

STAFF SELECTION COMMISSION
COMBINED GRADUATE LEVEL (TIER-I)

SOLVED PAPER

(9th August 2017: Shift-2)

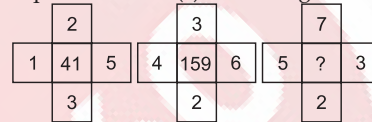
Time Allotted: 1 hour

Max marks: 200

General Intelligence and Reasoning

- In the following question, select the related word from the given alternatives.
Calendar : Date :: Index : ?
1. Name of Author 2. Glossary
3. Contents 4. Summary
- In the following question, select the related number from the given alternatives.
ACOUSTIC : 91 :: RENOUNCE : ?
1. 95 2. 99 3. 105 4. 109
- In the following question, select the related number from the given alternatives.
243 : 819 :: 163 : ?
1. 487 2. 563 3. 572 4. 593
- In the following question, select the odd word from the given alternatives.
1. Badminton 2. Table Tennis
3. Cricket 4. Hockey
- In the following question, select the odd letters from the given alternatives.
1. ACFJ 2. RTWA 3. NPSV 4. HJMQ
- In the following question, select the odd number group from the given alternatives.
1. (4, 16, 48) 2. (6, 36, 90) 3. (8, 64, 160) 4. (12, 144, 360)
- Arrange the given words in the sequence in which they occur in the dictionary.
1. decollete 2. desecrate
3. decorous 4. despicable
5. destitute
1. 13245 2. 15243 3. 32451 4. 45231
- In the following question, which one set of letters, when sequentially placed in the gaps in the given letter series, shall complete it?
a _ bc _ a _ bcdabc _ da _ cd _
1. acbddb 2. adbcdb 3. cabddc 4. ddcbbc
- In the following question, select the missing number from the given series.
1357, 3085, 5282, 8026, ?
1. 9961 2. 10441 3. 11321 4. 11401
- 5 years hence, the ratio of ages of A and B will be 7 : 5 and the difference between their ages will be 4 years. What are present ages (in years) of A and B, respectively?
1. 5, 9 2. 6, 5 3. 9, 5 4. 9, 6
- From a point, Lokesh starts walking towards south and after walking 30 metres, he turns to his right and walks 20 metres, then he turns right again and walks 30 metres. He finally turns to his left and walks 40 metres. In which direction is he with reference to the starting point?
1. North-West 2. East 3. West 4. South
- In the following question, from the given alternative words, select the word which cannot be formed using the letters of the given word.
ENCYCLOPEDIA
1. CONE 2. CYCLE 3. NOISY 4. PEACE

- In a certain code language, "RAIN" is written as "OHBQ". How is "SUMMER" written in that code language?
1. QFLNTT 2. QDLLTR 3. SFNNVT 4. SDNLVR
- In the following question, correct the given equation by interchanging two numbers.
 $8 \times 3 \div 4 + 9 - 5 = 16$
1. 3 and 4 2. 4 and 8 3. 5 and 3 4. 5 and 9
- If $(2)\# * 4 = 2$ and $(4)\# * 4 = 16$, then what is the value of A in $(6)\# * A = 18$?
1. 12 2. 14 3. 16 4. 20
- In the following question, select the number which can replace the question mark (?) from the given alternatives.

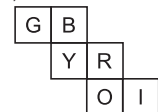


1. 189 2. 227 3. 277 4. 339
- How many triangles are there in the given figure?
1. 8 2. 10
3. 12 4. 14
- Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follows from the statements.

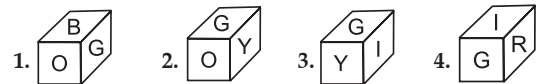


- Statements:**
I. All rackets are bats. II. All bats are wickets.
- Conclusions:**
I. Some wickets are rackets.
II. All wickets are rackets.
- Options:**
1. Only conclusion I follows.
2. Only conclusion II follows.
3. Neither conclusion (I) nor conclusion (II) follows.
4. Both conclusions follow.

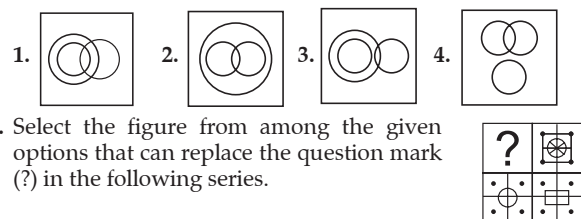
- From the given options, which figure can be formed by folding the figure given in the question?

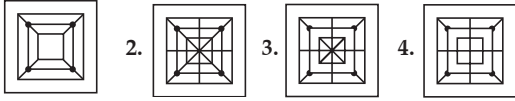

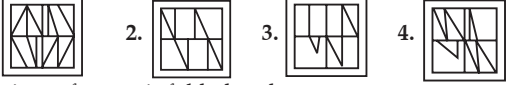
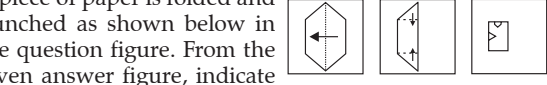


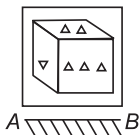
- Identify the diagram that best represents the relationship among the given classes.
Staff, Manager, Worker

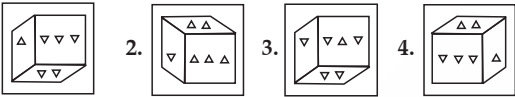


- Select the figure from among the given options that can replace the question mark (?) in the following series.



1. 
22. From the given figures, select the one in which the question figure is hidden/embedded. 
1. 
23. A piece of paper is folded and punched as shown below in the question figure. From the given answer figure, indicate how it will appear when opened.
1. 
24. If a mirror is placed on the line AB, then which of the answer figure is the right image of the given figure?



1. 
25. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'x' can be represented by 21, 44, etc. and 'R' can be represented by 67, 98, etc. Similarly, you have to identify the set for the word "CREEP".

	MATRIX-I				
	0	1	2	3	4
0	E	C	P	X	T
1	C	P	X	T	E
2	P	X	T	E	C
3	X	T	E	C	P
4	T	E	C	P	X

	MATRIX-II				
	5	6	7	8	9
5	R	L	N	O	M
6	O	M	R	L	N
7	L	N	O	M	R
8	M	R	L	N	O
9	N	O	M	R	L

1. 10, 79, 23, 32, 42
3. 33, 86, 32, 13, 43
2. 24, 55, 14, 41, 12
4. 42, 98, 41, 00, 34

General Awareness

26. In which market form, a market or an industry is dominated by a single seller?
1. Oligopoly 2. Monopoly
3. Duopoly 4. Monopolistic Competition
27. Which one of the following is also regarded as disguised unemployment?
1. Underemployment 2. Frictional unemployment
3. Seasonal unemployment 4. Cyclical unemployment
28. Which of the following are constituents of Indian Parliament?
(i) The President
(ii) The Council of States (Rajya Sabha)
(iii) The House of the People (Lok Sabha)
1. (ii) and (iii) 2. (i) and (ii) 3. (i) and (iii) 4. (i), (ii) and (iii)

