## 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 2021-08-23 in the Afternoon exam. The detailed solutions are also provided for every previous year question and some of these questions can be asked again in your Ssc CgI 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 :

Select the most appropriate meaning of the following idiom. To be light years away

Difficulty : Moderate
Average Time : $\mathbf{4 2}$ Seconds
Options:

1. To be too distant for human beings to reach
2. An extremely long time from now in the past or future
3. When something seems like it is about to happen in the near future
4. An unlikely event that happened suddenly

## Solution :

The correct answer is Option 2 i.e An extremely long time from now in the past or future.
The idiom 'To be light years away' means 'an extremely long time from now in the past or future'.
For example: It all happened when was at college, which seems light years away now that I'm over 50.
Hence, the correct answer is Option 2 i.e An extremely long time from now in the past or future.

## Question 2 :

Select the most appropriate synonym of the given word. Ponder

## Options:

Terminate
2. Celebrate
3. Agitate
4. Meditate

## Solution :

The correct answer is Option 4 i.e Meditate.

- The word 'Ponder' means 'think about (something) carefully, especially before making a decision or reaching a conclusion'.
- The most appropriate synonym of the given word is 'Meditate' which means 'think deeply about (something)'.

Hence, the correct answer is Option 4 i.e Meditate.

## Question 3 :

Select the most appropriate synonym of the given word. Bang

Options:

1. Ride
2. Beat
3. Rang
4. Sang

## Solution :

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

- The word 'bang' means 'strike or put down (something) forcefully and noisily; a sudden loud, sharp noise'.
- The most appropriate synonym of the given word is 'beat' which means 'strike (an object) repeatedly so as to make a noise'.

Hence, the correct answer is Option 2 i.e. Beat.

## Question 4 :

Select the option that expresses the given sentence in passive voice. The spider on the wall frightened Jiya.

The spider on the wall was frightened by Jiya.
2. Jiya was frightened by the spider on the wall.
3. Jiya had been frightened of the spider on the wall.
4. Jiya has been frightened by the spider on the wall.

## Solution :

The correct answer is Option 2 i.e. Jiya was frightened by the spider on the wall.
Active form: The spider on the wall frightened Jiya.
Rules for changing Active form to Passive from:

- Simply exchange the places of the subject and the object. The subject should become the object and vice-versa while changing a sentence from Active to Passive voice or reverse.
- In the given sentence the subject is the spider, while the object is Jiya. At last, line up the remaining part.
- Now, convert the main verb into its past participle or third form while converting from active to passive voice.
- Use the word "by" before the subject in the passive sentence.

Now, the given sentence is in simple past tense. When the active form is in "V2" form then the passive voice should follow the format "was/were $+V_{3}$ " form.

The passive form will be: Jiya was frightened by the spider on the wall.
Hence, the correct answer is Option 2 i.e. Jiya was frightened by the spider on the wall.

## Question 5 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate
Average Time : 95 Seconds

## Options :

1. Priority
2. Detective
3. Evidence
4. Vacine

## Solution :

The correct answer is Option 4 i.e. Vacine.
The correct word is Vaccine which means 'a substance used to stimulate the production of antibodies and provide
immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.'

All other words are spelt correctly.
Hence, the correct answer is Option 4 i.e. Vacine.

## Question 6 :

Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph. A. A fox, hearing the cock and thinking to make a meal of him, came and stood under the tree. B. As the night passed away and the day dawned, the cock, according to his custom, set up ashrill crowing. C. A dog and a cock having struck up an acquaintance went out on their travels together. D. Nightfall found them in a forest, so the cock, flying up on a tree, perched among the branches, while the dog dozed below at the foot.

Difficulty : Moderate

## Options:

1. CDBA
2. DCAB
3. CABD
4. BCDA

## Solution :

The correct answer is Option 1 i.e. CDBA.
While arranging the parts of the passage, we should find some grammatical or contextual connections between them. Also, the first sentence of a passage is usually independent and introduces a topic. The second one provides more information about it.

Steps to arrange the sentences in the correct order to form a meaningful and coherent paragraph:

- Sentence C is the independent sentence and introduce a topic related to the friendship between a dog and a cock who went on travels together. So, sentence $\mathbf{C}$ is the first sentence after rearrangement.
- Sentence D expands the story about their journey. Hence, sentence D follows sentence C.
- Now, after going through the options, we find that only option 1 shows the sequence.
- Thus, the correct order after rearrangement is option 1 i.e. CDBA.

The paragraph is: A dog and a cock having struck up an acquaintance went out on their travels together. Nightfall found them in a forest, so the cock, flying up on a tree, perched among the branches, while the dog dozed below at the foot As the night passed away and the day dawned, the cock, according to his custom, set up a shrill crowing. A fox, hearing the cock and thinking to make a meal of him, came and stood under the tree.

Hence, the correct answer is Option 1 i.e. CDBA.
Question 7 :
Select the most appropriate option to fill in the blank. Can you $\qquad$ between these two shades of green?

Difficulty : Moderate
Average Time : 100 Seconds

## Options:

1. detect
2. divert
3. distract
4. distinguish

## Solution :

The correct answer is Option 4 i.e. distinguish.
The given blank needs a word that would describe being able to differentiate between two shades of the same colour.
From the given options, it is clear that distinguish which means 'to recognize or point out a difference' is the best fit word for the given blank.

Hence, the correct answer is Option 4 i.e. distinguish.

## Question 8 :

Select the most appropriate meaning of the following idiom. A fish out of water

Difficulty : Moderate

## Options :

1. Feel uncomfortable in unfamiliar surroundings
2. Feel as if you are unable to breathe
3. Feel like going to an unfamiliar and new place
4. Feel comfortable in any kind of place

## Solution :

The correct answer is Option 1 i.e. Feel uncomfortable in unfamiliar surroundings.
Idiom 'A fish out of water' means 'a person who feels awkward or unhappy because they are in a situation that is not familiar or because they are different from the people around them'.

For example -I didn't have any friends that were like me. I just always felt like a fish out of water.
Hence, the correct answer is Option 1 i.e. Feel uncomfortable in unfamiliar surroundings.

## Question 9 :

Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select 'No substitution'. The warden punished the students who violates the rules of the hostel.

## Options :

1. who is violating
2. who violated
3. who are violate
4. No substitution

## Solution :

The correct answer is Option 2 i.e. who violated.

- The error lies in underlined part due to the wrong usage of tense.
- The given sentence is in past tense.
- So, to make the underlined part correct we need to use the past tense form violated of the verb violate.
- Therefore, the past tense of 'violate' i.e. 'violated' should be used to make the sentence correct.

The correct sentence is:- The warden punished the students who violated the rules of the hostel.
Hence, the correct answer is Option 2 i.e. who violated.

## Question 10

Select the option that can be used as a one-word substitute for the given group of words. A person who entertains people by doing difficult feats

## Options :

1. Astronaut
2. Performer comedian
3. Acrobat
4. Cosmonaut

## Solution :

The correct answer is Option 3 i.e. Acrobat.
The word 'Acrobat' means 'a person who entertains people by doing difficult and skilful physical things'.
For example: There was an aerial acrobat and someone walking around with a snake.
Hence, the correct answer is Option 3 i.e. Acrobat.

## Question 11 :

Select the option that expresses the given sentence in indirect speech. "Alas, I have broken my brother's watch!" said he.

## Options:

1. He exclaimed with sorrow I have broken my brother's watch.
2. He exclaimed with sorrow that he had broken his brother's watch.
3. He exclaimed with sorrow that he may have broken his brother's watch.
4. He exclaimed with sorrow that he has broken his brother's watch.

## Solution :

The correct answer is Option 2 i.e. He exclaimed with sorrow that he had broken his brother's watch.
The given sentence is an exclamatory sentence, to convert this sentence into indirect speech we need to follow the following points:

- Inverted commas will get omitted and 'that' will be used.
- The reporting verb said is changed to exclaimed with sorrow as the given sentence talks about an unfortunate incident.
- In the reporting speech, the verb 'have broken' is in the present perfect tense, will change to past perfect tense i.e. ' had broken'.
- Further, the pronoun 'I' will be changed into the pronoun 'he' and the pronoun 'my' will be changed to 'his'.

After following these steps, we got the indirect speech as: He exclaimed with sorrow that he had broken his brother's watch.

Hence, the correct answer is Option 2 i.e. He exclaimed with sorrow that he had broken his brother's watch.

## Question 12 :

Select the most appropriate ANTONYM of the given word. Expunge

## Options:

1. Draw
2. Wipe
3. Omit
4. Add

## Solution :

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

- The word 'Expunge' means 'obliterate or remove completely (something unwanted or unpleasant)'.

