

STAFF SELECTION COMMISSION

CONSTABLE (GD) IN CAPFS, SSF, ASSAM RIFLES & NCB

SOLVED PAPER

(16th January 2023: Shift-1)

Time Allotted- 1 hours

Max marks- 160

Important Instructions:-

- This paper contains 80 questions which are divided into 4 sections. Each section contains 20 questions.
- General Intelligence & Reasoning
- General Knowledge & General Awareness
- Elementary Mathematics
- English
- There will be 2 marks for each correct answer and also there will be negative marking of 0.5 marks for each wrong answer.
- Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

General Intelligence & Reasoning

1. Three statements are given followed by three conclusions numbered I, II and III.

Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All stems are leaves.

All fruits are leaves.

All leaves are trunks.

Conclusions:

I. All fruits are trunks.

II. All trunks are stems.

III. Some trunks are fruits.

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

2. Which of the following terms will replace the question mark (?) in the given series?

BGR, CIV, ELZ, HPD, LUH, ?

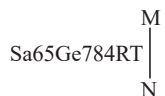
1. QBL
2. QAK
3. QBK
4. QAL

3. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

QPON : RRRR :: IJGK : JLJO :: PKON : ?

1. QMRR
2. RQRM
3. MQRR
4. RRMQ

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



1. T1†879D22ds2
2. tЯ†87Eg22ds2
3. tЯ†879D22ds2
4. TЯ†879D22ds2

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

83, 299, 424, 488, ?

1. 415
2. 515
3. 625
4. 589

6. Select the option that is related to the fifth term in the same way as the second term is related to the first term and the fourth term is related to the third term.

BIND : FFKH :: ROMP : VLJT :: SPUN : ?

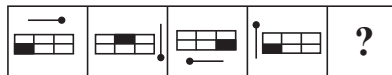
1. WMRR
2. VLRS
3. VLQR
4. WMQS

7. Select the correct combination of mathematical signs to sequentially replace the * signs and to balance the given equation.

11 * 10 * 10 * 240 * 2

1. ×, ÷, =, +
2. ×, +, =, ÷
3. =, +, ÷, ×
4. ÷, ×, =, +

8. Select the figure that will come in place of the question mark (?) in the following figure series.



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

9. Seven people, A, B, C, D, E, F and G are sitting in a straight row, facing north. A sits second from the left. Only two people sit between A and C. Only three people sit between D and F and D is an immediate neighbour of A. B is an immediate neighbour of D and E is not an immediate neighbour of C. Who sits to the extreme left?

1. D
2. G
3. F
4. E

10. In a certain code language, 'grasshopper ant' is coded as 'ja do', 'seed blade' is coded as 'ju fo', 'blade ant' is coded as 'fo do', and 'grasshopper seed' is coded as 'ja ju'.

What is the code for 'blade'?

1. fo
2. zu
3. ja
4. do

11. Which two signs should be interchanged to make the below equation mathematically correct?

48 + 36 - 81 × 9 ÷ 2 = 66

1. + and -
2. × and +
3. ÷ and ×
4. ÷ and -

12. Which of the following letter-clusters will replace the question mark (?) in the given series?

DHVV, GKSV, ?, MQMP, PTJM

1. JNPS
2. JPMR
3. KNPR
4. JNQS

13. Six students are sitting around a circular table facing the centre. F is an immediate neighbour of A. D sits second to the right of E. B is an immediate neighbour of E and sits second to the right of C. F sits second to the right of D. A is not an immediate neighbour of E. Who sits to the immediate left of E?

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

14. Select the option figure in which the given figure is embedded. (Rotation is NOT allowed).
-
1. 2. 3. 4.
15. Looking at a photograph, Anjali said, "He is the only son of my father." How is the man in the photograph related to Anjali?
 1. Brother 2. Father's father
 3. Son 4. Mother's father
16. Select the option that is related to the third term in the same way as the second term is related to the first term and the sixth term is related to the fifth term.
 $13 : 225 :: 16 : ? :: 17 : 361$
 1. 376 2. 324 3. 345 4. 328
17. Which of the following numbers will replace the question mark (?) in the given series?
 10, 11, 15, 42, 58, 183, ?
 1. 218 2. 217 3. 220 4. 219
18. A paper is folded and cut as shown below. How will it appear when unfolded?
1. 2. 3. 4.
19. In a certain code the word 'BARK' is numerically coded as 5132. The word 'BEND' is numerically coded as 5749. How is the word 'BEARD' numerically coded in the same code?
 1. 57123 2. 51739 3. 57132 4. 57139
20. Which of the following options represents the correct order of the given words as they would appear in the English dictionary?
 1. Glob 2. Globule 3. Global 4. Globe
 5. Gloom
 1. 3, 4, 2, 1, 5 2. 1, 3, 4, 2, 5 3. 1, 3, 4, 5, 2 4. 1, 2, 4, 3, 5

