Test-I: English Language

Directions (Q. 1-5): Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error', the answer is 5). (Ignore errors of punctuation, if any.)

1. 1) Annuity rates of insurers are based / 2) on the yields of long-term government securities / 3) and rise or fall in line of / 4) interest rates in the economy. / 5) No error
2. 1) Neither Raju is intelligent / 2) nor hardworking / 3) and still he expects / 4) a handsome salary. / 5) No error
3. 1) I will / 2) have him / 3) realise / 4) his mistake. / 5) No error
4. 1) In what could be good news / 2) for lakhs of tax payers / 3) the Income-Tax Department will now process and send / 4) refunds in short time of 7-10 days. / 5) No error
5. 1) A 42-year old unidentified man was lynched / 2) in Kanpur by a mob / 3) which accused him / 4) of a Pakistani terrorist. / 5) No error

Directions (Q. 6-10): Pick out the most effective word from the given options to fill in the blanks to make the sentence meaningfully complete.

6. The chilling narrative about the trafficking of girls sold like commodities and forced into flesh trade is a _____ on our society.
   1) brand 2) pride 3) shame
   4) stigma 5) disgrace
7. APJ Abdul Kalam will be remembered by generations to come as one of the greatest sons of the _____.
   1) ground 2) soil 3) land
   4) India 5) place
8. Where duplicity is exposed, diplomacy is ineffective as in the case of Pakistan which continues to provide shelter to organisations that are _____ out terrorist activities in India.
   1) putting 2) making 3) taking
   4) bringing 5) carrying
9. Biotechnologies such as genetic _____ have helped even poor nations like India build self-sufficiency in food.
   1) management 2) technology
   3) engineering 4) material
   5) facility
10. India has the world's largest titanium reserves but lacks the technology to _____ the raw material into sponge – the base for forging the metal.
    1) convert 2) mutate 3) preserve
    4) revamp 5) switch

Directions (Q. 11-15): In the following questions, a sentence has been given with some of its parts in bold. To make the sentence grammatically correct, you have to replace the bold part with the correct alternative given below. If the sentence is correct as it is, give 5) as your answer (ie No correction required).

11. She is more educated **than myself.**
    1) than me 2) than I 3) than mine
    4) to me 5) No correction required
12. Of the two I think him **to be the best.**
    1) to be the better
    2) to be the good
    3) being the better
    4) being the best
    5) No correction required
13. The infrastructure for continuous monitoring **require both public as well as** private sector laboratories.
    1) require both public and
    2) requires both public as also
    3) both requires public as well as
    4) requires both public and
    5) No correction required
14. **Many a teachers were** absent yesterday.
    1) Many a teacher were
    2) Many a teachers had been
    3) Many a teacher was
    4) Many a teachers are
    5) No correction required
15. Homer was **not only the maker of a nation but** of a language.
    1) not only the maker
    2) the maker not only of a nation but also
    3) the maker of a nation only not
    4) not only a nation make but also
    5) No correction required

Directions (Q. 16-20): Rearrange the following seven sentences (A), (B), (C), (D), (E), (F) and (G) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

(A) The eagle does not escape the storm.
(B) When the storms of life come upon us – we can rise above them by setting our minds and our belief towards God.

(C) Do you know that an eagle knows when a storm is approaching long before it breaks?
(D) When the storm hits, it set its wings so that the wind will pick it up and lift it above the storm.
(E) The eagle will fly to some high spot and wait for the winds to come
(F) It simply uses the storm to lift it higher.
(G) While the storm rages below, the eagle is soaring above it.

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

17. Which of the following should be the **SECOND** sentence after rearrangement?
1) E 2) C 3) B 4) A 5) G

18. Which of the following should be the **THIRD** sentence after rearrangement?
1) C 2) G 3) A 4) B 5) D

19. Which of the following should be the **FOURTH** sentence after rearrangement?
1) B 2) D 3) G 4) E 5) A

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

Directions (Q. 21-25): Read the passage carefully and answer the questions given below it. Certain words/ phrases have been given in bold to help you locate them while answering some of the questions.