For example: Certain events can be expunged from the record, and forgotten.

- The most appropriate antonym of the given word is 'Add' which means 'join (something) to something else so as to increase the size, number, or amount'.

Hence, the correct answer is Option 4 i.e. Add.

## Question 13 :

Study the following table and answer the question: The number of students enrolled for Vocational Courses(VC )in institute F in 2015,2017 and 2018 and the average number of students enrolled in all the six institutions A, B, C, D, E \& F. Years/Institution 20142015201620172018 A 110150165180205 B 120180176200220 C 140220180175225 D 125210175180230 E 150200160200240 F 165230200220210 The difference between the average number of students enrolled for VC in institute F in 2015,2017 and 2018 and the average number of students enrolled in all the six institutions in 2014 is:

## Options:

1. 89
2. 88
3. 82
4. 85

## Solution :

The correct answer is option 4 i.e. 85
The average number of students enrolled for VC in institute F in 2015,2017 and 2018 = $(230+220+210) / 3=220$.

The average number of students enrolled in all the six institutions in $2014=(110+120+140+125+150+165) / 6=810 / 6$ $=135$.

Required difference $=220-135=85$.

## Question 14 :

The cost price of an article is Rs250. A shopkeeper gains $20 \%$ by selling it at a discount of $36 \%$ on its marked price. What is the marked price (in Rs) of the market?

Difficulty : Moderate

## Options :

1. 450
2. 380.50
3. 275
4. 468.75

## Solution :

The correct answer is option 4 i.e. 468.75
CP of an article $=250$
SP of an article at the gain of $20 \%=250 \times 1.2=300$
MP of an article $=300 \times 100 / 64=468.75$.

## Question 15 :

If $0^{\circ} 90^{\circ}$, is equal to :

## Options :

1. $\mathrm{sec}^{3}$
2. $\operatorname{cosec}^{3}$
3. $\sin ^{2}$
4. $\sec ^{2}$

## Solution :

The correct answer is option 2 i.e. cosec ${ }^{3}$
\theta\}\}<br>)
$=\backslash\left(\backslash \operatorname{sqrt}\left\{\backslash \operatorname{frac}\left\{\backslash f r a c\{1\}\left\{\sin \wedge 2 \backslash\right.\right.\right.\right.$ theta $\backslash$ times $\cos ^{\wedge} 2 \backslash$ theta $\left.\}\right\}\left\{\backslash \operatorname{frac}\{\sin \wedge 2 \backslash\right.$ theta $(1-\sin \wedge 2 \backslash$ theta $)\}\left\{\cos ^{\wedge} 2 \backslash\right.$ theta $\left.\left.\left.\}\right\}\right\} \backslash\right)$
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$=\operatorname{cosec}^{3} \($ (thetal $)$.

## Question 16 :

In a certain code language, 'LOAD' is coded as '27241613' and 'CLEAN' is coded as '2725231614'. How will 'STRIKE' be coded in that language?

Difficulty : Moderate

## Options :

1. 2317190189
2. 1231719089
3. 1719102389
4. 2319171098

## Solution :

The correct answer is option 4 i.e. 2319171098
The logic used here is:
'LOAD' is coded as '27241613'
First, arrange the word in alphabetical order
LOAD = ADLO
Opposite of $A=Z, Z+1=27$
Opposite of D = W, W + $1=24$
Opposite of $\mathrm{L}=\mathrm{O}, \mathrm{O}+1=\mathrm{P}$
Opposite of $\mathrm{O}=\mathrm{L}, \mathrm{L}+1=\mathrm{M}$
Similarly,
Code for the word STRIKE:

STRIKE = EIKRST
Opposite of $\mathrm{E}=\mathrm{V}, \mathrm{V}+1=23$
Opposite of $\mathrm{I}=\mathrm{R}, \mathrm{R}+1=19$
Opposite of $\mathrm{K}=\mathrm{P}, \mathrm{P}+1=17$
Opposite of $\mathrm{R}=\mathrm{I}, \mathrm{I}+1=10$
Opposite of S $=\mathrm{H}, \mathrm{H}+1=9$
Opposite of $\mathrm{T}=\mathrm{G}, \mathrm{G}+1=8$
Hence, option 4 is the correct answer.

## Question 17 :

Select the letter from among the given options that can replace the question mark (?) in the following series. Y, S, N, J,?

## Options:

1. E
2. $G$
3. F
4. H

## Solution :

The correct answer is option 2 i.e. G.
Given series: $\mathrm{Y}, \mathrm{S}, \mathrm{N}, \mathrm{J}$, ?
The series follows the pattern:
$Y-6=S$
S-5 = N
N-4 = J
$\mathrm{J}-3=\mathrm{G}$
So, the next term in the series is $\mathbf{G}$.

## Question 18 :

Select the letter cluster from among the given options that can replace the question mark (?) in the following series. ZVG, XRI, VNK, TJM, RFO,?

## Average Time : 47 Seconds

## Options:

1. QBR
2. QDP
3. PAR
4. PBQ

## Solution :

The correct answer is option 4 i.e. PBQ.
Given series: ZVG, XRI, VNK, TJM, RFO,?
The series follows the pattern:
ZVG, XRI
Z-2 = X
V-4 = R
$G+2=1$
Similarly,
RFO,?
$R-2=P$
F-4 = B
$O+2=Q$
So, the next term in the series is PBQ.

## Question 19 :

Select the option where the words share the same relationship as the given pair. Zakir Hussain: Tabla

## Options :

Bismillah Khan : Sarod
2. Ravi Shankar: Santoor
3. Amjad Ali Khan : Shehnai
4. Hariprasad Chaurasiya : Flute

## Solution :

The correct answer is option 4 i.e. Hariprasad Chaurasiya: Flute.
The logic used here is:
Zakir Hussain: Tabla
Zakir Hussain is a renowned tabla player.
Similarly,
Hariprasad Chaurasiya: Flute
Hariprasad Chaurasiya is a famous flute player.
Hence, option 4 is the correct answer.

## Question 20 :

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: All ministers are politicians. All pilots are ministers. No engineer is a politician. Conclusions: I. Some ministers are pilots. II. No engineer is a minister. III. No engineer is a pilot.

## Options:

1. Only conclusions I and II follow
2. Only conclusions II and III follow
3. Only conclusions I and III follow
4. All the conclusions follow

## Solution :

The correct answer is option 4 i.e. All the conclusions follow.
The least possible Venn Diagram for the given statements is drawn below:


## Conclusions:

I. Some ministers are pilots True (As all pilots are ministers, so, some ministers can be pilots).
II. No engineer is a minister True (As no engineer is a politician and all ministers are engineers, so no engineer is a minister ).
III. No engineer is a pilot True (As no engineer is a politician and all pilots are politicians, so no engineer is a minister).

Hence, All the conclusions follow.

## Question 21 :

Select the number from among the given options that can replace the question mark (?) in the following series. $28,18,12$, 8,?

## Options:

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

## Solution :

The correct answer is option 2 i.e. 5.
Given series: $28,18,12,8$, ?
The series follows the pattern:


So, the next term in the series is 5 .

## Question 22 :

Select the correct combination of mathematical signs that can sequentially replace the * signs and balance the equation. 252 * 14 * 8 * 100 * 16 * 60

## Options:

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

## Solution :

The correct answer is option 1 i.e. $\div, \times,-,+,=$.
Given equation: 252 * 14 * 8 * 100 * 16 * 60
Let us check all the options:
Option 1: $\div, \times,-,+,=$
The expression becomes:
$=252 \div 14 \times 8-100+16=60$
$=60$ is equal to 60 .
As we have found our answer, we need not check the other options.
Hence, option 1 is the correct answer.

## Question 23 :

Select the option related to the fourth number in the same way as the first number is related to the second number and the
fifth number is associated with the sixth number. 350: 5::? : $13:: 990: 9$

Difficulty : Moderate

## Options :

1. 1620
2. 1950
3. 1258
4. 1052

## Solution :

The correct answer is option 2 i.e. 1950.
The logic used here is:
350: 5
350 is divisible by 5 .
990: 9
990 is divisible by 9 .
Similarly,
?: 13
1950 is divisible by 13
Hence, option 2 is the correct answer.

## Question 24 :

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

## Options :

1. Bray
2. Growl
3. Gallop

FREE

## Solution :

The correct answer is option 3 i.e. Gallop.
The logic used here is:
Bray means the loud, harsh cry of a donkey or mule.
Growl is the sound of an animal, especially a dog) making a low guttural sound in the throat.
Gallop is the fastest pace of a horse or other quadruped.
A squeak is a short, high-pitched sound or cry of rats or mice.
Bray, growl, and squeak are different sounds produced by different animals, whereas gallop is not a sound.
Hence, option 3 is the odd one out.

