution :

The correct answer is option 1 i.e. Narrow.
Let's have a look at the meaning of the given options:-

1. Broad- including many different people or things.
2. Narrow- having only a short distance from side to side.
3. Wide- measuring a lot from one side to the other.
4. Long-measuring or covering a large amount in distance or time.
5. Large- greater in size, amount, etc. than usual; big.

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

## Question 21 :

In the sentence identify the segment which contains the grammatical error. The boy which stole the money was caught by the police.

## Options :

1. by the police
2. stole the money
3. The boy which
4. was caught

## Solution :

The correct answer is option 3 i.e. The boy which.

1. The error lies in part 3 of the statement because of the wrong use of "Relative Pronoun".
2. We need to replace "Which" with "Who" for making the statement grammatically correct.

## Grammatical Concept:-

- If the antecedent of a relative pronoun is "person" we need to use "who" as the relative pronoun.
- As in the given statement, there is the use of "which" we need to replace it with "who"
- Hence, the chosen option will be correct.

The correct sentence will be-
The boy who stole the money was caught by the police.

## Question 22 :

Given below are four jumbled sentences. Select the option that gives their correct order. A. "We are going to the market," declared Reetu and Geetu. B. "Where are you going?" the father asked. C. "Take your umbrella, it is going to rain," the mother said. D. "Yes, definitely. We will," replied the two.

## Average Time : 86 Seconds

## Options:

1. DCAB
2. ABDC
3. BACD
4. BCDA

## Solution :

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

- Statement B and A will come together as they are Question and Answer respectively.
- Statement C and D will come together as they are Question and Answer respectively as well.
- BA will be kept before CD.
- Now we have the final arrangement i.e. BACD.

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 23 :

Select the SYNONYM of the given word. PREVENT

## Options :

1. Allow
2. Construct
3. Avert
4. Provoke

## Solution :

The correct answer is option 3 i.e. Avert.
Let's have a look at the meaning of the given options-

1. Prevent- to stop something happening or to stop somebody from doing something.
2. Allow- to give permission for somebody/something to do something or for something to happen.
3. Construct- to build or make something.
4. Avert- to prevent something unpleasant.
5. Provoke- to cause a particular feeling or reaction.

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

## Question 24 :

Given below are four jumbled sentences. Select the option that gives their correct order. A. Eventually, she overcame adversities and achieved success. B. She engaged herself in 'earn while you learn', finance scheme in her college. C. She needed financial support to complete her graduation. D. Rama was a very poor girl.

## Options:

1. CBDA
2. ADCB
3. $A B C D$
4. DCBA

## Solution :

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

- Statement $\mathbf{D}$ is independent and introduces the character of the paragraph "Rama" hence, it will be the opening statement.
- Statement A will come at the end of the arrangement as it starts with "Eventually" which is a concluding adverb.

Statement C and B will come respectively between D and A.

- Now we have the final arrangement i.e. DCBA.

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 25

Select the SYNONYM of the given word. REVERE

Difficulty : Moderate
Options:

1. Condemn
2. Repeat
3. Enjoy
4. Respect

## Solution :

The correct answer is option 4 i.e. Respect.
Let's have a look at the meaning of the given options-

1. Revere- to feel great respect or admiration for somebody/something.
2. Condemn- to say strongly that you think somebody/something is very bad or wrong.
3. Repeat- to say, write or do something again or more than once.
4. Enjoy- to get pleasure from something.
5. Respect- the feeling that you have when you admire or have a high opinion of somebody/something.

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

## Question 26 :

Select the correct direct form of the given sentence. The teacher commanded the students not to shout.

## Options :

1. The teacher said to the students, "Don't shout."
2. The teacher said to the student, "You should not shout."
3. The teacher told to the students, "You must not shout."
4. The teacher says to the students, "Do not shout."

## Solution :

The correct answer is option 1 i.e. The teacher said to the students, "Don't shout."

- "Commanded" will be changed into, "said".
- "To" will be changed into "Inverted comma".
- "Not to" will be changed into "don't".

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

## Question 27 :

Select the most appropriate meaning of the given idiom. Dead heat

## Options :

1. A deadly blast of hot air
2. A strong heat wave
3. Close contest that ends in a tie
4. Strong opposition to one's ideas

## Solution :

The correct answer is option 3 i.e. Close contest that ends in a tie.
The meaning of the given idiom is-
Dead heat- the result of a race when two people, etc. finish at exactly the same time.
As the meaning of the given idiom is same as the chosen option it will be correct.

## Question 28 :

Select the most appropriate word to fill in the blank. The groom stood before the $\qquad$ for the wedding ceremony at
the church.

Difficulty : Moderate
Average Time : 52 Seconds

## Options

1. atlas
2. alter
3. altar
4. attic

## Solution :

The correct answer is option 3 i.e. altar.
Let's have a look at the meaning of the given options:-

1. altar- a high table that is the centre of a religious ceremony.
2. atlas- a book of maps.
3. alter- to make something different in some way, but without changing it completely; to become different.
4. attic- a space found directly below the pitched roof of a house or other building.

The meaning of the chosen word is related to "ceremony" hence, it will suit the statement.
The correct sentence will be-
The groom stood before the altar for the wedding ceremony at the church.

## Question 29 :

Select the most appropriate segment to substitute the underlined segment of the given sentence. If substitution is not required select 'no improvement'. The animal resembled with a cat.

## Options :

1. resembled by
2. resembled to
3. resembled
4. No improvement

## Solution :

The correct answer is option 3 i.e.resembled

- "Resembled" is a transitive verb and not followed by any preposition.
- Hence, the chosen option will be correct.

The correct sentence will be-
The animal resembled a cat.

## Question 30 :

Select one word for the following group of words. Morals that govern one's behaviour

## Options :

1. Ethics
2. Intuition
3. Psychology
4. Attitude

## Solution :

The correct answer is option 1 i.e. Ethics.
Let's have a look at the meaning of the given words-

1. Ethics- the study of what is right and wrong in human behaviour.
2. Intuition- the feeling or understanding that makes you believe or know that something is true without being able to explain why.
3. Psychology- the scientific study of the mind and behaviour.
4. Attitude- the way that you think, feel or behave.

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

## Question 31 :

Select the most appropriate word to fill in the blank. She $\qquad$ on paying the bill at the restaurant.

## Options:

1. requested
2. insisted
offered
3. suggested

## Solution :

The correct answer is option 2 i.e. insisted.
Let's have a look at the meaning of the given options:-

1. requested- to ask for something.
2. insisted- to say strongly that you must have or do something, or that somebody else must do something.
3. offered- to ask if somebody would like something or to give somebody the chance to have something.
4. suggested- to mention a plan or an idea that you have for somebody to discuss or consider.

As "she was saying strongly for paying the bill" the chosen option will be correct.
"Insisted" is followed by the preposition "ON" hence, the chosen option will suit the context of the statement.
The correct sentence will be-
She insisted on paying the bill at the restaurant.

## Question 32 :

In the sentence identify the segment which contains the grammatical error. Saraswati college has maintained its reputation as one of the best college in the country.

## Options:

1. Saraswati college has maintained
2. its reputation as
3. in the country
4. one of the best college

## Solution :

The correct answer is option 4 i.e. one of the best college.

1. The error lies in part 4 of the statement because of the wrong use of "Noun".
2. We need to replace "College" with "Colleges" for making the statement grammatically correct.

## Grammatical Concept:-

- "One of + plural noun" is the correct noun phrase.

According to the above phrase we need to use "colleges" at the place of "college".

- Hence, the chosen option will be correct.

The correct sentence will be-
Saraswati college has maintained its reputation as one of the best colleges in the country.

## Question 33 :

The Harshacharita is a biography of Harshavardhana, the ruler of Kannauj, composed in Sanskrit by his court poet,
$\qquad$ _.

## Options :

1. Banabhatta
2. Kamban
3. Dandin
4. Jinsena

## Solution :

The correct answer is Option 1 i.e. Banabhatta.

- The Harshacharita is a biography of Harshavardhana, the ruler of Kannauj, composed in Sanskrit by his court poet, Banabhatta.
- The work depicts the court and times of the Buddhist Emperor of northern India.
- It provides valuable information about the period of the Emperor.


