1. Aruna cut a cake into two halves and cuts one half into smaller pieces of equal size. Each of the small pieces is twenty grams in weight. If she has the seven pieces of the cake in all with her, how heavy was the original cake?
   1) 120 grams  
   2) 140 grams  
   3) 240 grams  
   4) 280 grams

2. At the end of a business conference the ten people present all shake hands with each other once. How many handshakes will there be altogether?
   1) 20  
   2) 45  
   3) 55  
   4) 90

3. A motorist knows four different routes from Bristol to Birmingham. From Birmingham to Sheffield he knows, three different routes and from Sheffield to Carlisle he knows two different routes. How many routes does he know from Bristol to Carlisle?
   1) 4  
   2) 8  
   3) 12  
   4) 24

4. In a group of 15 people, 7 read French, 8 read English while 3 of them read none of these two. How many of them read French and English both?
   1) 0  
   2) 3  
   3) 4  
   4) 5

Read the following and answer the questions from 5 to 7:

A publishing firm publishes newspapers A, B and C. In an effort to persuade advertisers to insert advertisements in these newspapers, the firm sends out the following statement to possible advertisers:

A survey of representative sample of the whole population shows that:

Newspaper A is read by 26%
Newspaper B is read by 25%
Newspaper C is read by 14%
Newspaper A and B are read by 11 %
Newspaper B and C are read by 10%
Newspaper C and A are read by 9%

Newspaper C only is read by 0%

5. The percentage of readers who read all the three newspaper is
   1) 1  
   2) 4  
   3) 5  
   4) 6

6. The percentage of readers who read A and B but not C, is
   1) 2  
   2) 4  
   3) 5  
   4) 6

7. The percentage of readers who read atleast one of the three newspapers is
   1) 40  
   2) 50  
   3) 60  
   4) 65

8. A number of friends decided to go on a picnic and planned to spend Rs. 96 on eatables. Four of them however did not turn up. As a consequence, the remaining ones had to contribute Rs. 4 each extra. The number of those who attended the picnic was
   1) 8  
   2) 12  
   3) 6  
   4) 24

9. Find the missing character from among the given alternatives,
   1) 25  
   2) 37  
   3) 41  
   4) 47

10. Find the missing character from among the given alternatives

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11. Find the missing character from among the given alternatives:

![Circle Patterns]

1) 13  2) 15  3) 17  4) 19

12. Find the missing character from among the given alternatives:

| 84 | 14 | 81 | 18 | 88 | ? | 11 |

1) 16  2) 21  3) 61  4) 81

13. Find the missing character from the given alternatives:

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1) P  2) R  3) S  4) V

The question given below has a problem and two statements numbered I and II giving certain information. Find out whether the information given in the statement is sufficient to answer the question.

14. What is Reena’s rank in the class?
I) There are 26 students in the class.
II) There are 9 students who have scored less than Reena.

1) Statement I alone is sufficient to answer
2) Statement II alone is sufficient to answer
3) Both the statements together are not sufficient to answer
4) Both the statements together are needed

15. What is the total monthly salary of Vasu?
I) Vasu’s basic salary is Rs. 100 more than Rajan’s salary who also serves in Vasu’s company.
II) Other allowances drawn by Rajan besides his basic salary are Rs. 2,000 per month which is Rs. 50 less than Vasu’s salary.
III) Rajan’s basic salary is Rs. 1,550 per month

1) II only  2) II and III together  3) I and II together  4) I, II and III together

16. In which year was Sanjay born?
I) Sanjay is six years older than Gopal.
II) Gopal’s brother was born in 1982.
III) Sanjay’s brother is two years younger than Gopal’s brother who was eight years younger than Gopal.

1) I and II together  2) II and III together  3) I and III together  4) I, II and III together

17. A worker may claim Rs. 15 for each km, which he travels by taxi, and Rs. 5 for each km when he drives his own car. If in one week he claimed Rs. 500 for traveling 80 km. How many kilo meters did he travel by taxi?

1) 10  2) 20  3) 30  4) 40

18. In a class, 20% of the members won only two cars each, 40% of the remaining own three cars, each and the remaining members own only one car each. Which of the following statement is definitely true from the given statement?
1) Only 20% of the total members own three cars each
2) 48% of the total members own only one car each
3) 60% of the total members own at least two cars each
4) 80% of the total members own at least one car.

19. If three numbers are in the ratio 3:3:5 and are such that the sum of their squares is equal to 1862. What are the numbers?
   1) 21, 41 and 35  
   2) 18, 17 and 16  
   3) 14, 18 and 24  
   4) 24, 48 and 120

20. What least number must be added to 7231 so that the resulting number is exactly divisible by 5 and 9 together?
   1) 14  
   2) 12  
   3) 15  
   4) 18

21. There are five rivers A, B, C, D and E. River A is shorter than B but longer than E. River C is the longest. D is a bit shorter than B and a bit longer than A. Which of the following is the shortest river?
   1) A  
   2) B  
   3) C  
   4) E