## Question 25

Find the number of triangles in the given figure.

Difficulty : Moderate

## Options :

1. 12
2. 11
3. 14
4. 15

## Solution :

The correct answer is option 2 i.e. 11.


11 triangles: ABC, ACD, ALE, ALK, AHF, AHJ, ABD, AEK, AFJ, EFG, KIJ.

## Question 26 :

Select the correct mirror image of the given figures when the mirror is placed at 'AB' as shown

Difficulty : Moderate

## Options:

1. 


2.

3.

4.


## Solution :

The correct answer is option 2
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The mirror image of the question figure is shown below:


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

Hence, option 2 is the correct answer

## Question 27

Select the option in which the numbers are related in the same way as are the numbers of the following set. $(3,6,63)$

## Options :

1. $(5,6,92)$
2. $(7,3,58)$
3. $(8,5,64)$
4. $(4,5,89)$

## Solution :

The correct answer is option 4 i.e. (4, 5, 89).
The logic used here is:
$(3,6,63)$
$3^{3}+6^{2}=27+36=63$

Option 1: (5, 6, 92)
$5^{3}+6^{2}=125+36=161$

This does not follow the logic.
Option 2: (7, 3, 58)
$7^{3}+3^{2}=343+9=352$
This does not follow the logic.
Option 3: $(8,5,64)$
$8^{3}+5^{2}=512+25=537$
This does not follow the logic.
Option 4: (4, 5, 89)
$4^{3}+5^{2}=64+25=89$
This follows the logic.
Hence, option 4 is the correct answer.

## Question 28

Select the option related to the third word in the same way as the second word is related to the first word. Bats: Colony:: Lions:?

## Options :

1. Pride
2. Charm
3. Band
4. Herd

## Solution :

The correct answer is option 1 i.e. Pride.
The logic used here is:
Bats: Colony
A group of bats is called Colony.
Similarly,

Lions:?
A group of Lions is called Pride.
Hence, option 1 is the correct answer.

## Question 29 :

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

## Options:

1. 


2.

3.

4.


## Solution :

The correct answer is option 2 i.e.


The given figure is embedded in option 2, as shown below:


## Question 30 :

Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary. 1. Sinuous 2 . Solemnity 3 . Singular 4 . Solvable 5 . Sorting

## Options :

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

## Solution :

The correct answer is option 1 i.e. 3, 2, 1, 5, 4.
In this question, you need to arrange the words as they would appear in the English dictionary.
So the arrangement is;

1. Singular
2. Solemnity
3. Sinuous
4. Sorting
5. Solvable

## Question 31 :

Select the Venn diagram that best illustrates the relationship among the following classes. Reptiles, Frogs, Animals

3.

4.


## Solution :

The correct answer is option 2
$\qquad$ 0.

The possible Venn diagram is:


All frogs are animals. All reptiles are animals.
Hence, the diagram given above shows the best relationship between them.

## Question 32 :

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

## Options :

1. $5: 100$
2. $7: 294$
3. 6: 180
4. $4: 52$

## Solution :

The correct answer is option 4 i.e. 4: 52.
The logic used here is:
$(1 \text { st number })^{3}-(1 \text { st number })^{2}=2$ nd number
Option 1: 5: 100
$(5)^{3}-(5)^{2}=125-25=100$
This follows the logic.
Option 2: 7: 294
$(7)^{3}-(7)^{2}=343-49=294$
This follows the logic.
Option 3: 6: 180
$(6)^{3}-(6)^{2}=216-36=180$
This follows the logic.
Option 4: 4: 52
$(4)^{3}-(4)^{2}=64-16=48$
This does not follow the logic.
Hence, option 4 is the odd one out.

## Question 33 :

Arya's mother's husband is the brother of Meena's mother. Vansh is the brother of Meena and Kavita. Varun is the father of Arya. How is Varun related to Vansh?

Father
2. Maternal uncle
3. Brother
4. Son

## Solution :

The correct answer is option 2 i.e. Maternal uncle.
In the diagram shown;
Square shows males, the circle shows females, vertical lines show generations, a single horizontal line shows brothers or sisters, and double lines show a couple.


From the above figure, Varun is the 'maternal uncle' of Vansh.
Hence, option 2 is the correct answer.

## Question 34 :

A cube is made by folding the given sheet. In the cube so formed, what would be the number on the opposite side of the number ' 1 '?

Difficulty : Moderate
Average Time : 57 Seconds

## Options:

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

## Solution :

The correct answer is option 2 i.e. 2.
When the cube is made by folding the sheets;
5 is opposite to 3 .

4 is opposite to 6.
2 is opposite to 1.

So, the number on the opposite side of the number ' 1 ' is ' 3 .'
Hence, option 2 is the correct answer.

## Question 35 :

In a certain code language, 'TRAVEL' is written as 'SUWBMF'. How will 'FROZEN' be written in that language?

Difficulty : Moderate
Average Time : 47 Seconds

## Options :

1. TGBPOF
2. SGAQPF
3. SGAPOF
4. SGBPOG

## Solution :

The correct answer is option 3 i.e. SGAPOF.
The logic used here is:
'TRAVEL' is written as 'SUWBMF'


Similarly,
Code for the word FROZEN:


Hence, option 3 is the correct answer.

## Question 36

Select the options in which the numbers are related in the same way as are the numbers of the following set. $(4,532,10)$

## Options :

1. $(4,140,6)$
2. $(9,396,4)$
3. $(3,269,8)$
4. $(2,121,6)$

## Solution :

The correct answer is option 1 i.e. (4, 140, 6).
The logic used here is:
$(4,532,10)$
$\left(4^{3}+10^{3}\right) \div 2=(64+1000) \div 2=1064 \div 2=532$
Option 1: $(4,140,6)$
$\left(4^{3}+6^{3}\right) \div 2=(64+216) \div 2=280 \div 2=140$
This follows the logic.
Hence, option 1 is the correct answer.

## Question 37 :

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

## Options:

1. 


2.

3.


## Solution :

The correct answer is option 1


The logic used here is:

1. The figures start rotating in the clockwise direction in each step.
2. After rotation, the figure in the northwest direction creates a mirror image of itself.
3. After three steps the mirror image of the letter F is changed to the water image of the mirror image.

The series of figures:


## Question 38 :

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

## Options:

1. 


2.

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3.

4.


## Solution :

The correct answer is option 4


After unfolding, the paper will appear as follows:


## Question 39 :

The average age of 17 persons is 39 years. If the average age of the first 9 persons is 35 years, and the average age of the last 9 persons is 44 years, what is the age of the 9th person?

## Options:

1. 48 years
2. 45 years
3. 41 years
4. 36 years

## Solution :

The correct answer is option 1 i.e. 48 years.
The average age of 17 persons is 39 years.
So, the Sum of the age of 7 persons $=39 \times 17=663$
The average age of the first 9 persons is 35 years.
So, the Sum of the age of the first 9 persons $=35 \times 9=315$
The average age of the last 9 persons is 44 years.
So, the Sum of the age of the first 9 persons $=44 \times 9=396$
The age of the 9th person $=396+315-663=48$ years

## Question 40 :

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

## Options:

1. HJQL
2. WYBY
3. LNMH
4. RTGB

## Solution :

The correct answer is option 2 i.e. WYBY.
The logic used here is:
1st letter + 2 = 2nd letter
3rd letter - $5=4$ th letter
Option 1: HJQL
$H+2=J$
$Q-5=L$
This follows the logic.

Option 2: WYBY
$W+2=Y$
B-5 = W
This does not follow the logic.
Hence, option 2 is the odd one out.

## Question 41 :

$\qquad$ is a process in which impure water is boiled and the steam is collected and condensed in a separate container, leaving many of the solid contaminants behind.

## Options :

1. Distillation
2. Sedimentation
3. Filtration
4. Decantation

## Solution :

The correct answer is option 1 i.e. Distillation
Distillation is a process that involves the conversion of a liquid into vapour that is subsequently condensed back to liquid state. It is exemplified at its simplest when steam from a kettle becomes deposited as drops of distilled water on a cold surface.

## Question 42 :

Which of the following became the first Indian state to give electricity subsidies to farmers through Direct Benefit Transfer in January 2021?

## Options :

1. Madhya Pradesh
2. Sikkim
3. Uttarakhand

## Manipur

## Solution :

The correct answer is option 1 i.e. Madhya Pradesh

- Madhya Pradesh became the first State to give electricity subsidies through Direct Benefit Transfer.
- With this, it has fulfilled a power reform condition as proposed by the Centre and is thus eligible for additional borrowing.
- This made the State eligible to mobilise additional financial resources equivalent to 0.15 percent of its Gross State Domestic Product (GSDP).