## Question 34 :

According to the United Nations' World Economic Situation and Prospects Report, 2019, the Indian economy is expected to expand by $\qquad$ in 2020.

## Options :

1. $7.8 \%$
2. $7.2 \%$
3. $7.1 \%$
4. $7.6 \%$

## Solution :

The correct answer is Option 3 i.e 7.1\%

- According to the United Nations' World Economic Situation and Prospects Report 2019, the Indian economy is expected to expand by 7.1\% in 2020.
- The World Economic Situation and Prospects Report(WESP) report is produced annually by the UN Department of Economic and Social Affairs (DESA).
- It is the United Nations' flagship publication on expected trends in the global economy.


## Question 35 :

The major component of modern Olympic gold medals is $\qquad$ .

Difficulty : Moderate
Average Time : 47 Seconds

## Options:

1. Copper
2. Gold
3. Bronze
4. Silver

## Solution :

The correct answer is Option 4 i.e Silver

1. The Gold Medal is composed of at least $92.5 \%$ of silver, plated with 6 grams of gold.
2. Second place (the Silver medal): $92.5 \%$ silver.
3. Third place (the Bronze medal): It is $97.0 \%$ copper with $0.5 \%$ tin and $2.5 \%$ zinc.

## Question 36 :

Private ownership of the means of production is a feature of a $\qquad$ economy.

## Options:

1. Mixed

Socialist
3. Dual
4. Capitalist

## Solution :

The correct answer is Option 4 i.e. Capitalist.

1. Capitalism is defined as private ownership and control over the means of production, where the surplus product becomes a source of unearned income for its owners.

|  | A mixed economy is an economy <br> organized with some free-market <br> elements and some socialistic <br> elements, which lies on a <br> continuum somewhere between <br> pure capitalism and pure <br> socialism. |
| :--- | :--- |
| Economy | A socialist economy is a system <br> of production where goods and <br> services are produced directly for <br> use |
| Economy | A dual economy is the existence <br> of two separate economic sectors <br> within one country, divided by <br> different levels of development, <br> technology, and different patterns <br> of demand. |
| Dual |  |
| Economy |  |

## Question 37 :

Xerophthalmia is caused due to the deficiency of vitamin $\qquad$ .

## Options:

1. D
2. K

A
4. C

## Solution :

The correct answer is Option 3 i.e. A.

1. Xerophthalmia is a progressive eye disease caused by Vitamin A deficiency.
2. Lack of vitamin A can dry out your tear ducts and eyes.
3. Xerophthalmia can develop into night blindness or more serious damage to your cornea, the outer layer of your eye.

## Question 38 :

The Biraja Temple, the Rajarani Temple and the Samaleswari Temple are all located in $\qquad$ .

## Options :

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

## Solution :

The correct answer is Option 4 i.e Odisha

1. The Biraja Temple, the Rajarani Temple and the Samaleswari Temple are all located in Odisha.

| Temple | About them |
| :--- | :--- |
| Biraja Temple | Biraja Temple or Viraja <br> Kshetra is one of the ancient <br> Hindu temples located in the <br> Jajpur district of Odisha, India |
| Rajarani | The temple was built during <br> the later stages of the <br> Temple <br> Somavamsi rule in the 11th <br> century A.D. |


| Samaleswari <br> Temple | The Samaleswari temple is <br> situated in Sambalpur, Odisha |
| :--- | :--- |

## Question 39 :

In May 2019, the International Monetary Fund agreed to bail out $\qquad$ with a fund of $\$ 6$ billion.

Difficulty : Moderate
Average Time: 63 Seconds

## Options :

1. Bangladesh
2. Pakistan
3. India
4. Nepal

## Solution :

The correct answer is Option 2 i.e Pakistan

1. On July 3, 2019, the Executive Board of the International Monetary Fund (IMF) approved a 39-month extended arrangement under the Extended Fund Facility (EFF) for Pakistan for an amount of SDR 4,268 million (about US\$6 billion or 210 per cent of quota) to support the authorities' economic reform program.
2. Pakistan on Sunday reached an agreement with the IMF on a bailout package under which the cash-strapped country will receive $\$ 6$ billion over three years.
3. The agreement aims to support Pakistan's "strategy for stronger \& more inclusive growth by reducing domestic and external imbalances, removing impediments to growth, increasing transparency and strengthening social spending".

## Question 40 :

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Asia's largest wholesale spice market is located in $\qquad$ .

Difficulty : Moderate Average Time : 64 Seconds

## Options :

1. Ahmedabad
2. Bengaluru
3. Delhi
4. Kolkata

## Solution :

The correct answer is Option 3 i.e Delhi

1. Khari Baoli is a street in Delhi, India is known for its wholesale grocery and Asia's largest wholesale spice market selling a variety of spices, nuts, herbs and food products like rice and tea.
2. Operating since the 17th century, the market is situated near the historic Delhi Red Fort, on the Khari Baoli Road adjacent to Fatehpuri Masjid at the western end of the Chandni Chowk, and over the years has remained a tourist attraction, especially those in the heritage circuit of Old Delhi.

## Question 41 :

The Vedic Civilisation in India was flourished along the river $\qquad$ .

## Average Time : $\mathbf{5 4}$ Seconds

## Options:

1. Narmada
2. Saraswati
3. Tapti
4. Godavari

## Solution :

The correct answer is Option 2 i.e. Saraswati.

1. The Vedic civilization is the earliest civilization in the history of ancient India. It is named after the Vedas, the early literature of the Hindu people.
2. The Vedic Civilization flourished along the river Saraswati, in a region that now consists of the modern Indian states of Haryana and Punjab.

## Question 42 :

In the 4th century BCE, the capital of Magadha was shifted to $\qquad$ .

## Options :

1. Varanasi
2. Mathura
3. Pataliputra
4. Panipat

## Solution :

The correct answer is Option 3 i.e. Pataliputra.

- Magadha, ancient kingdom of India, situated in what is now west-central Bihar state, in northeastern India.
- It was the nucleus of several larger kingdoms or empires between the 6th century BCE and the 8th century CE
- Bimbisara was succeeded by his son Ajatashatru, who shifted the capital of Magadha from Girivraj to Pataliputra (modern Patna, Bihar).


## Question 43 :

The 14th Dalai Lama resides in $\qquad$ .

## Options

1. Shillong
2. Kalimpong
3. Gangtok
4. Dharamshala

## Solution :

The correct answer is Option 4 i.e Dharamshala.

- Dalai Lama resides in the city of Dharamshala which is a city in the Indian state of Himachal Pradesh.
- The 14th Dalai Lama is the current Dalai Lama, the highest spiritual leader of Tibet, and considered a living buddha.

The Dalai Lamas are also leaders of the Gelug school, which is the newest school of Tibetan Buddhism and was formally headed by the Ganden Tripas.

## Question 44 :

In April 2019, scientists in $\qquad$ produced the world's first 3D printed heart using human tissue.

Difficulty : Moderate
Average Time : 53 Seconds

## Options :

1. Israel
2. Ethiopia
3. Kenya
4. Croatia

## Solution :

The correct answer is Option 1 i.e Israel

- Israeli scientists create the world's first 3D-printed heart using human cells.
- The team created a cell-containing "bio-ink" and used it to 3D print the organ layer by layer.
- Israeli researchers have created an entire 3D-printed heart made from human cells in what they say is a world first.


## Question 45 :

Which of the following is NOT a folk dance belonging to the union territory of Jammu and Kashmir?

## Options :

1. Dhumal
2. Rauf
3. Hafiza
4. Dangi

## Solution :

The correct answer is Option 4 i.e Dangi

Dangi is not a folk dance belonging to the union territory of Jammu and Kashmir.

