

STAFF SELECTION COMMISSION

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

SOLVED PAPER

(11th February 2019: Shift-2)

Time Allotted- 1.5 hours

Max marks- 100

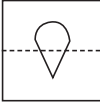
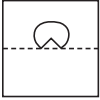
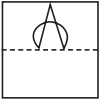
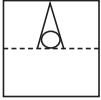
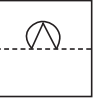
Important Instructions:-

- This paper contains 100 questions which are divided into 4 sections. Each section contains 25 questions.
- General Intelligence & Reasoning
- General Knowledge & General Awareness
- Elementary Mathematics
- English
- There will be 1 mark for each correct answer and also there will be negative marking of 0.25 marks for each wrong answer.
- Each question is compulsory to attempt and there will be no negative marking for unattempted questions.

General Intelligence & Reasoning

- Identify the correct option to complete the following series.
5, 8, 13, 20, 29, _____, 53, 68, 85
1. 40 2. 39 3. 35 4. 36
- Identify the number that is different from the rest.
1. 625 2. 115 3. 125 4. 25
- Select the Venn diagram that best illustrates the relationship between the three given classes.
Languages, Hindi, Malayalam
1. 2. 3. 4.
- A medical representative plans to visit each of six hospital— A, B, C, D, E and F — exactly once during the course of one day. He is setting up his schedule for the day according to the following conditions:
 - He must visit A before B and E.
 - He must visit B before D.
 - The third hospital he visits must be C.
 Which of the following could be the order in which the medical representative visits the six hospitals?
 1. A, F, C, D, E, B 2. C, E, A, B, D, F
 3. C, F, A, E, D, B 4. A, B, C, D, E, F
- Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if they appear to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements beyond reasonable doubt.
Statements:
 No cat is a monkey.
 No monkey is a cow.
Conclusions:
 I. No cat is a cow.
 II. Some cows are monkeys.
 1. Only conclusion I follows.
 2. Only conclusion II follows.
 3. Neither conclusion I nor conclusion II follows.
 4. Both conclusions I and II follow.
- Select the option that is related to the third term in the same way as the second term is related to the first term.
 ACE : EIM :: DFH : ?
 1. PLH 2. HPL 3. PHL 4. HLP

- Select the option in which the given figure is embedded.
 -
 -
 -
 -
- Identify the correct option to complete the following series.
50, 49, 47, 44, 40, 35, _____, 22
1. 30 2. 27 3. 29 4. 25
- Select a figure from amongst the four alternatives, that when placed in the blank space (?) of figure X will complete the pattern. (Rotation is not allowed).
 -
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- Choose the alternative which most closely resembles the mirror image of the given figure when mirror is placed at right side.
 -
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 -
- If KITCHEN is coded as LKWGMKU, then SHAMPOO will be coded as _____.
 1. TJDQUUV 2. TJDQTUU 3. TJDQTUV 4. TJEQUUV
- Identify the odd pair from the following.
 1. Eagle : Swoop 2. Pig : Sty
 3. King : Palace 4. Bird : Nest
- Select the figure that will come next in the following series.
 -
 -
 -
 -
- In the following number series, two numbers have been put within brackets. Study the series carefully and select the correct alternative with respect to the series.
 3, 9, (27), 81, (243), 729, 2187

- The first bracketed number (from the left) is correct and the second is incorrect.
 - Both the bracketed numbers are correct.
 - Both the bracketed numbers are incorrect.
 - The first bracketed number (from the left) is incorrect and the second is correct.
15. 'Athletics' is related to 'Stadium' in the same way as 'Skating' is related to '_____'.
1. Ground 2. Track 3. Rink 4. Court
16. Seven employees, T, U, V, W, X, Y and Z, reach their factory in a particular sequence. Y reaches immediately before T but does not immediately follow W. V is the last one to reach. X immediately follows T and is subsequently followed by Z. W reaches before T. Who is the second to reach the factory?
1. U 2. X 3. W 4. Z
17. If $B = 3$ and $H = 9$, then $SCHOOL = \underline{\hspace{2cm}}$.
1. 78 2. 76 3. 69 4. 96
18. Identify the odd one from the following.
1. Volume 2. Small 3. Height 4. Weight
19. A square transparent sheet with a pattern is given. How will the pattern appear when the transparent sheet is folded along the dotted line?
- 
1.  2.  3.  4. 
20. Identify the odd one from the following.
1. EV 2. KP 3. DX 4. HS
21. Five students are sitting in a row. Akbar is to the left of the person sitting in the middle, but to the right of Sekar. Prakash is to the right of Deva, and Ram is to the right of Prakash. Ram is second from the person sitting in the middle. Who is the person sitting in the middle?
1. Sekar 2. Akbar 3. Deva 4. Ram
22. The statements below are followed by two conclusions labeled I and II. Assuming that the information in the statements is true, even if it appears at variance with generally established facts, decide which conclusion(s) logically and definitely follow(s) from the information given in the statements.
- Statements:**
All papers are books.
All books are papaya.
- Conclusion**
I. All papers are papaya.
II. Some papayas are papers.
- Only conclusion I follows.
 - Neither conclusion I nor conclusion II follows.
 - Only conclusion II follows.
 - Both conclusions I and II follow.
23. Which two signs need to be interchanged to make the given equation correct?
 $20 \div 20 + 20 - 20 \times 20 = 20$
1. + and \div 2. + and - 3. \div and \times 4. + and \times
24. Select the term that will come next in the following series.
a, cd, fgh, jklm, opqr, _____
1. uvwxyz 2. vwxyza 3. uvwxy 4. tuvwx
25. Select the option that is related to the third term in the same way as the second term is related to the first term.
 $\frac{5}{6} : 121 :: \frac{8}{9} : \underline{\hspace{2cm}}$
1. 145 2. 300 3. 289 4. 356