29. Who among the following is the executive head of state in India?
1. Prime Minister 2. President
3. Cabinet Secretary 4. Finance Secretary
30. Who built the Konark's Sun Temple?
1. Anantavarman Chodaganga Deva
2. Narasimhadeva I
3. Kapilendra Deva Routaray
4. Purushottam Dev
31. Who was the first Governor General of Bengal?
1. Robert Clive 2. William Bentick
3. Warren Hastings 4. Charles Cornwallis
32. Amazon river flows through which of the following country?
1. USA 2. France 3. Brazil 4. Canada
33. What is the other name of Sahyadri Range?
1. Lesser Himalayas 2. Shivaliks
3. Western Ghats 4. Eastern Ghats
34. Who discovered bacteria?
1. Antonie Ven Leeuwenhoek 2. Robert Brown
3. Robert Hook 4. Robert Koch
35. What is the name of a group of similar cells performing a specific function?
1. Tissue 2. Organ
3. Organ system 4. Cellular organisation
36. Plant tissues are of how many types?
1. 3 2. 2 3. 5 4. 6
37. It is difficult to fix a nail on a freely suspended wooden frame. Which law supports this statement?
1. Law of inertia 2. Newton's second law
3. Newton's third law 4. Pascal's law
38. Which one of the following is not a property of electromagnetic waves?
1. Electromagnetic waves do not show interference and diffraction.
2. Oscillating electric field and magnetic field are perpendicular to each other.
3. Electromagnetic waves are transverse waves.
4. Electromagnetic waves do not require a medium to propagate.
39. What is a bug in computer terminology?
1. A virus 2. A program
3. An error in a program 4. Magnetic disk storage device
40. A radio-active substance has a half life of six months. Three-fourth of the substance will decay in _____.
1. six months 2. ten months
3. twelve Months 4. twenty-four months
41. pH of the human blood is _____.
1. slightly Acidic 2. highly Acidic.
3. slightly Basic 4. highly Basic
42. In which city is the Forest Research Institute of India located?
1. New Delhi 2. Hyderabad
3. Dehradun 4. Shimla
43. Deen Dayal Rasoi Yojana to provide food at only ₹ 5 has been launched on 6th April, 2017 by which state?
1. Chattisgarh 2. Haryana
3. Madhya Pradesh 4. Uttar Pradesh
44. What was invented by Zacharias Jansen?
1. Jet Engine 2. Radium
3. Microscope 4. Electric Lamp
45. In which of the following game, a ball is not used?
1. Football 2. Cricket 3. Badminton 4. Tennis
46. Match the following
- | Festival | State |
|---------------------|-----------------|
| 1. Gangaur | (a) West Bengal |
| 2. Ganesh Chaturthi | (b) Rajasthan |
| 3. Durga Puja | (c) Maharashtra |

1. 1-b, 2-c, 3-a
 3. 1-b, 2-a, 3-c
47. Who has won the 'Miss Universe 2016' title?
 1. Pia Wurtzbach
 3. Raquel Pellissier
48. Who is the author of the book titled 'Numbers Do Lie'?
 1. Anil Menon
 3. Ian Chapell
49. Who has been appointed as the Secretary General of the United Nations in January, 2017?
 1. Ban Ki-Moon
 3. Boutros-Boutros Ghali
50. India has the longest international border with which country?
 1. Bhutan
 2. Nepal
 3. Bangladesh
 4. Pakistan

Quantitative Aptitude

51. How many numbers are there from 700 to 950 (including both) which are neither divisible by 3 nor by 7?
 1. 107
 2. 141
 3. 144
 4. 145
52. A can complete a work in 20 days and B can complete the same work in 25 days. If both of them work together, then in 3 days, what per cent of the total work will be completed?
 1. 9
 2. 12
 3. 25
 4. 27
53. The length of the two parallel sides of a trapezium is 18 m and 24 m. If its height is 12 m, then what is the area (in m²) of the trapezium?
 1. 126
 2. 252
 3. 504
 4. 1,024
54. If two successive discounts of 50% and 10% are offered, then what is the net discount (in %)?
 1. 50
 2. 55
 3. 60
 4. 65
55. Three bottles with equal capacity containing a mixture of milk and water in the ratios 2 : 5, 3 : 4 and 4 : 5, respectively. If the content of these three bottles are emptied into a large bottle, what will be the ratio of milk and water, respectively in the large bottle?
 1. 73 : 106
 2. 73 : 116
 3. 73 : 113
 4. 73 : 189
56. The average age of 6 members of a family is 20 years. If the age of the servant is included, then the average age increases by 25%. What is the age (in years) of the servant?
 1. 30
 2. 35
 3. 50
 4. 55
57. For an article, the profit is 190% of the cost price. If the cost price increases by 10% but the selling price remains the same, then the profit is what percentage of the selling price (approximately)?
 1. 54
 2. 62
 3. 70
 4. 163
58. A, B and C are three students. A got 18% more marks than B and 12% less than C. If B got 220 marks, then how many marks did C get?
 1. 230
 2. 295
 3. 240
 4. 290
59. Two people A and B are at a distance of 260 km from each other at 9:00 a.m. A immediately starts moving towards B at a speed of 25 km/h and at 11:00 a.m., B starts moving towards A at a speed of 10 km/hr. At what time (in p.m.) will they meet each other?
 1. 5:00
 2. 6:00
 3. 6:30
 4. 7:00
60. If ₹ 2,500 becomes ₹ 2,970.25 in 2 years at compound interest compounded annually, then what is the yearly rate of interest (in %)?
 1. 7
 2. 9
 3. 11
 4. 13
61. If $\left(\frac{1}{x}\right) + \left(\frac{1}{y}\right) + \left(\frac{1}{z}\right) = 0$ and $x + y + z = 9$, then what is the value of $x^3 + y^3 + z^3 - 3xyz$?
 1. 81
 2. 361
 3. 729
 4. 6,561

62. If $x^4 + \left(\frac{1}{x^4}\right) = 34$, then what is the value of $x^3 - \left(\frac{1}{x^3}\right)$?
 1. 0
 2. 6
 3. 8
 4. 14
63. If $x = 1 - y$ and $x^2 = 2 - y^2$, then what is the value of xy ?
 1. 1
 2. 2
 3. $-\frac{1}{2}$
 4. -1
64. If $x + \left[\frac{1}{(x+7)}\right] = 0$, then what is the value of $x - \left[\frac{1}{(x+7)}\right]$?
 1. $3\sqrt{5}$
 2. $3\sqrt{5} - 7$
 3. $3\sqrt{5} + 7$
 4. 8
65. In the given figure, $DE \parallel BC$ and $AD : DB = 5 : 3$, then what is the value of $\left(\frac{DE}{BC}\right)$?
 1. 5/8
 2. 2/3
 3. 3/4
 4. 5/3
66. PQRS is a cyclic quadrilateral and PQ is the diameter of the circle. If $\angle RPQ = 38^\circ$, then what is the value (in degrees) of $\angle PSR$?
 1. 52
 2. 77
 3. 128
 4. 142
67. The smaller diagonal of a rhombus is equal to the length of its sides. If the length of each side is 6 cm, then what is the area (in cm²) of an equilateral triangle whose side is equal to the bigger diagonal of the rhombus?
 1. $18\sqrt{3}$
 2. $27\sqrt{3}$
 3. $27\sqrt{3}$
 4. $36\sqrt{3}$
68. In the given figure, PR and ST are perpendicular to the tangent QR. PQ passes through centre O of the circle whose diameter is 10 cm. If PR = 9 cm, then what is the length (in cm) of ST?
 1. 1
 2. 1.25
 3. 1.5
 4. 2
69. What is the simplified value of $(\sec A + \cos A)(\sec A - \cos A)$?
 1. $2 \tan^2 A$
 2. $2 \sin^2 A$
 3. $\sin^2 A \tan^2 A$
 4. $\sin^2 A + \tan^2 A$
70. What is the simplified value of $\left(\frac{\operatorname{cosec} A}{\cot A + \tan A}\right)^2$?
 1. $2 \cos^2 A$
 2. $1 - \sin^2 A$
 3. $\sec^2 A$
 4. $\sec A \tan A$
71. What is the simplified value of $\frac{\tan A}{1 - \cot A} + \frac{\cot A}{1 - \tan A} - \frac{2}{\sin 2A}$?
 1. -1
 2. 0
 3. 1
 4. 2
72. The table given below shows the percentage of literate people in 6 cities. This table also shows the ratio of males to females among literate people.