22. Half of the village of a certain village have their own houses one fifth of the villagers cultivate paddy. One third of the villagers are literate. Four fifths of the villagers are literate. Which of the following is certainly true?
   1) All the village who have their own houses, are literate  
   2) Some villagers under twenty five are literate  
   3) Only a quarter of the villagers who have their own houses cultivate paddy  
   4) Only half of the villagers who cultivate paddy are literate

23. In organizing a newspaper, four editors are needed: The managing editor, the news editor, the sports editors, and the entertainment editor. The managing editor can work only on Wednesday morning, Thursday afternoons, and Friday the whole day. The news editor can work only on Monday afternoons, Tuesdays and Thursdays the whole day. The sports editors can work only on Monday afternoons, Tuesday mornings, and Wednesday the whole day. The entertainment editor can work all day on Mondays and Wednesdays the whole day. The entertainment editor can work all day on Mondays and Wednesdays the whole day. If the managing editors cannot edit until each of the others has completed at least a full day of work, when is the earliest the managing editor can work?
   1) Monday afternoon  
   2) Tuesday afternoon  
   3) Wednesday morning  
   4) Friday afternoon

24. A wheel rotates 10 times every minute and moves 20 cm during each rotation. How many cm does the wheel move in 1 hour?
   1) 2000  
   2) 600  
   3) 1200  
   4) 12000

25. ‘A’ is the brother of B. B is the sister of C, ‘D’ is the father of C and E is the father of D’s wife F. D has a son G. How is G related to B?
   1) Uncle  
   2) Nephew  
   3) Daughter  
   4) Grand Daughter

26. Banto is the brother of Chetan, Chetan has another brother i.e. Arun. Deepak is the husband of Chetan. Arun is the son of Rita. How is Rita related to Deepak?
   1) Sister-in-law  
   2) Uncle  
   3) Father-in-law  
   4) Father

27. Find the minimum number of straight lines required to make the given figure
28. Some students are sitting in a single row. John is sitting 14th from the left and Joseph is the 7th from the right. What is the total number of the students?
1) 21  
2) 20  
3) 19  
4) cannot be determined

29. At parking place 36 vehicles are parked in a single row. After the first car there is one scooter after the second car there are two scooters and after the third car there are three scooters and so on. Work out the number of the scooters in the second half of the row.
1) 10  
2) 12  
3) 18  
4) 17

30. Hamilton is 6 months younger to Simon while Bob is 3 months younger to Auden. When Shety was born Bob was 2 months old. Anden is 5 years old Hamilton is 6 years old. Who among the following is the oldest?
1) Simon  
2) Bob  
3) Auden  
4) Shety

31. How many triangles are there in the figure given below?

32. X was born on 3rd March 1980. Y was born 4 days before X. The Republic day that year fell on Saturday. Then which day was Y’s birthday?
1) Thursday  
2) Friday  
3) Wednesday  
4) Monday

Properly fed and starved monkeys were made to run through the maze. It was seen that starved monkey could not run fast. This proved the lower intelligence of people in poor countries is the result of malnutrition.

33. The assumption(s) made in the argument is (are)
M) The effect of nutrition on the intelligence of the monkeys is parallel to those on human beings
N) The poorer food has a direct co-relation to the intelligence level in Monkeys and people
O) Captive monkeys are more intelligent than wild monkeys
1) M only  
2) N only  
3) O only  
4) M and N only

34. Which of the following statements would weaken the argument?
1) Wild monkeys do not get proper diet  
2) Monkeys have short memories  
3) The intelligence of human being varies from one another  
4) In poor countries health cannot be maintained

35. Which one of the following would strengthen the arguments?
1) Monkeys are used to going without food  
2) Even in wealthy countries there are undernourished people  
3) Countries which have increased food production have increased the level of intelligence  
4) Tests of intelligence are becoming accurate

Read the following and answer the questions from 36 to 38:

Science is a sort of news agency comparable in Principle to other news agencies. But this news agency gives us information which is reliable to an
extraordinary high degree due to elaborate centuries. So science should be read with as interest as we read news.

36. The assumption if the passage is
1) Science encourages investigative spirit
2) Science is objective in approach
3) Science gives us news and not any other information regarding national phenomenon
4) Verification of news is necessary

37. Which of the statement will weaken the argument?
1) Sciences give information
2) News agencies cannot verify news
3) Scientific information is revised from time to time
4) Man is an intelligent creature

38. Which statement strengthens the argument?
1) Science gives abstract theories
2) Science is a compulsory subject
3) Agricultural research is scientific
4) Verified information

39. In a college library % new books numbered A, B, C, D, E of three different writers are to be classified. Two of these are short stories, and there are novels. Two of the writers have written only one book each. Books A and B are novels, and the writers of book A is different from the writer of book B. The writer of book C, which is a short story, has written only one book i.e. book C, which one of the following definitely follows from the information?
1) The writer of book A has written only one book
2) The writer of book D has written one book only
3) The writers of the two short stories are different
4) Book D is novel

40. Count the number of triangles in the following figure:

```
[Diagram of a figure with multiple triangles]
```
1) 8
2) 10
3) 12
4) 14

41. “Ideal brain is a devils workshop”. Which of the following has the same logic?
1) Hard work is the basis of success
2) Dissatisfied person is rebellious
3) Educated are cultured people
4) Players are physically healthy

42. “Smoking is dangerous still people smoke”. Which of the following statements had the same logic?
1) Drinking is not good for health. So it should be banned
2) Floods cause havoc. Still floods occur
3) Acting needs talent skill. Untalented people act
4) People marry despite the fact that married life is full of tensions

43. “The ground is wet because, it has rained” which of the following is based on the same logic?
1) Leaves are green because they have chlorophyll
2) Iron is unbreakable because he is logical
3) The lawyer is convincing because he is logical
4) The soldier is bleeding because he is injured

The statements are followed by conclusions which are themselves followed by answer choices. Hurk the answer: Choice which correctly point out. Which of the conclusions follow?