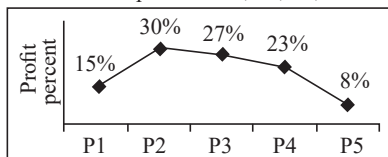
General Knowledge & General Awareness

26. The directional growth movement in plants due to touch is called _____.
1. thigmonasty 2. geotropism
3. phototropism 4. chemotropism
27. The deltas of the Mahanadi and the Godavari are rich in _____ soil.
1. black 2. arid 3. forest 4. alluvial
28. A person with the blood group _____ is considered to be a universal donor.
1. O negative 2. AB positive
3. AB negative 4. O positive
29. When was the Planning Commission set up?
1. 2019 2. 2000 3. 1947 4. 1950
30. The three-tier system of local government does NOT include the _____.
1. Panchayat Samiti 2. Village Committee
3. Gram Panchayat 4. Zila Parishad
31. The United States of America adopted a democratic constitution in _____.
1. 1932 2. 1787 3. 1877 4. 2000
32. In which battle Napoleon was defeated?
1. Ligny 2. Jena 3. Waterloo 4. Arcole
33. Which of the following is the hardest substance?
1. Coal 2. Diamond 3. Silver 4. Iron
34. The Statue of Unity in India is the world's tallest statue of _____.
1. MK Gandhi 2. Sardar Vallabhbhai Patel
3. Vinoba Bhave 4. Dr B.R. Ambedkar
35. Begum Hazrat Mahal is associated to which of the following revolts of India?
1. Moplah Revolt 1921 2. Paika Revolt 1817
3. Gond Revolt 1941 4. Sepoy Mutiny 1857
36. The National Rural Employment Guarantee Act was passed in _____.
1. 2005 2. 1900 3. 2019 4. 2000
37. Name the famous Indian cricketer who wrote the book 'A Century Is Not Enough'.
1. Virender Sehwag 2. Virat Kohli
3. Sachin Tendulkar 4. Sourav Ganguly
38. _____ won the Miss World 2017 pageant.
1. Lara Dutta 2. Anukreethy
3. Manushi Chhillar 4. Yukta Mukhi
39. _____ is a dance form which represents a unique synthesis of Hindu and Muslim genius in art.
1. Kathak 2. Manipuri 3. Odissi 4. Kathkali
40. The smallest living bird is the _____.
1. Hummingbird 2. Canary
3. House sparrow 4. Dove
41. The largest backwater lake in Odisha is _____.
1. Dal lake 2. Wular lake
3. Chilika lake 4. Pulicat lake
42. In India, currency notes of ₹500 and ₹1,000 were declared invalid in the year?
1. 1998 2. 2019 3. 2016 4. 2001
43. The first lady Indian Air Force officer to fly MIG 21 is _____.
1. Khusboo Mehta 2. Bhavna Sharma
3. Anjali Gupta 4. Avani Chaturvedi
44. Which of the following is NOT a multicellular animal?
1. Amoeba 2. Cat 3. Human 4. Horse

45. Prithvi Raj Chauhan was defeated at the hands of _____, in the battle of Tarain, 1192.
 1. Mohammad Ghori 2. Harun Al Rashid
 3. Abu Bakr 4. Umar II
46. Which state has the largest coast line?
 1. Karnataka 2. Kerala
 3. Tamil Nadu 4. Gujarat
47. The All-India War Memorial, built in the memory of the Indian soldiers who laid down their lives in the First World War is known today as _____.
 1. Char Minar 2. Lal Qila
 3. Jama Masjid 4. India Gate
48. Which Hindi movie is based on the Indian hockey team on their first Olympic gold since India became independent?
 1. Lagaan 2. MS Dhoni 3. Gold 4. Chak De
49. Identify the author of the book "Straight from the heart"
 1. Sachin Tendulkar 2. Kapil Dev
 3. M.S. Dhoni 4. Saurav Ganguly
50. Which country gave universal suffrage since the 19th century?
 1. Sri Lanka 2. India
 3. Pakistan 4. New Zealand

Elementary Mathematics

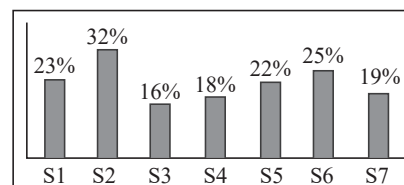
51. A person purchased 12 bags of sugar at the rate of ₹1200 per bag, 8 bags at the rate of ₹1500 per bag and 10 bags at the rate of ₹2100 per bags. What will be the average cost of all the bags together?
 1. ₹1420 2. ₹1680 3. ₹1580 4. ₹1640
52. The line chart given below shows the profit percentage of a company on 5 different products P1, P2, P3, P4 and P5.



The expenditure of product P5 is ₹ 46000. What is revenue of product P5?

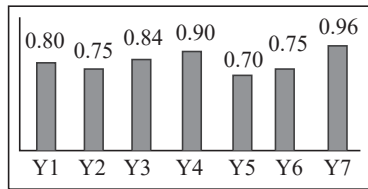
1. ₹52780 2. ₹49680 3. ₹47360 4. ₹4600
53. A bowler has taken 0, 3, 2, 1, 5, 3, 4, 5, 5, 2, 2, 0, 0, 1 and 2 wickets in 15 consecutive matches. What is the median of the given data?
 1. 1 2. 3 3. 0 4. 2
54. A sum of ₹9800 gives simple interest of ₹4704 in 6 years. What will be the rate of interest per annum?
 1. 9% 2. 8.5% 3. 8% 4. 7.5%
55. What is the value of $7\frac{1}{4} + [6 + (5 - 8 \div 4) - 1]$?
 1. $\frac{61}{4}$ 2. $\frac{29}{2}$ 3. $\frac{23}{2}$ 4. $\frac{57}{4}$
56. If Rohit can cover a distance of 1188 km in 22 hours, then what is the speed of Rohit?
 1. 54 m/s 2. 25 m/s 3. 15 m/s 4. 48 m/s
57. The average weight of a group of 24 students increases by 2 kg when the weight of teacher is also included. If the initial average weight of the group of 24 students was 30 kg, then what is the weight of teacher?
 1. 32 kg 2. 82 kg 3. 80 kg 4. 92 kg
58. Selling price and cost price of an article are ₹1333 and ₹2150. What will be the loss percentage?
 1. 38% 2. 61.30% 3. 48% 4. 54.4%