City	% of literate people	Males : Females
City 1	80	4 : 5
City 2	85	7 : 4
City 3	78	3 : 2
City 4	63	1 : 1
City 5	92	9 : 7
City 6	58	2 : 3

% of literate people of any city = $\left(\frac{\text{Literate people of the city}}{\text{Total population of the city}}\right) \times 100$

If the total population of City 4 is 6,00,000, then how many literate people are there in City 4?

1. 4,80,000
 2. 3,78,000
 3. 4,68,000
 4. 3,48,000
73. The table given below shows the percentage also shows the ratio of males to females among literate people.

City	% of literate people	Males : Females
City 1	80	4 : 5
City 2	85	7 : 4

City 3	78	3 : 2
City 4	63	1 : 1
City 5	92	9 : 7
City 6	58	2 : 3

% of literate people of any city
= (Literate people of the city / Total population of the city) × 100

The total population of City 6 is 2,00,000 and the total population of City 2 is 2,20,000. What is the respective ratio of literate males of City 2 and literate females of City 6?

1. 348 : 595 2. 255 : 199 3. 595 : 348 4. 199 : 255

74. The table given below shows the percentage of literate people in 6 cities. This table also shows the ratio of males to females among literate people.

City	% of literate people	Males : Females
City 1	80	4 : 5
City 2	85	7 : 4
City 3	78	3 : 2
City 4	63	1 : 1
City 5	92	9 : 7
City 6	58	2 : 3

% of literate people of any city
= (Literate people of the city / Total population of the city) × 100

If there are 2,59,210 literate females in City 5, then what is the total population of City 5?

1. 6,44,000 2. 3,54,200 3. 6,90,000 4. 4,83,000

75. The table given below shows the percentage of literate people in 6 cities. This table also shows the ratio of males to females among literate people.

City	% of literate people	Males : Females
City 1	80	4 : 5
City 2	85	7 : 4
City 3	78	3 : 2
City 4	63	1 : 1
City 5	92	9 : 7
City 6	58	2 : 3

% of literate people of any city
= (Literate people of the city / Total population of the city) × 100

The population of the 6 cities are 2,50,000, 2,00,000, 2,20,000, 3,00,000, 1,50,000 and 4,00,000, respectively. Which is the correct order of the number of literate people in these cities?

1. City 6 > City 1 > City 4 > City 2 > City 3 > City 5
2. City 4 > City 6 > City 1 > City 2 > City 3 > City 5
3. City 6 > City 4 > City 1 > City 3 > City 2 > City 5
4. City 6 > City 1 > City 4 > City 3 > City 2 > City 5

English Comprehension

76. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

The Tata group owns (1)/ many industries that are spread (2)/ across the globe. (3)/ No Error (4)

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

77. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

She has not been (1)/ to the restaurant (2)/ much late. (3)/ No Error (4)

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

78. Select the most appropriate option to fill in the blank. He could excel in his board exams only after _____ very hard.

1. continuing 2. functioning
3. learning 4. toiling

79. Select the most appropriate option to fill in the blank. He _____ his camera on the table.

1. laid 2. lain 3. lay 4. lie

80. In the following question, out of the four alternatives, select the word similar in meaning to the word given.

Monotonous

1. Dull 2. Timid 3. Unfriendly 4. Lusty

81. In the following question, out of the four alternatives, select the word similar in meaning to the word given.

Elusive

1. Baffling 2. Enticing 3. Directing 4. Soothing

82. In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

Colossal

1. Epic 2. Rust 3. Teeny 4. Vast

83. In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

Opprobrium

1. Adulation 2. Ignominy 3. Mystical 4. Preclude

84. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

All agog

1. Avoid 2. Contentment
3. Amazed 4. Unsystematically

85. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

Not to mince matters

1. To be at ease 2. To not confuse others
3. To not interfere in others affairs
4. To speak out politely

86. Improve the bracketed part of the sentence. The doctor (has advice) him to take proper diet.

1. has advised 2. had been advised
3. was advised 4. No improvement

87. Improve the bracketed part of the sentence. (Being a pleasant evening), we went out for a long drive on a highway.

1. As a pleasant evening
2. It being a pleasant evening
3. With a pleasant evening 4. No improvement

88. In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

A roundabout way of speaking

1. Centipede 2. Circumlocution
3. Coercion 4. Concentric

89. In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

An old unmarried woman

1. Masochist 2. Septuagenarian
3. Sniper 4. Spinster

90. In the following question, four words are given, out of which one word is incorrectly spelt. Select the incorrectly spelt word.

1. Autumn 2. Desperate 3. Reciept 4. Traffic

91. In the following question, four words are given, out of which one word is incorrectly spelt. Select the incorrectly spelt word.
 1. Century 2. Finance 3. Remember 4. Sponser
92. The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.
 However, our environment also needs some help from all of us to get maintained as usual to nourish our lives forever and to never ruin our lives.
 Q-It gives us all things which we need to live our life on this planet.
 R-It provides us a better medium to grow and develop.
 S-An environment includes all the natural resources which surround us to help in a number of ways.
 1. PQRS 2. QPSR 3. SRQP 4. QSPR
93. The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.
 P-The starting point can be the experience of a minority within a society generally or even the experience of a group of people within a progressive social movement which does not live up to its progressive agenda in every respect.
 Q-Within (or after) postmodernism a grand unifying theory no longer seems possible. This does not exclude the possibility or the necessity of dialogue.
 R-The starting points of social criticism can be very different and the different forms of socialism never has a monopoly on social criticism.
 S-Nevertheless, most social critics still consider the critique of capitalism to be central.
 1. PRQS 2. RPQS 3. RQPS 4. PSRQ
94. In the following question, a sentence has been given in Active/Passive voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active voice.