44. Statements:
   All green are blue.
   All blue are white.
Conclusion:  I) Some blue are green
II) Some white are green
III) Some green are white
IV) All white are blue
1) Only I and II follow
2) Only II and III follow
3) Only I and III follow
4) Only I and IV follow

45. Statements: All Planets are moon.
Conclusion: I) All moons are planets
II) All planets are stars
1) Only I follows
2) Only II follows
3) Neither I nor II follows
4) Both I and II follow

46. Statements: All leaves are papers.
Some papers are pictures.
Conclusion: I) All pictures are papers.
II) All pictures are leaves.
III) Some leaves are pictures.
IV) No leaf is a picture.
1) Only I, III and IV follow
2) Only II and III follow
3) Only III and IV follow
4) None of these

47. Statements: Some trees are buses.
All buses are hats.
Conclusion: I) Some trees are hats.
II) Some hats are trees.
III) All hats are buses.
IV) Some buses are hats.
1) None follows
2) Only I, II and IV follow
3) Only II, III and IV follow
4) All follow

48. Statements: The telephone company informed the subscribers through a notification that those who do not pay their bills by the due date will be charged penalty for every defaulting day.
Assumptions: I) Majority of the people may pay their bills by the due date to avoid penalty.
II) The money collected as penalty may set off the losses due to delayed payment.
III) People generally pay heed to such notices.
1) All are implicit
2) Only II and III are implicit
3) People generally pay heed to such notices
4) None of these

49. Statement: In order to reduce the gap between income and expenditure, the company has decided to increase the price of its product from next month.
Assumptions: I) The rate will remain more or less same after the increase.
II) The expenditure will more or remain the same in near future.
III) The rival companies will also increase the price of the similar product.
1) Only I and II are implicit
2) Only II and III are implicit
3) Only III is implicit
4) None of these

50. Statement: Quality of life of a person is not dependent only on his wealth.
Assumptions: I) The aim of most people is just to acquire more wealth.
II) There are some factors other than wealth which contribute to the quality of life.
III) Wealth does not contribute to the quality of life at all
1) Only I is implicit
2) Only II is implicit
3) Only I and II are implicit
4) Only II and III are implicit

51. Statement: In spite of the heavy rains the traffic has not been disrupted this year.
Assumptions:
I) The traffic is disrupted in rainy seasons only.
II) Rains do not affect traffic movement.
III) Adequate precautions were taken for traffic management during rainy season.
1) Only I and II are implicit
2) Only I is implicit
3) Only II and III are implicit
4) Only III is implicit

52. Statement: “Television X - the neighbour’s envy, the owner’s pride” - a T.V advertisement
Assumptions:
I) Catchy slogans appeal to people
II) People are envious of their neighbour’s superior possessions
III) People want to be envied by their neighbours
1) Only I and II are implicit
2) Only II and III are implicit
3) Only I and III are implicit
4) All are implicit

53. Statement: Considering the tickets sold during the last seven days, the circus authorities decided to continue the show for another fortnight which includes two weekends.
Assumptions:
I) People may not turn up on weekdays
II) The average number of people who will be visiting circus will be more or less same as that of the last seven days.
III) There may not be enough response at other places.
1) all are implicit 2) none is implicit
3) only II is implicit
4) only I and II are implicit

54. Statement: There are more than 200 villages in the hill area of Uttarpradesh which are severely damaged due to cyclone and it causes an extra burden of Rs. 200 crore on state government for relief and rehabilitation work.
Courses of action:
I) People of hill areas should be shifted to other safer places.
II) State Government should ask for more financial support from central government.
1) Only I follows 2) Only II follows
3) Both I and II
4) Neither of the above

55. Statement: Footpaths of a busy road are crowded with vendors selling cheap items.
Courses of action:
I) The help of police should be sought to drive them away.
II) Some space should be provided to them where they can earn their bread without blocking footpaths.
1) Only I follows
2) Only II follows
3) Neither I nor II follows
4) Both I and II follows

56. Statement: The weather bureau has through a recent bulletin forecast heavy rainfall during the next week which may cause water logging in several parts of the city.
Courses of action:
I) The bulletin should be given wide publicity through the mass media.
II) The civic authority should keep in readiness the pumping system for removal of water from these parts.
III) The people should be advised to stay indoors during the period.
1) None follows
2) Only I and II follow
3) Only II follows
4) Only II and III follow

57. Statement: Over 27,000 bonded labourers identified and freed are still awaiting rehabilitation.
Courses of action:
I) More cases of bonded labourers should be identified.
II) Till the proper rehabilitation facilities are available the bonded labourers should not be freed.
III) The impediments in the way of speedy and proper rehabilitation of bonded labourers should be removed.

