IBPS BANK P.O/M.T - CWE

MOCK TEST - VIII

QUANTITATIVE APTITUDE

1. Train A travelling at 63 kmph can cross a platform 199.5 m long in 21 seconds. How much time would train A take to completely cross (from the moment they meet) train B, 157 m long and travelling at 54 kmph in opposite direction in which train A is travelling ? (in seconds)
   (1) 16   (2) 18
   (3) 12   (4) 14
   (5) 10

Directions (2 – 6) : *What will come in place of the question mark (?) in the given question ?*

2. 8 9 17 26 90 ?
   (1) 121   (2) 109
   (3) 115   (4) 125
   (5) 111

3. 96 48 72 180 ? 2835
   (1) 570   (2) 630
   (3) 575   (4) 612
   (5) 484

4. 13 14 30 93 ? 1885
   (1) 364   (2) 388
   (3) 382   (4) 356
   (5) 376

5. 1252 250 62 20 ? 7
   (1) 13   (2) 7
   (3) 11   (4) 12
   (5) 9

6. 15 21 32 48 69 ?
   (1) 85   (2) 103
   (3) 100   (4) 89
   (5) 95

7. Neet, out of his total monthly salary, pays 20% towards house loan and 15% towards his miscellaneous expenditure. From the remaining amount, the respective ratio of the amount he invests in a scheme and the amount left with him is 5 : 8. If he invests Rs. 6500 in the scheme, what is his monthly salary ?
   (1) Rs. 26,000   (2) Rs. 36,250
   (3) Rs. 27,000   (4) Rs. 24,250
   (5) Rs. 30,000

8. When an article was sold for Rs. 696, percent profit earned was p%. when the same article was sold for Rs. 841, percent profit earned was (p +25%). What is the value of p?
   (1) 10   (2) 25
   (3) 15   (4) 20
   (5) 30

9. A boat running downstream covers a distance of 30 km in 2 hours. While coming back the boat takes 6 hours to cover the same distance. If the speed of the current is half that of the boat, what is the speed of the boat ?(in km/h)
   (1) 15   (2) 5
   (3) 10   (4) 20
   (5) None of these

10. The respective ratio of milk and water in the mixture is 4 : 3 respectively. If 6 litres of water is added to this mixture, the respective ratio of milk and water becomes 8 : 7. what is the quantity of milk in the original mixture ?
    (1) 96 litres   (2) 36 litres
    (3) 84 litres   (4) 48 litres
    (5) None of these

11. A, B and C invested Rs. 45000, Rs. 70000 and Rs. 90000 respectively to start a business. At the end of two years, they earned a profit of Rs. 1,64,000. What will be B's share in the total profit ?
    (1) Rs. 56,000   (2) Rs. 36,000

(3) Rs. 72,000 (4) Rs. 64,000
(5) Rs. 59,000

12. A courtyard is 25 m long and 16 m broad is to be paved with brick of dimensions 20 cm by 10 cm. What is the total number of bricks required ?
(1) 16000 (2) 18000
(3) 20000 (4) 22000
(5) 25000

13. The difference between CI and SI on a certain sum of money for 3 years at 5% p.c.p.a., is Rs. 122. Find the sum invested.
(1) Rs. 10,000 (2) Rs. 12,000
(3) Rs. 16,000 (4) Rs. 20,000
(5) Rs. 25,000

14. The diameter of a circle is equal to the perimeter of a square whose area is 3136 cm². What is the circumference of the circle ?
(1) 352 cm (2) 704 cm
(3) 39424 cm (4) 1024 cm
(5) Other than those given as options

15. The sum of digits of a two-digit number is 12 and the difference between the two-digits of the two-digit number is 6. What is the two-digit number ?
(1) 39 (2) 84
(3) 93
(4) Other than those given as options
(5) 75

16. The interest earned on Rs. 15000 in 3 years at simple interest is Rs. 5400. Find the rate of interest per annum.
(1) 11.5% (2) 12%
(3) 12.5% (4) 15%
(5) 18%

Directions (17-21) : *Study the table carefully and answer the given questions.*

The following data are regarding number of shoes sold by five shops – A, B, C, D and E in five different months – July, August, September, October and November

Shops Months	A	B	C	D	E
July	128	133	109	113	117
August	103	115	121	87	163
September	135	126	111	121	217
October	174	168	148	173	232
November	240	257	227	307	328

17. What is the average number of shoes sold by shop A in the months of July, August and September ?
(1) 120 (2) 125
(3) 136 (4) 122
(5) 132

18. Number of shoes sold by shop E in September was approximately what percent more than the number of shoes sold by B in the same month?
(1) 60 (2) 65
(3) 78 (4) 72
(5) 84

19. Total number of shoes sold by all the shoes together in June was 30% more than the total number of shoes sold by all the shoes together in July. How many shoes were sold by all the shops together in June ?
(1) 760 (2) 740
(3) 690 (4) 780
(5) 820

20. What is the respective ratio between total number of shoes sold by shop B in October and November together and total number of shoes sold by shop C in the same months together ?
(1) 17 : 14 (2) 16 : 15
(3) 17 : 15 (4) 14 : 13
(5) 16 : 13

21. Total number of shoes sold by store D in October and November together is what percent of the number of shoes sold by shop E in the same months together ?
(1) $86\frac{1}{6}$ (2) $85\frac{5}{7}$
(3) $90\frac{1}{6}$ (4) $91\frac{1}{11}$
(5) $91\frac{2}{7}$

22. 16 men can finish a piece of work in 49 days. 14 men started working and in 8 days they could finish certain amount of work. If it is required to finish the remaining work in 24 days, how many more men should be added to the existing work-force?
(1) 21   (2) 28
(3) 16   (4) 18
(5) 14

23. The difference between the present ages of Trisha and Shalini is 14 years. Seven years ago, the ratio of their ages was 5 : 7 respectively. What is Shalini's present age ?
(1) 49 years   (2) 42 years
(3) 63 years   (4) 35 years
(5) 56 years

24. The base of triangle is 15 cm and height is 12 cm. the height of another triangle of double the area having base 20 cm is
(1) 22 cm   (2) 20 cm
(3) 18 cm   (4) 10 cm
(5) 19 cm

25. In an election between two candidates, one got 72% of the total valid votes. 25% of the total votes are invalid. If total votes are 8200, what is the number of valid votes the other person got ?
(1) 1835   (2) 1722
(3) 2050   (4) 4428
(5) None of these