- Rohan was not told about the e-mail.
 1. Nobody told Rohan about the e-mail.
 2. Somebody did not tell Rohan about the e-mail
 3. The e-mail was not told about to Rohan.
 4. There was nobody who could tell Rohan about the e-mail.
95. In the following question, a sentence has been given in direct/indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in indirect/direct speech.
 Ram said to Rohan, "Don't run so fast."
 1. Ram advised Rohan don't run so fast.
 2. Ram asked Rohan why is he running so fast.
 3. Ram requested Rohan not to run so fast.
 4. Ram told Rohan not to run so fast.
96. 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.
 Language, they say, is the (1) _____ through which human beings perceive the world. If so, English is perhaps the most (2) _____ lens through which to see animals. It has (3) _____ a cross-eyed view of birds, beasts, fish and fowl. The very word "animal" can (4) _____ the brutish and the sensual. Animal (5) _____ imply baseness and vulgarity.
 Select the most appropriate option to fill in blank number 1.
 1. lens 2. resource 3. source 4. telescope
97. Select the most appropriate option to fill in blank number 2.
 1. distorting 2. disturbing 3. popular 4. useful
98. Select the most appropriate option to fill in blank number 3.
 1. accompanied 2. exercised
 3. perpetuated 4. undeterred
99. Select the most appropriate option to fill in blank number 4.
 1. connote 2. rectify 3. trouble 4. understand
100. Select the most appropriate option to fill in blank number 5.
 1. breeding 2. gestures 3. instincts 4. species

Answer Key

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

Answers with Explanations

General Intelligence and Reasoning

1. **Option (3) is correct.**
 As we know that a calendar is used to check date. Similarly, an index is used to check contents.

2. **Option (1) is correct.**
 Given that: ACOUSTIC : 91

	A	C	O	U	S	T	I	C
Alphabetic number	↓	↓	↓	↓	↓	↓	↓	↓
	1	3	15	21	19	20	9	3

1 + 3 + 15 + 21 + 19 + 20 + 9 + 3 = 91
 Similarly,

	R	E	N	O	U	N	C	E
Alphabetic number	↓	↓	↓	↓	↓	↓	↓	↓
	18	5	14	15	21	14	3	5

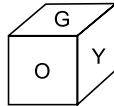
18 + 5 + 14 + 15 + 21 + 14 + 3 + 5 = 95

3. **Option (1) is correct.**
 The pattern is as follows:
 $243 : 819$
 $2 \times 4 \times 3 = 24$

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

After folding the figure given in the question, only option (2) can be formed.

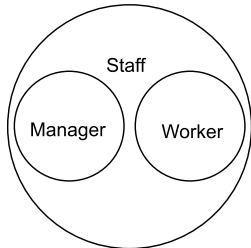
When the figure is folded, B is opposite to O, R is opposite to G and Y is opposite to I.



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

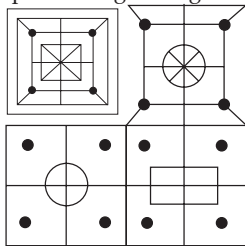
From the given statement: Staff, Manager, Worker, the Venn diagram in option (2) satisfies the given condition.

As we know that manager and worker would be counted as a staff member.



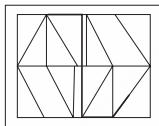
21. **Option (3) is correct.**

Option (3) completes the given figure.



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

It is clearly shown that in option (1), it is embedded which is shown in the given image.



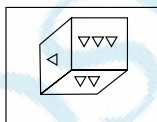
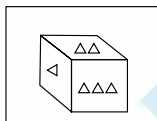
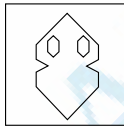
23. **Option (3) is correct.**

After unfolding the paper, it is shown as:

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

The mirror image of the given figure is as follows:

When the mirror is placed below the figure, top becomes bottom and bottom becomes top.



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

From options:

From option (1): 10, 79, 23, 32, 42 = CREEC

From option (2): 24, 55, 14, 41, 12 = CRETX

From option (3): 33, 86, 32, 13, 43 = CRETP

From option (4): 42, 98, 41, 00, 34 = CREEP

General Awareness

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

When there is only one seller in the market who controls the entire market supply and there is no substitutional product, this market structure is referred to as monopoly. Monopolies are defined by their focus on maximising profits, absence of

economic competition, dearth of readily available substitutes, and high monopolies prices.

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

Unemployment that has no impact on aggregate economic output is referred to as disguised unemployment. Underemployment is also regarded as disguised unemployment because the marginal conductivity of additional labour becomes zero. It occurs due to excess employing of manpower. Any segment of the population that is underutilised can be considered.

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

According to the constitution of India, Indian Parliament is highest legislative body. The Rajya Sabha (Council of States) and Lok Sabha, the two Houses of the Indian Parliament, are presided over by the President (House of the People). The President has the authority to call a special session of either House of Parliament, prorogue it, or dissolve the Lok Sabha. The Indian Constitution became operative on January 26, 1950. The first elected Parliament was established in April 1952 following the 1951–1952 general elections held in accordance with the new Constitution.

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

The Governor serves as the State's Chief Executive. Each state has a governor who must follow the Council of Ministers' advice when making decisions. The Seventh Amendment Act of 1956 also permits the appointment of the same person to the position of Governor of one or more States. It's common for the State to execute an executive action under the governor's name.

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

The Konark Sun Temple is a sun temple that dates back to the 13th century (CE, or year 1250), and is located at Konark, which is 35 kilometres (22 mi) northeast of Puri city on the coast of Odisha, India. King Narasimhadeva I of the Eastern Ganga dynasty is credited with building the temple in 1250 CE. What is left of the temple complex, which is devoted to the Hindu Sun God Surya, resembles a 100-foot (30-metre) high chariot with enormous wheels and horses that are all made of stone.

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

Warren Hastings served as Bengal's first governor general from 1772 to 1785. English statesman Warren Hastings served as the president of the Supreme Council of Bengal. By executing the Regulating Act of 1773, he put a stop to the Dual Government system. Together with William Jones, he established the Asiatic Society of Bengal in 1781 and the Calcutta Madrasa for the advancement of Islamic studies in 1784. In 1801, Hastings was also chosen to be a fellow of the Royal Society.

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

In compared to the Nile, the Amazon River in South America has the longest river system in the world and is the greatest river in terms of water flow volume. The river system originates in the Andes Mountains of Peru and travels through Ecuador, Colombia, Venezuela, Bolivia and Brazil before emptying into the Atlantic Ocean.

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

The Sahyadri Range known as the Western Ghats, stretches parallel to the Indian peninsula's western coast. The Great Escarpment of India is another name for it. The Western Ghats are one of the eight "hottest hot-spots" of biological richness in the world and are a UNESCO World Heritage Site. The highest point of Kerala's Western Ghats is called Anamudi (2,695 m).

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

Leeuwenhoek is regarded as the founding father of microbiology. He found both bacteria and protists. He was the first not just to glimpse this previously unimagined universe of "animalcules," but also to consider looking certainly, the first with the capacity to see. He conducted inventive experiments with his own deceptively simple, single-lens microscopes, investigating and manipulating his microscopic environment with a fascination that belied his lack of a guide or sense of direction.

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

In multicellular organisms, tissue is a collection of related cells that work together to fulfil a certain function. Between individual cells and an entire organ, there is a cellular organising level.

Animals and plants both include tissues. Epithelial tissue, connective tissue, muscular tissue and neural tissue are the four categories into which animal tissues fall. Meristematic tissue and permanent tissue are the two primary categories of plant tissues.

36. Option (1) is correct.

Living, undifferentiated cells with a big nucleus that is free of the vacuole and no intercellular gap make up meristematic tissue. They can actively divide to develop specialised structures and contribute to the plant's growth in both length and girth. Additionally, these are broken down into three categories based on origin: promeristem, primary meristem and secondary meristem; three categories based on position: apical, intercalary, and lateral; and three categories based on function: protoderm, procambium and ground meristem.