59. If the diameter of a circle increases by 15%, then what will be the percentage increase in its area?
 1. 35.75% 2. 30.3% 3. 25% 4. 32.25%
60. Mohit goes to his office at the speed of 10 m/s and returns to his home at the speed of x km/hr. If average speed of Mohit for the whole journey is 12 m/s, then what is the value of x?
 1. 25 km/hr 2. 15 km/hr 3. 36 km/hr 4. 54 km/hr
61. If A : B = 7 : 8 and B : C = 7 : 9, then what is the ratio of A : B : C?
 1. 56 : 49 : 72 2. 49 : 56 : 72 3. 56 : 72 : 49 4. 72 : 56 : 49
62. Rohit multiplies a number by 2 instead of dividing the number by 2. Resultant number is what percentage of the correct value?
 1. 200% 2. 300% 3. 50% 4. 400%
63. The perimeter of a square and a circle are same. If the area of the circle is 1386 cm², then what will be the area of the square?
 1. 1089 cm² 2. 841 cm² 3. 1024 cm² 4. 1225 cm²
64. Rohan purchased tables at the rate of ₹275 per table. If he sells 16 tables for ₹5060, then what will be the profit percentage?
 1. 13.04% 2. 16% 3. 15% 4. 12.5%
65. If Highest common Factor of two numbers is 8, then which of the following cannot be their Least Common Multiple?
 1. 72 2. 24 3. 68 4. 48
66. P and Q together can complete a work in 105 days, Q and R together can complete the same work in 90 days, P and R together can complete the same work in 126 days. In how many days P, Q and R together can complete the same work?
 1. 70 days 2. 74 days 3. 76 days 4. 72 days
67. A alone can complete a work in 14 days and B alone can complete the same work in 21 days. A and B start the work together but A leaves the work after 4 days of the starting of work. In how many days B will complete the remaining work?
 1. 9 days 2. 16 days 3. 12 days 4. 11 days
68. The bar chart given below shows the amount of sugar used in making 7 different varieties of sweets S1, S2, S3, S4, S5, S6 and S7 has been shown as a percentage of total weight of the sweet.



The combined weight of sweet S5 and S3 is 300 kg. What is the total amount of sugar used in these two sweets together?

1. Cannot be determined 2. 54 kg
 3. 57 kg 4. 60 kg
69. The marked price of a chair and a table are in the ratio 2 : 3 respectively. The shopkeeper gives 20% discount on the chair. If the combined discount on both the chair and the table is 26%, then what will be the discount given on the table?
 1. 34% 2. 32% 3. 30% 4. 28%
70. In a Company, number of engineers doubles itself in every 2 years. In how much time will the number of engineers become 1024 times of its original number?
 1. 12 years 2. 20 years 3. 15 years 4. 24 years
71. A : B = 5 : 8 and B : C = 11 : 13. If A = 110, then what is the value of C?
 1. 176 2. 104 3. 208 4. 88
72. The bar chart given below shows the ratio of expenditure to revenue for seven consecutive years Y1, Y2, Y3, Y4, Y5, Y6 and Y7.



In which year is the profit highest?

1. Y5
 2. Y6
 3. Cannot be determined
 4. Y2
73. If the side of a square increases by 20% then what will be percent increase in its perimeter?
1. 44%
 2. 20%
 3. 80%
 4. 40%
74. If $P : Q : R = 5 : 3 : 6$, then what will be the ratio of $(P/Q) : (Q/R) : (R/P)$?
1. 50 : 15 : 36
 2. 50 : 45 : 36
 3. 75 : 15 : 36
 4. 40 : 12 : 27
75. What is the value of $\left(\frac{5}{2} \text{ of } 5 \div 4 - 2 \text{ of } \frac{1}{7} \div \frac{1}{7}\right)$?
1. $\frac{13}{8}$
 2. $\frac{23}{18}$
 3. $\frac{17}{16}$
 4. $\frac{9}{8}$

English

76. Select the word which means the same as the group of words given.
A disease that is prevalent in a particular area
1. Genetic
 2. Contagious
 3. Endemic
 4. Viral
77. Select the correctly spelt word.
1. Changeble
 2. Changable
 3. Chageable
 4. Changeable
78. Select the word which means the same as the group of words given.
One who studies and cares about environment
1. Archaeologist
 2. Ecologist
 3. Anthropologist
 4. Biologist
79. Select the most appropriate word to fill in the blank.
The Prime Minister was as good as his _____.
1. word
 2. office
 3. sword
 4. dress
80. Select the most appropriate word to fill in the blank.
While in Rome we must do as Romans _____.
1. is doing
 2. was doing
 3. had done
 4. do
81. Select the most appropriate word to fill in the blank.
They never _____ those who have done wrong.
1. condemn
 2. outcast
 3. blame
 4. forgive
- Comprehension:**
In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given.
Every day for a whole year, all kinds of holy men, hermits, scholars and nobles came, and related to the priests their deeds of (1)____, and the priests in solemn council heard their claims. At last, they decided that the one who seemed to be the greatest lover of (2)____ was a rich man who had that very year given all his (3)____ to the poor. So they gave him the plate of gold, but when he took it in his hand, it turned into (4)____ lead; though, when he dropped it on the floor, to his (5)____ it became gold again.
82. Select the most appropriate option that will fill in the blank number 1.
1. charity
 2. kindness
 3. blame
 4. forgive
83. Select the most appropriate option that will fill in the blank number 2.
1. destitute
 2. moneyless
 3. mankind
 4. women
84. Select the most appropriate option that will fill in the blank number 3.
1. wealth
 2. energy
 3. time
 4. life
85. Select the most appropriate option that will fill in the blank number 4.
1. gold
 2. worthy
 3. worthless
 4. valuable
86. Select the most appropriate option that will fill in the blank number 5.
1. confusion
 2. happiness
 3. admiration
 4. amazement
87. Select the antonym of the given word.
HORIZONTAL
1. Parallel
 2. Financial
 3. Official
 4. Vertical
88. From the given options, identify the segment in the sentence which contains the grammatical error.
Does he like to go for sightseeing when he is in holiday?
1. when he is
 2. Does he like
 3. in holiday
 4. to go for shopping
89. Select the option that means the same as the given idiom.
In a nutshell
1. In discussion
 2. In writing
 3. In detail
 4. In brief
90. Select the most appropriate word to fill in the blank.
I make friends _____ I go.
1. moreover
 2. wherever
 3. however
 4. whenever
91. Select the synonym of the given word.
APPARENT
1. Considerable
 2. Doubtful
 3. Obvious
 4. Questionable
92. From the given options, identify the segment in the sentence which contains the grammatical error.
She was known for her skills in dance and music; she is equal proficient in the allied art of painting.
1. skills in dance
 2. allied art of painting
 3. was known
 4. is equal proficient
93. Select the antonym of the given word.
ABOLISH
1. Build
 2. Affirm
 3. Cancel
 4. The population
94. From the given options, identify the segment in the sentence which contains the grammatical error.
The population of Sri Lanka are less than that of India.
1. than that
 2. Sri Lanka are
 3. of India
 4. The population
95. Select the correctly spelt word.
1. Millennium
 2. Millenium
 3. Millenniumm
 4. Millennium
96. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.
'The football coach urged the team were give its best to the final march.
1. No Improvement
 2. That it give its best
 3. Try to give it best
 4. To give its best
97. Select the synonym of the given word.
CURATIVE
1. Trembling
 2. Trembling
 3. Feeding
 4. Healing
98. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.
She give me everything I asked for.
1. Is giving me everything
 2. gave me everything
 3. No Improvement
 4. gave myself everything

99. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is to need to substitute it, select No Improvement.

Study has shown that the use of mobile data in India have increased 50 times over the last three years

1. No improvement

2. has increased 50 times
3. Has been increased to 50 times
4. Is increasing to 50 times

100. Select the option that means the same as the given idiom.

To keep an eye on

1. To keep a watch 2. To be cautious
3. To follow 4. To stare

Answer Key

1.	(1)	2.	(2)	3.	(3)	4.	(4)	5.	(3)	6.	(4)	7.	(4)	8.	(3)	9.	(2)	10.	(2)
11.	(1)	12.	(1)	13.	(1)	14.	(2)	15.	(3)	16.	(1)	17.	(1)	18.	(2)	19.	(4)	20.	(3)
21.	(3)	22.	(4)	23.	(4)	24.	(1)	25.	(3)	26.	(1)	27.	(4)	28.	(1)	29.	(4)	30.	(2)
31.	(2)	32.	(3)	33.	(2)	34.	(2)	35.	(4)	36.	(1)	37.	(4)	38.	(3)	39.	(1)	40.	(1)
41.	(3)	42.	(3)	43.	(4)	44.	(1)	45.	(1)	46.	(4)	47.	(4)	48.	(3)	49.	(2)	50.	(4)
51.	(3)	52.	(2)	53.	(4)	54.	(3)	55.	(1)	56.	(3)	57.	(3)	58.	(1)	59.	(4)	60.	(4)
61.	(2)	62.	(4)	63.	(1)	64.	(3)	65.	(3)	66.	(1)	67.	(4)	68.	(1)	69.	(3)	70.	(2)
71.	(3)	72.	(3)	73.	(2)	74.	(1)	75.	(4)	76.	(3)	77.	(4)	78.	(2)	79.	(1)	80.	(4)
81.	(4)	82.	(1)	83.	(3)	84.	(1)	85.	(3)	86.	(4)	87.	(4)	88.	(3)	89.	(4)	90.	(2)
91.	(3)	92.	(4)	93.	(2)	94.	(2)	95.	(4)	96.	(4)	97.	(4)	98.	(2)	99.	(2)	100.	(1)

Answers with Explanations

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

Given series: 5, 8, 13, 20, 29, ____, 53, 68, 85

Here consecutive odd numbers are added in each step.

So,

$$5 + 3 = 8$$

$$8 + 5 = 13$$

$$13 + 7 = 20$$

$$20 + 9 = 29$$

$$29 + 11 = 40$$

$$40 + 13 = 53$$

$$53 + 15 = 68$$

$$68 + 17 = 85$$

Hence, 40 is the missing number.

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

In the given options, the numbers are multiples of 5.

Option-1) $625 = (5)^4$

Option-2) $115 =$ Not a power of 5.

Option-3) $125 = (5)^3$

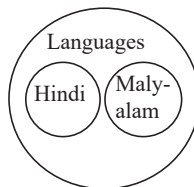
Option-4) $25 = (5)^2$

Hence, 115 is the odd one out.

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

In the given classes, Hindi and Malyalam are two types of languages.

So, the best Venn diagram that illustrates the relationship between them is:



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

According to 2nd and 3rd statements, the representative must visit B before D and the third hospital must be C.

So, these conditions are fulfilled in just one option i.e (4).

Hence, A, B, C, D, E, F is the correct answer.

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

According to the statements, following Venn diagram can be made:



Conclusion - I) No cat is a cow - False

Conclusion - II) Some cows are monkeys - False.

Hence, neither conclusion I nor II follows.

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

Given that: ACE : EIM

The pattern followed here is:

$$\begin{array}{ccc} A & C & E \\ +4 & +6 & +8 \\ E & I & M \end{array}$$

Similarly,

$$\begin{array}{ccc} D & F & H \\ +4 & +6 & +8 \\ H & L & P \end{array}$$

Hence, HLP is the correct answer.

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

The given figure is embedded in option (4) as highlighted below:



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

Given series: 50, 49, 47, 44, 40, 35, ?, 22

The pattern followed here is:

$$50 - 1 = 49$$

$$49 - 2 = 47$$

$$47 - 3 = 44$$

$$44 - 4 = 40$$

$$40 - 5 = 35$$

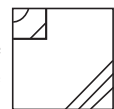
$$35 - 6 = 29$$

$$29 - 7 = 22$$

Hence, 29 will complete the series.