26. Pipe A and B can fill a tank in 10 hours and 8 hours respectively. After certain time, Pipe A was closed. It took a total of 6 hours to fill the tank completely. For how many hours did pipe A work?
(1) $4\dfrac{1}{4}$ hours   (2) $2\dfrac{1}{2}$ hours
(3) $3\dfrac{1}{3}$ hours   (4) $5\dfrac{1}{3}$ hours
(5) $6\dfrac{1}{2}$ hours

27. On walking at $\dfrac{3}{4}$ of his usual speed a man reaches his office 20 minutes late. What is the usual time taken by him in reaching his office?
(1) 75 minutes   (2) 60 minutes
(3) 40 minutes   (4) 30 minutes
(5) None of these

Directions (28-32) : *What will come in place of question mark (?) in the following number series ?*

28. 15 29 56 108 208 400 ?
(1) 758   (2) 770
(3) 784   (4) 768
(5) 778

29. 13 -21 34 -55 89 -144 ?
(1) 233   (2) 255
(3) 244   (4) 266
(5) 222

30. 133 183 241 307 381 463 ?
(1) 557   (2) 521
(3) 553   (4) 541
(5) Other than those given as options

31. 1.21 1.44 1.69 1.96 2.25 2.56 ?
(1) 3.61   (2) 2.85
(3) 3.24   (4) 2.94
(5) Other than those given as options

32. 36 52 70 90 112 136 ?
(1) 150   (2) 152
(3) 162   (4) 140
(5) Other than those given as options

33. A committee of five members is to be formed out of 3 trainees, 4 professors and 6 research associates. In how many different ways this can be done if the committee should have all the 4 professors and I research associate or all 3 trainees and 2 Professors?
(1) 15   (2) 18
(3) 25   (4) 12
(5) Other than those given as options

34. A 20 litre mixture contains milk and water in the respective ratio of 3 : 2. Then 10 litres of the mixture is removed and replaced with Pure

milk and the operation is repeated . once more. At the end of the two removals and replacements, what is the ratio of milk and water in the resultant mixture respectively?

(1) 17 : 3   (2) 9 : 1
(3) 4 : 17   (4) 5 : 3
(5) 3 : 14

35. A trader marks up his goods by 5%..However, he could sell only-third of his stock at this price. The half of the remaining stock was sold at a discount of 7.14% and the remaining at a discount of 16.67%. Find the overall percentage profit of the trader.

(1) 38%   (2) 42%
(3) 29%   (4) 34%
(5) 40%

ENGLISH LANGUAGE

Directions (36-40) : *Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. Choose the part with the error as your answer. If there is no error, select 'No error' as your answer. (Ignore the errors of punctuation, if any)*

36. Such manufacturing plants will (1)/generated employment for (2) over 1,000 skilled professionals (3)/ over the next five years. (4)/ No error (5)

37. On account of the falling in (1)/ its revenue and profitability (2)/ the company has received (3)/ a lower credit rating this year. (4)/ No error (5)

38. The panel appointed by (1)/ the government has recommended (2)/ the removal of these ambiguity (3)/ in the draft of the taxation law. (4)/ No error (5)

39. With the Reserve Bank of India handing out (1)/ licenses for new banks as well as (2)/ new types of banks such as Payment banks, (3)/ Public Sector Banks will face many challenges. (4)/ No error (5)

40. When the Emperor heard of (1)/ the saga's wit and intelligence (2)/ he sent to a messenger to (3)/ invite him to the court. (4)/ No error (5)

Directions (41-51) : *Read the following passage carefully and answer the questions given below it.*

Once an old lady lost her eyesight and became blind. She called a doctor and agreed to pay him a very big amount if he cured her. But she had a condition that she would not give a single penny, if she were not **cured**. The doctor came to her house daily for treatment. Day after day he started stealing the lady's furniture and other valuable things from the house. Every day he took away one thing from the lady's house. In order to do this, he **delayed** curing the lady. He finally cured the lady after he had removed all the furniture and valuable articles from the lady's house. Now he demanded his fee from the lady. But the lady refused to pay the fees and said that she was not fully cured. The doctor **registered** a case against her. On being asked by the judge in the court as to why she was not paying the fee, the sharp lady told the court that her eye sight had not fully restored as she could not see her furniture and other articles in the house. The judge was very clever. He **gathered** what was going on and punished the doctor.

41. Which of the following can be said about the doctor ?
(A) He spent the rest of his life in prison.
(B) He was outwitted by the old lady.
(C) He believed he could get away with his deception.
(1) Only (A)
(2) Only (A) and (B)
(3) Only (C)
(4) Only (B) and (C)
(5) All (A), (B) and (C)

42. Which of the following is true according to the story?
(1) The lady was sill partially blind, hence refused to pay the doctor.
(2) The judge in the court was not intelligent
(3) The doctor's deception in fact was not successful.
(4) The lady had taken advantage of the doctor's naivete.
(5) All the given statements are true.

43. Choose the word which is most opposite in meaning to the word **REGISTERED** given in bold as used in the passage.

4

(1) lodged   (2) withdrew
(3) dislocated   (4) uncalculated
(5) dismembered

44. Choose the word which is most similar in meaning to the word given in bold as used in passage.
Gathered
(1) Collected   (2) Accumulated
(3) Rounded   (4) Amassed
(5) understood

45. Which of the following can be the most appropriate title for the story ?
(1) The Skilled Doctor
(2) The blind One Who Saw All
(3) The Rich Lady's House
(4) The Court of Mercy and Justice
(5) The Iron Lady

46. Which of the following can be said about old lady ?
(A) She was dumb.
(B) She fought for justice.
(C) She was a cheat.
(1) Only (A)   (2) Only (B)
(3) Only (A) and (C)   (4) Only (C)
(5) All (A), (B) and (C)

47. Choose the word which is most similar in meaning to the word given in bold as used in passage.
Cured
(1) healed   (2) rested
(3) stationed   (4) lifted
(5) sighted

48. Which one of the following. aspects of the doctor's personality comes across very strongly in the story ?
(1) He was arrogant.
(2) He was empathetic.
(3) He was rich.
(4) He was a cheat.
(5) He was gullible.

49. Why did the lady not complain when her furniture was being stolen ?
(1) She had no use for it.

(2) She had no idea that it was happening even after she was cured.
(3) She always wanted to pay the doctor in kind and not cash.
(4) She intended to sell it anyway and thought the doctor was doing her a favour.
(5) Other than those given as options.