37. Option (3) is correct.

It is difficult to fix a nail on a freely suspended wooden frame. This is because of Newton's third law of motion. When we apply a force on the frame, it gets deflected due to the reaction of applied force.

38. Option (4) is correct.

Electric and magnetic field waves are both the part of electromagnetic waves. Examples of electromagnetic waves include light and radio waves. Diffraction and interference are phenomena that occur in electromagnetic waves.

39. Option (3) is correct.

An unforeseen issue with software or hardware is referred to as a bug. Common issues are frequently the result of unanticipated external interference with the program's functionality. Small issues like frozen screens or mysterious error messages that have little to no impact on usage can be brought on by minor defects. Major defects may have negative consequences on linked devices, integrated applications, and data files in addition to affecting software and hardware.

40. Option (3) is correct.

A radioactive material has a six-month half-life. This indicates that in six months, 50% of the material will have broken down. Only 50% of the material is left when it decays. After another six months, the residual substance will decompose to half its original volume. Therefore, three-quarters of the material, or 75%, will degrade within a year.

41. Option (3) is correct.

The amount of acidity or alkalinity in blood is a crucial characteristic. The pH scale identifies the acidity or alkalinity of any solution, including blood. The pH scale goes from 0 (very acidic) to 14 (neutral) (strongly basic or alkaline). The neutral range on this scale has a pH of 7.0. Blood typically has a pH range of 7.35 to 7.45, making it mildly basic. The pH of blood is typically maintained by the body at or around 7.40.

42. Option (3) is correct.

The Forest Research Institute is an institution in the field of forestry research in India for Indian Forest Service cadres and all State Forest Service cadres. It is a Natural Resource Service training institute of the Indian Council of Forestry Research and Education. It is one of the oldest institutes of its kind and is situated in Dehradun, Uttarakhand. The University Grants Commission designated it as a deemed university in 1991. The Indira Gandhi National Forest Academy (IGNFA), the staff college that prepares officers for the Indian Forest Service, is located on the campus of the Forest Research Institute (IFS).

43. Option (3) is correct.

On April 6, 2017, the MP government launched its ambitious "Deen Dayal Rasoi Yojana," under which subsidised meals will be offered at ₹ 5. This initiative was launched in Gwalior by the chief minister, Shivraj Singh Chouhan.

44. Option (3) is correct.

The microscope was invented by lens makers in the year 1590. The usage of a microscope, a discovery that dates back to the late 16th century and a modest Dutch eyeglass manufacturer named Zacharias Janssen, has helped every major branch of science.

45. Option (3) is correct.

Racquets are used in the game of badminton in order to strike a shuttlecock across a net. Singles and doubles are the most

popular game variations. The game might also be played with bigger teams. Since 1992, there have been four badminton events in the Summer Olympics.

46. Option (1) is correct.

The Indian states of Rajasthan and Nimaar (Barwani, Khargone, Khandwa, etc.) of Madhya Pradesh both celebrate the Gangaur festival. The Hindu holiday of Ganesh Chaturthi, also called Vinayak Chaturthi or Ganeshotsav, honours the birth of the god Ganesh. Ganesh's clay idols are erected both privately in people's homes and publicly on lavish pandals to commemorate the event. The annual Hindu festival of Durga Puja, also known by the names Durgotsava or Sharodotsava, is celebrated in India to honour the Hindu goddess Durga and to commemorate her victory against Mahishasur.

47. Option (2) is correct.

Iris Mittenaeere, a French model, television broadcaster and former winner of beauty pageants, was named Miss Universe 2016 on January 25, 1993. After Christiane Martel, who was chosen as Miss Universe in 1953, she is the second Miss Universe from France. Miss Nord-Pas-de-Calais 2015 and Miss France 2016 had already been won by Mittenaeere.

48. Option (2) is correct.

In order to make sure that every story in "Numbers Do Lie: 61 Hidden Cricket Stories" is factual and supported by data, former Indian cricketer Akash Chopra used the Impact Index statistical system. Even the biggest cricket fan may not be familiar with some of the facts in this new book on the sport. It aims to reframe conventional interpretations by posing questions, enhancing them and taking a broad view. A statistical approach called the Impact Index evaluates each performance in the context of a cricket match and series. The book is the culmination of seven years of study by Impact Index, and it is supported by statistical evidence.

49. Option (4) is correct.

- Ban Ki-moon of South Korea was the Secretary-General of the United Nations from 1 January 2007 to 31 December 2016.
- Antonio Guterres of Portugal was the ninth Secretary-General of the United Nations from 1 January 2017 to present.
- Michelle Bachelet of Chile is the current United Nations High Commissioner for Human Rights.
- Satya S Tripathi is the Assistant Secretary-General and Head of the New York Office of the United Nations Environment Programme (UNEP).

50. Option (3) is correct.

Seven additional countries share borders with India. In the northwest are Pakistan and Afghanistan. India's northern borders are with China, Bhutan and Nepal, and its eastern borders are with Myanmar and Bangladesh. The longest border between any of these countries is with Bangladesh. The distance separating Bangladesh and India is 4,096.7 kilometres. It is the fifth-longest land border in the entire planet. With a combined area of 1,43,998 square kilometres and a coastline of 580 kilometres. India and Bangladesh have one of the longest land borders in the world.

Quantitative Aptitude

51. Option (3) is correct.

Total number from 700 to 950 = $950 - 700 + 1 = 251$

Numbers divisible by 3 = 702, 705 ... 948

$$\therefore 948 = 702 + (n - 1)3$$

$$\Rightarrow \frac{246}{3} = n - 1$$

$$\Rightarrow n = 83$$

Numbers divisible by 7 = 700, 707 ... 945

$$\therefore 945 = 700 + (n - 1)7$$

$$\Rightarrow \frac{245}{7} = n - 1$$

$$\Rightarrow n = 36$$

Numbers divisible by 3 and 7, i.e., 21

$$= 714, 735 \dots 945$$

$$\therefore 945 = 714 + (n-1)21$$

$$\Rightarrow \frac{231}{21} = n-1$$

$$\Rightarrow n = 12$$

Numbers divisible by 3 or 7 = $83 + 36 - 12 = 107$

Numbers neither divisible by 3 nor by 7 = $251 - 107 = 144$

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

A completes a work in 20 days

$$\therefore \text{A's per day work} = \frac{1}{20} \text{ Part}$$

B completes a work in 25 days

$$\therefore \text{B's per day work} = \frac{1}{25} \text{ Part}$$

$$\text{Both A and B's per day work} = \frac{1}{20} + \frac{1}{25}$$

$$= \frac{5+4}{100} = \frac{9}{100}$$

$$\text{Both A and B do work in 3 days} = \frac{3 \times 9}{100} = \frac{27}{100}$$

Percent of work will be completed by both A and B in 3

$$\text{days} = \frac{27}{100} \times 100 = 27\%$$

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

Area of trapezium

$$= \frac{1}{2}(\text{sum of parallel sides}) \times \text{height}$$

$$= \frac{1}{2}(18+24) \times 12$$

$$= 252 \text{ m}^2$$

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

Let the list price be 100

$$\text{Price after discount} = 100 \left(1 - \frac{50}{100}\right) \left(1 - \frac{10}{100}\right)$$

$$= 100 \times \frac{1}{2} \times \frac{9}{10} = 45$$

$$\text{Total discount} = 100 - 45 = 55$$

$$\text{So, net discount} = \frac{55}{100} \times 100 = 55\%$$

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

Let the milk and water in 1st bottles be $2x$ and $5x$, the milk and water in 2nd bottles be $3y$ and $4y$ and the milk and water in 3rd bottles by $4z$ and $5z$.