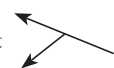
9. **Option (2) is correct.**

According to the pattern followed and the symmetry, following image will complete the pattern:



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

In the mirror image, left becomes right and right becomes left. So, the required mirror image is:



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

Given that: KITCHEN is coded as LKWGMKU

The pattern followed here is:

	K	I	T	C	H	E	N		
+1		+2		+1		+4		+1	
	L	K	W	K	J	D	F		

Similarly,

	S	H	A	M	P	O	O		
+1		+2		+1		+4		+1	
	T	J	D	Q	U	U	V		

Hence, TJDQUUV is the correct answer.

12. Option (1) is correct.

In the given options, 1st term refers to human being, animal or bird. Whereas, 2nd term refers to the place they stay.

Option-1) Eagle stays in an eyrie, not scoop.

Option-2) Pig stays in a sty.

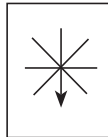
Option-3) King stays in a palace.

Option-4) Birds stays in a nest.

Hence, Eagle : Swoop is the odd one out.

13. Option (1) is correct.

In the given figure series, the arrow is shifting its place as 2, 3, 4, 5, in anti-clockwise direction. So, the required answer figure is:



14. Option (2) is correct.

Given series: 3, 9, (27), 81, (243), 729, 2187

The pattern followed here is:

$$(3)^1 = 3$$

$$(3)^2 = 9$$

$$(3)^3 = 27$$

$$(3)^4 = 81$$

$$(3)^5 = 243$$

$$(3)^6 = 729$$

$$(3)^7 = 2187$$

Hence, both the bracketed numbers are correct.

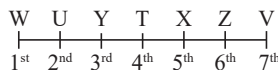
15. Option (3) is correct.

In the given analogy, athletics are played in a stadium.

Similarly, skating is played in a rink.

16. Option (1) is correct.

According to the question, following sequence of employees can be made:



Hence, U is the second to reach the factory.

17. Option (1) is correct.

Given that: B = 3 and H = 9

Here, each alphabet is assigned their positional value +1.

$$B = 2 + 1 = 3$$

$$H = 8 + 1 = 9$$

Similarly,

$$S = 19 + 1 = 20$$

$$C = 3 + 1 = 4$$

$$H = 8 + 1 = 9$$

$$O = 15 + 1 = 16$$

$$O = 15 + 1 = 16$$

$$L = 12 + 1 = 13$$

So,

$$20 + 4 + 9 + 16 + 16 + 13 = 78$$

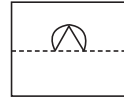
Hence, 78 is the correct answer.

18. Option (2) is correct.

In the given options, volume, height and weight are geometrical measurements. Whereas, small means little, compact or size that is less than normal.

19. Option (4) is correct.

After folding the sheet, it will appear as follows:



20. Option (3) is correct.

In the given options, both letters are opposite to each other as in positional values in English alphabetical series.

Option 1) E Opposite V

Option 2) K Opposite P

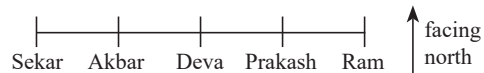
Option 3) D Opposite W

Option 4) H Opposite S

Hence, DX is the odd one out.

21. Option (3) is correct.

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



Hence, Deva is sitting in the middle.

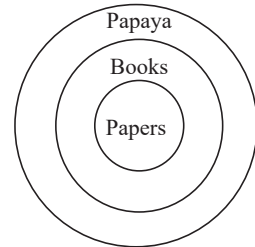
22. Option (4) is correct.

According to the statements, following Venn diagram can be made:

Conclusion-I) All Papers are Papaya - True.

Conclusion-II) Some Papayas are Papers - True.

Hence, both conclusion I and II follows.



23. Option (4) is correct.

Given:

$$20 \div 20 + 20 - 20 \times 20 = 20$$

Upon checking option (4) and interchanging + and \times ,

New equation,

$$20 \div 20 \times 20 - 20 + 20 = 20$$

$$1 \times 20 - 20 + 20 = 20$$

$$20 = 20$$

L.H.S = R.H.S

Hence option (4) is correct.

24. Option (1) is correct.

Given series: a, cd, fgh, jklm, opqrs, ?

Here, one alphabet is missing in between each set.

a b cd e fgh i jklm n opqrs t uvqxyz

Hence, uvwxyz is the correct answer.

25. Option (3) is correct.

Given that: $\frac{5}{6} : 121$

The pattern followed here is:

$$(5 + 6)^2 = (11)^2 = 121$$

Similarly,

$$(8 + 9)^2 = (17)^2 = 289$$

Hence, 289 is the correct answer.

26. Option (1) is correct.

Thigmonasty refers to the non-directional movement of a plant in response to touch or vibration.

27. Option (4) is correct.

The deltas of the Mahanadi and Godavari rivers are predominantly composed of alluvial soil abundant in minerals and nutrients. This type of soil is created through the gradual deposition of fine particles transported by rivers over an extended period.