- The dangis are unique tribals a blend of Gujarati and Maharashtrian culture mixed harmoniously with original Dravidians.
- The dance performed by Dangis is called Dangi Nrutya.
- Men and women join hands forming a chain or shrinkala making serpentine movements with one of them leading.
\(\left.$$
\begin{array}{|l|l|}\hline \text { Dhumal } & \begin{array}{l}\text { - This dance form is of } \\
\text { devotional type and is } \\
\text { extremely among folk dances } \\
\text { of Jammu and Kashmir. } \\
\text { - It is famous for the vibrant } \\
\text { costumes along with a } \\
\text { decorative conical cap that } \\
\text { dancers wear. }\end{array}
$$ <br>
- Generally, this dance is <br>
performed by the males <br>

belonging to the tribe Wattal.\end{array}\right\}\)| - This is a springtime dance. |
| :--- |
| - This dance is performed by |
| the women community |
| wearing colourful costumes. |
| - This dance is practised |
| during the occasions of Eid |
| and Ramzan. |

## Question 46 :

Planetary scientists call the thin gaseous envelope around the Moon as the $\qquad$ .

Page No: 29

## Options :

1. lunar endosphere
2. lunar stratosphere
3. Iunar exosphere
4. lunar thermosphere

## Solution :

The correct answer is option 3 i.e. Lunar exosphere.

- Planetary scientists prefer to call the thin gaseous envelope around the Moon as the 'Lunar Exosphere' because it is so tenuous (having little substance or strength ) that the gas atoms very rarely collide with each other.
- While the Earth's atmosphere near the mean sea level contains $\sim 10^{19}$ atoms in a cubic centimeter of volume, the lunar exosphere contains $\sim 10^{4}$ to $10^{6}$ atoms in a cubic centimeter.
- Argon-40 ( $\left.{ }^{40} \mathrm{Ar}\right)$, which is one of the isotopes of the noble gas Argon, is an important constituent of the lunar exosphere.
- It originates from the radioactive disintegration of Potassium- $40\left({ }^{40} \mathrm{~K}\right)$, which has a half-life of $\sim 1.2 \times 10^{9}$ years.
- The radioactive ${ }^{40} \mathrm{~K}$ nuclide, which is present deep below the lunar surface, disintegrates to ${ }^{40} \mathrm{Ar}$, which, in turn, diffuses through the intergranular space and makes its way up to the lunar exosphere through seepages and faults.


## Question 47 :

Who is the President of the World Bank Group as of January 2020?

## Options:

1. Paul Wolfowitz
2. Robert Zoellick
3. David Malpass
4. Jim Yong Kim

## Solution :

The correct answer is Option 3 i.e David Malpass

- David Malpass is the President of the World Bank Group as of January 2020.
- David R. Malpass is selected as the 13th President of the World Bank Group by its Board of Executive Directors on

April 5, 2019.

- His five-year term began on April 9.


## Question 48 :

Lt. General $\qquad$ took charge as the Chief of Army Staff on 31 December 2019.

## Options :

1. Anil Chauhan
2. Ravendra Pal Singh
3. Bipin Rawat
4. Manoj Mukund Naravane

## Solution :

The correct answer is Option 4 i.e Manoj Mukund Naravane

- General Manoj Mukund Naravane takes charge as the Chief of Army Staff on 31 December 2019 succeeding General Bipin Rawat.
- Before taking charge as the Vice Chief of the Army Staff in September, Lt. Gen. Naravane was heading the Eastern Command of the Army, which takes care of India's nearly four - thousand kilometre long border with China.


## Question 49 :

Which article of the Indian Constitution forbids discrimination on the basis of birth place, sex, caste, race, or religion?

Difficulty : Moderate

## Options :

1. Article 25
2. Article 23
3. Article 15
4. Article 19

## Solution :

The correct answer is Option 3 i.e Article 15

## Article 15 states:

1.The State is not allowed to discriminate against any of its citizens based only on their religion, race, caste, sex, place of birth, or any combination of these.
2. No citizen shall be subject to any disability, liability, restriction, or condition regarding; on the basis of religion, race, caste, sex, or any combination of these factors alone.
a. Access to stores, eateries open to the public, hotels, and entertainment complexes; or
b. The utilisation of wells, tanks, bathing ghats, highways, and public resorts that are totally or partially maintained with state funds or intended for use by the general public

## Question 50 :

Who among the following is an Indian Olympic archer and Padma Shri winner?

## Options :

1. Balbir Singh Dosanjh
2. Limba Ram
3. Kidambi Srikanth
4. Bajrang Punia

## Solution :

The correct answer is option 2 i.e. Limba Ram.

- Limba Ram is an Indian archer who represented India in international competitions, including three Olympics.
- He equalled an archery world record in 1992 at the Asian Archery Championships in Beijing.
- He was awarded the Padma Shri Award in 2012.


## Question 51 :

The value of $(7-[4+3(2-2 \times 2+5)-8] \div 5) /[(2 \div 2)$ of $(4+4 \div 4$ of 4$)]$ is:

## Options:

1. $38 \frac{3}{8}$
2. 26
3. 24

## Solution :

The correct answer is Option 3 i.e $38 \frac{3}{8}$

| Understanding/Application |
| :--- |
| $=(7-[4+3(2-2 \times 2+5)-8] \div 5) /([2 \div 2)$ of |
| $(4+4 \div 4$ of 4$)]$ |
| $=(7-[4+3(2-4+5)-8] \div 5) /[(2 \div 2)$ of $(4+$ |
| $4 \div 16)]$ |
| $=(7-[4+3(3)-8] \div 5) /[(2 \div 2) \times(4+1 / 4)]$ |
| $=[(7-5) \div 5] /(2 \div 2) \times(17 / 4)]$ |
| $=(7-1) /(2 \div 17 / 2)$ |

$=6 /(2 \times 2 / 17)$
$=51 / 2$
$=38 \frac{3}{8}$

## Question 52 :

What is the compound interest on a sum of Rs.12,000 for $21 / 8$ years at $8 \%$ p.a. When the interest is compounded annually? (nearest to a rupee)

## Options:

1. Rs. 2,712
2. Rs.2,642
3. Rs.2,697
4. Rs.2,654

## Solution :

The correct answer is Option 3 i.e Rs.2,697.

| Understanding/Application |
| :--- |
| Time $=21 / 8$ years $=2+5 / 8$ years |
| We can find the interest for the first $5 / 8$ years |
| by simple interest. |
| S.I. $=(P \times R \times T) / 100$ |
| $P=R s .12,000$ |
| $R=8 \%$ |
| S.I $=(12000 \times 8 \times 5 / 8) / 100=$ Rs. 600 |
| P $=12000+600=R s .12,600$ |
| C.I $=p(1+r / 100)^{t}-p$ |
| C.I $=12600(1+8 / 100)^{2}-12600$ |
| C.I $=(12600 \times 108 / 100 \times 108 / 100)-12600$ |
| C.I $=14696.64-12600$ |
| C.I. $=2096.642097$ |
| Total interest $=2097+600=R s .2697$ |

## Question 53 :

If $\sec -\tan =\mathrm{x} / \mathrm{y},(0 \times \mathrm{y})$ and 00 om , then $\sin$ is equal to:

## Options :

1. $\left(x^{2}+y^{2}\right) /(2 x y)$
2. $(2 x y) /\left(x^{2}+y^{2}\right)$
3. $\left(y^{2}-x^{2}\right) /\left(x^{2}+y^{2}\right)$
4. $\left(x^{2}+y^{2}\right) /\left(y^{2}-x^{2}\right)$

## Solution :

The correct answer is Option 3 i.e $\left(y^{2}-x^{2}\right) /\left(x^{2}+y^{2}\right)$

| Understanding/Application |
| :---: |
| $\sec -\tan =x / y \ldots(1$ |
| $1 / \mathrm{sec}-\tan =\mathrm{y} / \mathrm{x}$ |
| $\left(\sec ^{2}-\tan ^{2}\right) /$ sec $-\tan =y / x$ |
| $\{(\mathrm{sec}-\tan )(\mathrm{sec}+\tan )\} / \mathrm{sec}-\tan =\mathrm{y} / \mathrm{x}$ |
| $\sec +\tan =\mathrm{y} / \mathrm{x}$....(2 |
| Adding eq 1 and 2 - |
| sec - tan $+\sec +\tan =x / y+y / x$ |
| $2 \mathrm{sec}=\left(\mathrm{x}^{2}+\mathrm{y}^{2}\right) /(\mathrm{xy})$ |
| sec $=\left(x^{2}+y^{2}\right) / 2 x y$ |
| $\cos =2 x y /\left(x^{2}+y^{2}\right)$ |
| $b=2 x y$ |
| $h=\left(x^{2}+y^{2}\right)$ |
| Using Pyth. theorem - |
| $p^{2}+b^{2}=h^{2}$ |
| $p^{2}+(2 x y)^{2}=\left(x^{2}+y^{2}\right)^{2}$ |
| $p^{2}=x^{4}+y^{4}+2 x^{2} y^{2}-4 x^{2} y^{2}$ |
| $p^{2}=x^{4}+y^{4}-2 x^{2} y^{2}$ |
| $p^{2}=\left(x^{2}-y^{2}\right)^{2}$ |
| $p=x^{2}-y^{2}=y^{2}-x^{2}$ |
| $\sin =p / h=\left(y^{2}-x^{2}\right) /\left(x^{2}+y^{2}\right)$ |