50. Choose the word which is most opposite in meaning to the word given in bold as used in passage.
Delayed
(1) slowed   (2) patented
(3) protected   (4) absolved
(5) expedited

51. The gentleman came to know that the villager was in _____ of money.
(1) dire   (2) desire
(3) demand   (4) wish
(5) need

Directions (52-55) : *Each sentence below has one blank, each blank indicating that something has been omitted. Choose the word that best fit the meaning of the sentence as a whole.*

52. Two crows _____ each other to see who could fly the highest.
(1) thought   (2) challenged
(3) argued   (4) kill
(5) wants

53. _____ all the other man in Alaska, Sheena's father did not have a steady job.
(1) Well   (2) Like
(3) From   (4) So
(5) Similar

54. Kevin was eagerly _____ for the summer holidays to begin.
(1) counted   (2) waiting
(3) longed   (4) thinking
(5) around

55. Suddenly there was a flash of lightening _____ by thunderstorm.
(1) followed   (2) knowing
(3) crossing   (4) split
(5) taking

Directions (56-60) : *Rear- range the following six sentences (A), (B), (C), (D), (E) and (F) in a proper sequence to form a meaningful paragraph; then answer the questions given below them.*

(A) Immediately the crow dispersed leaving Joja to deal with his donkey as he thought fit.

(B) Many people gathered around them and started asking why he was beating the poor animal.

(C) In anger and desperation Joja began to belabor it with a stick.

(D) Joja was on his way to the market with a basketful of vegetables, loaded on his donkey when suddenly halfway there the donkey stopped and even after trying hard, did not budge.

(E) "I can see you come from a large and bud-mouthed family," he said to his donkey with sarcasm.

(F) Joja gave his donkey an admiring look and said, 'Had I known you had so many relatives to defend you. I would never have hit you.

56. Which of the following should be the **SIXTH** (**LAST**) sentence after rearrangement ?
(1) E   (2) D
(3) A   (4) B
(5) F

57. Which of the following should be the **SECOND** sentence after rearrangement ?
(1) A   (2) B
(3) F   (4) D
(5) C

58. Which of the following should be the **FOURTH** sentence after rearrangement ?
(1) A   (2) B
(3) C   (4) F
(5) D

59. Which of the following should be the **FIRST** sentence after rearrangement ?
(1) A   (2) C
(3) B   (4) F
(5) D

60. Which of the following should be the **FIFTH** sentence after rearrangement ?

(1) E   (2) D
(3) A   (4) F
(5) C

Directions (61 – 65) : *In each question below a sentence with four words printed in **bold** type is given. These are numbered as (1), (2), (3) and (4). One of these four words printed in **bold** may be either **misspelt or inappropriate** in the context of the sentence. Find out the word which is wrongly spelt or in appropriate if any. The number of that word which is wrongly spelt or in appropriate if any. The number of that word is your answer. If all the words printed in **bold** are correctly spelt and also appropriate in the context of the sentence, mark (5), i.e., 'All correct' as your answer.*

61. **Out** of the two **mules** that Roma had, one **fall** in the **well**.
(1) Out   (2) mules
(3) fall   (4) well
(5) All correct

62. Snow white is **under threat** from her **evil** stepmother who wants to be the **fairest** in the village.
(1) under   (2) threat
(3) evil   (4) fairest
(5) All correct

63. Nobody **realises** that over two billion people **across** the **globe** now speak this **language**.
(1) realises   (2) across
(3) globe   (4) language
(5) All correct

64. **Tried** of seeing the land he loves **cluttered** with trash, Thurman the turtle **decided** to take **action**.
(1) Tried   (2) cluttered
(3) decided   (4) action
(5) All correct

65. During his **chase** to catch a rabbit, he **sprang** into a small bush from where he came out not with the rabbit but with a huge **thorne** in his **palm**.
(1) chase   (2) sprang
(3) thorne   (4) palm
(5) All correct

REASONING

Directions (66-70) : *In each of the following questions, two or three statements followed by two Conclusions numbered I and II have been given. You have to take the given Statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given Conclusions logically follow from the given statements disregarding commonly known facts.*

Give answer (1) if both the Conclusion I and Conclusion II follow
Give answer (2) if either Conclusion I or Conclusion II follows
Give answer (3) if neither Conclusion I nor Conclusion II follows
Give answer (4) if only Conclusion I follows
Give answer (5) if only Conclusion II follows

(66-67) : Statements
All calls are mails.
Some mails are posts.
Some posts are letters.

66. **Conclusions**
    I.   All posts being calls is a possibility.
    II. No letter is a mail.

67. **Conclusions**
    I.   All mails are calls.
    II. No call is a letter.

68. **Statements**
    Some vehicles are cars.
    Some cars are trucks.
    All trucks are sedans.
    Conclusions
    I.   All vehicles being sedans is a possibility.
    II. At least some cars are sedans.

69. **Statements**
    Some bridges are roads.
    No road is underpass.
    Conclusions
    I.   Some bridges are underpasses.
    II. No bridge is an underpass.

70. **Statements**
    No unit is a part.
    All parts are items.

Some items are elements.
Conclusions
I.   No unit is an element.
II. At least some units are items.

Directions (71-75) : *Study the following information carefully and answer the questions given below :*

Ten persons are sitting in two parallel rows containing five persons each, in such a way that there is equal distance between adjacent persons. In row 1 – B, C, D, E and F are seated (not necessarily in the same order) and all of them are facing south. In row 2 – R, S, T, U and V are seated (not necessarily in the same order) and all of them are facing north. Therefore, in the each member seated in a row faces another member of the other row.

R sits second to the right of U. The person facing R sits to the immediate left of D. Only one persons sits between D and E. E does not sit at an extreme end of the line. The person facing E is an immediate neighbor of T. S sits third to the left of T. F is not an immediate neighbor of D. B does not face U.