## Question 43

Prithviraj Chauhan and Muhammad Ghori fought the battle of $\qquad$ .

## Options :

1. Chausa
2. Chanderi
3. Tarain
4. Tallikota

## Solution :

The correct answer is option 3 i.e. Tarain
The Battles of Tarain took place in 1191 and resulted in Islamic rule in North India. Muhammad Ghori and Prithviraj Chauhan fought the battles.

Key Points:

- The first Battle of Terrain was fought in 1191 and won by Prihviraj Chauhan.
- The second Battle of Terrain was fough in 1192 and won by Muhammad Ghori.


## Question 44 :

Identify the state in which you will find the highest peak of the Deccan Plateau, Anai Mudi.

## Options :

1. Tamil Nadu

Andhra Pradesh
3. Karnataka
4. Kerala

## Solution :

The correct answer is option 4 i.e. Kerala

- Anai Mudi is the highest peak of the deccan plateau which is located in the Indian State Kerela.
- It is located in the Ernakulam and Idukki disricts of Kerela.
- It's height is 2695 metres.
- The literal meaning of Anai Mudi is 'Elephant's Head'.


## Question 45

What is the chemical symbol of magnesium?

## Difficulty : Moderate

## Options:

1. Mn
2. Ms
3. Ma
4. Mg

## Solution :

The correct answer is option 4 i.e. $\mathbf{M g}$

- Magnesium is a chemical element with the symbol Mg.
- It's atomic number is 12 .
- It is a shiny gray solid which shares many physical and chemical properties with the other five alkaline earth metals.
- This element is produced in large, aging stars from the sequential addition of three helium nuclei to a carbon nucleus.


## Question 46 :

The horizontal rows in the modern periodic table are called:

## Options:

periods
2. families
3. groups
4. clusters

## Solution :

The correct answer is option 1 i.e. periods
The periodic table was created by Dmitri Mendeleev. Mendeleev's periodic table has 63 elements. They were placed in a tabular form in increasing order of their relative atomic masses. There were certain limitations to Mendeleev's periodic table which lead to the modern periodic table.

- The horizontal rows in the periodic table are called 'Period'. There are 7 rows.
- The vertical columns in the periodic table are called 'Groups'. There are 18 groups.


## Question 47 :

Which branch of economics deals with the depletion of natural resources stock and pollution, which are a result of rapid economic development?

Difficulty : Moderate

## Average Time : 55 Seconds

## Options:

1. Public Economics
2. Developmental Economics
3. Environmental Economics
4. International Economics

## Solution :

The correct answer is option 3 i.e. Environmental Economics
Environmental Economics deals with the depletion of natural resources stock and pollution as a result of rapid economic development.

- It conducts theoretical or empirical studies of the economic impacts of national or local environmental policies around the world.
- Some specific issues include the costs and benefits of alternative environmental policies to combat air pollution, water quality, solid waste, and global warming.


## Question 48 :

Who among the following is the author of the book 'Tabaqat-i-Nasiri'?

Difficulty : Moderate

## Options:

1. Ziauddin Barani
2. Al-Biruni
3. Amir Khusrau
4. Minhaj-i-Siraj

## Solution :

The correct answer is option 4 i.e. Minhaj-i-Siraj.

- The Tabaqat-i-Nasiri was written by the author Minhaj-i-Siraj.
- It was compiled in 1260 CE.
- It gives a complete account of Muhammad of Ghur's conquest of India and the history of the Delhi Sultanate up to 1260 CE.


## Question 49 :

Identify the author of the book 'The English Teacher'.

## Options:

1. RK Narayan
2. Salman Rushdie
3. Khushwant Singh
4. Vikram Seth

## Solution :

The correct answer is option 1 i.e. RK Narayan.
'The English Teacher' was written by RK Narayan.

- Rasipuram Krishnaswami lyer Narayanaswami was an Indian writer known for his work set in the fictional South Indian town of Malgudi.
- He was a leading author of early Indian literature in English along with Mulk Raj Anand and Raja Rao.


## Question 50 :

Who has the power to recommend the dismissal of the state government and suspension or dissolution of the state assembly?

Difficulty : Moderate

## Average Time : 49 Seconds

## Options :

1. Governor
2. Prime Minister
3. Chief Minister
4. Speaker of legislative assembly

## Solution :

The correct answer is option 1 i.e. Governor.
The governor can dissolve the cabinet in the following circumstances.

- If the governor is convinced that the majority of the cabinet in the assembly has ended.
- So the Governor can ask the Chief Minister to resign or to prove his majority by calling a session of the Legislative Assembly.
- In such a situation, if the Chief Minister is not ready to call the meeting, then the Governor can remove the cabinet.


## Question 51 :

Which longitude has been selected as the Standard Meridian of India?

## Options :

1. $82^{\circ} 30^{\prime} \mathrm{E}$
2. $81^{\circ} 30^{\prime} \mathrm{E}$
3. $82^{\circ} 32^{\prime} \mathrm{E}$
4. $82^{\circ} 31^{\prime} \mathrm{E}$

## Solution :

The correct answer is option 1 i.e. $\mathbf{8 2}^{\circ} \mathbf{3 0}{ }^{\prime} \mathrm{E}$
The longitude $82^{\circ} 30$ E has been selected as the standard meridian of India.

- This longitude passes through Mirzapur.

It divides India into almost equal eastern and western parts.

- India is a vast country and have a great difference in sunrise timing along East in Gujarat and West in Arunachal Pradesh.
- This longitude ensures same timing all over India.


## Question 52 :

Who among the following persons was appointed as the chief scientist of the International Cotton Advisory Committee in January 2021?

## Options :

1. Sandhya Kranthi
2. Kai Hughes
3. Keshav Kranthi
4. Caroline Taco

## Solution :

The correct answer is option 3 i.e. Keshav Kranthi.

- Keshav Kranthi -
- He was the former director of CICR-Nagpur.
- He was the Chief Scientist of Global cotton research and advisory body, International Cotton Advisory Committee (ICAC).
- International Cotton Advisory Committee (ICAC) -
- It was founded in 1939.
- It advocates for cotton-producing countries and publishes studies and technical information on the cotton industry.
- 'World Cotton Day' is celebrated on 7th October.


## Question 53 :

Who among the following wrote the novel 'Gora'?

## Options:

1. Rabindranath Tagore
2. Mahatma Gandhi

Abanindranath Tagore
4. Premchand

## Solution :

The correct answer is option 1 i.e. Rabindranath Tagore.

- 'Gora' was written by Rabindranath Tagore.
- It was published in 1909.
- The novel includes a philosophical debate on Politics and religion, tradition versus modernity, urban elite versus rural peasant, Nationalism and the Brahmo Samaj.
- Rabindranath Tagore was a Nobel prize-winning poet.


## Question 54 :

In which of the following sports is the shakehand grip used?

## Options :

1. Table tennis
2. Cricket
3. Badminton
4. Squash

## Solution :

The correct answer is option 1 i.e. Table tennis.

## Table tennis -

- It is played between two (singles) or four (doubles) players at a time.
- Each player must have a racket.
- Table tennis is an Olympic sport since 1988, .

The types of Grips in Table Tennis are as follows:

- Shakehand grip
- Penhold grip
- Seemiller grip
- Reverse penhold backhand (rpb) gripâ€


## Question 55 :

Who among the following chroniclers wrote about Raziyya and recognised that she was more able and qualified than all her brothers?

Difficulty : Moderate

Average Time : 57 Seconds

## Options :

1. Ibn Battuta
2. Amir Khusrau
3. Minhaj-i-Siraj
4. Zia-ud-din Barani

## Solution :

The correct answer is option 3 i.e. Minhaj-i-Siraj

- Raziyya was the daughter of Sultan Iltutmish.
- She assumed the throne in 1236.
- She was the most competent and qualified among her male siblings according to the historical historian of the time, Minhaj-i Siraj.


## Question 56 :

$\qquad$ is made of lower density felsic rocks, such as andesite and granite.

## Options:

1. Oceanic crust
2. Continental crust
3. Inner core
4. Outer core

## Solution :

The correct answer is option 2 i.e. Continental crust
Continental crust is made of light rocks like granite.

- It is thick and high above sea level like Eurasian and Antarctic Plate.


## Oceanic plate:

They have more weight and less thickness.

- It is formed by basalt consisting of the ocean floor such as the Pacific Ocean Plate.

The inner part of the earth is divided into three parts -

- The Crust
- The Mantle
- The Core


## Question 57 :

The female devotee, Andal belonged to which part of India?

Options :

1. Western
2. North-eastern
3. Northern
4. Southern

## Solution :

The correct answer is option 4 i.e. Southern
The correct answer is Southern India.