## Question 54 :

The value of $(\tan 30 \mathrm{ocosec} 60 \mathrm{o}+\tan 60 \mathrm{osec} 30 \mathrm{o}) /(\sin 230 \mathrm{o}+4 \cot 2450-\sec 260 \mathrm{o})$ is:

## Options:

2. $32 / 99$
3. $32 / 3$
4. $2 / 3$

## Solution :

The correct answer is Option 3 i.e 32/3.

$$
\begin{aligned}
& \text { Understanding/Application } \\
& \hline=\left(\tan 30^{\circ} \operatorname{cosec} 60^{\circ}+\tan 60^{\circ} \sec 30^{\circ}\right) /(s \\
& \left.+4 \cot ^{2} 45^{\circ}-\sec ^{2} 60^{\circ}\right) \\
& \text { Putting the values - } \\
& =(1 \wedge(\{\backslash \operatorname{sqrt}\{3\}\}\rangle) \times 2 \wedge(\{\backslash \operatorname{sqrt\{ 3\} }\} \backslash)+\backslash(( \} \\
& \}\rangle) \times 2 \wedge(\{\backslash \operatorname{sqrt}\{3\}\}\rangle)) /\left(1 / 2^{2}+4 \times 1-2^{2}\right) \\
& \hline=(2 / 3+2) /(1 / 4+4-4) \\
& =(8 / 3) /(1 / 4) \\
& =32 / 3
\end{aligned}
$$

$$
=\left(\tan 30^{\circ} \operatorname{cosec} 60^{\circ}+\tan 60^{\circ} \sec 30^{\circ}\right) /\left(\sin ^{2} 30^{\circ}\right.
$$

$$
=(1 \wedge(\{\backslash \operatorname{sqrt}\{3\}\} \mid) \times 2 \wedge((\{\mid s q r t\{3\}\} \mid)+\backslash(\{\backslash \text { sqrt }\{3\}
$$

## Question 55 :

The given table represents the number of computers sold by four dealers A, B, C and D during the first six months of 2016. Study the table carefully and answer the question that follows. Dealer A B C D Month January 1029295107 February 9496104106 March 859410090 April 108979996 May 9810210089 June 951081029 What is the ratio of the total number of computers sold by dealer A in February, April and May to the total number of computers sold by dealer D in March, May and June?

## Options:

1. $6: 5$
2. $20: 27$
3. $15: 13$
4. $10: 9$

## Solution :

The correct answer is Option 4 i.e $10: 9$.

| Understanding/Application |
| :--- |
| Total number of computers sold by dealer A in <br> February, March, and April $=(94+108+98)$ <br> $=300$ <br> Total number of computers sold by dealer D in <br> March, May, and June $=(90+89+91)=270$ <br> Thus, the ratio will be - <br> $=$ Total number of computers sold by dealer A <br> in February, March, and April $:$ Total number <br> of computers sold by dealer D in March, May, <br> and June <br> $=300: 270$ <br> $=10: 9$ |

## Question 56 :

A trader allows a discount of $18 \%$ on the marked price of an article. How much percentage above the cost price must he mark it so as to get a profit of $6.6 \%$ ?

## Options :

1. 30
2. 24
3. 25
4. 28

## Solution :

The correct answer is Option 1 i.e 30.

## Understanding/Application

```
Let the cost price be Rs. 100
Profit \(=6.6 \%\)
Selling price \(=100+6.6=\) Rs. 106.6
Discount \(=18 \%\)
Let the marked price be \(100 \%\)
Selling price \(=100-18=82 \%\)
\(106.6=82 \%\)
\(100 \%\) marked price \(=(106.6 \times 100) / 82=130\)
Percentage above cost price he must mark \(=\)
[(130-100) \(\times 100] / 100=30 \%\)
```


## Question 57 :

The circumference of the base of a conical tent is 66 m . If the height of the tent is 36 m , what is the area (in m 2 ) of the canvas used in making the tent? (Take $=22 / 7$ )

## Options :

1. 1171.5
2. 1155
3. 1237.5
4. 1254

## Solution :

The correct answer is Option 3 i.e 1237.5.

## Understanding/Application

The circumference of the base of a conical
tent $=66 \mathrm{~m}$
$2 \mathrm{r}=66$
$\mathrm{r}=33 /(22 / 7)=21 / 2 \mathrm{~m}$
$\mathrm{~h}=36 \mathrm{~m}$
$\mathrm{I}=\mathrm{r}^{2}+\mathrm{h}^{2}$
$\mathrm{I}=(21 / 2)^{2}+36^{2}$
$\mathrm{I}=(441 / 4)+1296$
$=75 / 2=37.5 \mathrm{~m}$
Area $=\mathrm{rl}=(22 / 7) \times(21 / 2) \times 37.5=1237.5 \mathrm{~m}^{2}$

## Question 58 :

A boat can go 3 km upstream and 5 km downstream in 55 minutes. It can also go 4 km upstream and 9 km downstream in 1 hours 25 minutes. In how much time (in hours) will it go 43.2 km downstream?

## Options :

1. 4.8
2. 4.4
3. 3.6
4. 5.4

## Solution :

The correct answer is Option 3 i.e 3.6.

## Understanding/Application

```
Let the speed of the boat in still water be x
and the speed of the stream be y.
Downstream speed = (x+y)
Upstream speed = (x-y)
3/(x-y)+5/(x+y)=55/60=11/12
let, 1/(x-y) = b and 1/(x+y) = a
5a +3b = 11/12
60a+36b = 11
4b+9a=85/60=17/12
48b + 108a = 17
Multiply equation 1 by 4 and equation 2 by 3 -
\(240 a+144 b=44\)
\(324 a+144 b=51\)
subtracting eq (4) and eq(3) -
\(84 a=7\)
\(a=1 / 12\)
\(b=2 / 12=1 / 6\)
\(x+y=12\)
\(x-y=6\)
\(\mathrm{x}=9 \mathrm{~km} / \mathrm{h}\)
\(y=3 \mathrm{~km} / \mathrm{h}\)
Time taken to go 43.2 km downstream \(=43.2\) \(/ 12=3.6\) hours
```


## Question 59 :

If $a+b+c=11, a b+b c+c a=3$ and $a b c=-135$, then what is the value of $a 3+b 3+c 3 ?$

Options:

1. 925
2. 827
3. 929
4. 823

## Solution :

The correct answer is Option 2 i.e 827.

| Understanding/Application |
| :--- |
| $a^{3}+b^{3}+c^{3}$ |
| $=(a+b+c)\left[\left(a^{2}+b^{2}+c^{2}\right)-3(a b+b c+a c)\right]+$ |
| $3 a b c$ |
| $=(11)\left[(11)^{2}-3(3)\right]+3 \times(-135)$ |
| $=(11)[112]-405$ |
| $=1132-405$ |
| $=827$ |

Question 60 :
If $5 x+(1 / 3 x)=4$, then what is the value of $9 \times 2+(1 / 25 \times 2)$ ?