71. Who amongst the following is facing V?
    (1) F   (2) D
    (3) C   (4) B
    (5) E

72. Who amongst the following is facing C ?
    (1) T   (2) S
    (3) V   (4) U
    (5) R

73. What is the position of D with respect of F ?
    (1) Immediate left
    (2) Second to the left
    (3) Third to the right
    (4) Immediate right
    (5) Second to the right

74. Which of the following statements is true regarding B?
    (1) None of the given statements is true
    (2) C sits second to the right of B
    (3) B sits at an extreme end of the row
    (4) B faces one of the immediate neighbours of T
    (5) Only two persons sit between B and F

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75. Four of the following five are alike in a certain way based on the given arrangement and hence form a group. Which one of the following does not belong to that group?
(1) RU   (2) SR
(3) VT   (4) EB
(5) DC

Directions (76-80) : *Study the following information carefully and answer the questions given below :*

In a certain code language,

'paint your house red' is written as 'ri fm ew cu'

'gate of red colour' is written as 'lb ew op sa'

'house of your choice' is written as 'sa cu ri nk'

'gate with red paint' is written 'gy op ew fm'

(All codes are two letter code only)

76. What is the code for 'red' in the given code language ?
(1) Other than those given as options
(2) sa
(3) gy
(4) ew
(5) fm

77. What may be the possible code for 'gate crash' in the given code language ?
(1) jx op   (2) ri op
(3) lb jx   (4) op lb
(5) jx ri

78. In the given code language, what does the code 'cu' stand for ?
(1) paint
(2) either 'of or 'colour'
(3) choice
(4) with
(5) either 'house' or 'your'

79. What is the code for 'paint' in the given code language ?
(1) gy   (2) fm
(3) sa   (4) op
(5) ri

80. If 'colour with canvas' is coded as 'hv lb gy' in the given code language, then what is the code for 'canvas of choice'?
(1) hv nk ew   (2) ri san k
(3) nk hv sa   (4) sa ew hv
(5) sa ri hv

Directions (81-83) : *Study the following information carefully and answer the questions given below :*

Each of the six buildings – E, F, G, H, I and J – has different number of floors. Only three buildings have more number of floors and J. G has more number of floors then I but less than E. I has more number of floors than J. F does not have the least number of floors. The building having least number of floors has 5 floors. The building having third highest number of floors has 26 floors. F has 14 floors less than the number of floors in I.

81. If the number of floors in building G is less than 38 and is an odd number which is divisible by 3 but not 7, how many floors does G have ?
(1) 15   (2) 35
(3) 9   (4) 27
(5) 29

82. Which of the following buildings has the second highest number of floors ?
(1) I   (2) F
(3) J   (4) H
(5) G

83. How many floors does building J possibly have ?
(1) 22   (2) 5
(3) 11   (4) 35
(5) 12

Directions (84-85) : *Study the following information carefully and answer the questions given below :*

K is the brother of J. J has only one daughter. J is the mother of L. L is the sister of T. B is the father of T. T is married to R.

84. How is J related to R ?
(1) Cannot be determined

(2) Sister-in-law
(3) Mother
(4) Aunt
(5) Mother-in-law

85. How is T related to K ?
    (1) Niece
    (2) Cannot be determined
    (3) Nephew
    (4) Son
    (5) Daughter

Directions (86-90) : *Study the following information carefully and answer the questions given below :*

Seven persons namely B, C, D, E, F, G and H have to attend a workshop but not necessarily in the same order, in seven different (months of the same year) namely January, March, April, July, August, September and December. Each of them also likes a different company namely HTC, Nokia, Samsung, Blackberry, TCS, Infosys and Godrej but not necessarily in the same order.

The one who likes TCS will attend a workshop in the month which has less than 31 days. Only one person will attend a workshop between the one who likes TCS and B. The one who likes HTC will attend a workshop immediately before B. Only three persons will attend a workshop between the one who likes TCS and the one who likes Nokia. H will attend a workshop immediately after B. Only three persons will attend a workshop between H and G. The one who likes Infosys will attend a workshop immediately before G. The one who likes Samsung will attend a workshop immediately before the one who likes Godrej. E will attend a workshop immediately after the one who likes Godrej. C will attend a workshop in a month which has only 30 days. F does not like HTC.

86. How many persons will attend a workshop between the months in which G and D will attend a workshop ?
    (1) Two
    (2) Three
    (3) One
    (4) More than three
    (5) None

87. As per the given arrangement, G is related to HTC and B is related to Nokia following a certain pattern, which of the following is D related to following the same pattern ?
    (1) Samsung   (2) Infosys
    (3) TCS   (4) HTC
    (5) Godrej

88. Which of the following represents the month in which F will attend a workshop ?
    (1) March   (2) January
    (3) December   (4) April
    (5) Cannot be determined

89. Which of the following represents the persons who will attend a workshop in March and December respectively ?
    (1) G,E   (2) F, B
    (3) F, E   (4) F, H
    (5) G,H

90. Which of the following companies does G like?
    (1) Samsung   (2) HTC
    (3) TCS   (4) Blackberry
    (5) Nokia'

Directions (91-95) : *In each of the following questions, relationship between different elements is shown in the statements. The statements are followed by two conclusions numbered I and II. Study the Conclusions based on the given statements and mark the appropriate answer :*

Give answer (1) if both the Conclusion I and Conclusion II are true
Give answer (2) if either Conclusion I or Conclusion II is true
Give answer (3) if neither Conclusion I nor Conclusion II is true
Give answer (4) if only Conclusion I is true
Give answer (5) if only Conclusion II is true

(91-92) : Statements
P ≤ L ≤ A > N = K ≥ S; C ≥ A

91. **Conclusions**
    I. L ≥ K
    II. P ≤ S

92. **Conclusions**
    I. C > P
    II. P = C

93. Statements

$J > U \geq N = K \leq E < D$

Conclusions

I. $E \leq U$

II. $D > N$

(94-95) : Statements

$I < J \leq K \leq L > M \geq N$;

$K \leq B = S$

94. Conclusions

I. $N < L$

II. $L = N$

95. Conclusions

I. $I < S$

II. $J \leq B$

Directions (96-100) : *Study the following information carefully and answer the given questions :*

Eight persons, J, K, L, M, N, O, P and I are sitting around a circular table facing the centre with equal distances between each other (but not necessarily in the same order). Each one of them is also related to N in some way or the other.

K sits third to the left of N. Only one person sits between N and Q. N's sister sits to the immediate right of Q. Only two persons sit between N's sister and N's mother. J sits to the immediate right of N's mother.

P sits to the immediate right of M. N's brother sits third to the right of P. N's wife sits second to the left of N's brother.

Only three persons sit between N's wife and L. N's son sits second to the right of N's father. Only two persons sit between N's father and N's daughter.