28. **Option (1) is correct.**
Blood group O negative is a universal donor as it lacks A, B, and RhD antigens on the surface of red blood cells. This absence allows safe transfusions to individuals with different blood types, making it universally compatible in the context of blood transfusions.
29. **Option (4) is correct.**
The Planning Commission was established to formulate and implement economic plans and policies for the development of the country. It played a crucial role in India's economic planning until it was replaced by the NITI Aayog in 2015.
30. **Option (2) is correct.**
The Panchayati Raj system comprises three tiers: Gram Panchayat at the village level, Panchayat Samiti at the block level, and Zila Parishad at the district level. It's essential to note that the term "Village Committee" is not included in this three-tier system.
31. **Option (2) is correct.**
The adoption of the United States Constitution took place on September 17, 1787, at the Constitutional Convention in Philadelphia, Pennsylvania. This pivotal event established the groundwork for the democratic governance of the United States.
32. **Option (3) is correct.**
The conclusive defeat of Napoleon Bonaparte occurred during the Battle of Waterloo, which took place on June 18, 1815.
33. **Option (2) is correct.**
Diamond is the hardest substance on earth. It has a hardness of 10 on the Mohs scale of mineral hardness, meaning that only another diamond can scratch it. Diamond is composed of pure carbon, and the atomic bonding of the atoms makes it the hardest material.
34. **Option (2) is correct.**
The Statue of Unity in India is recognised as the world's tallest statue and was erected in honour of Sardar Vallabhbhai Patel. It serves as a tribute to the distinguished leader and statesman who played a vital role in the unification of India.
35. **Option (4) is correct.**
Begum Hazrat Mahal is associated with the Sepoy Mutiny of 1857. Begum Hazrat Mahal, also known as the Begum of Awadh, was the second wife of Nawab Wajid Ali Shah. In 1857, she led the revolt against the British East India Company in Lucknow, Agra, and Awadh. She was supported by farmers, soldiers, and landlords of Awadh.
36. **Option (1) is correct.**
The National Rural Employment Guarantee Act, enacted in 2005, aims to bolster livelihood security in rural areas by ensuring a minimum of 100 days of guaranteed wage employment within a financial year. It was later renamed the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
37. **Option (4) is correct.**
The famous Indian cricketer who authored the book 'A Century Is Not Enough' is Sourav Ganguly. The book provides insights into his cricketing journey and experiences.
38. **Option (3) is correct.**
Manushi Chhillar emerged victorious in the Miss World 2017 pageant, representing India with grace and securing the coveted title.
39. **Option (1) is correct.**
Kathak, as a dance form, represents a harmonious fusion of artistic brilliance from Hindu and Muslim cultures. This dance style has evolved through the seamless integration of influences from both traditions, giving rise to a vibrant and diverse form of artistic expression.
40. **Option (1) is correct.**
The Bee Hummingbird is the smallest bird in the world. It's only found in Cuba, where it lives in forests with vines and bromeliads. The Bee Hummingbird is about two and a quarter inches long and weighs less than two grams. It's often mistaken for a bee.
41. **Option (3) is correct.**
Chilika Lake, located in the state of Odisha, stands as the largest coastal lagoon in India and the most extensive backwater lake in the region. Renowned for its diverse biodiversity, the lake is home to a variety of migratory birds and fish species.
42. **Option (3) is correct.**
The currency notes of ₹500 and ₹1,000 were declared invalid in India in the year 2016. This decision was part of the government's demonetization initiative, aimed at curbing black money, corruption, and counterfeit currency in circulation.
43. **Option (4) is correct.**
Avani Chaturvedi made history as the inaugural Indian Air Force (IAF) officer to pilot the MIG 21, shattering gender barriers as the first Indian woman to accomplish this milestone. On February 21, 2018, she marked this historic achievement by completing a solo sortie in a MIG 21 Bison aircraft.
44. **Option (1) is correct.**
Amoeba is NOT a multicellular animal. Amoeba is a unicellular organism, belonging to the group of single-celled protists. It lacks specialized multicellular structures and functions as a single, independent cell.
45. **Option (1) is correct.**
In the battle of Tarain in 1192, Mohammad Ghori emerged victorious over Prithvi Raj Chauhan, marking a significant event in Indian history where Prithvi Raj Chauhan was defeated by Mohammad Ghori.
46. **Option (4) is correct.**
Gujarat has the longest coastline in India, at about 1,600 kilometres long. Gujarat is surrounded by the Arabian Sea and has 41 ports, including one major and 40 intermediate ports. India's entire coastline is 7,516.6 kilometres long.
47. **Option (4) is correct.**
The All-India War Memorial, originally named India Gate, was constructed to honour the Indian soldiers who gave their lives during the First World War.
48. **Option (3) is correct.**
The Bollywood film 'Gold', released in 2018, narrates a fictionalized account of the Indian hockey team's journey culminating in their historic 1948 Olympic gold medal victory, marking a significant achievement for India after gaining independence.
49. **Option (2) is correct.**
The author of the book "Straight from the Heart" is Kapil Dev, the iconic Indian cricketer. Through the book, Kapil Dev shares his experiences and reflections, providing readers with a window into his perspective on the world of cricket and life in general.
50. **Option (4) is correct.**
In the 19th century, New Zealand became the trailblazer in granting universal suffrage. Notably, in 1893, it achieved the distinction of being the first self-governing nation to bestow women with the right to vote in parliamentary elections.

51. Option (3) is correct.

Cost price of 12 bags = $12 \times 1200 = ₹ 14400$
 Cost price of next 8 bags = $1500 \times 8 = ₹ 12000$
 And cost price of remaining 10 bags = $2100 \times 10 = ₹ 21000$
 So, average cost price = $\frac{14400 + 12000 + 21000}{12 + 8 + 10} = ₹ 1580$

52. Option (2) is correct.

Let the revenue of product P5 = ₹ x
 Using, profit percentage = $\frac{\text{Revenue} - \text{expenditure}}{\text{expenditure}} \times 100$
 According to the question, $8 = \frac{x - 46000}{46000} \times 100$

$$\Rightarrow x - 46000 = 3680$$

$$\Rightarrow x = 49680$$

53. Option (4) is correct.

Increasing order of the number of wickets taken by bowler:
 0, 0, 0, 1, 1, 2, 2, 2, 2, 3, 3, 4, 5, 5, 5.
 Median of given data = 2

54. Option (3) is correct.

Given that,
 Principal amount = ₹ 9800
 SI = ₹ 4704
 T = 6 years

$$\text{Using, } 4704 = \frac{9800 \times R \times 6}{100}$$

$$\Rightarrow R = 8\%$$

55. Option (1) is correct.

$$\text{The value of } 7\frac{1}{4} + [6 + (5 - 8 \div 4) - 1],$$

$$= 7\frac{1}{4} + [6 + (5 - 2) - 1]$$

$$= \frac{29}{4} + [6 + 3 - 1]$$

$$= \frac{29}{4} + 8$$

$$= \frac{61}{4}$$

56. Option (3) is correct.

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

$$\text{Speed} = \frac{1188}{22} = 54 \text{ km/h} = 54 \times \frac{5}{18} \text{ m/s} = 15 \text{ m/s}$$

57. Option (3) is correct.

Average weight of 24 students = 30 kg
 So, total weight = $30 \times 24 = 720$ kg
 Average weight after including the teacher = 32 kg
 So, now total weight = $32 \times 25 = 800$ kg
 Hence, the weight of teacher = $800 - 720 = 80$ kg