$$\text{ATQ} \quad 7x = 7y = 9z$$

$$\Rightarrow x = y = \frac{9z}{7}$$

Ratio of milk and water in large bottle

$$\frac{2x+3y+4z}{5x+4y+5z} = \frac{\frac{18z}{7} + \frac{27z}{7} + 4z}{\frac{45z}{7} + \frac{36z}{7} + 5z}$$

$$\frac{18+27+28}{45+36+35} = \frac{73}{116} = 73:116$$

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

Total age of 6 members = $6 \times 20 = 120$

$$\text{Average of 6 members and servant} = 20 \left(1 + \frac{25}{100}\right)$$

$$= 20 \times \frac{5}{4} = 25$$

Total age of 7 member = $7 \times 25 = 175$

Age of servant = $175 - 120 = 55$ years

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

Let cost price be ₹ 100

Profit = ₹ 190

$$\text{S.P} = 100 + 190 = 290$$

New cost price = $100 + 10 = 110$

Profit = $290 - 110 = 180$

$$\text{Profit per cent of selling price} = \frac{180}{290} \times 100 = 62.06\% \sim 62\%$$

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

Since marks of B is 220

$$\text{Marks of A} = 220 \left(1 + \frac{18}{100}\right) = \frac{22 \times 118}{10}$$

Let marks of C be x .

$$\therefore \text{Marks of A} = x \left(1 - \frac{12}{100}\right) = \frac{88x}{100}$$

$$\text{So, } \frac{22 \times 118}{10} = \frac{88x}{100}$$

$$\Rightarrow x = \frac{22 \times 118 \times 100}{10 \times 88} = 295$$

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

Let B meet with A after t hours of start

We have, Distance = Speed \times Time.

So, distance travelled by A = $2 \times 25 + 25 + t = 50 + 25t$

Distance travelled by B = $10 \times t = 10t$

Total distance = 260

$$50 + 25t + 10t = 260$$

$$35t = 210$$

$$t = \frac{210}{35} = 6 \text{ hours}$$

Time = 11:00 a.m. + 6 hours = 5:00 p.m.

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

A = 2,970.25, P = 2,500, $n = 2$

$$\text{We have, } A = P \left(1 + \frac{R}{100}\right)^n$$

$$\Rightarrow 2970.25 = 2500 \left(1 + \frac{R}{100}\right)^2$$

$$\Rightarrow \frac{2,970.25}{2,500} = \left(1 + \frac{R}{100}\right)^2$$

$$\Rightarrow 1 + \frac{R}{100} = \sqrt{\frac{2,970.25}{2,500}} = \frac{54.5}{50}$$

$$\frac{R}{100} = \frac{54.5}{50} - 1 = \frac{4.5}{50}$$

$$R = \frac{4.5}{50} \times 100 = 9\%$$

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

$$\text{Given that } \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 0$$

$$\Rightarrow xy + yz + zx = 0$$

$$\text{and } x + y + z = 9$$

Squaring both sides,

$$\Rightarrow x^2 + y^2 + z^2 + 2(xy + yz + zx) = 81$$

$$x^2 + y^2 + z^2 = 81$$

Now, $x^3 + y^3 + z^3 - 3xyz$

$$(x + y + z) [x^2 + y^2 + z^2 - (xy + yz + zx)] = 9 \cdot [81 - 0] = 729$$

62. Option (4) is correct.

$$x^4 + \frac{1}{x^4} = 34$$

$$\Rightarrow \left(x^2 + \frac{1}{x^2}\right)^2 = 34 + 2 = 36$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 6$$

Since, $\left(x - \frac{1}{x}\right)^2 = x^2 + \frac{1}{x^2} - 2 = 6 - 2 = 4$

$$x - \frac{1}{x} = 2$$

Now, $x^3 - \frac{1}{x^3} = \left(x - \frac{1}{x}\right)\left[x^2 + \frac{1}{x^2} + 1\right]$

$$= 2 \cdot (6 + 1) = 14$$

63. Option (3) is correct.

Given that $x = 1 - y$

$$\Rightarrow x + y = 1$$

and $x^2 = 2 - y^2$

$$x^2 + y^2 = 2$$

Now, $(x + y)^2 = 1$

(by squaring both side of $x + y = 1$)

$$x^2 + y^2 + 2xy = 1$$

$$\Rightarrow 2 + 2xy = 1 \quad (\text{as } x^2 + y^2 = 2)$$

$$xy = -\frac{1}{2}$$

64. Option (2) is correct.

Given that $x + \frac{1}{x+7} = 0$

$$x^2 + 7x + 1 = 0$$

$$x = \frac{-7 \pm \sqrt{49 - 4}}{2}$$

$$x = \frac{-7 \pm \sqrt{45}}{2}$$

Take, $x = \frac{-7 + \sqrt{45}}{2}$

$$\Rightarrow x + 7 = \frac{7 + \sqrt{45}}{2}$$

Now, $x - \frac{1}{x+7} = \frac{x^2 + 7x - 1}{x+7} = \frac{-4(7 - \sqrt{45})}{(7 + \sqrt{45})(7 - \sqrt{45})}$

$$= \frac{4(3\sqrt{5} - 7)}{4} = 3\sqrt{5} - 7$$

65. Option (1) is correct.

Given that $DE \parallel BC$

$$\angle A = \angle A \text{ (Common)}$$

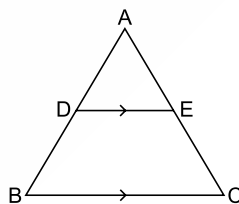
$$\angle ADE = \angle ABC$$

So, $\triangle ADE \sim \triangle ABC$

Given, $\frac{AD}{BD} = \frac{5}{3}$

$$\Rightarrow \frac{BD}{AD} = \frac{3}{5}$$

$$\Rightarrow \frac{BD}{AD} + 1 = \frac{3}{5} + 1$$



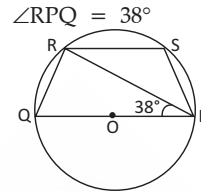
$$\Rightarrow \frac{AB}{AD} = \frac{8}{5}$$

$$\Rightarrow \frac{AD}{AB} = \frac{5}{8}$$

$\therefore \triangle ADE \sim \triangle ABC$

$$\frac{AD}{AB} = \frac{DE}{BC} = \frac{5}{8}$$

66. Option (3) is correct.



$\angle PRQ = 90^\circ$ (Angle in semicircle)

$$\angle PQR = 180^\circ - (90^\circ + 38^\circ)$$

$$= 180^\circ - 128^\circ = 52^\circ$$

Now, $\angle PSR + \angle PQR = 180^\circ$ (cyclic Quadrilateral)

$$\angle PSR + 52^\circ = 180^\circ$$

$$\angle PSR = 180^\circ - 52^\circ = 128^\circ$$

67. Option (2) is correct.

Since, diagonals of rhombus bisect at right angle.