Options :

1. 174/125
2. $114 / 25$
3. $119 / 25$
4. $144 / 125$

## Solution :

The correct answer is Option 2 i.e 114/25.
Understanding/Application
$5 x+(1 / 3 x)=4$
Multiplying both sides by $3 / 5$
$3 x+(1 / 5 x)=12 / 5$

Squaring both sides -
$\{3 x+(1 / 5 x)\}^{2}=(12 / 5)^{2}$
$9 x^{2}+1 / 25 x^{2}+6 / 5=(144 / 25)$
$9 x^{2}+1 / 25 x^{2}=(144 / 25)-(6 / 5)$
$9 x^{2}+1 / 25 x^{2}=114 / 25$

## Question 61 :

The given table represents are the number of computers sold by four dealers $A, B, C$ and $D$ during the first six months of 2016. Study the table carefully and answer the question that follows. Dealer A B C D Month January 1029295107 February 9496104106 March 859410090 April 108979996 May 9810210089 June 9510810291 The total number of computers sold by dealer B in April, May and June is what percentage of the total number of computers sold by all the dealers in February and April?

## Options :

1. $38 \frac{3}{8}$
2. $38 \frac{3}{8}$
3. $38 \frac{3}{8}$
4. $38 \frac{3}{8}$

## Solution :

The correct answer is Option 1 i.e $38 \frac{3}{8}$

## Understanding/Application

[^0]
## Question 62 :

$A B C D$ is a cyclic quadrilateral in which $A B=16.5 \mathrm{~cm}, B C=x \mathrm{~cm}, C D=11 \mathrm{~cm}, A D=19.8 \mathrm{~cm}$, and $B D$ is bisected by $A C$ at $O$. What is the value of $x$ ?

## Options :

1. 12.4 cm
2. 12.8 cm
3. 13.2 cm
4. 13.8 cm

## Solution :

The correct answer is Option 3 i.e 13.2 cm.

## Understanding/Application

ABCD is a cyclic quadrilateral.
length of $A B=16.5 \mathrm{~cm}$
Length of $C D=11 \mathrm{~cm}$
Length of $A D=19.8 \mathrm{~cm}$
For this cyclic quadrilateral, ratio of the area of
ABC to the area of $A C D$ will be equal to the
ratio of the length of $O B$ to the length of $O D$.
so, Area of $A B C / A$ rea of $A C D=O B / O D$
Since $O B=O D$
$(1 / 2 \times 16.5 \times X) /(1 / 2 \times 19.8 \times 11)=1$
$X=(19.8 \times 11) / 16.5$
$X=13.2 \mathrm{~cm}$

Question 63 :
On simplification, $(x 3-y 3) /[x(x+y) 2-3 x y] \div[y(x-y) 2+3 x y] /(x 3+y 3) \times(x+y) 2-(x-y) 2 /(x 2-y 2)$ is equal to:

Difficulty : Moderate

## Options :

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

## Solution :

The correct answer is Option 3 i.e 4.

## Understanding/Application

```
\(=\left(x^{3}-y^{3}\right) /\left[x(x+y)^{2}-3 x y\right] \div\left[y(x-y)^{2}+3 x y\right] /(x\)
\(\left.{ }^{3}+y^{3}\right) \times\left[\left\{(x+y)^{2}-(x-y)^{2}\right\} /\left(x^{2}-y^{2}\right)\right]\)
\(=\left(x^{3}-y^{3}\right) /\left[x(x+y)^{2}-3 x y\right] \times\left[\left(x^{3}+y^{3}\right) /\left\{y(x-y)^{2}\right.\right.\)
\(+3 x y\}] \times\left[\left\{(x+y)^{2}-(x-y)^{2}\right\} /\left(x^{2}-y^{2}\right)\right]\)
\(=\left\{(x-y)\left(x^{2}+x y+y^{2}\right)\right\} /\left[x(x+y)^{2}-3 x y\right] \times[\{(x\)
\(\left.\left.+y)\left(x^{2}-x y+y^{2}\right)\right\} /\left\{y(x-y)^{2}+3 x y\right\}\right] \times\left[\left\{\left(x^{2}+\right.\right.\right.\)
\(\left.\left.\left.2 x y+y^{2}\right)-\left(x^{2}-2 x y+y^{2}\right)\right\} /(x+y)(x-y)\right]\)
\(=\left[\left(x^{2}+y^{2}+x y\right) /\left\{x\left(x^{2}-x y+y^{2}\right\}\right] \times\left[\left(x^{2}+y^{2}-\right.\right.\right.\)
\(x y) /\left\{y\left(x^{2}+y^{2}+x y\right\}\right] \times 4 x y\)
\(=4\)
```


## Question 64 :

If $5 \sin 2+14 \cos =13,00 \quad 90$ o, then what is the value of $(\sec +\cot ) /(\operatorname{cosec}+\tan ) ?$

## Options :

1. $32 / 27$
2. $21 / 28$
3. $31 / 29$
4. $9 / 8$

## Solution :

The correct answer is Option 3 i.e 31/29.

## Understanding/Application

```
\(5 \sin ^{2}+14 \cos =13\)
\(5\left(1-\cos ^{2}\right)+14 \cos\)
\(-5 \cos ^{2}+14 \cos =8\)
\(5 \cos ^{2}-10 \cos -4 \cos +8=0\)
\(5 \cos (\cos -2)-4(\cos -2)=0\)
\((5 \cos -4)(\cos -2)=0\)
(cos-2) \(=0\) (It is not possible)
For \(0^{0} \quad 90^{0}\)
\((5 \cos -4)=0\)
\(\cos =4 / 5\)
by triplet, 3-4-5
\(\sin =3 / 5\)
\(\cos =1 / \mathrm{sec}\)
\(\sin =1 / \operatorname{cosec}\)
cot \(=\cos / \mathrm{sin}\)
\(\tan =\sin / \mathrm{cos}\)
\(=(\sec +\cot ) /(\operatorname{cosec}+\tan )\)
\(=(5 / 4+4 / 3) /(5 / 3+3 / 4)\)
\(=(31 / 12) /(29 / 12)\)
\(=31 / 29\)
```


## Question 65 :

How many triangles are present in the given figure?

## Options:

1. 28
2. 22
3. 30

## Solution :

The correct answer is option 3 i.e 22.

| Understanding |
| :--- |
| Numer of triangles in upper half part = Number of |
| triangles in lower half part (Upper half and lower |
| half parts are identical) |
| Upper half ABD; CBD; ACD; ADE; CDF; EDF; |
| AEF; ACF; AEC; CFE; |
| EGF; FGI; HGI; EGH; GJ; GHJ; EHI; EFI; HEF; HIF |
| There are 2 more triangles: AFH; CEI |
| Thus, total number of triangles = 22 |

## Question 66 :

A recent survey of married couples in Indian metro cities showed that 20\% of the couples have only one child, $45 \%$ of the remaining couples have two children, and the rest of the couples have three or more children. What is the percentage of couples with three or more children?

## Options :

1. $35 \%$
2. $44 \%$

42\%
4. $56 \%$

## Solution :

The correct answer is option 2 i.e 44\%.

| Understanding |
| :--- |
| Let the total couple be 100 |
| Couple with one child $=20$ |
| Remaining couples $=100-20=80$ |
| Couple with two children $=45 \%$ of the |
| remaining $=(45 / 100) \times 80=36$ |
| Couples with three or more children $=80-36$ |
| $=44 \%$. |
| Hence, $44 \%$ is the correct answer. |

## Question 67 :

Select the correct combination of mathematical signs to sequentially replace the * signs, to balance the following equation. (12 * 7 * 6) * 13 * 6

## Options :

1. $-, \div, x,=$
2. $\times,-, \div,=$
3. $\div--,=, x$
4. $\times,=, \div,-$

## Solution :

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

Let's check each option:
Option 1:-, $\div, \times,=$
$(12-7 \div 6) \times 13=6$
140.8336

Option 2: $\times,-, \div,=$
$(12 \times 7-6) \div 13=6$
$6=6$
Option 3: $\div,-,=, \times$
$(12 \div 7-6)=13 \times 6$
$-4.2878$
Option 4: $\times,=, \div$,
$(12 \times 7=6) \div 13-6$
Not applicable
Hence, option 2 is correct answer.

## Question 68 :

Select the option that is related to the third word in the same way as the second word is related to the first word. Jackal :
Howl : : Rain :?