1) None follows 2) Only I follows 3) Only II follows 4) Only III follows

58. In the given statements find out which of the statements cannot be true simultaneously, but can both be false
I) all animals are carnivorous
II) some animals are not carnivorous
III) animals are not carnivorous
IV) some animals are carnivorous
1) I and II 2) II and III 3) I and III 4) III and IV

59. **Statement:** Morning walks are good for health.

**Conclusions:**
I) All healthy people go for morning walks.
II) Evening walks are harmful.
1) Only I follows 2) Only II follows 3) Both I and II follow 4) Neither I nor III follow

60. In the following question, a statement is followed by some conclusions. Choose the conclusion which logically follows from the given statement.

**Statement:** Ability is poor man's wealth.
1) a poor man is always able
2) a poor man has the ability to earn wealth.
3) a wealthy man is always able
4) a poor man can earn wealth if he has ability

61. The processing capability of a microcomputer can be limited with the help of
1) addition processor 2) expansion cards
3) secondary memory 4) buffer memory

62. When any part of memory can be read equally quickly, it is called
1) random access 2) sequential access
3) virtual access 4) indirect access

63. What is the common method used by low-megaflop computers for high speed data transmission?
1) print spooling 2) cycle stealing
3) looping 4) multiplexing

64. In some computer applications, the data is processed almost simultaneously as it is generated. What is this processing called?
1) simultaneous processing
2) real-time processing
3) instantaneous processing
4) quick processing

65. File specification books are created primarily for the use of
1) systems analysis 2) programmers
3) operators 4) managers

66. Which of the following is not true about the data management capabilities of spreadsheets?
1) records can be searched
2) records can be stored
3) you can have only one column for each field of a record
4) all of the above

67. Wide Area Networks (WANs) always require
1) high bandwidth communication links
2) high speed processors
3) same type of processors
4) none of the above

68. Information retrieval is fastest from
1) floppy disk 2) magnetic tape
3) hard disk 4) all of the above
69. The minimum time delay required between the initiation of two successive memory operations is known as
   1) memory cycle time
   2) memory access time
   3) transmission time
   4) waiting time

70. Communication using a modulated carrier to apply a data signal to a transmission medium in analog form is
   1) local area network
   2) modem
   3) base band networking
   4) broad band networking

71. A framework in which circuit board can be mounted is
   1) switch circuit
   2) chip
   3) card cage
   4) barcode

72. The task of proving that a given program works correctly is
   1) program flow chart
   2) program verification
   3) program counter
   4) process bound

73. Which of the following is not a graphics package category?
   1) design package
   2) paint package
   3) mind-ware package
   4) presentation package

74. A computer program that instructs other programs to perform a particular type of operation is
   1) system software
   2) application program
   3) compiler
   4) interpreter

75. A logic gate is an electronic circuit which
   1) make logic decisions
   2) allows electron flow only in one direction
   3) works on binary algebra
   4) alternates between 0 and 1 values

76. Transmission and presentation of text and graphics is called
   1) tele-text
   2) network
   3) telematique
   4) videotext

77. An instruction that transfers program control to one or more possible paths is known as
   1) utility program
   2) systems software
   3) broad band channel
   4) application program

78. The process of writing computer instructions in a programming language is known as
   1) coding
   2) processing
   3) programming
   4) file

79. Computer instructions written with the use of English words instead of binary machine code is called
   1) mnemonics
   2) symbolic code
   3) gray code
   4) OP code

80. Accessing records from a file directly without searching from the beginning of the file is
   1) time sharing
   2) random
   3) direct access
   4) access time

Directions: Each of the following questions consists of five figures A, B, C, D and E called the Problem figures followed by four other figures marked 1, 2, 3 and 4 called the answer figures. Select a figure from amongst the answer figures, which will continue the same series as established by the five problem figures.

81. Problem Figure:

Answer Figure:
82. Problem Figure:

Answer Figure:

83. Problem Figure:

Answer Figure:

84. Problem Figure:

Answer Figure:

85. Problem Figure:

Answer Figure:

86. Problem Figure:

Answer Figure:

87. Problem Figure:

Answer Figure:

88. Problem Figure:

Answer Figure:

89. Problem Figure:

Answer Figure:
Directions: Each of the following questions consists of five figures A, B, C, D and E called the Problem figures followed by four other figures marked 1, 2, 3 and 4 called the answer figures. Select a figure from amongst the answer figures, which will continue the same series as established by the five problem figures.

90. Problem Figure:

Answer Figure:

91. Problem Figure:

Answer Figure:

92. Problem Figure:

Answer Figure:

93. Problem Figure:

Answer Figure:

94. Problem Figure:

Answer Figure:

95. Problem Figure:

Answer Figure:

96. Problem Figure:

Answer Figure:
97. Problem Figure:

Answer Figure:

98. Problem Figure:

Answer Figure:

99. Problem Figure:

Answer Figure:

100. Problem Figure:

Answer Figure:

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[Note: * denotes special case or instruction]
1. (3)
Aruna has seven pieces. The 7 pieces consist of 6 smaller equal pieces and one piece which is half of whole cake. It is given that each small pieces is of weight 20 gms. ∴ Total weight of the cake = (6×20) + (6×20) = 120 + 120 = 240 gms.