96. Who amongst the following is the son of J ?

(1) M (2) P

(3) K (4) O

(5) Q

97. How many persons sit between N and K, when counted from the left of K ?

(1) Five (2) One

(3) Four (4) None

(S) Three

98. Who sits to the immediate right of Q?

(1) N's sister (2) N

(3) N's wife (4) K

(5) J

99. Which of the following statements is true with respect to the given information ?

(1) All the given options are true

(2) P sits to the immediate left of J.

(3) N's mother sits to the immediate left of N.

(4) M is the mother-in-law of Q.

(5) N is an immediate neighbor of his father.

100. How is J related to K ?

(l) Sister

(2) Uncle

(3) Father

(4) Sister-in-law

(5) Daughter

10

SOLUTIONS

1. (5) Speed of train A

$= 63 \text{ kmph} = \left(\dfrac{63 \times 5}{18}\right) \text{m/sec} = 17.5 \text{ m/s}$

Speed of train B = 54 kmph

$= \dfrac{54 \times 5}{18} \text{ m/sec} = 15 \text{ m/sec}$

If the length of train A be x metre, then
Speed of train A

$= \dfrac{\text{Lengths of train A \& B}}{\text{Relative Speed}}$

$\Rightarrow 17.5 = \dfrac{x + 199.5}{21}$

$\Rightarrow 17.5 \times 21 = x + 199.5$

$\Rightarrow 367.5 = x + 199.5$

$x = 367.5 - 199.5 = 168 \text{ m}$

Case II

Relative speed

$(17.5 + 15) \text{m/sec} = 32.5 \text{ m/sec}$

$\therefore$ Required time

$= \dfrac{\text{Lengths of train A \& B}}{\text{Relative speed}}$

$= \dfrac{168 + 157}{32.5} S = \dfrac{325}{32.5} = 10 \text{ sec}$

2. (3) 115

Pattern follows like this

$8 + 1^2 = 8 + 1 = 9$

$9 + 2^3 = 9 + 8 = 17$

$17 + 3^2 = 17 + 9 = 26$

$26 + 4^3 = 26 + 64 = 90$

$90 + 5^2 = 90 + 25 = 115$

3. (2) 630

Pattern follows like this

$96 \times \dfrac{1}{2} = 48$

$48 \times \dfrac{3}{2} = 180$

$180 \times \dfrac{7}{2} = 630$

$630 \times \dfrac{9}{2} = 2835$

4. (5) 376

Pattern follows like this

$13 \times 1 + 1 = 13 + 1 = 14$

$14 \times 2 + 2 = 28 + 2 = 30$

$30 \times 3 + 3 = 90 + 3 = 93$

$93 \times 4 + 4 = 372 + 4 = 376$

5. (5) 9

The pattern follows like this -

$\dfrac{1252 - 2}{5} = 250, \quad \dfrac{250 - 2}{4} = \dfrac{248}{4} = 62,$

$\dfrac{62 - 2}{3} = \dfrac{60}{3} = 20,$

$\dfrac{20 - 2}{2} = \dfrac{18}{2} = 9, \quad \dfrac{9 - 2}{1} = 7$

6. (5) 95

The pattern follows like this -

$15 + 6 = 21$

$21 + 11 = (6 + 5) = 32$

$32 + 16(= 11 + 5) = 48$

$48 + 21(= 16 + 5) = 69$

$69 + 26(= 21 + 5) = 95$

7. (1) 26,000

Let Neet's monthly salary be Rs.x

Remaining amount with neet

$= \text{Rs.} \left(\dfrac{8}{5} \times 6500\right)$

$= \text{Rs. } 10400$

Expenses on house loan

$$\frac{20 \times x}{100} = \frac{Rs.x}{5}$$

Miscellaneous expenses

$$= \frac{15x}{100} = \frac{Rs.3x}{20}$$

Remaining amount

$$= \frac{x-x}{5} - \frac{3x}{20} = \frac{Rs.13x}{20}$$

Acc. to question

$$= \frac{13x}{20} - 6500 = 10400$$

$$\Rightarrow \frac{13x}{20} = 10400 + 6500$$

$$\Rightarrow 13x = 20 \times 16900$$

$$\Rightarrow x = Rs.26000$$

8. (4) 20%

Difference of Profits

$$= Rs(841 - 696) = Rs.145$$

Difference of profit percentages

$$p + 25 - p = 25\%$$

It the cost prices of the article be $Rs.x$

then 25% of $x = 145$

$$x \times \frac{25}{100} = 145$$

$$x = Rs.580$$

Profit $= Rs.(696 - 580) = Rs.116$

Profit $= p\%$

$$\therefore 580 \times \frac{p}{100} = 116$$

$$p = \frac{116 \times 100}{580} = 20\%$$

9. (3) Rate downstream of boat

$$= \frac{30}{2} = 15 \text{ kmph}$$

Rate upstream of boat

$$= \frac{30}{6} = 5 \text{ kmph}$$

$\therefore$ Speed of boat in still water

$$= \frac{1}{2}(\text{Rate downstream} + \text{Rate upstream})$$

$$= \frac{1}{2}(15 + 5) = 10 \text{ kmph}$$

10. (4) 48 litres

Let the quantity of milk in initial mixture be $4x$ litres

Quantity of water $= 3x$ litres

On adding 6 litres of water

$$\frac{4x}{3x+6} = \frac{8}{7}$$

$$\Rightarrow 28x = 24x + 48$$

$$28x - 24x = 48$$

$$\Rightarrow 4x = 48$$

$$\Rightarrow x = \frac{48}{4} = 12$$

11. (1) 56000

Ratio of the equivalent capitals of A, B and C for/month

$$= 45000 : 70000 : 90000$$

$$= 9 : 14 : 18$$

Sum of the terms of ratio

$$= 9 + 14 + 18 = 41$$

Total profit $= Rs. 164000$

$$\therefore \text{B's share} = Rs.\left(\frac{14}{41} \times 164000\right) = Rs.56000$$