General Knowledge & General Awareness

21. The World Chess Champion Vishwanathan Anand belongs to which Country?
 1. India 2. Sri Lanka 3. Nepal 4. Bangladesh
22. As of 10 April 2022, how many general elections have been held to the Lok Sabha?
 1. 19 2. 15 3. 21 4. 17
23. Plastids containing _____ pigment chlorophyll are called chloroplasts.
 1. brown 2. yellow 3. green 4. colourless
24. Who among the following was awarded the Sangeet Natak Akademi Award in 2001?
 1. Sonal Mansingh 2. Anuradha Pandey
 3. M.R Krishnamurthy 4. Alarmel Valli
25. _____, who lived in the court of Kanishka, composed a biography of the Buddha, the Buddhacharita.
 1. Mathara 2. Nagarjuna
 3. Ashvaghosha 4. Samgharaksha
26. _____ restrict/s imports and help/s domestic producers from foreign competition.
 (A) Tariffs (B) Quotas
 1. Neither A nor B 2. Both A and B
 3. Only A 4. Only B

27. Which industry does aluminium smelting belong to?
 1. Textile Industry 2. Chemical industry
 3. Sugar Industry 4. Metallurgical industry
28. Which of the following is an outer planet of the solar system?
 1. Venus 2. Earth 3. Mercury 4. Saturn
29. Which of the following dance forms is associated with Sikkim?
 1. Tashi Sabdo 2. Munari 3. Bhangra 4. Kolattam
30. The Goods and Services Tax, Act commenced from _____.
 1. 1 July 2017 2. 1 April 2018
 3. 1 July 2016 4. 1 April 2016
31. How many elements were known when Mendeleev started his work?
 1. 73 2. 53 3. 63 4. 93
32. Which neighbouring country of India is NOT a part of Commonwealth Games?
 1. China 2. Bangladesh 3. Pakistan 4. Sri Lanka
33. Which of the following harvest festivals is primarily celebrated by the people of western Odisha?
 1. Onam 2. Gudi Padwa 3. Wangala 4. Nuakhai
34. Which of the following is a stroke use in swimming?
 1. Shark 2. Butterfly 3. Lion 4. Dog
35. The 42nd Amendment Act in 1976 inserted which new Part in the Indian Constitution?
 1. Part II A 2. Part I A 3. Part IV A 4. Part III A
36. Which political leader won the bypoll election from Gola Gokarannath constituency in Uttar Pradesh, in November 2022?
 1. Piyush Goyal 2. Vikram Singh Saini
 3. Azam Khan 4. Aman Giri
37. Who has been appointed as the Governor of West Bengal in November 2022?
 1. Jagdeep Dhankhar 2. C. V. Ananda Bose
 3. La. Ganesan 4. D.Y. Patil
38. Jallianwala Bagh massacre happened in 1919. Where is Jallianwala Bagh located?
 1. Haryana 2. Uttar Pradesh
 3. Madhya Pradesh 4. Punjab
39. The interest rate at which the Reserve Bank absorbs liquidity from banks against the collateral of eligible government securities under the LAF is called the _____.
 1. Rent rate 2. Statutory rate
 3. Repo rate 4. Reverse repo rate
40. Use of traditional inputs and absence of modern technologies reduce agricultural productivity leads to;
 1. Highest level 2. High level
 3. Low level 4. Optimum level

Elementary Mathematics

41. S buys sugar for ₹ 40 per kg and sells at ₹ x per kg. Due to a fault in the weighing machine, it shows 1 kg when the actual weight is 800 gm. What is the value of x per kg if his profit percentage is 30%?
 1. 48.6 2. 46.1 3. 41.6 4. 52.1
42. The difference in compound interest, under annual compounding, and simple interest on a certain sum at the same rate of interest in 2 years is 144% of the sum. Find the rate of interest per annum.
 1. 15% 2. 100% 3. 120% 4. 20%