- Andal was a woman saint of South India.
- She is one of the twelve Alvar saints.
- She is called 'Mira of the South'.
- She was born in Vikram No. 770


## Question 58 :

According to the World Bank's annual report on the Ease of Doing Business (EODB), 'Doing Business 2020: Comparing Business Regulations in 190 Economies', India ranks $\qquad$ out of 190 countries.

## Options :

1. 47 th
2. 63rd

5 LAKH+ STUDENTS

## Solution :

The correct answer is option 2 i.e. 63rd
The World Bank released its Ease of Doing Business Report, 2020. The indicator measures the performance of 190 countries across 10 different dimensions in the 12-month period ending May 1, 2019.

According to the report-

- India was placed at 63rd position.
- New Zealand retained the first position.
- Somalia was placed at 190th position.


## Question 59 :

Which of the following statements is correct?

## Options:

1. If the constituents of the medium oscillate perpendicular to the direction of wave propagation, we call the wave a Iongitudinal wave.
2. If the constituents of the medium oscillate along the direction of wave propagation, we call the wave a transverse wave.
3. Frequency of a wave is the number of oscillations of each constituent particle in the vibrating medium per minute.
4. The minimum distance between two points in a wave having the same phase at a particular instant of time is called the wavelength.

## Solution :

The correct answer is option 4 i.e. The minimum distance between two points in a wave having the same phase at a particular instant of time is called the wavelength.

- Wavelength- The minimum distance between two points in a wave having the same phase at a particular instant of time is called the wavelength.
- Transverse Wave- A transverse wave is a wave whose oscillations are perpendicular to the direction of the wave's advance.
- Longitudinal Wave- A longitudinal wave travels in the direction of its oscillations.


## Question 60 :

Which of the following is NOT a disease caused by a virus?

Difficulty : Moderate
Average Time : 75 Seconds

## Options :

1. AIDS
2. Plague
3. Zika
4. Ebola

## Solution :

The correct answer is option 2 i.e. Plague

- Plague is a disease that affects humans and other mammals.
- It is caused by the bacterium, Yersinia pestis.
- Humans usually get plague after being bitten by a rodent flea that is carrying the plague bacterium or by handling an animal infected with plague.


## Question 61 :

Who among the following has been the longest-serving female chief minister of any Indian state, as on January 2021?

Difficulty : Moderate
Average Time : $\mathbf{4 6}$ Seconds

## Options :

1. Sucheta Kripalani
2. Sheila Dixit
3. Syeda Anwara Taimur
4. J Jayalalithaa

## Solution :

The correct answer is option 2 i.e. Sheila Dixit

- The longest-serving female chief minister was in the Independent India is Sheila Dikshit.
- She served as the chief minister of the National Capital Territory of Delhi from Indian National Congress held the office for over fifteen years.
- She was also the governor of Kerela.


## Question 62 :

Who among the following was the first scholar to decipher the Ashokan edicts?

Difficulty : Moderate
Average Time : 46 Seconds

## Options :

1. Alexander Cunningham
2. James Prinsep
3. V Gordon Childe
4. James Taylor

## Solution :

The correct answer is option 2 i.e. James Prinsep
James Princep was a European scholar who deciphered the edicts of the Ashoka.

1. He was an English scholar, orientalist, and antiquarian.
2. He was the founding editor of the Journal of the Asiatic Society of Bengal.
3. He is best remembered for his understanding of the Kharosthi and Brahmi scripts of ancient India.

## Question 63 :

In January 2018, the Government of India and NITI Aayog launched the 'Transformation of Aspirational Districts' initiative with a vision to improve India's ranking under the Human Development Index by 2022. Which of the following is NOT one of the programme's core areas of focus?

## Difficulty : Moderate

## Options :

1. Industry and innovation
2. Health and nutrition
3. Education
4. Agriculture and water resources

## Solution :

The correct answer is option 1 i.e. Industry and innovation.
The Government of India launched the 'Transformation of Aspirational Districts' initiative in January 2018 with a vision of a New India by 2022. The focus of the program is to improve India's ranking under Human Development Index, raise the

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living standards of its citizens and ensure inclusive growth for all. The core area of the focus of the program is-

- Education
- Health and Nutrition
- Agriculture and Water Resources

Hence, the correct answer is 'Industry and Innovation'.

## Question 64 :

Which of the following cities is closest to the location of the Pushkar Fair?

## Average Time : 57 Seconds

## Options :

1. Amravati
2. Ajmer
3. Ahmedabad
4. Prayagraj

## Solution :

The correct answer is option 2 i.e. Ajmer

- Pushkar Fair is a big festival in the Ajmer City of Rajasthan.
- It is one of India's largest camel, horse and cattle fairs.
- It is celebrated in the Kartik month of the Hindu calendar.
- It is the world's largest cattle fair.
- It is held annually for five months in the month of October and November.


## Question 65 :

In which of the following countries was the first hockey association formed?

## Options:

1. UK
2. Spain
3. India
4. The US

## Solution :

The correct answer is option $\mathbf{1}$ i.e. UK.

1. The first hockey association was formed in the UK in 1876.
2. International Hockey Federation is an international governing body of hockey.
3. It was founded on 7th January in Paris by Paul Leute.
4. It is headquartered in Switzerland.
5. India joined FIH in 1928.

## Question 66 :

Pie - Chart shows the degree wise breakup of expenditure of family in a month. Total income of the family is Rs 144000 . What is the expenditure (in Rs) on education?

## Options:

1. 12000
2. 24000
3. 36000
4. 20000

## Solution :

The correct answer is option 2 i.e. 24000
Expenditure of education $=60 / 360 \times 144000=24000$.

## Question 67 :

A tangent is drawn from a point P to a circle, which meets the circle at T such $\mathrm{PT}=8 \mathrm{~cm}$. A secant PAB intersects the circles in points $A$ and $B$. If $P A=5 \mathrm{~cm}$, which is the length (in cm ) of the chord $A B$ ?

## Options :

1. 8.0
2. 8.4
3. 6.4

## Solution :

The correct answer is option 4 i.e. 7.8


Let $A B=c m$.
By using the tangent secant theorem we get,
$\mathrm{PT}^{2}=\mathrm{PA} \times \mathrm{PB}$
$8^{2}=5 \times(5+x)$
$64=25+5 x$
$5 \mathrm{x}=39$
$x=7.8 \mathrm{~cm}$.

## Question 68 :

If (dfrac\{sin^2 heta\}\{tan^2 heta-sin^2 heta\}=5), is an acute angle, then the value of (dfrac\{24sin^2 heta-15sec^2 heta\}\{6cosec^2 heta-7cot^2 heta\}) is:

Options:

1. -2
2. 2
3. -14
4. 14

## Solution :

The correct answer isoption 3 i.e. $\mathbf{- 1 4}$
$\sin ^{2}\left((\right.$ theta $) /\left(\tan ^{2} \(\right.$ thetal $)-\sin ^{2} \($ thetal $\left.)\right)=5$
$\sin ^{2} \($ theta $) \times \cos ^{2} \($ theta $) /\left(\sin ^{2} \(\right.$ thetal $)\left(1-\cos ^{2} \(\right.$ theta $\left.\left.)\right)\right)=5$
$\cot ^{2}($ (theta $)=5$
$\cot \($ (theta $)=\backslash(\backslash$ sqrt5 $$=\mathrm{b} / \mathrm{p}\)
By using pythagoras theorem,
$H^{2}=5+1$
$\mathrm{H}=\(\backslash \mathrm{sqr} \mathrm{t} 6 \backslash)$
$(24 \times 1 / 6-15 \times 6 / 5) /(6 \times 6-7 \times 5)$
(4-18)/(1)
$=-14$.

## Question 69 :

The area of a circular path enclosed by two concentric circulars is 3080 m 2 . If the difference between the radius of the outer edge and of the inner edge of the circular path is 10 m , what is the sum (in m ) of the two radii? ( Taken =(rac\{22\}\{7\}))

## Options :

1. 112
2. 70
3. 84
4. 98

## Solution :

The correct answer is option 4 i.e. 98
Area of circular path $=\left(R^{2}-r^{2}\right)=3080$
$22 / 7 \times(R+r)(R-r)=3080$
$22 / 7 \times(R+r) \times 10=3080$
$(R+r)=98$.

## Question 70 :

Three persons A, B, and C donate $10 \%, 7 \%$, and $9 \%$ respectively of their monthly salaries to a charitable trust. The monthly salaries of $A$ and $B$ are equal and the difference in the donatation of $A$ and $B$ is Rs 900 . If the total donation by $A$ and $B$ is Rs 600 more than of $C$, then what is the monthly salary (in Rs) of $C$ ?