12. (3) 20000

Area of courtyard

$$= (25 \times 16) \text{ sq/m} = 400 \text{ sq/m}$$

Area of surface of brick

$$= \left(\frac{20 \times 10}{10000}\right) \text{ sq/m}$$

$\therefore$ No. of bricks

$$= \frac{400}{\dfrac{20 \times 10}{10000}} = 20000$$

13. (3) 16000

$$\text{Difference} = \frac{PR^2(R+300)}{10,00000}$$

$$122 = \frac{P \times 25(5 + 300)}{1000000}$$

$$\Rightarrow P \times 25 \times 305 = 122000000$$

$$P = \frac{122000000}{25 \times 305} = Rs.16000$$

14. (2) 704

Side of square $= \sqrt{3136} = 56$ cm

Perimeter of square

$= (4 \times 56)$ cm = Diameter of circle

$= \pi \times d$

$= \left(\frac{22}{7} \times 56 \times 4\right)$ cm = 704 cm

15. (1) Let the two – digit number be

$10x + y$ where $x > y$

According to the question

$x + y = 12$ \qquad (i)

$x - y = 6$ \qquad (ii)

On adding equations (i) and (ii)

$2x = 18 \Rightarrow x = 9$

From equation (*i*)

$9 + y = 12 \Rightarrow y = 12 - 9 = 3$

$\therefore$ Number $= 10x + y$

$= 9 \times 10 + 3 = 93$

$\therefore$ When $x < y$, Number $= 39$

16. (2) Rate $= \dfrac{S.I \times 100}{Principal \times Time}$

$= \dfrac{5400 \times 100}{15000 \times 3}$

$= 12\%$ per annum.

17. (4) Average number of shoes sold by store A in July, August and September

$= \dfrac{128 + 103 + 135}{3}$

$= \dfrac{366}{3} = 122$

18. (4) Required percentage

$= \left(\dfrac{217 - 126}{126}\right) \times 100$

$= \dfrac{9100}{126} = 72\%$

19. (4) Total sales of shoes in July

$= 128 + 133 + 109 + 113 + 117$

$= 600$

$\therefore$ Total sales of shoes in June

$= \dfrac{600 \times 130}{100} = 780$

20. (3) Required ratio

$= (168 + 257) : (148 + 227)$

$= 425 : 375$

$= 17 : 15$

21. (2) Total sales in October and November :

Store D $= 173 + 307 = 480$

Store E $= 232 + 328 = 560$

$\therefore$ Required percent

$= \dfrac{480}{560} \times 100$

$= \dfrac{600}{7} = 85\dfrac{5}{7}\%$

22. (5) According to the question,

$\dfrac{M_1 D_1}{W_1} = \dfrac{M_2 D_2}{W_2}$

$\Rightarrow \dfrac{16 \times 49}{1} = \dfrac{14 \times 8}{W_2}$

$\Rightarrow W_2 = \dfrac{14 \times 8}{16 \times 49} = \dfrac{1}{7}$

Remaining work

$= 1 - \dfrac{1}{7} = \dfrac{6}{7}$

Again,

$\dfrac{M_1 D_1}{W_1} = \dfrac{M_2 D_2}{W_2}$

$$\Rightarrow \frac{16 \times 49}{1} = \frac{M_2 \times 24}{\frac{6}{7}}$$

$$\Rightarrow 16 \times 49 = \frac{M_2 \times 24 \times 7}{6}$$

$$16 \times 49 = M_2 \times 4 \times 7$$

$$\Rightarrow M_2 = \frac{16 \times 49}{4 \times 7} = 28$$

Number of additional men.

$$= 28 - 14 = 14$$

23. (5) 7 years ago.

Trisha's age $= 5x$ years

Shalini's age $= 7x$ years

According to the question,

$$7x - 5x = 14$$

$$\Rightarrow 2x = 14 \Rightarrow x = 7$$

$\therefore$ Shalini's present age

$$= (7x + 7) \text{ years}$$

$$= (7 \times 7 + 7) \text{ years}$$

$$= 56 \text{ years}$$

24. (3) Area of first triangle

$$= \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 15 \times 12$$

$$= 90 \text{ sq.cm}$$

Case II

Area of new triangle

$$= 180 \text{ sq.cm}$$

Base $= 20$ sq.cm

$\therefore$ Height $= \dfrac{2 \times 180}{20} = 18$ cm.

25. (2) Total votes $= 8200$

Total valid votes

$$= 8200 \times \frac{75}{100}$$

$$= 6150$$

Votes obtained by other person (loser)

$$= (100 - 72)\% \text{ of } 6150$$

$$= \frac{6150 \times 28}{100} = 1722$$

26. (2) Let pipe A remained open for x hours. According to the question,

$$\frac{x}{10} + \frac{6}{8} = 1$$

$$\Rightarrow \frac{x}{10} = 1 - \frac{3}{4} = \frac{1}{4}$$

$$\Rightarrow x = \frac{10}{4} = 2\frac{1}{2} \text{ hours}$$

27. (2) Actual speed $= x$ kmph

New speed $= \dfrac{3x}{4}$ kmph

Total distance $= y$ km

$$\therefore \frac{y}{\frac{3x}{4}} - \frac{y}{x} = \frac{20}{60}$$

$$\Rightarrow \left(\frac{4}{3} - 1\right) \frac{y}{x} = \frac{1}{3}$$

$$\Rightarrow \frac{y}{x} = 1$$

$\therefore$ Required time $= 60$ minutes

28. (4) The pattern is :

$$15 \times 2 - 1 = 30 - 1 = 29$$

$$29 \times 2 - 2 = 58 - 2 = 56$$

$$56 \times 2 - 4 = (2 \times 2) = 112 - 4 = 108$$

$$108 \times 2 - 8 = (2 \times 4) = 216 - 8 = 208$$

$$208 \times 2 - 16 = (2 \times 8) = 416 - 16 = 400$$

$$400 \times 2 - 32 = (2 \times 16) = 800 - 32 = \boxed{768}$$

29. (1) The pattern is :

$$13 - (-21) = 34$$

$$-21 - 34 = -55$$

$$34 - (-55) = 89$$

$$-55 - 89 = -144$$

$$89 - (-144) = \boxed{233}$$

30. (3) The pattern is :

$133 + 50 = 183$

$183 + 58 = 241$

$241 + 66 = 307$

$307 + 74 = 381$

$381 + 82 = 463$

$463 + 90 = \boxed{553}$

31. (5) The pattern is :

$(1.1)^2 = 1.21$

$(1.2)^2 = 1.44$

$(1.3)^2 = 1.69$

$(1.4)^2 = 1.96$

$\therefore \, ? = (1.7)^2 = 2.89$

32. (3) The pattern is :

$36 + 16 = 52$

$52 + 18 = 70$

$70 + 20 = 90$

$90 + 22 = 112$

$112 + 24 = 136$

$136 + 26 = \boxed{162}$

33. (4) Number of committees.