43. What is the height of a solid cylinder whose radius is 7 cm and total surface area is 1144 cm^2 ? (Use $\pi = \frac{22}{7}$)
 1. 19 cm 2. 22 cm 3. 12 cm 4. 18 cm
44. A man rows upstream 15 km and downstream 18 km, he takes 3 hours each time. The speed of the current is:
 1. $\frac{1}{2}$ km/h 2. $\frac{3}{2}$ km/h 3. 1 km/h 4. 2 km/h
45. The radius of a hemisphere is 21 cm. Its volume (in cm^3) will be:
 (Use $\pi = 22/7$)
 1. 19404 2. 20112 3. 21109 4. 22101
46. M can do a piece of work in 12 days and N in 24 days. They begin together, but M leaves the work 6 days before the completion of the work. Find the total number of days to complete the entire work.
 1. 10 days 2. 12 days 3. 7 days 4. 6 days
47. The population of a village is 24000. If it is expected to decrease by 4 percent the next year, then what will be the population of the village next year?
 1. 23520 2. 22080 3. 22560 4. 23040
48. Find the LCM of $\frac{2}{5}$, $\frac{4}{15}$ and $\frac{6}{25}$.
 1. $\frac{12}{7}$ 2. $\frac{11}{5}$ 3. $\frac{12}{5}$ 4. $\frac{5}{12}$
49. Ravi can decorate a wall in 6 hours, while Ankita can decorate the same wall in 10 hours. In how many hours will they decorate the wall working simultaneously?
 1. 4.75 hours 2. 4 hours 3. 3 hours 4. 3.75 hours
50. A dealer marked the price of an item 45% more than its cost price and sold it by allowing a discount of 20%. Find his profit percentage.
 1. 30% 2. 25% 3. 20% 4. 16%
51. In a bag of rice of ₹ 70 per kg, two different types are mixed. First type of rice is 8 kg in quantity of ₹ 60 per kg, while the second type of rice is 4 kg in quantity. What is the price per kg of the second type of rice?
 1. ₹ 75 2. ₹ 65 3. ₹ 80 4. ₹ 90
52. If the length of a rectangle is reduced by 15% and breadth is increased by 10%, what is the percentage change in the area of the rectangle?
 1. 5.6% decrement 2. 5.6% increment
 3. 6.5% decrement 4. 6.5% increment
53. A store announces the following three schemes to sell its articles. Which of these gives the maximum discount to the buyer?
 A. Two successive discounts of 20% and 24%
 B. Buy 5 get 3 free
 C. Buy 13 get 7 free
 1. All are equal 2. B 3. C 4. A
54. Rani goes to school from home at a certain speed and returns to home at the speed of 50 km/h. If the distance between her home and school is 20 km and the average speed of the whole journey is 37.5 km/h, then what is her speed from home to school?
 1. 35 km/h 2. 40 km/h 3. 30 km/h 4. 45 km/h
55. What principal will amount to ₹ 5,324 in 2 years, when the interest is compounded at 10% per annum, compounding annually?
 1. ₹ 4,400 2. ₹ 4,324 3. ₹ 4,420 4. ₹ 4,440
56. A bike takes 3 hours to cover a distance of 162 km. What distance will it cover in 5 hours?
 1. 240 km 2. 292 km 3. 301 km 4. 270 km
57. A dishonest merchant uses a false weight of 200 gm instead of 250 gm. What is his profit percentage?
 1. 15% 2. 25% 3. 20% 4. 10%
58. A boat covers a distance of 375 metres in upstream in 30 min, and returns back to the starting point in 18 min. Find the ratio of the speed of the boat in still water and the speed of the stream.
 1. 5 : 6 2. 7 : 13 3. 13 : 7 4. 4 : 1
59. If $a : b = 2 : 7$ and 343 is the third proportional to a and b , then the value of $b - a$ is:
 1. 98 2. 70 3. 49 4. 126
60. Evaluate $65 \div 13 \times 4 + (35 \div 7 \times 9)^2 + 100 \div 5$ of 4×80 .
 1. 2045 2. 2445 3. 2345 4. 2545

English

61. Select the most appropriate option that can substitute the underlined segment in the given sentence.
If we have to sending a mail today, we shall get a reply in two days.
 1. If we would send a mail today
 2. If we send a mail today
 3. If we will send a mail today
 4. If we have sending a mail today
62. Select the option that expresses the given sentence in past tense form.
 The home nurse is expecting a salary hike from the relatives of the new family.
 1. The home nurse will be expecting a salary hike from the relatives of the new family.
 2. The home nurse expects a salary hike from the relatives of the new family.
 3. The home nurse was expecting a salary hike from the relatives of the new family.
 4. The home nurse has been expecting a salary hike from the relatives of the new family.
63. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully.
 The thief who (have taken the pony) was found guilty by the jury.
 1. has took the pony 2. had taken the pony
 3. have took the pony 4. has taken the pony
64. Select the MISSPELT word.
 1. Extrime 2. Eccentricity 3. Electricity 4. Excite
65. Select the most appropriate meaning of the given idiom.
 To be in the doldrums
 1. To be in high energy and happiness
 2. To be in utter confusion
 3. To be in low and dull spirits
 4. To be in helpless condition
66. Select the most appropriate option to fill in the blank.
 I am born and _____ in a cultured family.
 1. bare 2. bread 3. bred 4. beard
67. Select the most appropriate ANTONYM of the given word.
 Cease
 1. Terminate 2. Stop 3. Commence 4. Quit
68. Select the most appropriate option that can substitute the underlined segment in the given sentence.
 There is a few rice left in the cooker.
 1. fewest rice left in 2. little rice left in
 3. less rice left on 4. any rice left in

69. Select the most appropriate meaning of the given idiom.
The best thing since sliced bread
1. A really good invention
2. A thoroughly examined food
3. An openly performed confession
4. A sincerely made apology
70. Select the most appropriate option to complete the given sentence.
Mechanical Engineering students from IIT, Madras, have developed an unnamed sailing boat that can reach any given destination _____.
1. highly 2. autonomously
3. verbally 4. collaboratively
71. Select the most appropriate synonym of the word given in the brackets to fill in the blank.
Consuming coffee every day can have _____ (negative) effects on one's health.
1. hospitable 2. adverse 3. despairing 4. arbitrary
72. Select the most appropriate synonym of the underlined word in the given sentence.
Instead of studying rules and definitions, Helen acquired language through experience and habit.
1. Obtained 2. Forfeited 3. Admired 4. Awarded
73. Select the most appropriate ANTONYM of the word given in the bracket to fill in the blank.
She was too (feeble) _____ to leave her room.
1. wimpy 2. effete 3. strong 4. asthenic
74. Identify the INCORRECT spelling from the given sentence and select its correct spelling.
Voting allows every citizen to have a say in choosing who should run the government.
1. allouse 2. chosing 3. government 4. citizen