58. Option (1) is correct.

Selling price = ₹ 1333
 And Cost price = ₹ 2150
 So, loss percentage = $\frac{2150 - 1333}{2150} \times 100 = 38\%$

59. Option (4) is correct.

Given that the percentage increase in diameter = 15%

As area of circle = πr^2

Using successive percentage change, total percentage change
 in area = $15 + 15 + \frac{15 \times 15}{100} = 32.25\%$

60. Option (4) is correct.

Given that,
 Mohit speed while going to office = $10 \text{ m/s} = 10 \times \frac{18}{5} = 36 \text{ km/h}$

And Mohit speed while coming from office = $x \text{ km/h}$
 Let the distance between his office and home = $d \text{ km}$

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

$$\Rightarrow 12 \times \frac{18}{5} = \frac{d + d}{\frac{d}{36} + \frac{d}{x}}$$

$$\Rightarrow 43.2 = \frac{72x}{x + 36}$$

$$\Rightarrow 43.2x + 1555.2 = 72x$$

$$\Rightarrow x = 54 \text{ km/h}$$

61. Option (2) is correct.

Given, A : B = 7 : 8
 B : C = 7 : 9
 So, A : B : C = $7 \times 7 : 8 \times 7 : 9 \times 8 = 49 : 56 : 72$

62. Option (4) is correct.

Let the number = 10
 Result when the number is multiplied by 2 = 20
 Result when the number is divided by 2 = 5
 So, percentage value = $\frac{20}{5} \times 100 = 400\%$

63. Option (1) is correct.

The area of circle = 1386 cm^2
 Using, area of circle = πr^2

$$1386 = \frac{22}{7} \times r^2$$

$$\Rightarrow r = 21 \text{ cm}$$

$$\text{So, circumference of circle} = 2\pi r = 2 \times \frac{22}{7} \times 21$$

Using, perimeter of square = $4 \times \text{side}$

According to the question,

$$132 = 4 \times \text{side}$$

$$\text{Side} = 33 \text{ cm}$$

$$\text{So, area of square} = 33 \times 33 = 1089 \text{ cm}^2$$

64. Option (3) is correct.

Cost price of each table = ₹ 275

$$\text{And selling price of each table} = \frac{5060}{16} = ₹ 316.25$$

$$\text{Hence, profit percentage} = \frac{316.25 - 275}{275} \times 100 = 15\%$$

65. Option (3) is correct.

Given that the HCF of given numbers = 8
 From the given options only 68 is not a multiple of 8. Hence
 Option (3) is correct.

66. Option (1) is correct.

Given that,
 P and Q together can complete a work in = 105 days
 Q and R together can complete a work in = 90 days
 P and R together can complete a work in = 126 days
 Let the total work = LCM (105, 90, 126) = 630 unit

$$\text{Efficiency of P \& Q} = \frac{630}{105} = 6 \text{ unit per day}$$

$$\text{Efficiency of Q \& R} = \frac{630}{90} = 7 \text{ unit per day}$$

$$\text{Efficiency of P \& Q} = \frac{630}{126} = 5 \text{ unit per day}$$

$$\text{So, Efficiency of P, Q \& R} = \frac{6+7+5}{2} = 9 \text{ unit per day}$$

$$\text{Hence, required time} = \frac{630}{9} = 70 \text{ days}$$

67. Option (4) is correct.

Given,

A can complete the work in = 14 days

B can complete the work in = 21 days

Let total work = LCM(14, 21) = 42 unit

$$\text{So, efficiency of A} = \frac{42}{14} = 3 \text{ unit per day}$$

$$\text{efficiency of B} = \frac{42}{21} = 2 \text{ unit per day}$$

$$\text{remaining work after 4 days} = 42 - (3 + 2) \times 4 = 22 \text{ unit}$$

$$\text{so, time taken by B to complete the remaining work} = \frac{22}{2} = 11 \text{ days}$$

68. Option (1) is correct.

Given that the combined weight of sweet S5 and S3 is 300 kg. As their individual weights are not given. So, the exact quantity of sugar cannot be determined.

69. Option (3) is correct.

Let the marked price of chair and table are $2x$ and $3x$ respectively.

Let the discount offered on table is $d\%$.

According to the question,

$$\Rightarrow (2x + 3x) \times \frac{26}{100} = 2x \times \frac{20}{100} + 3x \times \frac{d}{100}$$

$$\Rightarrow 130x = 40x + 3dx$$

$$\Rightarrow d = 30\%$$

70. Option (2) is correct.

Let the number of engineers in starting = x

After 2 years, the number of engineers = $2x$

Required number of engineers = 1024x

According to the question,

$$1024x = 2^n \times x$$

$$2^{10} x = 2^n \times x$$

$$2^{10} = 2^n$$

$$\Rightarrow n = 10$$

$$\text{So, required time} = 10 \times 2 = 20 \text{ years}$$

71. Option (3) is correct.

$$A : B = 5 : 8$$

$$B : C = 11 : 13$$

$$\text{So, } A : B : C = 5 \times 11 : 8 \times 11 : 13 \times 8 = 55 : 88 : 104$$

According to the question,

$$55x = 110$$

$$\text{So, } x = 2$$

$$\text{Hence, value of } C = 104 \times 2 = 208$$

72. Option (3) is correct.

From the given graph,

As the value of revenue and expenditure is not given. So, it can't be determined.