## Options :

1. Patter
2. Drops
3. Hustle
4. Thunder

## Solution :

The correct answer is option 1 i.e Patter.

| Understanding | Application |
| :--- | :--- |
|  | Similarly, |
| "Howl" is the sound |  |
| made by Jackal. | Patter is the <br> sound that is made by <br> the raindrops. |

## Question 69 :

Select the set of the letters that when sequentially placed in the blanks of the given letter series will complete the series.
SWWS WWWS SWWWW SSS

Difficulty : Moderate
Average Time : 59 Seconds

## Options :

1. W, S, S, S
2. W, S, W, S
3. W, W, S, S
4. W, S, S, W

## Solution :

The correct answer is option 1 i.e W, S, S, S.

| Understanding | Application |
| :--- | :--- |
|  | The complete <br> series is as <br> follows: |
| The given sequence is - |  |
| _swws_wwws_swwww_sss | $\mathbf{w} / \mathrm{s} / \mathrm{ww} / \mathrm{s}$ |
| $\mathbf{s} / \mathrm{www} / \mathrm{sss}$ |  |
| We need to fill it with the help |  |
| / wwww / ssss |  |
| of options and then check the |  |
| pattern. |  | | Hence, W, $\mathbf{s}$, |
| :--- |
| $\mathbf{S}, \mathbf{S}$ will be in |
| blank spaces. |

## Question 70 :

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

## Options :

1. 196
2. 169
3. 200
4. 199

## Solution :

The correct answer is Option 4 i.e 199

| Understanding | Application |
| :--- | :--- |
| The logic used here <br> is; |  |
| In the first column: | Similarly; |
| $7^{2}+4=49+4=53$ | In the third column: |
| In the second column: | 199 |
| $192+6=196+3=$ |  |
| 127 | Hence 199 is correct. |

## Question 71 :

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

## Options :

1. 


2.

3.

4.


Solution :
The correct answer is option 2

| Understanding |
| :--- |
| When the paper is unfolded there will be four |
| triangles but will be in the opposite fashion. |
| When the paper is unfolded it appears as |
| shown below: |
| \#PaVMAlCOM |

## Question 72 :

In a certain code language, LARVAE is coded as 15-1-9-5-1-2. How will INSECT be coded as in that language?

## Options :

1. $3-13-8-2-24-7$
2. 18-13-8-2-24-7
3. $3-13-8-2-24-8$

## Solution :

The correct answer is option 1 i.e 3-13-8-2-24-7

| Understanding | Application |
| :--- | :--- |
| The logic used here is: | Thus, the code |
| Vowels are coded as | for the word <br> A 1, E 2, I 3, O 4, U 5 |
| INSECT will be: |  |
| And the consonants are |  |
| replaced by reverse |  |
| positional values (B-25, C | I 3 |
| -24 and so on) | S 8 |
| L 15 | E 2 |
| A 1 | C 24 |
| R 9 | T 7 |
| V 5 | Hence, the |
| A 1 |  |
| E 2 | 3-13-8-2-24-7. |

Question 73 :
Select the letter-cluster that can replace the question mark (?) in the following series. DAC, GWH, JSM, MOR, ?

Difficulty : Moderate
Average Time: 79 Seconds

## Options:

1. PJV
2. QKV
3. PKW
4. QJW

## Solution :

The correct answer is option 3 i.e PKW.

| Understanding |
| :--- |
| The logic used here is: |
| $(D+3=G ; A-4=W ; C+5=H)$ |
| $(G+3=J ; W-4=S ; H+5=M)$ |
| $(J+3=M ; S-4=O ; M+5=R)$ |
| $(M+3=P ; \mathbf{O - 4}=\mathbf{K} ; \mathbf{R}+5=W)$ |
| Hence, PKW is the next term in the series. |

## Question 74 :

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

## Options :

1. Burrow: Hare
2. Sty : Dog
3. Eyrie : Bear
4. Stable : cow

## Solution :

The correct answer is option 1 i.e Burrow: Hare.

| Understanding | Application |
| :---: | :--- |
| Bees live in hives. | Similarly, <br>  Hare lives in a burrow. |

## Question 75 :

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

## Options :

2. 


3.

4.


## Solution :

The correct answer is option 1


## Question 76 :

Arrange the following words in the order in which they appear in an English dictionary. 1. Gemlike 2. Geminate 3. Gemmier 4. Geminal 5. Gemini

## Options :

1. $4,2,5,1,3$
$4,3,2,1,5$
2. $4,5,2,1,3$
3. $3,5,4,1,2$

## Solution :

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

## Understanding

In this question, you need to arrange the words in the correct dictionary order.

So according to the dictionary, the
arrangement is;

1. Geminal
2. Geminate
3. Gemini
4. Gemlike
5. Gemmier

## Question 77 :

Arsh is Shivam's father and Dhruv is the son of Bimla. Eshwar is the father of Arsh. If Shivam is the brother of Dhruv, how is Bimla related to Eshwar?

## Options :

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

## Solution :

The correct answer is option 1 i.e Daughter-in-law.

| Understanding | Application |
| :--- | :--- |
| In the diagram shown; <br> Square shows males, the <br> circle shows females, vertical <br> lines show generations, single <br> horizontal lines show brother <br> or sisters and double lines <br> shows a couple. | Thus <br> considering <br> the <br> figure, Bimla <br> is the <br> daughter-in- <br> law <br> of Eshwar. <br> Considering <br> all the four <br> options the <br> most <br> appropriate is <br> option 1. |
| Arshwar |  |

## Question 78 :

In a certain code language, STRAIGHT is written as TSARGITH. How will THURSDAY be written as in that language?

Difficulty : Moderate
Average Time : 63 Seconds

## Options :

1. HTRUDSYA
2. HTRUDSAY
3. AYSDURTH
4. UHTDRSYA

## Solution :

The correct answer is option 1 i.e HTRUDSYA.

## Understanding

Application

| The logic used here | Thus, the code for the word THURSDAY will be: |
| :---: | :---: |
|  |  |
|  | Hence, the correct answer is HTRUDSYA. |

## Question 79 :

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

## Options :

1. TSR
2. NML
3. FGH
4. YXW

## Solution :

The correct answer is option 3 i.e FGH

| Understanding |
| :--- |
| Except for FGH. the remaining letter-clusters |
| are in decreasing order of their positional |
| values in English Alphabetical Series. |

## Question 80 :

Select the box that CANNOT be formed by folding the given unfolded box.

## Options :

1. 


2.

3.

4.


## Solution :

The correct answer is Option 1

| Understanding |
| :--- |
| From the unfolded box, |
| The opposite side of $\mathrm{a}=\mathrm{c}$ |
| The opposite side of $\mathrm{f}=\mathrm{d}$ |
| The opposite side of $\mathrm{b}=\mathrm{e}$ |
| In a dice formation, no two opposite sides |
| should be adjacent to each other. |
| In option 1 b and e are shown adjacent to |
| each other. |
| Hence, option 1 is the correct answer. |

## Question 81 :

Select the option in which the numbers are related in the same way as are the given set. (109, 114, 139)

Difficulty : Moderate
Average Time : 76 Seconds
Options :

1. $(313,318,343)$
2. $(268,302,237)$
3. $(418,424,439)$
4. $(579,534,549)$

## Solution :

The correct answer is option 1 i.e ( $313,318,343$ ).

| Understanding | Application |
| :--- | :--- |
| $(109,114,139)$ | Similarly, |
| $109+5=114$ | $(313,318,343)$ |
| $114+5^{2}=139$ | $313+5=318$ |
|  | $318+5^{2}=343$ |

## Question 82 :

Select the number that can replace the question mark (?) in the following series. 17, 20, 15, 22, 13, ?

## Options:

1. 2
2. 4
3. 24
4. 22

## Solution :

The correct answer is option 3 i.e 24.
Understanding

Given series: $17,20,15,22,13$, ?
The logic used here is :
$17+3=20$
20-5 = 15
$15+7=22$
$22-9=13$
$13+11=24$
Hence, $\mathbf{2 4}$ is the next term in the series.

## Question 83 :

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

Difficulty : Moderate

## Options :

1. Virtue
2. Righteousness
3. Probity
4. Conduct

## Solution :

The correct answer is option 4 i.e Conduct.

| Understanding |
| :--- |
| Virtue, Righteousness and Probity all have the |
| same meaning i.e. behaviour showing high |
| moral standards. |
| Hence, Conduct is here the odd one out. |

## Question 84 :

The given Venn diagram represents artists in a circus: The triangle represents clowns, the circle represents acrobats, the rectangle represents males and the square represents ringmasters. The numbers given in the diagram represent the number of persons in that particular category. How many male clowns are also ringmasters, but NOT acrobats?