75. Select the most appropriate synonym of the given word.
Contagion
1. Grandeur 2. Illusion
3. Transfusion 4. Transmission
- 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 low-pressure area characterised by rapid and frequently damaging air circulation is what (1) _____ cyclones. Storms and (2) _____ weather are frequently present during cyclones. In the Northern hemisphere, the air moves counter clockwise, (3) _____, in the Southern hemisphere, it moves clockwise. Extratropical cyclones, sometimes known as temperate cyclones, and tropical cyclones are the two (4) _____ under which cyclones fall. The name 'Cyclone' comes from the Greek word 'Cyclos' which means a snake's coils. Henry Paddington came up with the term because tropical storms in the Arabian Sea and Bay of Bengal (5) _____ coiled sea serpents.
76. Select the most appropriate answer for blank 1.
1. inspires 2. spawns 3. destroys 4. generates
77. Select the most appropriate answer for blank 2.
1. unfavourable 2. accustomed
3. advantageous 4. unaccepted
78. Select the most appropriate answer for blank 3.
1. whereas 2. because 3. or 4. unless
79. Select the most appropriate answer for blank 4.
1. ranks 2. statuses 3. categories 4. species
80. Select the most appropriate answer for blank 5.
1. collect 2. negate 3. mimic 4. resemble

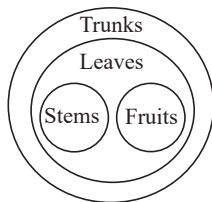
Answer Key

1. (3)	2. (4)	3. (1)	4. (4)	5. (2)	6. (1)	7. (2)	8. (3)	9. (4)	10. (1)
11. (3)	12. (1)	13. (1)	14. (2)	15. (1)	16. (2)	17. (4)	18. (4)	19. (4)	20. (2)
21. (1)	22. (4)	23. (3)	24. (4)	25. (3)	26. (2)	27. (4)	28. (4)	29. (1)	30. (1)
31. (3)	32. (1)	33. (4)	34. (2)	35. (3)	36. (4)	37. (2)	38. (4)	39. (4)	40. (3)
41. (3)	42. (3)	43. (1)	44. (1)	45. (1)	46. (2)	47. (4)	48. (3)	49. (4)	50. (4)
51. (4)	52. (3)	53. (4)	54. (3)	55. (1)	56. (4)	57. (2)	58. (4)	59. (2)	60. (2)
61. (2)	62. (3)	63. (2)	64. (1)	65. (3)	66. (3)	67. (3)	68. (2)	69. (1)	70. (2)
71. (2)	72. (1)	73. (3)	74. (4)	75. (4)	76. (4)	77. (1)	78. (1)	79. (3)	80. (4)

Answers with Explanations

1. **Option (3) is correct.**

As per the statements, following Venn diagram can be made:



Conclusion I- All fruits are trunks - True.
Conclusion II- All trunks are stems - False.
Conclusion III- Some trunks are fruits - True.
Hence, only conclusion I and III follows.

2. **Option (4) is correct.**

Given series: BGR, CIV, ELZ, HPD, LUH, ?
The pattern followed here is:

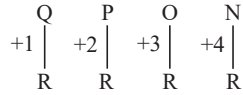
B	G	R
-1	+2	+4
C	I	V
-2	+3	+4
E	L	Z
-3	+4	+4
H	P	D
-4	+5	+4
L	U	H
-5	+6	+4
Q	A	L

Hence, QAL is the correct answer.

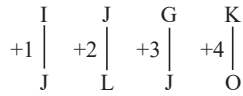
3. **Option (1) is correct.**

Given that: QPON is related to RRRR

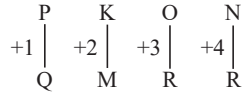
The pattern followed here is:



And, IJGK is related to JLJO



Similarly, for PKON:

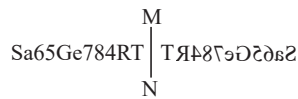


Hence, QMRR is the correct answer.

4. Option (4) is correct.

In the mirror image, left becomes right and right becomes left.

Hence, the correct mirror image is:



5. Option (2) is correct.

Given series: 83, 299, 424, 488, ?

The pattern followed here is:

$$83 + (6)^3 = 299$$

$$299 + (5)^3 = 424$$

$$424 + (4)^3 = 488$$

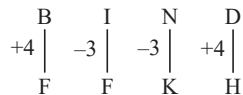
$$488 + (3)^3 = 515$$

Hence, 515 is the correct answer.

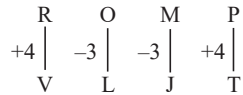
6. Option (1) is correct.

Given that: BIND is related to FFKH

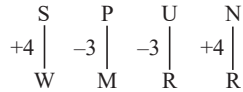
The pattern followed here is:



And, ROMP is related to VLJT



Similarly, for SPUN:



Hence, WMRR is the correct answer.