$= {}^4C_4 \times {}^6C_1 + {}^3C_3 \times {}^4C_2$

$= 1 \times 6 + 1 \times \dfrac{4 \times 3}{1 \times 2} = 6 + 6 = 12$

34. (2) In 20 litres of mixture

Milk $= \dfrac{3}{5} \times 20 = 12$ litres

Water = 8 litres

In 10 litres of mixture,

Milk = 6 litres

Water = 4 litres

On adding 10 litres of milk

Milk $= \dfrac{4}{5} \times 10 = 8$ litres

Water = 2 litres

On adding 10 litres of milk,

Milk = 16 – 8 + 10 = 18 litres

Water = 2 litres

Required ratio = 18 : 2 = 9 : 1

35. (1) Total C.P. = Rs. 100

Marked price = Rs. 150

S.P of one third stock = Rs. 50

Remaining stock = Rs. 100

S.P of half stock

$= \dfrac{50 \times 92.86}{100} = \text{Rs.} 46.43$

S.P of remaining half stock

$= \dfrac{50 \times 83.33}{100} = \text{Rs.} 41.665$

Total S.P = (50 + 46.43 + 41.665)

= Rs. 138.095

$\therefore$ Profit percent = 38%

36. (2)	**37.** (1)	**38.** (3)	**39.** (2)	**40.** (3)
41. (4)	**42.** (3)	**43.** (2)	**44.** (1)	**45.** (2)
46. (2)	**47.** (1)	**48.** (4)	**49.** (5)	**50.** (5)
51. (5)	**52.** (2)	**53.** (2)	**54.** (2)	**55.** (1)
56. (3)	**57.** (5)	**58.** (4)	**59.** (5)	**60.** (1)
61. (3)	**62.** (5)	**63.** (4)	**64.** (1)	**65.** (3)

(66-70) :

(i) All calls are mails → Universal Affirmative (A-type).

(ii) Some mails are posts → Particular Affirmative (I-type).

(iii) No road is underpass → Universal Negative (E-type).

(iv) Some roads are not under passes → Particular Negative (O-type).

(66-67) :

All calls are mails.

Some mails are posts.

A + A $\Rightarrow$ No Conclusion

Venn Diagram Method :

I

II

15
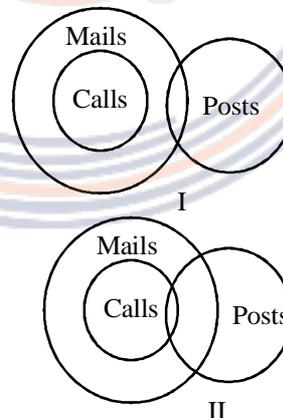
66. (4) Venn diagrams of "All calls are mails":

Mails — Calls
III

Mails / Calls
IV
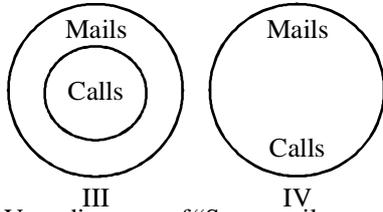
Venn diagrams of "Some mails are posts":

Mails | Posts
V
or
Mails — Posts
VI
or

Posts — Mails
VII
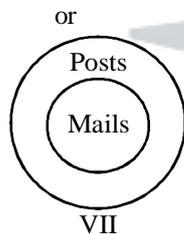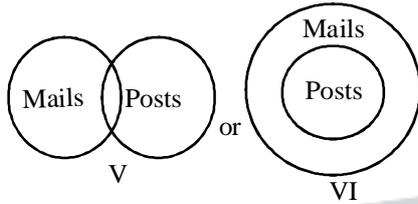
After combining the venn diagrams IV and VI, we get :

Mails, Calls — Posts
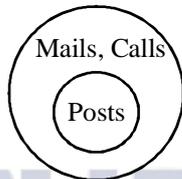
Therefore, Conclusion I follows.

67. (3) Neither Conclusion I nor Conclusion II follows.

68. (1) Some cars are trucks.

All trucks are sedans.
I + A $\Rightarrow$ I-type Conclusion
"Some cars are sedans."
This is Conclusion II
Venn Diagram Method :

Sedans — Trucks — Cars
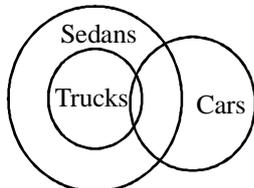
Venn diagrams of "Some vehicles are cars":

Vehicles | Cars
I
or
Cars — Vehicles
II
or
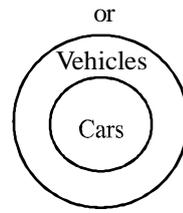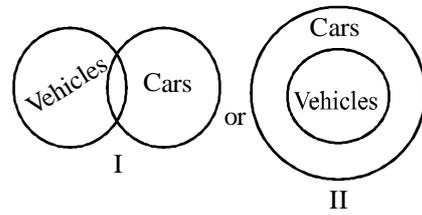
Vehicles — Cars
III

Venn diagrams of "Some cars are trucks":

Cars | Trucks
IV
or
Trucks — Cars
V
or

Cars — Trucks
VI
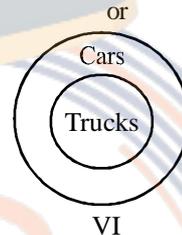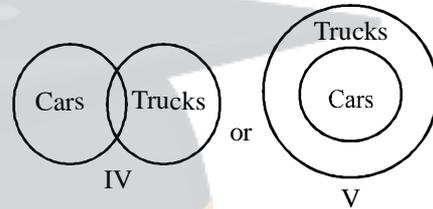
After combining the venn diagrams II and V, we get :

Trucks — Cars — Vehicles
VII
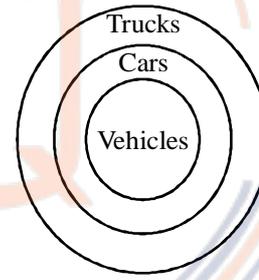
Venn diagrams of "All trucks are sedans":

Sedans — Trucks
VIII
or
Sedans / Trucks
IX
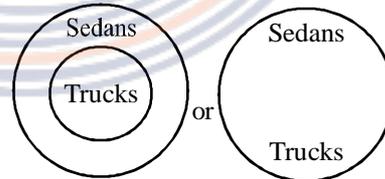
After combining the venn diagrams VII and IX, we get :

16
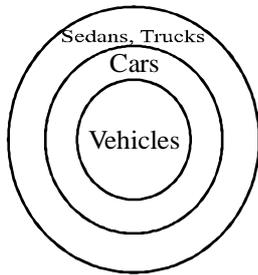
X

Therefore, all vehicles being sedans is a possibility. Thus, Conclusion I also follows.