$$\therefore OD^2 + OA^2 = AD^2$$

$$OD^2 + (3)^2 = (6)^2$$

$$OD^2 = 36 - 9 = 27$$

$$OD = \sqrt{27} = 3\sqrt{3}$$

$$BD = 2OD = 6\sqrt{3}$$

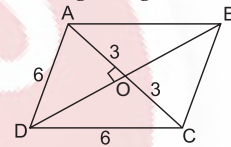
Equilateral triangle whose side = $BD = 6\sqrt{3}$

\therefore Area of equilateral triangle

$$= \frac{\sqrt{3}}{4} \times (\text{side})^2$$

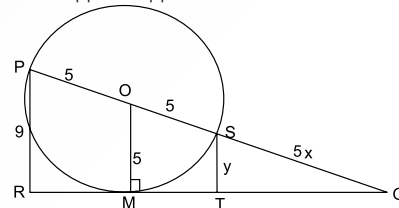
$$= \frac{\sqrt{3}}{4} \times 36 \times 3$$

$$= 27\sqrt{3} \text{ cm}^2$$



68. Option (1) is correct.

therefore $ST \parallel OM \parallel PR$



As $\triangle QST \sim \triangle QOM$. So,

$$\frac{x+5}{5} = \frac{x}{y}$$

...(i)

As $PQR \sim \triangle QST$. So,

$$\frac{x+10}{9} = \frac{x}{y}$$

...(ii)

from Eqs. (i) and (ii)

$$\frac{x+5}{5} = \frac{x+10}{9}$$

$$\Rightarrow 9x + 45 = 5x + 50$$

$$\Rightarrow x = \frac{5}{4}$$

$$\begin{aligned} \text{Now } \frac{x+5}{5} &= \frac{x}{y} \\ \Rightarrow y &= \frac{5x}{x+5} \\ \text{ST } y &= \frac{5 \cdot \frac{5}{4}}{\frac{5}{4} + 5} \\ &= \frac{25}{4} \times \frac{4}{5+20} = \frac{25}{25} = 1 \text{ cm} \end{aligned}$$

69. Option (4) is correct.

$$\begin{aligned} &(\sec A + \cos A)(\sec A - \cos A) \\ &= \sec^2 A - \cos^2 A = 1 + \tan^2 A - (1 - \sin^2 A) \\ &= 1 + \tan^2 A - 1 + \sin^2 A = \tan^2 A + \sin^2 A \end{aligned}$$

70. Option (2) is correct.

$$\begin{aligned} \left(\frac{\operatorname{cosec} A}{\cot A + \tan A} \right)^2 &= \left(\frac{\frac{1}{\sin A}}{\frac{\cos A}{\sin A} + \frac{\sin A}{\cos A}} \right)^2 \\ &= \left(\frac{1}{\sin A} \times \frac{\sin A \cos A}{\cos^2 A + \sin^2 A} \right)^2 \\ &= \cos^2 A = 1 - \sin^2 A \end{aligned}$$

71. Option (3) is correct.

$$\begin{aligned} &\frac{\tan A}{1 - \cot A} + \frac{\cot A}{1 - \tan A} - \frac{2}{\sin 2A} \\ &= \frac{\tan A}{1 - \frac{1}{\tan A}} + \frac{\frac{1}{\tan A}}{1 - \tan A} - \frac{2}{\sin 2A} \\ &= \frac{\tan^2 A}{\tan A - 1} - \frac{1}{\tan A(\tan A - 1)} - \frac{2}{\sin 2A} \\ &= \frac{\tan^3 A - 1}{\tan A(\tan A - 1)} - \frac{2(1 + \tan^2 A)}{2 \tan A} \\ &= \frac{(\tan A - 1)(\tan^2 A + \tan A + 1)}{\tan A(\tan A - 1)} - \frac{1 + \tan^2 A}{\tan A} \\ &= \frac{\tan^2 A + \tan A + 1 - 1 - \tan^2 A}{\tan A} = 1. \end{aligned}$$

72. Option (2) is correct.

$$\begin{aligned} \text{Total population of city 4} &= 6,00,000 \\ \text{Number literate people} &= \frac{63}{100} \times 6,00,000 = 3,78,000 \end{aligned}$$

73. Option (4) is correct.

$$\begin{aligned} \text{Number of literate people of city 6} &= \frac{58}{100} \times 2,00,000 = 1,16,000 \\ \text{Number of literate females of city 6} &= \frac{3}{5} \times 1,16,000 = 3 \times 23,200 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people of city 2} &= \frac{85}{100} \times 2,20,000 = 85 \times 2,200 \end{aligned}$$

$$\begin{aligned} \text{Number of literate males of city 2} &= \frac{7}{11} \times 85 \times 2,200 = 7 \times 85 \times 200 \end{aligned}$$

$$\text{Ratio literate male of city 2 and literate females of city 6}$$

$$= \frac{7 \times 85 \times 200}{3 \times 23,200} = \frac{595}{348}$$

74. Option (1) is correct.

$$\begin{aligned} \text{Numbers of literate people} &= \frac{16}{7} \times 2,59,210 = 16 \times 37,030 \\ &= 5,92,480 \end{aligned}$$

$$\begin{aligned} \text{Total population of city 5} &= 5,92,480 \times \frac{100}{92} = 6,440 \times 100 \\ &= 6,44,000 \end{aligned}$$

75. Option (4) is correct.

$$\begin{aligned} \text{Number of literate people in city 1} &= \frac{80}{100} \times 2,50,000 = 2,00,000 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people in city 2} &= \frac{85}{100} \times 2,00,000 = 1,70,000 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people in city 3} &= \frac{78}{100} \times 2,20,000 = 1,71,600 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people in city 4} &= \frac{63}{100} \times 3,00,000 = 1,89,000 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people in city 5} &= \frac{92}{100} \times 1,50,000 = 1,38,000 \end{aligned}$$

$$\begin{aligned} \text{Number of literate people in city 6} &= \frac{58}{100} \times 4,00,000 = 2,32,000 \end{aligned}$$

Hence, city 6 > city 1 > city 4 > city 3 > city 2 > city 5.

English Comprehension**76. Option (2) is correct.**

Explanation: In the given sentence, the comma (,) after 'industries' is wrong because 'that' is used to introduce a restrictive clause and should not be preceded by a comma ('). Hence, it should be removed. Also, industries must be replaced with companies, as the word "industry" is used for many companies that are into the same kind of business or area of business. Thus, the error lies in part (2).

77. Option (3) is correct.

Explanation: The error lies in part (3), where the usage of 'much late' is incorrect. The sentence wants to convey that she has not been to the restaurant in recent past. Use the phrase "much lately" to express this better. So, replace 'much late' with 'much lately'. Late is both an adverb and an adjective; it means the opposite of early. Lately is also an adverb; it means 'recently'.

78. Option (4) is correct.

Explanation: Option (1), i.e., 'continuing' means 'without a break in continuity'; option (2), i.e., 'functioning' means 'working, operating'; option (3), i.e., 'learning' means 'studying'. These three options do not make sense in the given context. The sentence will make sense only with option (4), i.e., 'toiling', which means 'working'.