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Average Time : 57 Seconds

## Options :

1. 17
2. 5
3. 11
4. 15

## Solution :

The correct answer is option 1 i.e 17.

| Understanding |
| :--- |
| The number of male clowns who are also <br> ringmasters $=17$. |
| These 17 males are not acrobats. |
| So, the number of male clowns who are also <br> ringmasters, but NOT acrobats are 17. |

## Question 85 :

Select the option that is related to the third number in the same way as the second number is related to the first number and the sixth number is related to the fifth number. 52 : 221 :: $20: ?:: 64$ : 272

## Options:

1. 255
2. 170
3. 85
4. 84

## Solution :

The correct answer is option 3 i.e 85.

| Understanding | Application |
| :---: | :---: |


| The logic here is; |  |
| :--- | :--- |
| $52 * 4+(52 / 4)=208+$ | Similarly, |
| $13=221$ | $20 * 4+(20 / 4)=$ |
| $64 * 4+(64 / 4)=256+$ | $80+5=85$ |
| $16=272$ |  |

## Question 86 :

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

## Options :

1. 


2.

3.

4.


## Solution :

The correct answer is option 3
Understanding

|  |  |
| :--- | :--- |
| The movement of |  |
| the signs are as |  |
| described below: |  |
| Bottom Right |  |
| Bottom Left (with |  |
| change of sign) |  |
| Bottom Left Top | Hence, following this <br> Right |
| Togic, the next image in |  |
| the series should be |  |
| option figure 3. |  |

## Question 87 :

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: 1. Some cars are rockets. 2. All rockets are engines. Conclusions: I. Some engines are rockets. II. Some engines are cars.

## Options:

1. Both conclusions I and II follow.
2. Only conclusion II follows.
3. Only conclusion I follows.
4. Neither conclusion I nor II follows.

## Solution :

The correct answer is option 1 i.e Both conclusions I and II follow.

## Understanding

The least possible Venn Diagram for the given
statements is drawn below:
Conclusions:
I. Some engines are rockets True (All rockets
are part of engines, so some engines are
definitely rockets).
II. Some engines are cars True (Some
rockets are cars and all rockets are engines,
so some engines are cars is true).
Hence, Both Conclusion I and II follows.

## Question 88 :

Which of the option figures is the exact mirror image of the given figure when the mirror is held at the right side?

## Options :

1. 


2. \#PaV\$ArK@ ©
3. \#PaV\$ArK@ @ (DTA民VGG\#
4. \#PaV\$ArK@ (D)/TARVGG\#

## Solution :

The correct answer is option 3 i.e
 Understanding

The mirror image of the question figure is shown below:

## \#PaV\$ArK@念@ $\mathrm{N}_{1} A \not \subset \mathrm{~V}_{\text {s }}$ \#

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 89 :

Which two signs should be interchanged to make the given equation correct? $225+5 \times 3 \div 5-7=133$

Difficulty : Moderate

## Options :

1.     - and $\div$
2.     - and $x$
3.     + and $x$
4.     + and $\div$

## Solution :

The correct answer is option 4 i.e + and $\div$.

```
Let's check each options:
Option 1: - and \div
225+5\times3\div5-7=133
225+5\times3-5\div7
239.28 133
Option 2: - and ×
225+5\times3\div5-7=133
225+5-3\div5 x 7
225.8 133
Option 3: + and x
225+5\times3\div5-7=133
225\times5+3\div5-7
1118.6 133
Option 4: + and %
225+5 * 3 - 5-7=133
225\div5\times3+5-7
133=133
Hence, Option 4 is the correct answer.
```


## Question 90 :

```
A person buys 5 tables and 9 chairs for Rs. 15,400 . He sells the tables at \(10 \%\) profit and chairs at \(20 \%\) profit. If his total profit on selling all the tables and chairs is Rs.2,080, what is the cost price of 3 chairs?
```


## Options :

1. Rs, 1,890
2. Rs. 1,800
3. Rs. 1,740

Rs.1,860

## Solution :

The correct answer is Option 2 i.e Rs.1,800.

## Understanding/Application

Let the cost price of one table and one chair be Rs. $x$ and Rs. y respectively.
$5 x+9 y=15400 \quad . . .1$
According to the question
$5 x \times(10 / 100)+9 y \times(20 / 100)=2080$
$5 x / 10+18 y / 10=2080$
$5 x+18 y=20800 \quad . . .2$

Subtract equation (1) from equation (2).
$9 y=5400$
$3 y=1800$
Cost of 3 chairs are Rs. 1,800.

## Question 91 :

In $A B C, A=900, M$ is the midpoint of $B C$ and $D$ is a point on $B C$ such that $A D B C$. If $A B=7 \mathrm{~cm}$ and $A C=24 \mathrm{~cm}$, then $A D$ : AM is equal to:

## Options:

1. $336: 625$
2. $24: 25$
3. $32: 43$
4. $168: 275$

## Solution :

The correct answer is Option 1 i.e 336 : 625.

## Understanding/Application

By triplet 7-24-25

$B C=25 \mathrm{~cm}$
$M$ is the mid-point of $B C$ so,
$B M=B C / 2=25 / 2=12.5 \mathrm{~cm}$
By property,
$A M=B M=12.5 \mathrm{~cm}$

AD BC
So, Triangles ADC and BAC are similar:
So,
$B C / A C=A B / A D$
$B C \times A D=A C \times A B$
$25 \times \mathrm{AD}=7 \times 24$
$A D=168 / 25=6.72$
Hence,
$A D: A M=6.72: 12.5=336: 625$

## Question 92 :

Sonu saves $15 \%$ of her income. If her income increase by $20 \%$ and she still saves the same amount as before, then what is the percentage increase in her expenditure? (correct to one decimal place).

## Options :

1. 24.2
2. 23.8
3. 22.8
4. 23.5

## Solution :

The correct answer is Option 4 i.e 23.5.

## Understanding/Application

Let income $=100$
Current savings given $=15$
So, current expenses $=85$
given that income increases by $20 \%$
new income $=100+20 \%=120$
savings remain same $=15$
New expenses $=120-15=105$

Percentage increase $=[(105-85) \times 100] / 85$
= 400/17
= $23.5 \%$

## Question 93 :

When 732 is divided by a positive integer x , the remainder is 12 . How many values of x are there?

## Options

1. 19
2. 16
3. 20

## Solution :

The correct answer is Option 4 i.e 20.

## Understanding/Application

732 is divided by a positive integer $x$, the remainder is 12 .

In order to get 12 as a remainder, the divisor should be greater than 12.

Therefore, $x>12$.
Now
$732=x n+12$
$\mathrm{x} \mathrm{n}=720$
Now we need to find factors of 720 , such that $x>12$.
$720=9 \times 4 \times 5 \times 2 \times 2=2^{4} \times 3^{2} \times 5$
Combinations of these numbers which are greater than $12,15,16,18,20,24,30,36,40$, $45,48,60,72,80,90,120,144,180,240$, 360 and 720.

The number of values of $x$ are 20

## Question 94 :

A can complete a certain work in 30 days. B is $25 \%$ more efficient than A and C is $20 \%$ more efficient than B. They all worked together for 3 days. B alone will complete the remaining work in:

## Options:

1. 12 days
2. 20 days

18 days
4. 15 days

## Solution :

The correct answer is Option 4 i.e 15 days.

| Understanding/Application |
| :--- |
| Let the efficiency of $A$ be $x$. |
| The efficiency of $B=25 \%$ more than $A=$ |
| 1.25 x |
| The efficiency of $C=20 \%$ more than $B=1.5 \mathrm{x}$ |
| Efficiency ratio of $A, B$, and $C=x: 1.25 x$ : 1.5 x |
| $=4: 5: 6$ |
| Total work $=$ efficiency $\times$ time $=4 \times 30=120$ <br> units <br> 3 days work $=(4+5+6) \times 3=45$ units <br> Remaining work $=120-45=75$ units <br> Time taken to complete work by $B=75 / 5=15$ <br> days |

## Question 95 :

The average of twelve numbers is 45.5 . The average of the first four numbers is 41.5 and that of the next five numbers is 48. The 10th number is 4 more than the 11th number and 9 more than the 12 th number. What is the average of the 10th and 12th numbers?