69. (2) Some bridges are roads.

No roads is underpass.

$I + E \Rightarrow O$ – type of Conclusion

"Some bridges are not underpasses".

Conclusion I and Conclusion II form Complementary Pair.

Therefore, either Conclusion I or Conclusion II follows.

70. (5) No units is a part.

All parts are items.

$E + A \Rightarrow O_1$ – type of Conclusion

"Some items are not units."

Venn diagrams of "Some items are not units":
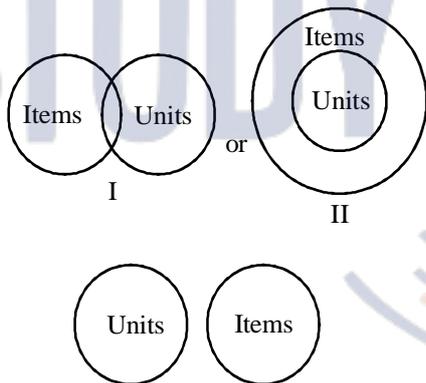
Venn diagrams I and II supports the Conclusion II, but Venn diagram III contradicts it. However, 'at least' is

mentioned in the Conclusion II, so there is possibility that the Conclusion is Valid.

(71-75) :
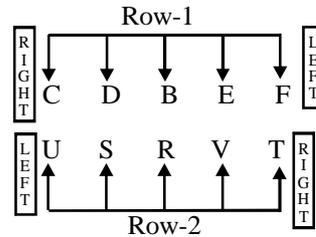
71. (5) E is faces V.

72. (4) U is faces C.

73. (3) D is sitting third to the right of F.

74. (2) B sits exactly in the middle of the line. B faces R. R is an immediate neighbour of both S and V.
Only E sits between B and F.

75. (1) R sits second to the right of U.
S sits to the immediate left of R.
V sits to the immediate left of T.
E sits to the immediate left of B.
D sits to the immediate left of C.

(76-80) :

Hence, colour → lb
with → gy
your house → ri cu
and choice → nk

76. (4) Red is written as ew

77. (4) As gate is coded as 'op' so gate crash may be 'op lb' depending upon the position.

78. (5) 'cu' stands for either 'house' or 'your'.

79. (2) paint is coded as 'fm'.

80. (3) colour with canvas → hv lb gy

17

and of → sa,
choice → nk
canvas of choice → hv sa nk

(81-83) :

$$\square, \square, \square > J > \square, \square$$

$$E > G > I$$

$$E > G > I > J > \square, \square$$

$$E > G > I > J > F > H$$
$$\downarrow \qquad \downarrow$$
$$26 \text{ Floors} \quad 5 \text{ Floors}$$

F has 26 – 14 = 12 floors

81. (4) G has seconds highest number of floors.
The probable number of floors G has
= 27, 30, 33
27 and 33 are odd numbers and both are
divisible by 3.
27 is given as an option.

82. (5) G has the second highest number of floors.

83. (1) J must have more than 12 but less than 26
floors.

(84 - 85) :

J is the sister of K.
L is the daughter of J and B
T is the son of J and B.
T is the husband of R.

84. (5) R is the wife of T.
J is the mother of T.
Therefore, J is the mother-in-law of R.

85. (3) K is the brother of J.
T is the son of J.
J is the mother of T.
Therefore, T is nephew of K.

(86-90) :

Month	Person	Company
January	F	Infosys
March	G	Blackberry
April	C	TCS
July	D	HTC
August	B	Samsung
September	H	Godrej
December	E	Nokia

86. (3) G will attend workshop in March. D will
attend workshop in July.
Only C will attend workshop between G
and D.

87. (5) HTC is liked by the person who will attend
workshop second after G.
Similarly, Nokia is liked by the person who
will attend workshop second after B.
Godrej is liked by the person who will
attend workshop second after D.

88. (2) F will attend workshop in January.

89. (1) G will attend workshop in March and E in
December.

90. (4) G likes Blackberry.

(91-92) :

$$P \le L \le A > N = K \ge S$$
$$C \ge A$$
$$P \le L \le A \le C$$

91. (3) **Conclusions :**
I. L > K : Not True
II P ≤ S : Not True

92. (2) **Conclusions :**
I. C > P : Not True
II P = C : Not True
C is either greater than or equal to P.
Therefore, either Conclusion I or
Conclusion II is true.

93. (5) $J > U \ge N = K \le E < D$
Conclusions :
I. E ≤ D : Not True
II D > N : True

(94-95) :

$$I < J \le K \le L > M \ge N$$
$$K \le B = S$$
$$I < J \le K \le B = S$$

94. (4) **Conclusions :**
I. N < L : True
II L = N : Not True

95. (1) **Conclusions :**
I. I < S : True
II J ≤ B : True

(96-100) :

N's brother K
N's son Q
N's father O
N's sister L
N's wife J
N N
N's mother P
M N's daughter
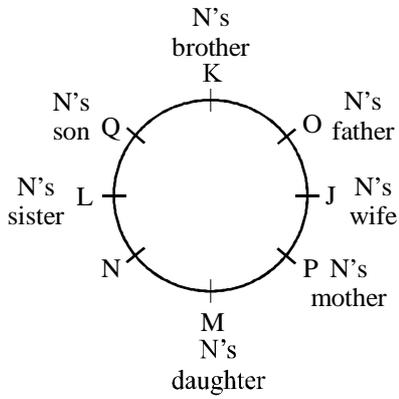
96. (5) J is the wife of N. Q is the son of J and N.

97. (3) Four persons - O, J, P and M - sit between K and N when counted from the left of K.

98. (1) N's sister L sits to the immediate right of Q.

99. (2) N's mother P sits second to the right of N. M is sister of Q.
N is an immediate neighbour of L (N's sister) and M (N's daughter).

100. (4) J is the wife of N.
K is the brother of N.
Therefore, J is the sister-in-law of K.