79. Option (1) is correct.

Explanation: This question tests your understanding of word usage. Lay means "to place something down flat," while lie means "to be in a flat position on a surface." The key difference is that lay is transitive and requires an object to act upon, while lie is intransitive, describing something that is either moving on its own or already in position. In this sentence, we need a transitive verb because the sentence has an object, 'camera'. Three forms of lie are: lie, lay, lain and three forms of lay are: lay, laid, laid. Since this sentence needs a transitive verb, 'lay' is the apt word, and the sentence is in past tense. Thus, the correct answer option is 'laid'.

80. Option (1) is correct.

Explanation: The meaning of 'monotonous' is 'dull, tedious,

and repetitious; lacking in variety and interest'. Example: "The statistics that he quotes with monotonous regularity". The meaning of 'timid' is 'showing a lack of courage or confidence; easily frightened'. Example: "I was too timid to ask for what I wanted." The meaning of 'lusty' is 'healthy and strong; full of vigour'. Example: "The other farmsteads had lusty young sons to work the land." The word similar in meaning to monotonous is dull.

81. Option (1) is correct.

Explanation: The meaning of 'elusive' is 'difficult to find, catch, or achieve'. Example: "Success will become ever more elusive." The meaning of 'baffling' is 'impossible to understand; perplexing'. Example: "The crime is a baffling mystery for the police." Elusive and baffling are synonyms. The meaning of 'enticing' is 'attractive or tempting; alluring'. Example: "The town offers alluring shops and restaurants." The meaning of 'soothing' is 'having a gently calming effect'. Example: "She put on some soothing music."

82. Option (3) is correct.

Explanation: The meaning of 'colossal' is 'extremely large or great'. Example: In the centre of the hall stood a colossal wooden statue, decorated in ivory and gold. The meaning of 'epic' is 'a long poem, typically one derived from ancient oral tradition'. Example: It's one of those old Hollywood epics with a cast of thousands. The meaning of 'rust' is 'a reddish- or yellowish-brown flaking coating of iron oxide that is formed on iron or steel by oxidation, especially in the presence of moisture'. Example: There was an enormous bath with big rust stains. The meaning of 'teeny' is 'tiny, very small'. Example: Just a teeny slice of cake for me, please. The meaning of 'vast' is 'huge, big, colossal'. The word that is opposite in meaning to "colossal" is "teeny."

83. Option (1) is correct.

Explanation: The meaning of "opprobrium" is "harsh criticism or censure." Example: "The opprobrium of being closely associated with gangsters." The meaning of "adulation" is "excessive admiration or praise." Example: "He found it difficult to cope with the adulation of the fans." The meaning of "public shame or disgrace." Example: The incumbent party experienced the ignominy of total defeat in the last election. The meaning of "mystical" is "having a spiritual symbolic or allegorical significance that transcends human understanding." Example: "She joined a religious community after having a series of mystical visions." The meaning of "preclude" is "prevent from happening; make impossible". Example: "His difficulties preclude him from leading a normal life." The word that is opposite in meaning to "opprobrium" is "adulation."

84. Option (3) is correct.

Explanation: The meaning of "all agog" is "to be excited, in high spirits, amazed." Example: "The audience was all agog as the speaker recounted tales of his experience as a stunt car driver." The meaning of 'contentment' is "a state of happiness and satisfaction." Example: "He found contentment in living a simple life in the country."

85. Option (4) is correct.

Explanation: The meaning of "not to mince matters" is "not to speak vaguely, indirectly, or delicately." Example: "Wow, your aunt really doesn't mince matters when she discusses politics, huh?" The option that is closest in meaning is "to speak politely."

86. Option (4) is correct.

Explanation: The question tests your understanding of grammar. There is no improvement needed because the sentence is grammatically correct.

87. Option (2) is correct.

Explanation: The given sentence is grammatically incorrect because it has an error of modifiers. "Being a pleasant evening" gives an impression, as it is giving a description of the word next to the phrase "we". By adding the subject "it," we can remove this ambiguity.

88. Option (2) is correct.

Explanation: This question tests your vocabulary. One word for "a roundabout way of speaking" is "circumlocution." The meaning of "centipede" is "a small, long, thin animal with many legs." The meaning of "coercion" is "the practice of persuading someone to do something by using force or threats." The meaning of "concentric" is "having a common center, as circles or spheres."

89. Option (4) is correct.

Explanation: This question tests your vocabulary. One word for "an old unmarried woman" is "spinster." The meaning of "masochist" is "a person who derives sexual gratification for their own pain or humiliation." The meaning of "septuagenarian" is "a person who is between 70 and 79 years old." The meaning of "sniper" is "a skilled military shooter."

90. Option (3) is correct.

Explanation: The word that is incorrectly spelt is "reciept". The correct spelling is "receipt".

91. Option (4) is correct.

Explanation: The word that is incorrectly spelt is "sponser". The correct spelling is "sponsor".

92. Option (3) is correct.

Explanation: The sentence (S) is an obvious opener because it introduces the subject of the paragraph, i.e., environment. Out of all the options, only one starts with (S), option (3).

93. Option (2) is correct.

Explanation: The paragraph is about social criticism. The subject is introduced in the sentence (R). This idea is continued in the sentence (P). Thus, "RP" is a pair. The option that starts with (R) followed by (P) is option (2).

94. Option (1) is correct.

Explanation: When an action performed by the subject is expressed by the verb, it is called an "active voice." The structure of an active sentence is: subject + verb + object. When the action expressed by the verb is received by the subject, it is called passive voice. The structure of a passive sentence is: object + verb + subject. Passive voice is used when the doer of the action is not known and the focus of the sentence is on the action and not the subject. The given sentence is in passive voice. After converting it into active voice, it will be: "Nobody told Rohan about the e-mail."

95. Option (4) is correct.

Explanation: Reporting the message of the speaker in the exact words as spoken by him is known as "direct speech." Reporting the message of the speaker in our own words is known as indirect speech. When the reporting verb in direct speech is in the past tense, then all the present tenses are changed to the corresponding past tense in indirect speech. Since the given sentence is a command, 'said' has to be converted to "told".

96. Option (1) is correct.

Explanation: The given question is a cloze test; in this type of question, a student needs to take care of the entire paragraph, especially the preceding and succeeding sentences. In this blank, though all the given options seem fitting, in the very next sentence the author uses "lens". Hence, in the first blank, "lens" is a better-suited word.

97. Option (1) is correct.

Explanation: The given question is a cloze test; in this type of question, a student needs to take care of the entire paragraph, especially the preceding and succeeding sentences. The sentence following the blank mentions "cross-eyed," which means to be totally plastered, drunk, or sloshed. This means that the way animals were perceived was twisted. This makes option (1) the correct option.

98. Option (3) is correct.

Explanation: The given question is a cloze test; in this type of question, a student needs to take care of the entire paragraph, especially the preceding and succeeding sentences. Since the sentence talks about opting for certain view, the apt word to fill the blank is 'perpetuated'.

99. Option (1) is correct.

Explanation: The given question is a cloze test; in this type of question, a student needs to take care of the entire paragraph, especially the preceding and succeeding sentences. Since the sentence further elaborates that the word can be brutish and sensual. The suitable word for the blank is "connote".

100. Option (3) is correct.

Explanation: The given question is a cloze test; in this type of question, a student needs to take care of the entire paragraph, especially the preceding and succeeding sentences. The blank needs a word that can represent baseness and vulgarity. The word can't be breeding, gesture, or species. The better suited word is "instinct".