## Options :

1. 47
2. 46
3. 47.8
4. 46.5

## Solution :

The correct answer is Option 4 i.e 46.5.

| Understanding/Application |
| :--- |
| The average of 12 numbers $=45.5$ |
| Sum of 12 number $=$ average $\times$ numbers $=$ |
| $45.5 \times 12=546$ |
| The average of the first 4 numbers $=41.5$ |
| Sum of the first 4 numbers $=41.5 \times 4=166$ |
| Average of the next 5 numbers $=48$ |
| Sum of next 5 numbers $=48 \times 5=240$ |
| Sum of first 9 numbers $=$ sum of first 4 |
| numbers + sum of next 5 numbers $=166+$ |
| $240=406$ |
| 10 th number $=4+11$ th number |
| 10 th number $=9+12$ th number |
| Sum of first 9 numbers +10 th number +11 th |
| number +12 th number $=546$ |
| $406+10$ th number +10 th number $-4+10$ th |
| number $-9=546$ |
| $3(10$ th number $)=153$ |
| 10 th number $=51$ | | 11 th number $=10$ th number $-4=51-4=47$ |
| :--- |
| 12 th number $=10$ th number $-9=51-9=42$ |
| The average of the 10 th and 12 th number $=$ |
| $51+42) / 2=(93 / 2)=46.5$ |

## Question 96 :

The given table represents the number of computers sold by four dealers A, B, C and D during the first six months of 2016. Study the table carefully and answer the question that follows. Dealer A B C D Month January 1029295107 February

9496104106 March 859410090 April 108979996 May 9810210089 June 9510810291 The number of months, in which the number of computers sold by dealer B was less than average number of computers sold by dealer C over six months, was:

## Options :

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

## Solution :

The correct answer is Option 1 i.e 4.

## Understanding/Application

Average number of computers sold be dealer
C over six months = total number of computer/6 $=(95+104+100+99+100+$ $102) / 6=600 / 6=100$

The number of months in which the number of computers sold by dealer B was less than the average number of computers sold by dealer C over six months, was 4 (January, February, March, and April)

## Question 97 :

In $A B C, A B=A C$. $A$ circle drawn through $B$ touches $A C$ at $D$ and intersect $A B$ at $P$. If $D$ is the mid point of $A C$ and $A P$ is 2.5 cm , then $A B$ is equal to:

## Options:

1. 7.5 cm
2. 10 cm

5 LAKH+ STUDENTS

9 cm
4. 12.5 cm

## Solution :

The correct answer is Option 2 i.e 10 cm .

$A D=A C / 2$
But also given -
$A C=A B$
$A D=A B / 2$

AD is a tangent and APB is a secant. So the tangent secant theorem can be applied -
$A D^{2}=A P \times A B$
$(A B / 2)^{2}=A P \times A B$
$\mathrm{AB}^{2} / 4=2.5 \times \mathrm{AB}$
$A B=10 \mathrm{~cm}$
Question 98 :
If $2 x+1, x+2,2$ and 5 are in proportion, then what is the mean proportion between $3.5(1-x)$ and $8(1+x)$ ?

## Options :

1. 4.5
2. 5.5
3. 5.25
4. 4.25

## Solution :

The correct answer is Option 3 i.e 5.25.

| Understanding/Application |
| :--- |
| $2 x+1, x+2,2$ and 5 are in proportion. |
| So, $(2 x+1) /(x+2)=2 / 5$ |
| $10 x+5=2 x+4$ |
| $8 x=-1$ |
| $x=-1 / 8$ |
| Mean proportional between $3.5(1-x)$ and $8(1$ |
| $+x)$ |
| Numbers $=3.5(1+1 / 8)$ and $8(1+1 / 8)=$ |
| $31.5 / 8$ and 7 |
| Mean proportional $=(31.5 / 8 \times 7)=27.5625=$ |
| 5.25 |

## Question 99 :

The given table represents the number of computers sold by four dealers A, B, and D during the first six months of 2016. Study the table carefully and answer the question that follows. Dealer A B C D Month January 1029295107 February 9496104106 March 859410090 April 108979996 May 9810210089 June 9510810291 The total number of computers sold by dealer A during February to June is what percentage more than the total number of computers sold by all the dealers in June? (Correct to one decimal place)

## Options:

1. 21.2
17.5
2. 24.4
3. 25.3

## Solution :

The correct answer is Option 1 i.e 21.2.

## Understanding/Application

The total number of computers sold by dealer A during February to June $=94+85+108+$ $98+95=480$

Total number of computers sold by all the dealers in June $=95+108+102+91=396$

Required Percentage $=[(480-396) \times$
$100] / 396=(84 / 396) \times 100$
= $21.2 \%$
Question 100 :
In $\mathrm{ABC}, \mathrm{B}=69^{\circ}$ and $\mathrm{C}=32^{\circ}$. Sides AB and AC are produced to points D and E , respectively. The bisectors of DBC and $B C E$ meet at $F$. What is the measure of $B F C$ ?

Difficulty : Moderate
Average Time : 56 Seconds

## Options:

1. $39^{\circ}$
2. $65^{\circ}$
3. $50^{\circ}$
4. $55^{\circ}$

## Solution :

The correct answer is Option 3 i.e $50^{\circ}$.

From the angle bisector property -
$B F C=90^{\circ}-A / 2$
In triangle $A B C$ -

$A+B+C=180^{\circ}$
$A=180^{\circ}-32^{\circ}-68^{\circ}$
$\mathrm{A}=80^{\circ}$
So,
$\mathrm{BFC}=90^{\circ}-80^{\circ} / 2$
$\mathrm{BFC}=90^{\circ}-40^{\circ}$
$B F C=50^{\circ}$

## 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 Morning exam is as follows:

1. 100 questions were moderate.
2. The safe score is 140 marks.
3. 25 questions were asked from English Language, 25 questions were asked from General Awareness, 25 questions were asked from Quantitative Aptitude and 25 questions were asked from Logical Reasoning
4. 31 questions should have been skipped if you were short of time.

## Ssc CgI Tier I Previous Year Question Paper Topic

Page No: 78

## Wise Weightage

## English Language

1. Cloze Test - 6
2. Spotting Error - 2
3. Parajumbles -2
4. Idioms - 2
5. One Word Substitution - 2
6. Narration-1
7. Voice - 1
8. Sentence Improvement-2
9. Synonym-2
10. Antonym-2
11. Filler (Vocab) - 2
12. Incorrectly Spelt - 1
13. Incorrectly Spelt - 1

## General Awareness

1. History - 6
2. Polity - 1
3. Economics-2
4. Science-3
5. Geography - 1
6. GK Misc - 12

## Quantitative Aptitude

1. Geometry - 3
2. Mensuration-1
3. Data Sufficiency - 21

## Logical Reasoning

1. Coding Decoding - 2
2. Analogy - 4
3. Classification - 2

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## Missing Characters - 1

5. Blood Relations - 1
6. Syllogism-1
7. Venn Diagrams - 1
8. Dictionary Based-1
9. Figure Based - 1
10. Matrix - 1
11. Paper-cutting, Folding, Punching-1
12. Mirrors And Water Reflection - 1
13. Configuration, Fitting Pieces, Odd Pieces - 2
14. Series - 2
15. Mathematical Reasoning - 3
16. Cubes And Dice - 1

## 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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Exam Pattern
Answer Key
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## Further Guidance on Ssc Cgl Tier I Previous Year Question Paper

For Asking any query on Ssc Cgl Tier I Previous Year Question Paper please mail Send Email or you can fill the form at KD Live.

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## About Neetu Mam

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


[^0]:    Total number of computers sold by dealer $B$ in April, May, and June $=97+102+108=307$

    Total number of computers sold by all the dealers in February and April $=(94+96+104$ $+106+108+97+99+96)=800$

    Required percentage $=(307 \times 100) / 800=$
    $307 / 8=38 \frac{3}{8}$