## Options :

1. 45000
2. 55000
3. 50000
4. 60000

## Solution :

The correct answer is option 3 i.e. 50000
Let the monthly salary of $A, B$ and $C$ be 100x, 100x, 100y.
Donation by $\mathrm{A}=10 \%$ of $100 \mathrm{x}=10 \mathrm{x}$.
Donation by $\mathrm{B}=7 \%$ of $100 \mathrm{x}=7 \mathrm{x}$
Donation by $C=9 \%$ of $100 y=9 y$.
$10 x-7 x=900$
$3 x=900$
$x=300$
Total donation of A and B is 600 more than C .
$10 x+7 x=9 y+600$
$17 \times 300=9 y+600$
$9 y=5100-600$
$9 y=4500$
$y=500$.
Monthly salary of $C=100 y$
$=100 \times 500=50000$

## Question 71 :

If $x$ is subtracted from each of $24,40,33$ and 57 , the number ,so obtained are in proportion. The ratio of $(5 x+12)$ to $(4 x+$ 15) is :

## Average Time : 56 Seconds

## Options :

1. $7: 4$
2. $4: 3$
3. $14: 13$
4. $7: 5$

## Solution :

The correct answer is option 3 i.e. 14 : 13
According to the question,
$(24-x):(40-x)::(33-x)(57-x)$
Product of extremes $=$ Product of means
$(24-x)(57-x)=(40-x)(33-x)$.
$1368-24 x-57 x-x^{2}=1320-40 x-33 x+x^{2}$
$48=8 x$
$x=6$.
Required ratio $=5 x+12: 4 x+15$
$42: 39=14: 13$.

## Question 72 :

To do a certain work, efficiencies of $A$ and $B$ are in the ratio of $7: 5$, Working together, they can complete the work in 17 (rac\{1\}\{2\})days. In how many days, will B alone complete $50 \%$ of the same work?

## Options:

1. 42
2. 21 to get every bit out of the videos
3. 30

## Solution :

The correct answer is option 2 i.e. 21
Let the efficiency of $A$ and $B$ be $7 x$ and $5 x$.
Total work $=12 x \times 35 / 2=210 x$.
$50 \%$ of the work $=210 x / 2=105 x$.
Time taken by $B$ to complete the task $=105 x / 5 x=21$ days.

## Question 73 :

At what rate percent per annum will Rs7200 amount to Rs7938 in one year, if interest is compounded half yearly?

Difficulty : Moderate

## Options :

1. 5
2. 8
3. 12
4. 10

## Solution :

The correct answer is option 4 i.e. 10
$A=P(1+r / 100)^{n}$.
$7938=7200(1+r / 100)^{2}$
$7938 / 7000=(1+r / 100)^{2}$
$63 / 60=1+r / 100$
$3 / 60 \times 100=r$
$r=5 \%$.
Rate per annum $=5 \times 2=10 \%$.

## Question 74 :

Study the following table and answer the question: Number of students enrolled for Vocational Courss (VC) in institutes A,B,C,D,E \& F. Years/institutes 20142015201620172018 A 110150165180205 B 120180176200220 C 140220 180175225 D 125210175180230 E 150200160200240 F 165230200220210 The total number of students enrolled for VC in institutes D and F in 2014 is what percent of the total number of students enrolled in institutes A,B and C in 2018 ? ( correct to one decimal point)

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

## Options :

1. 43.2
2. 42.8
3. 43.8
4. 44.6

## Solution :

The correct answer is option 4 i.e. 44.6
The total number of students enrolled for VC in institutes D and F in $2014=125+165=290$.
The total number of students enrolled in institutes A, B and C in 2018 = 205 $+220+225=650$
Required\% $=290 / 650 \times 100=44.6 \%$.

## Question 75 :

If $(x+6) 3+(2 x+3) 3+(3 x+5) 3=(3 x+18)(2 x+3)(3 x+5)$, then what is the value of $x$ ?

Average Time : 40 Seconds

## Options :

1.     - <br>(ffrac\{5\}\{3\})
2. $\backslash(\operatorname{frac}\{5\}\{3\} \backslash)$
3.     - <br>(ffrac\{7\}\{3\})
4. <br>(frac\{7\}\{3\})

## Solution :

The correct answer is option 3 i.e. - $\backslash($ (frac\{ 7$\}\{3\})$
Here it is given that,

$$
\begin{aligned}
& (x+6)^{3}+(2 x+3)^{3}+(3 x+5)^{3}=(3 x+18)(2 x+3)(3 x+5) \\
& (x+6)^{3}+(2 x+3)^{3}+(3 x+5)^{3}=3(x+6)(2 x+3)(3 x+5) \\
& (x+6)^{3}+(2 x+3)^{3}+(3 x+5)^{3}-3(x+6)(2 x+3)(3 x+5)=0
\end{aligned}
$$

We know that, $a^{3}+b^{3}+c^{3}-3 a b c=0$ only when $a+b+c=0$.
$x+6+2 x+3+3 x+5=0$
$6 x+14=0$
$x=-7 / 3$.

## Question 76 :

In triangles $A B C, D$ and $E$ are the midpoints of $A B$ and $B C$ respectively. If area ( $\hat{a}-{ }^{3} C E D$ ) $=8 \mathrm{~cm} 2$, then what is the area (ADEC) in cm2 ?

## Options :

1. 24
2. 21
3. 32
4. 16

## Solution :

The correct answer is option 1 i.e. 24


In â-3DBC,
$\mathrm{BE}=\mathrm{EC}$

Ratio of the area of â-3DEB to area of â-3DEC $=1: 1$
â-3DBE $=8 \mathrm{~cm}^{2}$.
Now in â- ${ }^{3}$ ABC
$D$ and $E$ are the midpoints of $A B$ and $B C$.
By using Midpoint theorem we get,
$D E: A C=1: 2$
Area of â-3BDE : Area of ${ }^{3}-{ }^{3} A B C=1: 4$
Area of $\mathrm{a}-{ }^{3} \mathrm{ABC}=8 \times 4=32 \mathrm{~cm}^{2}$
Area of ADEC $=32-8=24 \mathrm{~cm}^{2}$

## Question 77 :

Radha bought a fridge and washing machine together for Rs. 57300. she sold the fridge at a profit of $15 \%$ and the washing machines at a loss of $24 \%$ and both are sold at the same price. The cost price of washing machine (in Rs) is :

Difficulty : Moderate
Average Time : 67 Seconds

## Options :

1. 28650
2. 34500
3. 24500
4. 22800

## Solution :

The correct answer is option 2 i.e. 34500
Let the CP of a fried and washing machine be $x$ and $y$.
$x+y=57300$
She sold the fridge at a profit of $15 \%$ and the washing machines at a loss of $24 \%$
$x \times 1.15=y \times .76$
$x / y=76 / 115$
Let $x=76 a$ and $y=115 a$
$76 a+115 a=57300$
$191 a=57300$
$a=300$.
CP of a washing machine $=y=115 a$.
$=115 \times 300=$ â, ${ }^{1} 34500$.

## Question 78

The average weight of students in sections A and B having 40 students each is 45.5 kg and 44.2 kg respectively. Two students of section A having an average weight of 48.75 kg were shifted to section $B$ and 2 students of section $B$ were shifted to section A , making the average weight of both the section equal. What is the average weight (in kg ) of students who were shifted from section $B$ to section $A$ ?

## Options :

1. 35.75
2. 34.25
3. 34.5
4. 35

## Solution :

The correct answer is option 1 i.e. 35.75
Total weight of students of section $A=40 \times 45.5=1820 \mathrm{~kg}$
Total weight of students of section $B=40 \times 44.2=1768 \mathrm{~kg}$.
The weight of two students who got shifted from $A$ to $B=48.75 \times 2=97.5 \mathrm{~kg}$.
The weight of the students who got shifted from $B$ to $A=2 \times x=2 x$
After this transfer, the average of both sections becomes the same.
$(1820-97.5+2 x) / 40=(1768-2 x+97.5) / 40$
$1722.5+2 x=1865.5-2 x$
$4 x=143$
$x=143 / 4=35.75 \mathrm{~kg}$.

## Question 79 :

A car can cover a distance of 144 km in 1.8 hours. In what time (in hours) will it cover double the distance when its speed in increased by $20 \%$ ?

## Options:

1. 3
2. 2.5
3. 2
4. 3.2

## Solution :

The correct answer is option 1 i.e. 3
Speed of the car $=144 / 1.8=80 \mathrm{~km} / \mathrm{hr}$.
Speed increased by 20\%,
New speed $=80 \times 1.2=96 \mathrm{~km} / \mathrm{hr}$.
New distance $=144 \times 2=288 \mathrm{~km}$.
Time taken $=288 / 96=3$ hours .