2. (2)
Total number of persons = 10 ∴ All the 10 people present all shake hands with each other once. ∴ Total no. of handshakes = 9+8+7+6+5+4+3+2+1 = 45

3. (4)
Total number of routes from Bristol to Carlisle = 4×3×2 = 24

4. (2)
Since 3 people read none of the two subjects, viz. French and English. There are only 12 people who are reading either French or English.

Paper A is read by 26%
(i.e.) (α+β + δ + θ) = 26 ...(1)
Paper B is read by 25%
(i.e.) (β + γ + θ + ϕ) = 25 ...(2)
Paper C is read by 14%
(i.e.) (δ + θ + ϕ + ψ) = 14
Paper A and B is read by 11%
(i.e.) (β + θ) = 11 ... (4)
Paper B and C are read by 10%
(i.e.) (θ + ϕ) = 10 ... (5)
Paper C and A are read by 9%
(i.e.) (δ + θ) = 9 ... (6)
Since paper C is read by 0%
ψ = 0 ... (7)
put ψ=0 in (3) ⇒ δ + θ + θ = 14
On the other hand (θ + ϕ) = 10
⇒ [δ = 14 – 10 = 4] (8)
From (6) [ϕ = 9 – 4 = 5]
From (5) θ + ϕ = 10
⇒ [ϕ = 10 – 5 = 5]
From (4) β + ϕ = 11
⇒ [β = 11 – 5 = 6]
Using (1), α = 26 - (β + δ + θ)
α = 26-(6 + 4+5)
= 26-15=11
α = 11
Using (2), \( \gamma = 25-(\beta + \theta + \phi) \)
\[ = 25-(6 + 5+5) \]
\[ = 25-16 = 9 \]

5. (3)
The percentage of readers who read all the three newspaper is \( \theta \)
where \( \theta = 5 \)

6. (4)
The percentage of readers who read A and B but not C is \( \beta \)
where \( \beta = 6 \)

7. (1)
The percentage of readers who read atleast one of the three newspapers is
\[ = \alpha + \beta + \gamma + \delta + \theta + \phi + \psi \]
\[ = 11+6+9+4+5+5+0 = 40 \]

8. (1)
Let the total friends be \( x \)
Then according to given conditions,
\[ \frac{96}{x-4} - \frac{96}{x} = 4 \]
\[ \Rightarrow 96 \left[ \frac{1}{x-4} - \frac{1}{x} \right] = 4 \]
\[ \Rightarrow \frac{1}{x-4} = \frac{1}{x} \Rightarrow x = 24 \times 4 \]
\[ \Rightarrow x^2 - 4x - 96 = 0 \]
\[ \Rightarrow x^2 - 12x + 8x - 96 = 0 \]
\[ \Rightarrow x(x - 12)+8(x - 12)=0 \]
\[ = (x + 8) (x - 12) = 0 \]
\[ \Rightarrow x = 12 \text{ or } -8 \]
Taking positive \( x = 12 \)
\[ \therefore \text{required number of friends} = x-4 = 12-4 = 8 \]

9. (3)
In \( 1^{st} \) Triangle
\[ 5 \quad 19 \quad 3 \]
(i.e.) \((5\times3)+4 = 19\) (centre number)

In \( 3^{rd} \) Triangle
\[ 6 \quad 29 \quad 4 \]
(i.e.) \((6\times4)+5 = 29\) (centre number)

In \( 2^{nd} \) Triangle
\[ ? \quad 5 \quad 6 \]
\( ? = (7\times5) + 6 \)
\( = 35+6 - 41 \) (centre number)

10. (4)
In column 2
\( (22-1) = (23-2) \) both are 21
In column 3
\( (40-2) = (43-5) \)
\( 38 = 38 \)
\( \therefore \) In column 1
\( (20-1) = (21-?) \)
\( 19 = 21-? \)
\( ? = 21-19 = 2 \)

11. (2)
In circle I
\( (25-17)+7 = 42+7 = 6 \)
In circle II
\( (38 +18)+7 = 56+7 = 8 \)
\( \therefore \) Similarly in circle III we have
\( (89 +16)+7 = 105+7 \)
\( = 15 \)

12. (1)
\[ 84 \]
\[ 14 \quad 12 \]
\( (84+12) = 7; \ 7\times2=14 \)
\[ 81 \]
\[ 18 \quad 9 \]
\( (81+9) = 9; \ 9\times2=18 \)
Similarly
13. (2)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>26</td>
</tr>
</tbody>
</table>

**Consider 1st Row**
Position of F + Position of I = Position of O  
(i.e.) 6 + 9 = 15

**Consider 2nd Row**
Position of A + Position of J = Position of K  
1 + 10 = 11
Similarly in 3rd row
Position of E + Position of M = 5 + 13 = 18  
Position of R is 18.

14. (4)

**From statement I**
Total students = 26

**From statement II**
There are 9 students got less than Reena.

**From statement I & II**
There are 16 students above Reena in rank.  
⇒ Reena is 17th in the class  
⇒ both the statements are necessary to answer.