7. Option (2) is correct.

Given expression: $11 * 10 * 10 * 240 * 2$

Upon checking option (2) and putting signs, we get

$$11 \times 10 + 10 = 240 \div 2$$

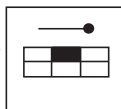
$$\Rightarrow 110 + 10 = 120$$

$$\Rightarrow 120 + 120$$

$$\text{LHS} = \text{RHS}$$

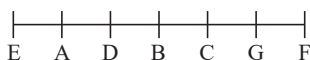
8. Option (3) is correct.

As per the given pattern and symmetry, following figure will complete the series:



9. Option (4) is correct.

According to the question, following sitting arrangement can be made:



Hence, E sits to the extreme left.

10. Option (1) is correct.

Given that:

grasshopper ant \rightarrow ja do

seed (blade) \rightarrow ju fo

(blade) ant \rightarrow fo do

grasshopper seed \rightarrow ja ju

Hence, 'blade' will be coded as 'fo'.

11. Option (3) is correct.

Given equation: $48 + 36 - 81 \times 9 \div 2 = 66$

Upon checking option (3) and interchanging \div and \times , we get

$$48 + 36 - 81 \div 9 \times 2 = 66$$

$$\Rightarrow 48 + 36 - 9 \times 2 = 66$$

$$\Rightarrow 48 + 36 - 18 = 66$$

$$\Rightarrow 84 - 18 = 66$$

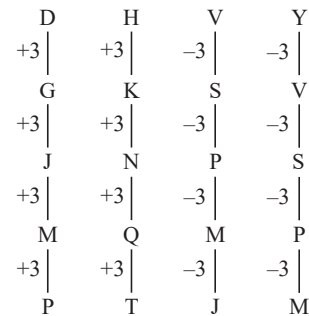
$$\Rightarrow 66 = 66$$

$$\text{LHS} = \text{RHS}$$

12. Option (1) is correct.

Given series: DHVY, GKSV, ?, MQMP, PJJM

The pattern followed here is:

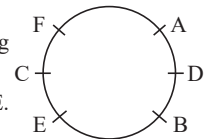


Hence, JNPS is the correct answer.

13. Option (1) is correct.

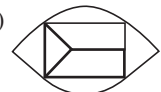
According to the question, following sitting arrangement can be made:

Hence, C sits to the immediate left of E.



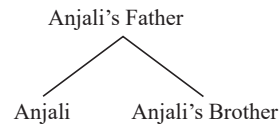
14. Option (2) is correct.

The given figure is embedded in option (2) as highlighted below:



15. Option (1) is correct.

According to the question, following family tree can be made:



Hence, the man in the photograph is the brother of Anjali.

16. Option (2) is correct.

Given that: $13 : 225 :: 16 : ? :: 17 : 361$

The pattern followed here is:

$$(1^{\text{st}} \text{ term} + 2)^2 = 2^{\text{nd}} \text{ term}$$

$$(13 + 2)^2 = 225$$

$$(16 + 2)^2 = 324$$

$$(17 + 2)^2 = 361$$

Hence, 324 is the correct answer.

17. Option (4) is correct.

Given series: 10, 11, 15, 42, 58, 183, ?

The pattern followed here is:

$$10 + (1)^3 = 11$$

$$11 + (2)^2 = 15$$

$$15 + (3)^3 = 42$$

$$42 + (4)^2 = 58$$

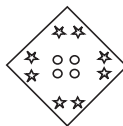
$$58 + (5)^3 = 183$$

$$183 + (6)^2 = 219$$

Hence, 219 is the correct answer.

18. Option (4) is correct.

After unfolding the paper, it will appear as follows:

**19. Option (4) is correct.**

Given that: BARK is coded as 5132, and BEND is coded as 5749

So, the letter codes are as follows:

B = 5, E = 7, A = 1, R = 3, D = 9, K = 2, N = 4

Hence, BEARD will be coded as 57139.

20. Option (2) is correct.

The correct order of the given words are as follows:

1. Glob	3. Global	4. Globe	2. Globule	5. Gloom
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Hence, 1, 3, 4, 2, 5 is the correct answer.

21. Option (1) is correct.

Vishwanathan Anand is an Indian chess Grandmaster and a former World Chess Champion. Born in Chennai, India, in 1969, he is renowned as one of the greatest chess players in history. He achieved the title of the first Indian grandmaster and secured the prestigious position of a five-time World Chess Champion.

22. Option (4) is correct.

There are a total of 17 General Election/Lok Sabha Elections held in India till April 2022. The elections are held by the Election Commission of India. They decide the schedule and all rules regarding elections are made by the parliament. Article 324 provides for the Election Commission and all powers it exercises. First Lok Sabha election: Held in 1951-52.

23. Option (3) is correct.

Chloroplasts are tiny parts inside plant cells, and they have a green colour because of a pigment called chlorophyll. This chlorophyll is really important because it helps plants and other living things use light to make food in a process called photosynthesis.

24. Option (4) is correct.

Alarmel Valli was awarded the Sangeet Natak Akademi Award in 2001. Alarmel Valli was awarded the Sangeet Natak Akademi Award in 2001. She received the award for her contributions to the field of Bharatanatyam.

25. Option (3) is correct.

Ashvaghosha, who lived in the court of Kanishka, composed a biography of the Buddha known as the Buddhacharita.