## Question 80

If $x 4+x 2 y 2+y 2=21$ and $x 2+x y+y 2=3$, then what is the value of $(-x y)$ ?

## Options :

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

## Solution :

The correct answer is option 2 i.e. 2
Here it is given that,
$x^{4}+x^{2} y^{2}+y^{2}=21$
On adding $x^{2} y^{2}$ on both sides we get,
$x^{4}+x^{2} y^{2}+y^{2}+x^{2} y^{2}-x^{2} y^{2}=21$
$\left(x^{2}+y^{2}\right)^{2}-x^{2} y^{2}=21$
$\left(x^{2}+y^{2}\right)^{2}=21+x^{2} y^{2}$
$x^{2}+x y+y^{2}=3$
$x^{2}+y^{2}=3-x y$
On putting the value of eq 2 in eq 1 we get,
$9+x^{2} y^{2}-6 x y=21+x^{2} y^{2}$
$-6 x y=12$
$-x y=2$.

## Question 81 :

In â- ${ }^{3} A B C, D$ is a point on $B C$ such that $B A D=(\operatorname{rac}\{1\}\{2\}) A D C$ and $B A C=77^{\circ}$ and $C=45^{\circ}$. What is the measures of ADB?

## Options :

1. $77^{\circ}$
2. $64^{\circ}$
3. $58^{\circ}$
4. $45^{\circ}$

## Solution :

The correct answer is option 2 i.e. $64^{\circ}$


In triangle $A B C$,
$A+B+C=180$.
$B=180-77-45=58^{\circ}$.
By using the exterior angle property,
$58+\mathrm{a}=2 \mathrm{a}$
$a=58$
$2 \mathrm{a}=2 \times 58=116$
ADB $=180-116$ ( linear pair)
ADB $=64^{\circ}$.

## Question 82 :

A square has a perimeter equal to the circumference of a circle having a radius 7 cm . What is the ratio of the area of the circle to area of the square? (Use $=(\operatorname{rac}\{22\}\{7\}))$

## Options :

1. $121: 44$
2. $7: 2$
3. $14: 11$
4. $7: 11$

## Solution :

The correct answer isoption 3 i.e. 14 : 11
The perimeter of the square = circumference of the circle.
$4 \times$ side $=2 \times 22 / 7 \times 7$
Side of the square $=11$.
The ratio of the area of the circle: Ratio of the area of the square.
$=22 / 7 \times 7 \times 7: 11 \times 11$
$=14: 11$.

## Question 83

If $x+(\operatorname{rac}\{1\}\{x\})=25$, then what is the value of ?

## Options :

1. 14
2. 17
3. 20
4. 23

## Solution :

The correct answer is option 2 i.e. 17
Here it is given that, $x+\backslash(|f r a c\{1\}\{x\}\rangle)=25$
On cubing both sides we get,
$=x^{3}+1 / x^{3}+3(x+1 / x)=405$
$=x^{3}+1 / x^{3}=405-65=345$.
we need to find the value of

On dividing the equation by x in numerator and denominator we get,
$=\left(x^{3}+1 / x^{3}\right) /(x+1 / x)$
$=345 / 25=17$

## Question 84 :

The value of $423 \div$ is :

Average Time : 56 Seconds

## Options :

1. <br>(ffrac\{51\}\{2455\}<br>)
2. $\backslash($ (frac $\{47\}\{3680\})$
3. $|frac\{43\}\{2455\}\})
4. \\(ffrac\{41\}\{2455\}\$

## Solution :

The correct answer is option 2 i.e. <br>(frac\{ 47$\}\{3680\})$
$=423 \div\left[270 \div \frac{2}{7} \times 35+\left(17 \div \frac{1}{3}\right)-\left(8 \frac{1}{2}-\frac{5}{2}\right)\right]$
$=423 \div[270 \div 2 / 7 \times 35+(17 \div 1 / 3)-(17 / 2-5 / 2)]$.
$=423 \div[270 \div 2 / 7 \times 35+51-6]$
$=423 \div[33120]$
= 423/33120
$=47 / 3680$.

## Question 85 :

The following Pie chart represents the percentage-wise distribution of 800 students of class XII in a school in six different sections $A, B, C, D, E$, and $F$. The table given below shows the number of girls in class XII in six different sections $A, B$, C, D, E and F. Section A B C D E F No. of girls 1028010498060 The total number of girls in sections B, C and D together is what percent more than the total number of boys in sections $A, B$ and $D$ together?

Difficulty : Moderate
Average Time : 78 Seconds

## Options :

1. 50
2. 76.25
3. 65.75

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## Solution :

The correct answer is option 2 i.e. 76.25
The total number of girls in sections B , C, and $D=80+104+98=282$.
Number of Boys in section $A=20 \%$ of $800-102=58$.
Number of Boys in section B = 18\% of 800-80=144-80=64
Number of boys in section $D=17 \%$ of $800-98=38$.
Number of boys in A, B and D $=58+64+38=160$
Rerquired $\%=(282-160) / 160 \times 100=76.25 \%$

## Question 86 :

$(\operatorname{cosec} A-\cot A)(1+\cos A)=?$

Difficulty : Moderate

Average Time : 44 Seconds

## Options :

1. $\cos A$
2. $\sin A$
3. $\cot \mathrm{A}$
4. $\operatorname{cosec} A$

## Solution :

The correct answer is option 2 i.e. $\sin \mathrm{A}$

```
(cosecA - cotA ) (1+\operatorname{cos}A)
```

$(1 / \sin A-\cos A / \sin A)(1+\cos A)$
$(1-\cos A) / \sin A \times(1+\operatorname{soc} A)$
$\left(1-\cos ^{2} A\right) / \sin A$.
$\sin ^{2} A / \sin A$
$\sin A$.
Question 87 :

If the six-digit number $5 z 3 x 4 y$ is divisible by 7,11 and 13 , then what is the value of $(x+y-z)$ ?

Difficulty : Moderate
Average Time : $\mathbf{4 5}$ Seconds

## Options :

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

## Solution :

The correct answer is option 4 i.e. 4
If a number is divisible by 7,11 and 13 then it must be divisible by the LCM of 7,11 and 13(1001).
pqr $\times 1001=$ pqrpqr.
From the above learning, we can say that,
$5 z 3 x 4 y=543543$.
On comparing we get,
$x=5, y=3$ and $z=4$
$x+y-z=5+3-4=4$.

## Question 88 :

Select the most appropriate option to fill in the blank. If you $\qquad$ to newsgroups, you often get hundreds of messages.

## Options :

1. subscribe
2. describe
3. practice
4. offend

## Solution :

The correct answer isOption 1 i.e. subscribe.
The given blank needs the word that would imply that hunderds of messages are received by someone when he buy or subscribe the newspaper.

The word 'subcribe' means 'to pay money to an organization in order to receive a product, use a service regularly, or support the organization'.

From the given options, it is clear that the word subscribe is best fit word for the given blank.
Hence, the correct answer is Option 1 i.e. subscribe.

## Question 89 :

Select the option that can be used as a one-word substitute for the given group of words. A secret or disguised way of writing

Difficulty : Moderate
Average Time : 59 Seconds

## Options:

1. Emblem
2. Symbol
3. Cipher
4. Puzzle

## Solution :

The correct answer is Option 3 i.e. Cipher.
The word 'Cipher' means 'a system of writing that most people cannot understand, so that the message is secret; a code'.

For example: We spent a lot of time figuring out the enemy's cipher.
Hence, the correct answer is Option 3 i.e. Cipher.

## Question 90 :

The following sentence has been divided into parts. One of them contains an error. Select thepart that contains the error from the given options. The concept became / too much clear to me / after my tutor / showed me the diagram.

## Options:

1. showed me the diagram

The concept became
3. after my tutor
4. too much clear to me

## Solution :

The correct answer is Option 4 i.e. too much clear to me.

- The error lies in option 4.
- The error lies in using the quantifier 'too much' in the second part of the sentence.
- We use too much or too many + noun to mean more than we want or need of something.
- Clear is an adjective whose comparative form is clearer which means easy to perceive, understand, or interpret.
- To make the sentence correct we can use the quantifier much before clearer.

The correct sentence is:- The concept became much clearer to me after my tutor showed me the diagram.
Hence, the correct answer is Option 4 i.e. too much clear to me.

## Question 91 :

Select the most appropriate ANTONYM of the given word. Obese

## Options :

1. Large
2. Stout
3. Slim
4. Greasy

## Solution :

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

- The word 'Obese' means 'extremely fat in a way that is dangerous for health'.

For example: he was not just overweight; she was clinically obese.

- The most appropriate antonym of the given word is 'Slim' which means '(especially of people) attractively thin'.