15. (4)

**From statement I**
Vasu’s basic salary = Rs. 1550 + 100 = Rs. 1650

Rajan’s salary
Since from statement III we have Rajan’s basic salary as Rs. 1550

**From statement II**
Vasu’s other allowance = Rs. 2050  
Rajan’s other allowance = Rs. 2000  
⇒ Vasu’s monthly salary = Rs. (1650+2050)  
= Rs. 3700

16. (4)

**From statement II**
Gopal’s brother was born in 1982

**From statement III**
Gopal’s brother was 8 years Younger to Gopal.  
⇒ Gopal was born in 1982-8 = 1974

**From statement I**
Sanjay = Gopal + 6 years  
⇒ Sanjay was born 6 years behind Gopal.  
⇒ Sanjay was born in 1974-6 = 1968

17. (1)

Let Distance Travelled by him in taxi = x kms  
⇒ Distance travelled by his own car = (80-x) kms

⇒ 15x+5(80-x) = 500  
⇒ 15x+400-5x = 500  
⇒ 10x = 500-400 = 100  
⇒ x = \frac{100}{10} = 10

⇒ Distance covered by train = 10 kms.

18. (2)

Let the total number of members = 100  
⇒ 20% of the members have the two cars = \frac{20}{100} \times 100 = 20

Remaining cars = 100-20 = 80
No. of members having 3 cars = 40% of 80  
= \frac{40}{100} \times 80 = 32

⇒ No. of members having one car  
= 100-(20 + 32) = 48
⇒ 48% of the total members have one car each.
19. (1)
Note: Given question is wrong
It must be 3: 2: 5
Let the numbers be 3x, 2x, 5x
\[ (3x)^2 + (2x)^2 + (5x)^2 = 1862 \]
\[ \Rightarrow 9x^2 + 4x^2 + 25x^2 = 1862 \]
\[ \Rightarrow 38x^2 = 1862 \]
\[ \Rightarrow x^2 = \frac{1862}{38} = 49 \Rightarrow x = 7 \]
\[ \therefore \text{The numbers are } 3x, 2x, 5x \]
(i.e.) \(3 \times 7, 2 \times 7, 5 \times 7\)
(i.e.) 21, 14, 35
Note: Option (1) must be 21, 14, 35

20. (1)
Divide 7231 by 45 we get remainder as 31
\[ \therefore \text{required number } = 45 - 31 = 14 \]

21. (4)
According to the given, data:
The rivers are arranged in ascending order as follows:
\[ \begin{align*}
\text{C} & \quad \text{B} \\
\text{D} & \quad \text{A} \\
\text{E} & \quad \\
\end{align*} \]
This implies river ‘E’ is the shortest river.

22. (2)
\[ \frac{1}{3} \text{rd of villagers are literate} \]
\[ \frac{4}{5} \text{th of the villagers are below twenty five.} \]
\[ \frac{4}{5} \text{th of the villagers cultivate paddy.} \]
\[ \Rightarrow \text{Some villagers under twenty five are literate.} \]

23. (4)

<table>
<thead>
<tr>
<th>Managing Editors -</th>
<th>Wednesday – morning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thursday – afternoon</td>
</tr>
<tr>
<td></td>
<td>Friday – whole day</td>
</tr>
<tr>
<td>Sports Editor –</td>
<td>Monday afternoon</td>
</tr>
<tr>
<td></td>
<td>Tuesday morning</td>
</tr>
<tr>
<td></td>
<td>Wednesday - full</td>
</tr>
<tr>
<td>News Editor -</td>
<td>Monday - afternoon</td>
</tr>
</tbody>
</table>
The horizontal lines are AB, IJ, EF, HG, DC, LK and MN
The vertical lines are AD, EH, IL, FG, BC and JK
Thus, there are 7 + 6 = 13 minimum straight lines are required to make the given figure.

28. (4)
With the given informations the total number of students cannot be determined.

29. (*)
(No option)
The arrangement is C S C S S S C S S S S S S S S S S S S S S S S
18 vehicles
C S S S S S C S S S S S S S S
∴ In the second half there are 15 scooters and 3 cars

30. (1)
The order of the persons according to their ages are
Simon
Hamilton
Anden
Bob
Shety
∴ Simon – is the oldest.

31. (1)

Triangles are
ABC, ABF, AEB, EBF, BEC, EFC, AED, EDC, AFC, ABD, AEC, BDC

32. (1)
Birth date of X is 3-3-1980
1980 is a leap year.
Hence, the February of 1980 has 29 days
Since
26-01-1980 - Saturday
01-02-1980 is Friday
22-02-1980 is Friday
28-02-1980 - Thursday
29-02-1980 - Friday
Since Y was born 4 days before X, Y was born on 28-02-1980.
Since 28-02-1980 is Thursday
⇒ Y was born on Thursday (2)

39. (2)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novel</td>
<td>Novel</td>
<td>Short story</td>
<td>Novel</td>
<td>Novel</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(1)</td>
<td>(2)</td>
<td>(2)</td>
</tr>
<tr>
<td>(or) (2)</td>
<td>(1)</td>
<td>(1)</td>
<td>(2)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

40. (3)

Triangles are
AHE, HEO, EOF, EFB, HQG, HCG, FOG, FGD, HEF, HFG, GHE, GEF
There are 12 triangles.