26. Option (2) is correct.

Tariffs and quotas are ways that countries use to limit imports and help their businesses. Tariffs are taxes on imports, and quotas are limits on how much of a product can be brought in from other countries. These measures are meant to protect local industries from foreign competition.

27. Option (4) is correct.

Aluminium smelting is part of the industry that deals with metals. This industry works on taking metals from rocks and turning them into useful products. In the case of aluminium smelting, the focus is on making aluminium from its basic materials.

28. Option (4) is correct.

Outer planets in the solar system are those located beyond the asteroid belt. Saturn is one of these outer planets, known for its distinctive rings. Venus, Earth, and Mercury are inner planets, positioned closer to the Sun.

29. Option (1) is correct.

Tashi Sabdo is a Bhutia folk dance associated with Sikkim. The dance is a graceful group performance that depicts the tradition of offering scarves on auspicious occasions. The dancers perform to the accompaniment of musical instruments like the drum, flute, Yangjey, and Yarkha.

30. Option (1) is correct.

The Goods and Services Tax (GST) Act started on 1 July 2017, replacing various central and state taxes. It aimed to make things simpler for businesses and help the Indian economy grow.

31. Option (3) is correct.

When Mendeleev began his work, 63 elements were known. Mendeleev's periodic table was proposed in 1869 and contained 63 discovered elements.

32. Option (1) is correct.

Bangladesh, Pakistan, and Sri Lanka are all members of the Commonwealth of Nations and participate in the Commonwealth Games. They have been participating since the early editions of the games. However, China is not part of the Commonwealth of Nations, so it doesn't participate in the Commonwealth Games. China has its own sports event in the region known as the Asian Games.

33. Option (4) is correct.

The harvest festival primarily celebrated by the people of western Odisha is Nuakhai.

34. Option (2) is correct.

In swimming, swimmers use a stroke known as the 'Butterfly.' This is a competitive swimming style characterized by distinctive arm movements and a dolphin kick.

35. Option (3) is correct.

The 42nd Amendment Act in 1976 inserted a new Part in the Indian Constitution, which is Part IV A. This part dealt with the Fundamental Duties of Citizens. It is important to note that the 42nd Amendment Act was later partially repealed by the 43rd and 44th Amendment Acts, and as a result, some of the changes it introduced were reversed.

36. Option (4) is correct.

Aman Giri won the by-poll election from the Gola Gokarannath constituency in Uttar Pradesh in November 2022. He was the Bharatiya Janata Party (BJP) candidate and emerged victorious against his nearest rival, Vinay Tiwari from the Samajwadi Party (SP).

37. Option (2) is correct.

C. V. Ananda Bose was appointed as the Governor of West Bengal on 23rd November 2022.

38. **Option (4) is correct.**

Jallianwala Bagh is located in Punjab. The Jallianwala Bagh massacre occurred on April 13, 1919, in Amritsar, Punjab, during the British colonial rule in India.

39. **Option (4) is correct.**

The Reverse Repo Rate is the interest rate at which the Reserve Bank absorbs liquidity from banks, using eligible government securities as collateral under the Liquidity Adjustment Facility (LAF).

40. **Option (3) is correct.**

The use of traditional inputs and the absence of modern technologies can lead to a low level of agricultural productivity, making option 3, a low level is the most accurate answer.

41. **Option (3) is correct.**

Given that,

Cost price of sugar = ₹40/kg

So, price of 800 gm sugar = $40 \times 0.8 = ₹32$

And selling price = ₹ x /kg

According to the question,

$$\Rightarrow \frac{x-32}{32} \times 100 = 30$$

$$\Rightarrow x - 32 = 9.6$$

$$\Rightarrow x = 41.6$$

42. **Option (3) is correct.**

Given that,

Let the principal amount is P and rate of interest is $r\%$ per annum.

$$\text{Using, difference of CI and SI for 2 years} = P \left(\frac{r}{100} \right)^2$$

$$\Rightarrow 1.44P = P \left(\frac{r}{100} \right)^2$$

$$\Rightarrow r^2 = 14400$$

$$\Rightarrow r = 120\%$$

43. **Option (1) is correct.**

Given that,

Radius of solid cylinder is 7 cm and total surface area is 1144 cm².

Let the height of solid cylinder = h cm

Using, total surface area of solid cylinder = $2\pi r(h + r)$

$$\Rightarrow 1144 = 2 \times \frac{22}{7} \times 7 \times (h + 7)$$

$$\Rightarrow h = 19$$

44. **Option (1) is correct.**

Given that,

A man rows upstream 15 km and downstream 18 km, takes 3 hour each time.

Let speed of man and current are u and v km/h respectively.

$$\text{Using, Time} = \frac{\text{distance}}{\text{speed}}$$

According to the question,

$$\Rightarrow \frac{15}{u-v} = 3$$

$$\Rightarrow u - v = 5 \quad \dots(1)$$

$$\text{And } \frac{18}{u+v} = 3$$

$$u + v = 6 \quad \dots(2)$$

By equation (1) and (2),

$$u = \frac{11}{2} = 5.5 \text{ km/h}$$

$$\text{and } v = \frac{1}{2} \text{ km/h}$$

45. **Option (1) is correct.**

Given that,

Radius of hemisphere = 21 cm

$$\text{So, volume } \frac{2}{3} \pi r^3 = \frac{2}{3} \times \frac{22}{7} \times 21 \times 21 \times 21 = 19404 \text{ cm}^3$$

46. **Option (2) is correct.**

Given that,

M can do a piece of work in 12 days and N in 24 days respectively.