73. Option (2) is correct.

We have, perimeter of square = $4 \times \text{side}$

$$\text{New side} = 120\% \text{ of } a = 1.2a$$

$$\text{New Perimeter} = 4 \times 1.2a = 4.8a$$

$$\% \text{ increase in perimeter} = \frac{(4.8a - 4a)}{4a} \times 100 = \frac{0.8a}{4a} \times 100 = 20\%$$

So, percentage change in perimeter when side is changed by $20\% = 20\%$

74. Option (1) is correct.

Given that, $P : Q : R = 5 : 3 : 6$

$$\text{So, } \frac{P}{Q} : \frac{Q}{R} : \frac{R}{P} = \frac{5}{3} : \frac{3}{6} : \frac{6}{5} = \frac{5}{3} \times 30 : \frac{3}{6} \times 30 : \frac{6}{5} \times 30 = 50 : 15 : 36$$

75. Option (4) is correct.

The value of, $\frac{5}{2}$ of $5 \div 4 - 2$ of $\frac{1}{7} \div \frac{1}{7}$,

$$= \frac{5}{2} \text{ of } 5 \div 4 - \frac{2}{7} \div \frac{1}{7}$$

$$= \frac{25}{2} \div 4 - \frac{2}{7} \div \frac{1}{7}$$

$$= \frac{25}{8} - 2$$

$$= \frac{9}{8}$$

76. Option (3) is correct.

Genetic is the scientific study of inherited variation. Contagious implies spread from one person or organism to another, typically by direct contact. Endemic is regularly occurring within an area or community. Viral implies of the nature of, caused by, or relating to a virus or viruses. So, the correct answer is 'endemic'.

77. Option (4) is correct.

Correctly spelt word is 'Changeable' which means capable of change.

78. Option (2) is correct.

Archaeologist is one who studies objects of the past. Ecologist studies and cares about environment. An anthropologist is a person engaged in the practice of anthropology. Anthropology is the study of aspects of humans within past and present societies. Biologist studies humans, plants, animals and the environments in which they live. So, 'Ecologists' is the correct group of people.

79. Option (1) is correct.

The Prime Minister was as good as his word. A minister is known for his words / promises he claims, other three options do not belong to a Prime Minister.

80. Option (4) is correct.

While in Rome we must do as Romans do. The sentence offers a comparison with 'as' and talks of a general fact, so simple present tense is chosen over other tense forms.

81. Option (4) is correct.

They never forgive those who have done wrong. It can be read as: anyone who does wrong is never condemned/never out casted/never blamed, these are incorrect. So it is rightly said that anyone who does wrong is never forgiven.

82. Option (1) is correct.

Every day for a whole year, all kinds of holy men, hermits, scholars and nobles came, and related to the priests their deeds of charity, and the priests in solemn council heard their claims. The preposition 'of' will be followed by a noun. Since the passage dwells on a rich man giving away everything to poor, this is an act of charity, instead of kindness.

- 83. Option (3) is correct.**
At last, they decided that the one who seemed to be the greatest lover of mankind was a rich man. A person who gives away his wealth to the poor, is a man who loves humanity/mankind.
- 84. Option (1) is correct.**
At last, they decided that the one who seemed to be the greatest lover of mankind was a rich man who had that very year given all his wealth to the poor. Since the passage focuses on charity, and the act of giving from a rich man to a poor, this implies the transfer of wealth.
- 85. Option (3) is correct.**
So they gave him the plate of gold, but when he took it in his hand, it turned into worthless lead. The comparison of gold (which is expensive) with lead (not valuable and worthy) clarifies that lead is worthless.
- 86. Option (4) is correct.**
So they gave him the plate of gold, but when he took it in his hand, it turned into worthless lead; though, when he dropped it on the floor, to his amazement it became gold again. The transformation of gold (which is expensive) into the insignificant lead is a cause of amazement/surprise.
- 87. Option (4) is correct.**
Horizontal means parallel to the plane of the horizon. Vertical is perpendicular to the plane of the horizon or to a primary axis: upright.
- 88. Option (3) is correct.**
In the sentence, 'Does he like to go for sightseeing when he is in holiday?', 'in holiday' needs to be replaced by 'on holiday'. 'On' implies a function word to indicate reason, ground, or basis. The correct sentence is: Does he like to go for sightseeing when he is on holiday?
- 89. Option (4) is correct.**
In a nutshell implies very briefly, giving only the main points. Example: I know the best what my brother and sister prefer to eat and wear. In a nutshell, I know them inside out.
- 90. Option (2) is correct.**
I make friends wherever I go. Wherever is an adverb meaning in or to whatever place.
- 91. Option (3) is correct.**
Apparent means clearly visible or understood. So 'obvious' is the correct synonym. Example: I am always the apparent choice whenever it comes to representing my office in Quiz competitions.
- 92. Option (4) is correct.**
She was known for her skills in dance and music; she is equally proficient in the allied art of painting. The part 'is equal proficient' will be replaced by 'is equally proficient'. The adjective proficient can be modified by an adverb only, so 'equally' (adverb) is appropriate instead of 'equal', which is an adjective again.
- 93. Option (2) is correct.**
Abolish is to put an end to something. Example: The extremist group was abolished from operating on Indian soil. So, 'affirm' is the correct synonym.
- 94. Option (2) is correct.**
The population of Sri Lanka is less than that of India. Here, 'Sri Lanka are' will be substituted by 'Sri Lanka is'. This is due to the subject-verb disagreement. The subject is singular (population), so the verb will be singular (is).
- 95. Option (4) is correct.**
The correctly spelt word is : Millennium. A millennium is a period of one thousand years.
- 96. Option (4) is correct.**
The football coach urged the team to give its best to the final march. The phrase 'were give its best' will be replaced by 'to give its best'. This is because the underlined phrase is an adverbial, and it needs to be an adverbial infinitive, which can be attained by adding 'to'.
- 97. Option (4) is correct.**
Curative is able to cure disease. So, the correct synonym is 'healing'.
- 98. Option (2) is correct.**
She gave me everything I asked for. The part 'give me everything' will be replaced by 'gave me everything' because the sentence is in the past form (asked for), so 'give' changes to 'gave'.
- 99. Option (2) is correct.**
Study has shown that the use of mobile data in India has increased 50 times over the last three years. The part 'have increased 50 times' needs to be replaced by 'has increased 50 times'. This is due to the subject-verb disagreement. The subject is singular (the use), so the verb will be (singular) 'has', not 'have' (plural). The tense will be present, not continuous in form, as this is a fact/statistical data.
- 100. Option (1) is correct.**
To keep an eye on implies keep under careful observation. Example: Being the Head girl, I was asked to keep an eye on a few students who have been damaging school property. The correct meaning is 'to keep a watch'.