41. (1)
Idle brain is the devil’s workshop - people who have nothing worthwhile to think about will usually think of something bad to do.

44. (1)
∴ Some blues are green and some whites are green. Green and blue have some common area ⇒ I follows
Green and white have some area in common ⇒ II follows

III does not always hold.

45. (2)

Note: (given question must be as below)

Statements: All planets are moon
All moons are stars

Ans:
The given 2 statements are affirmative ⇒ conclusion must be affirmative
In conclusion I “All moons are plantes” it contains middle term.
Hence, conclusion I does not follow
∴ Only conclusion II follows

46. (4)

So, the middle term ‘Papers’ is not distributed. The second premise distributes neither the subject nor the predicate.
Here, ‘Papers’ is not distributed.
⇒ No Conclusion follows

47. (2)

‘Trees’ and ‘Hats’ have common area
⇒ Conclusion I follows
‘Hats’ does not lie entirely with in buses
⇒ Conclusion III does not follow Bus has a common portion with Hats.
⇒ Conclusion II follows
Conclusion I, II and IV follow.

48. (4)

This warning notification is issued in order to make people caution in respect of delayed payment of bills.
⇒ I and III are implicit.
The penalty collection is not mentioned.
II is not implicit.
∴ None of the given option follows.

49. (4)

From the given statement, it is clear that none of the given Assumptions I, II and III can be deduced. Hence none is implicit.

50. (2)

From the given statement it is clear that Assumption I does not follow.
⇒ I is not implicit.
From the statement, we can device that some other factors are needed to improve the quality of life.
⇒ This wealth does not contribute to the quality of life at all.
⇒ III is not implicit.
∴ Only Assumption II is implicit.

51. (4)

From the given statement we can derive that rains affect traffic.
⇒ Assumption II is not implicit.
But from the given statement we should not thought that only rain affects traffic.
⇒ Assumption I is not implicit.
From the given statement, adequate precautions / arrangements were taken to avoid traffic jam during rainy season.
⇒ Assumption III is implicit.

52. (1)
From the given statement
The assumptions I and II follows directly.
From Assumption III we may say that people always are not of the mind to be envied by their neighbours. Assumption III is not implicit.
53. (3)
Fortnight \(\rightarrow\) include week days
Thus, Assumption I is not implicit.
Assumption III is not in clear.
\(\Rightarrow\) III is not implicit.
Assumption II is implicit
Since, continuance of show depends on the last days performance (company’s hope)
54. (3)
Cyclone makes severe damages.
For this affected people have to be shifted to some other safety places.
Rescue operation entails huge money, for this, state government should ask for more financial support from central government.
\(\Rightarrow\) Both the courses follow.
55. (4)
Foot paths are only meant for walking.
For this foot paths are kept empty
To watch this police has to be sought.
Vendors are also allowed to lead their life.
\(\Rightarrow\) Both the courses follow.
56. (4)
From the given statement only courses II and III follow I is not a course of action.
57. (4)
From the given statement are should not assume that more bonded labourers should be identified. The bonded labourers are made freed without considering the rehabilitation facilities.
\(\therefore\) Only III follows.
58. (3)
If all animals are cornivorous is true then some animals are cornivorous is also true. Statements 2 and 3 cannot be true.
If statement 1 is false, statement 2 can be true but statement 3 cannot be true.
59. (4)
Health is improved by morning walk.
This does not imply that all the healthy persons go for morning walk.
\(\Rightarrow\) I does not follow
From the given statement there is no mention about evening walk.
\(\Rightarrow\) II does not follow;
\(\Rightarrow\) Neither I nor III follow
60. (4)
The conclusions 1, 2 and 3 are not logically follows from the given statement.
But conclusion 4 (i.e.) a poor man can earn wealth if he has ability only logically follows from the statement.
61. (4)
A buffer contains data that is stored for a short amount of time, typically in the computers’ memory (RAM).
62. (1)
Random Access Memory is the processor can run more programs at the same time.
Random Access : It is a direct access by a computer (CPU) to any memory address of a data storage device without searching from point A to Z.
63. (2)
Cycle stealing is a method of accessing RAM without interfering with the CPU.
64. (2)
**Real-time processing:**
Real time data processing involves a continual input, process and output of data.
Real time processing is usually found in systems that use computer control.
65. (2)
File specification books are created primarily for the use of programmers.
A programmer, computer programmer developer, coder, or software engineer is a person who writes the computer software.

66. (4)
A spread sheet is a sheet of paper that shows accounting or other data in rows and columns.

67. (1)
A Wide-Area Network (WAN) spans a relatively large geographical area and typically consists of two or more Local Area Networks (LANs).

68. (3)
Information retrieval is fastest from Hard-Disk.

69. (1)
The minimum time delay required between the initiation of two successive memory operations is known as memory cycle time.
A measurement of how quickly two back-to-back accesses of a memory chip can be made is known as cycle time.