Let, total work = LCM(12, 24) = 24 unit

$$\text{So, efficiency of M} = \frac{24}{12} = 2 \text{ unit/day}$$

$$\text{And efficiency of N} = \frac{24}{24} = 1 \text{ unit/day}$$

Let total time taken to complete the task is x days.

According to the question,

$$2 \times (x - 6) + 1 \times x = 24$$

$$\Rightarrow x = 12 \text{ days}$$

47. **Option (4) is correct.**

Given that,

The population of a village is 24000.

According to the question,

$$\begin{aligned} \text{The population of the village next year} &= 24000 \times \frac{96}{100} \\ &= 23040 \end{aligned}$$

48. **Option (3) is correct.**

$$\text{LCM of } \frac{2}{5}, \frac{4}{15}, \frac{6}{25} = \frac{\text{LCM of } (2, 4, 6)}{\text{HCF of } (5, 15, 25)} = \frac{12}{5}$$

49. **Option (4) is correct.**

Given that,

Time taken by Ravi = 6 hours

Time taken by Ankita = 10 hours

Let total work = LCM (6, 10) = 30 units

$$\text{So, efficiency of Ravi} = \frac{30}{6} = 5 \text{ unit/h}$$

$$\text{And efficiency of Ankita} = \frac{30}{10} = 3 \text{ unit/h}$$

$$\text{Required time} = \frac{30}{(5+3)} = 3.75 \text{ hour}$$

50. **Option (4) is correct.**

Given that,

Let the cost price = x

So, MRP = $1.45x$

And selling price = $1.45x \times 0.80 = 1.16x$

According to the question,

$$\text{Profit percentage} = \frac{1.16x - x}{x} \times 100 = 16\%$$

51. **Option (4) is correct.**

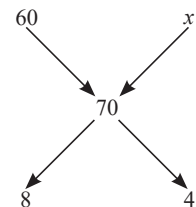
Let, the price of second type of rice = ₹ x /kg

Using mixture formula,

$$\text{So, } \frac{x-70}{70-60} = \frac{8}{4}$$

$$\Rightarrow x - 70 = 20$$

$$\Rightarrow x = 90$$



52. **Option (3) is correct.**

Given that,

The length of a rectangle is reduced by 15% and breadth is increased by 10%.

Total percentage change in the area of rectangle

$$= -15 + 10 + \frac{(-15)(10)}{100}$$

$$= -5 - 1.5 = -6.5\%$$

So, there is a decrement of 6.5%.

53. Option (4) is correct.

Given that,

$$\begin{aligned} \text{According to announces (A), total discount} &= 20 + 24 - \frac{20 \times 24}{100} \\ &= 39.2\% \end{aligned}$$

$$\begin{aligned} \text{According to announces (B), total discount} &= \frac{3}{8} \times 100 \\ &= 37.5\% \end{aligned}$$

$$\text{According to announces (C), total discount} = \frac{7}{20} \times 100 = 35\%$$

So, announces (A) gives maximum discount.

54. Option (3) is correct.

Let her speed from home to school = x km/h

Using, average speed = $\frac{\text{total distance}}{\text{total time}}$

$$\Rightarrow 37.5 = \frac{20 + 20}{\left(\frac{20}{50}\right) + \left(\frac{20}{x}\right)}$$

$$\Rightarrow \frac{20}{50} + \frac{20}{x} = \frac{40}{37.5}$$

$$\Rightarrow 75 \times \frac{(x+50)}{50x} = 4$$

$$\Rightarrow 75x + 3750 = 200x$$

$$\Rightarrow x = 30 \text{ km/h}$$

55. Option (1) is correct.

Given that,

Rate of interest = 10% per annum

Time = 2 year

Let the principal amount = P

$$\text{Using, } A = P \left(1 + \frac{r}{100}\right)^n$$

$$\Rightarrow 5324 = P \left(1 + \frac{10}{100}\right)^2$$

$$\Rightarrow P = 5324 \times \frac{10}{11} \times \frac{10}{11} = ₹4400$$

56. Option (4) is correct.

Given that,

A bike takes 3 hours to cover a distance of 162 km.

$$\text{So, speed of car} = \frac{162}{3} = 54 \text{ km/h}$$

Now, required distance = $54 \times 5 = 270$ km

57. Option (2) is correct.

Given that,

A dishonest merchant uses a false weight of 200 g instead of 250 g.

$$\text{So, profit percentage} = \frac{250 - 200}{200} \times 100 = 25\%$$

58. Option (4) is correct.

Given that,

Distance = 375 m

Time taken in upstream = 30 m

Time taken in downstream = 18 m

Let the speed of boat in still water and steam are u and v m/min respectively.