Hence, the correct answer is Option 3 i.e. Slim.

## Question 92 :

Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph. A. Though they had never ever heard Subha utter their names, they unfailingly recognized her footsteps as she came into their shed. B. They even understood the precious moments between them as she loved and cuddled them, scolded them, and pleaded to them. C. Subha did really have a close circle of friends and companions; they were Sarbasi and Panguli, the two cows living in their cow-shed. D. They understood the silent, melancholy tune of her unspoken words during those moments, and the intensity of her expressions more easily than the spoken language of other humans.

Difficulty : Moderate
Average Time: 80 Seconds

## Options :

1. CBDA
2. CADB
3. ADBC
4. DABC

## Solution :

The correct answer is Option 2 i.e. CADB.
While arranging the parts of the passage, we should find some grammatical or contextual connections between them. Also, the first sentence of a passage is usually independent and introduces a topic. The second one provides more information about it.

Steps to arrange the sentences in the correct order to form a meaningful and coherent paragraph:

- Sentence C is the independent sentence and introduce a topic related to a person named Subha and two cows. So, sentence $\mathbf{C}$ is the first sentence after rearrangement.
- Sentence A talks about the cows feelings for the central character. Hence, sentence A follows sentence A.
- Now, after going through the options, we find that only option 2 has the sequence we got.
- Thus, the correct order after rearrangement is option 2 i.e. CADB.

The paragraph is: Subha did really have a close circle of friends and companions; they were Sarbasi and Panguli, the two cows living in their cow-shed. Though they had never ever heard Subha utter their names, they unfailingly recognized her footsteps as she came into their shed. They understood the silent, melancholy tune of her unspoken words during those moments, and the intensity of her expressions more easily than the spoken language of other humans. They even understood the precious moments between them as she loved and cuddled them, scolded them, and pleaded to them.

Hence, the correct answer is Option 2 i.e. CADB.

## Question 93 :

Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select 'No substitution'. The minister, along with his team members, is expected to arrive shortly.

## Options :

1. No substitution
2. are expected to arrive
3. are expect to arrive
4. are being expected to arrive

## Solution :

The correct answer is Option 1 i.e. No substitution.

- The underlined part of the given sentence is grammatically and conceptually correct.
- The underlined part talks about a future event and hence expected to arrive is the correct phrase to use.
- Also, the verb of the sentence is absolutely correct.
- So, the underlined part does not need a substitution.

Hence, the correct answer is Option 1 i.e. No substitution.

## Question 94 :

The following sentence has been divided into parts. One of them contains an error. Select the part that contains the error from the given options. Mr. Rao asked the newcomer / to his office / if he will minded / working late that day.

## Options :

1. to his office
2. working late that day
3. Mr. Rao asked the newcomer
4. if he will minded

## Solution :

The correct answer is Option 4 i.e. if he will minded.

The error lies in option 4.

- From the given sentence it is evident that Mr. Rao is enquiring about the future work conditions.
- "if he will minded" is an incorrect phrase as minded is in the past tense form.
- We need to use the base form of "mind" for the sentence because we know that whenever we use the modal verb we always use the base form with it.
- To change the 'if clause' into the past tense, 'will' has to be changed into 'would' followed by the first form of verb 'mind'.

The correct sentence is:- Mr. Rao asked the newcomer to his office if he would mind working late that day.
Hence, the correct answer is Option 4 i.e. if he will minded.

## Question 95 :

Select the INCORRECTLY spelt word.

Difficulty : Moderate
Average Time : 77 Seconds

## Options:

1. Innovation
2. Barricade
3. Preshious
4. Infection

## Solution :

The correct answer is Option 3 i.e. Preshious.
The correct word is Precious which means 'of great value because of being rare, expensive, or important'.
For example: Clean water is a precious commodity in many parts of the world.
All other words are correctly spelt.
Hence, the correct answer is Option 3 i.e. Preshious.

## 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. Essaouira's origins stretch back to prehistoric times, and this spot on Morocco's Atlantic coast (1) $\qquad$ a centre of culture and commerce ever since. (2) $\qquad$ centuries, the harbour town was an important trading post (3) $\qquad$ both a seaport and as the north-western terminus of a caravan (4) $\qquad$
stretching across the desert to Timbuktu (5) $\qquad$ Africa's interior.

## Question 96 :

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

## Options :

1. been
2. has been
3. had be
4. have been

## Solution :

The correct answer is Option 2 i.e. has been.

- The given blank needs the present perfect continuous tense to refer to an action that began at some time in the past and is still in progress.
- Now, in the option both "has been" and "have been" are present perfect continuous tense forms.
- But "have been" is used for plural subject whereas, "has been" is used for singular subject.
- Therefore, in the given blank, "has been" is the correct phrase as the subject is singular in the sentence.

Hence, the correct answer is Option 2 i.e. has been.

## 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. Essaouira's origins stretch back to prehistoric times, and this spot on Morocco's Atlantic coast (1) $\qquad$ a centre of culture and commerce ever since. (2) $\qquad$ centuries, the harbour town was an important trading post (3) $\qquad$ both a seaport and as the north-western terminus of a caravan (4) $\qquad$ stretching across the desert to Timbuktu (5) $\qquad$ Africa's interior.

## Question 97 :

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

## Options :

1. In
2. Above

For
4. At

## Solution :

The correct answer is Option 3 i.e. For

- The given blank needs a preposition to use with the period of time centuries.
- This is best represented by the preposition 'for'.
- Use of preposition 'for':

1. Used to indicate the use of something.
2. Used to mean because of.
3. Used to indicate time or duration.

Hence, the correct answer is Option 3 i.e. For

## 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. Essaouira's origins stretch back to prehistoric times, and this spot on Morocco's Atlantic coast (1) $\qquad$ a centre of culture and commerce ever since. (2) $\qquad$ centuries, the harbour town was an important trading post (3) $\qquad$ both a seaport and as the north-western terminus of a caravan (4) $\qquad$ stretching across the desert to Timbuktu (5) $\qquad$ Africa's interior.

## Question 98 :

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

## Options :

1. from
2. at
3. as
4. by

## Solution :

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

- The given blank needs a preposition to refer to the function or character of the harbour town.
- This is best represented by the preposition 'as'. We use 'as' with a noun to refer to the role or purpose of a person or thing.

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Hence, the correct answer isOption 3 i.e. as.

## 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. Essaouira's origins stretch back to prehistoric times, and this spot on Morocco's Atlantic coast (1) $\qquad$ a centre of culture and commerce ever since. (2) $\qquad$ centuries, the harbour town was an important trading post (3) $\qquad$ both a seaport and as the north-western terminus of a caravan (4) $\qquad$ stretching across the desert to Timbuktu (5) $\qquad$ Africa's interior.

## Question 99 :

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

Difficulty : Moderate
Average Time : 72 Seconds

## Options :

1. way
2. direction
3. highway
4. route

## Solution :

The correct answer is Option 4 i.e. route.
The given blank needs the word that would imply the way followed by a caravan.
From the above options, it is clear that route which means 'a way or course taken in getting from a starting point to a destination' is the best fit word for the given blank.

Hence, the correct answer is Option 4 i.e. route.

## 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. Essaouira's origins stretch back to prehistoric times, and this spot on Morocco's Atlantic coast (1) $\qquad$ a centre of culture and commerce ever since. (2) $\qquad$ centuries, the harbour town was an important trading post (3) $\qquad$ both a seaport and as the north-western terminus of a caravan (4) $\qquad$ stretching across the desert to Timbuktu (5) $\qquad$ Africa's interior.

## Question 100 :

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

## Options :

1. in
2. above
3. over
4. on

## Solution :

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

- The given blank needs a preposition to denote Timbuktu's position within Africa.
- This is best represented by the preposition 'in'.
- Use of preposition 'in':

1. Used for unspecific times during a day, month, season, year.
2. Used to indicate a location or place.
3. Used to indicate a shape, color, or size.
4. Used to express while doing something.
5. Used to indicate a belief, opinion, interest, or feeling.

Hence, the correct answer is Option 1 i.e. in.

## Ssc Cgl Tier I Previous Year Question Paper Analysis

The analysis of Ssc Cgl Tier I Previous Year Question Paper held on 2021-08-23 in the Afternoon 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 Quantitative Aptitude, 25 questions were asked from Logical Reasoning and 25 questions were asked from General Awareness
4. 17 questions should have been skipped if you were short of time.

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

## English Language

Reading Comprehension - 24
2. One Word Substitution - 1

## Quantitative Aptitude

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

## Logical Reasoning

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

## General Awareness

1. GK Misc - 25

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5 LAKH+ STUDENTS

## Ssc CgI Tier I Previous Year Question Paper Tipsand Tricks



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

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

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