70. (4)
Communication using a modulated carrier to apply a data signal to a transmission medium in analog form is broad band networking.
In home networking, broadband constitutes any form of high-speed internet access using this transmission technique.

71. (3)
A framework in which circuit board can be mounted is card cage.
Card case: An enclosure into which printed circuit boards (cards) are inserted.

72. (2)
The task of proving that a given program works correctly is Program verification.

Program verification is the use of formal, mathematical techniques to debug software and software specifications.

73. (3)
Mindware Package is not a graphics package category. A graphics package is an application that can be used to create and manipulate images on a computer.

74. (2)
A computer program that instructs other programs to perform a particular type of operation is Application Software.

Three types of software:
1. Operating System Software
2. Utility Software
3. Application software
Application software instructs the computer to perform a specific function or task such as word processing.

75. (1)
A logic gate is an electronic circuit which makes logical decisions.
Logic gates perform basic logical functions and are the fundamental building blocks of digital integrated circuits.

76. (4)
Transmission and presentation of text and graphics is called video text.
Video Text is an electronic information transmission and retrieval technology enabling interactive communication, for such purposes as data acquisition and dissemination.

77. (3)
An instruction that transfer program control to one or more possible paths is known as broadband channel.
In telecommunications, broadband is a wide band with data transmission with an ability to simultaneously transport multiple signals and traffic types.

78. (1)
The process of writing computer instructions in a programming language is known as coding.
The process of designing, writing, testing, debugging trouble shooting, and maintaining the source code of computer programs is computer programming.

79. (2)
Computer Instructions written with the use of English Words instead of binary machine code is called Symbolic code.
It means of analysing a program to determine what Inputs cause each part of a program to execute.

80. (3)
Accessing records from a file directly without searching from the beginning of the file is Direct Access.
**Direct Access** is the ability to obtain data from c storage device by going directly to where it is. Physically located on the device rather than by having to sequentially look for the data at one physical location after another.

81. (4)
The given design rotates alternately by 45° and 270° anticlockwise directions. The multiplication symbol (X) moves to the other side of the design in every step.

82. (3)
The 1st and second figures and the 2nd and 3rd figures interchange their positions alternatively. In every step the half pin design rotates 180
In one step the half arrow figure rotates 180 and in the next step it gets inverted.
In respect of 3rd figure, it gets reversed and its head is inverted in one step and in the next step, the head position gets inverted.

83. (4)

In the problem figure A, consider the lower most line. This interchanges position with the other lines sequentially.

84. (4)
The design which is present inside the square moves one, two, three, four, .... steps in the anticlockwise direction.
The design changes its shape from dot to cross.
Cross → Square
Square → Dot
Dot → Cross
∴ Cross → Square

86. (2)
The movement of arrow is as follows.
Fig. A → B 45°, 90°, 135°, 180°..... in every figure in anticlockwise direction.
But the arrow also rotates 90° in every step in clockwise direction.

87. (3)
The pin-shaped figure moves 45° clockwise and 90° clockwise alternately.
The arrow moves 2 - steps, and 1-step in anticlockwise direction alternately.

88. (4)
First note that the arrow gets inverted in each step.
∴ Only options are (3) or (4)
The arrow position must be downwards which occurs only in (4)

89. (3)
**First step:**
The symbol which is occurring at the lower right corner is replaced by a new symbol.
(i.e.) Δ → replaced by ↑
But note that all other symbols move in clockwise direction.

**Second step:**
The symbol in the lower left corner is changed as new symbol, all other symbols moves clockwise direction. The process is repeating.
90. (4)
In each subsequent figures, the wave shape design reverse their crusts.
The darned crust progresses by one step after every two figures.

91. (3)
From (PF: A \rightarrow PFB).
The arrow moves 1 - step and gets inverted in clockwise direction.
The circle moves one step in clockwise direction. The white position increases by 45 in each step.

92. (2)
The movement of designs are as follows:

93. (1)
In every step:
Consider the two right most designs. They become the left most designs.
And, the third design from the right changed to the third design from the left.

94. (2)
Consider PF : A \rightarrow PF : B one line is lost in right side PF : B PF : C
The lost line again appears but two lines are lost from the left hand side.
PF: C \rightarrow PF: D
(PF - Problem Figure)
Three lines are lost in right side lost two lines reappear and so on.

95. (1)
Fresh line appears as a side of pre-existing parts of squares. A new line appears for a new square.
In the completed square a line appears.

96. (4)
In alternate steps

The arrow moves to the opposite side of the square and changes its direction.
⇒ Options (3) or (4) is correct.
The blackened triangle in PF 1, 3, 5, ....moves one step ACW direction.
Similarly, the blackened triangle in PF 2, 4, ... moves one step anticlockwise direction.
∴ Option (4) is correct.

97. (4)
The outer / big incomplete square moves 45° and 90° in every steps in clockwise.
The inner / half darked square moves 90° and 45° in anticlockwise directions.
These inner design laterally inverted in each steps.

98. (2)
The incomplete square moves side to side.
The half - arrow shaped figure gets inverted in one step and laterally inverted in the next step.

99. (4)
One portion of shaded regions moves in clockwise direction and another in anticlockwise direction. The design which continues is answer figure (4).