According to the question,

$$\Rightarrow \frac{375}{u-v} = 30$$

$$\Rightarrow u-v = \frac{25}{2} \quad \dots(1)$$

$$\text{And } \frac{375}{u+v} = 18$$

$$\Rightarrow u+v = \frac{125}{6} \quad \dots(2)$$

By equation (1) and (2),

$$\Rightarrow \frac{u-v}{u+v} = \frac{3}{5}$$

$$\Rightarrow 5u - 5v = 3u + 3v$$

$$\Rightarrow \frac{u}{v} = \frac{4}{1}$$

59. Option (2) is correct.

Let $a = 2x$ and $b = 7x$

According to the question, $\frac{2x}{7x} = \frac{7x}{343}$

$$\Rightarrow x = 14$$

So, $a = 14 \times 2 = 28$ and $b = 7 \times 14 = 98$

Now, $b - a = 98 - 28 = 70$

60. Option (2) is correct.

Value of $65 \div 13 \times 4 + (35 \div 7 \times 9)^2 + 100 \div 5$ of 4×80 ,

$$= 65 \div 13 \times 4 + (5 \times 9)^2 + 100 \div 5 \text{ of } 4 \times 80$$

$$= 65 \div 13 \times 4 + 2025 + 100 \div 5 \text{ of } 4 \times 80$$

$$= 65 \div 13 \times 4 + 2025 + 100 \div 20 \times 80$$

$$= 5 \times 4 + 2025 + 5 \times 80$$

$$= 20 + 2025 + 400$$

$$= 2445$$

61. Option (2) is correct.

The sentence has a conditional structure. This is an example of first conditional, which is used to express the future consequence of a realistic possibility now or in the future. In this conditional sentence, the structure of the sentence is: (if clause) simple present + (clause 2) simple future tense. Hence, the sentence should be: If we send a mail today, we shall get a reply in two days.

62. Option (3) is correct.

Since we require to select the sentence in the past tense, the structure of a sentence in the past continuous tense is: sub + was/were + verb + ing. So, the sentence should be: The home nurse was expecting a salary hike from the relatives of the new family.

63. Option (2) is correct.

The sentence is in the past tense. There are two actions of the past and it is apparent that the action of taking the pony took place before the jury found the person guilty. So, the previous action will be in the past perfect tense. Thus, the best replacement for the selected part is "had taken the pony."

64. Option (1) is correct.

This question tests a student's vocabulary. The wrongly spelled word is 'Extrime'. It should be extreme.

65. Option (3) is correct.

This question tests a student's vocabulary and understanding of idioms and phrases. To be in the doldrums means to be in a depressed state or in low spirits; lethargic, sluggish, or lacking energy. Example: I've been in the doldrums ever since my grandfather died last month.

66. Option (3) is correct.

This question tests a student's vocabulary and understanding of idioms and phrases. The phrase 'born and bred' is used to say that someone was born and grew up in a particular place. Thus, the best word in the blank is 'bred'.

67. Option (3) is correct.

This question tests a student's vocabulary. Cease means to come or bring to an end. Example: "The hostilities ceased and normal life was resumed." The antonym for cease is to commence. Commence means to start.

68. Option (2) is correct.

Few is used before countable nouns. Less is used to show comparison. The correct adjective for rice is 'little,' because rice is an uncountable noun.

69. Option (1) is correct.

The best thing since sliced bread means to be an excellent person; thing or new invention. Example: Some people don't like colourful clothes and others think a lime green jumpsuit is the best thing since sliced bread.

70. Option (2) is correct.

The sentence mentions a boat, so the best word to fill in the blank in the context of a boat is 'autonomously', which means independently and without supervision.

71. Option (2) is correct.

The best word to substitute 'negative' in the given context of the sentence is "adverse". Coffee can't have despairing or arbitrary effects.

72. Option (1) is correct.

The synonym for 'acquired' is 'obtained'. Fortified means (of a place) provided with defensive works as protection against attack. Example: "A fortified manor house."

73. Option (1) is correct.

Feeble means lacking physical strength, especially as a result of age or illness. Example: "By now, he was too feeble to leave his room." The antonym of feeble is strong. Wimpy means not strong, brave, or confident. Effete means affected, over-refined, and ineffectual. Asthenic means weak.

74. Option (4) is correct.

The incorrectly spelled word is 'citezen'. It should be 'citizen'.

75. Option (4) is correct.

Contagion means the situation in which a disease is spread by touching someone or something, or the situation in which feelings, ideas, or problems spread from one place to another. The synonym of contagion is transmission.

76. Option (4) is correct.

The best word to fill in the blank is 'generates,' which means to cause or bring about something. The sentence mentions that cyclones are caused by rapid air circulation.

77. Option (1) is correct.

The blank needs an adjective to qualify the word 'weather'. And the paragraph talks about cyclones (a noun that has a negative implication due to the effects), so the blank can be filled with another negative word like 'unfavourable'.

78. Option (1) is correct.

The sentence describes the movement of air in the northern and southern hemispheres. So, the blank requires a word that connects both of the parts of the sentence. In this context, the best word is 'whereas' which shows contrast between two facts.

79. Option (3) is correct.

The best word in the context is 'categories'.

80. Option (4) is correct.

Since the previous sentence draws analogy between a snake and a cyclone, hence the word to fill in the blank is 'resemble'.