One night, three thieves stole a lot of money from a rich man's house. They put the money in a bag and went to the forest. They felt very hungry. So, one of them went to a nearby village to buy food. The other two remained in the forest to take care of the bag of money. The thief that went for food had an evil idea. He ate his food at a hotel. Then he bought food for his two mates in the forest. He mixed a strong poison with the food. He thought, "Those two will eat this poisoned food and die. Then I will get all the money for myself." Meanwhile, the two wicked men in the forest decided to kill their mate on return. They thought that they would divide the money between the two of them. All the three wicked men **carried out** their cruel plans. The thief who wanted all the money for himself came to the forest with the poisoned food. The two men in the forest hit him and killed him. Then they ate the poisoned food and died. Thus, these evil people met with an evil end.

21. Why did the thief that went to bring food mix a strong poison with the food?
1) He wanted to commit suicide.
2) He wanted to kill the two men who met him in the forest.
3) He wanted to get all the money for himself after killing both his mates.
4) He wanted to take revenge on his enemy.
5) Other than the given options

22. What plan did the two mates waiting in the forest make? Select the most appropriate answer.
(A) They planned to poison their mate.
(B) They planned to kill their mate.
(C) They planned to divide the money between the two of them.
1) Only (A) and (B) 2) Only (B) and (C)
3) Only (A) and (C) 4) All (A), (B) and (C)
5) None of these

23. What was the proximate cause of the death of the three thieves?
1) Fight for money 2) Poisoned food
3) Starvation 4) Animosity
5) Wicked idea

24. Which of the following proverbs/idioms correctly conveys the moral of the given passage?
1) Evil begets evil.
2) A wolf in sheep's clothing
3) As you sow, so shall you reap.
4) Only 1) and 3)
5) All 1), 2) and 3)

25. What is the meaning of the phrase '**carried out**' as used in the passage?
1) stopped 2) accomplished
3) left 4) bore
5) took away

Directions (Q. 26-30): In the following passage, some of the words have been left out, each of which is indicated by a number. Find the suitable word from the options given against each number and fill up the blanks with appropriate words to make the paragraph meaningful.

Solar energy is a source of energy we have been using since time (26). A solar panel is simply made by joining a number of photovoltaic cells. When the sunlight falls on this panel, it generates electricity which can be easily (27) through electric cables.

Solar rooftop can be used in two ways: It can be connected (28) to grid and the generated electricity can be transferred to the grid, thus minimising the use of electricity (29) from grid and saving the money! This is known as Grid Connected Rooftop. The second type of rooftop is the one which allows the generated electricity to be (30) in a battery and used for any purpose through connected wires. This is known as Off-grid Roof-top.

26. 1) immemorial 2) archaic 3) ancient
4) memorable 5) last

27. 1) migrated 2) relayed 3) received
4) transmitted 5) spread

28. 1) exactly 2) directly 3) rightly
4) precisely 5) straightly

29. 1) accepted 2) acquired 3) offered
4) reaped 5) received

30. 1) collected 2) hoarded 3) stored
4) needed 5) required

Test-II: Reasoning Ability

Directions (Q. 31-33): Study the following information carefully and answer the questions given below:

A family consists of six members P, Q, R, S, T and U. Q is son of R. T is brother of R. S is daughter of P. R is not mother of Q. P and R are married couple. U is brother of Q.

31. How many male members are there in the family?
1) Two 2) Three 3) Four
4) Can't be determined 5) None of these

32. Who among the following is mother of Q?
1) T 2) P 3) S
4) Can't be determined 5) None of these

33. Who among the following is a pair of females?
1) P, S 2) Q, S 3) T, U 4) P, T 5) None of these

Directions (Q. 34-38): Study the following information carefully and answer the questions given below:

Five friends L, M, P, Q and R like five different types of watches, viz Titan, Sonata, Q&Q, HMT and Fastrack, five different type of cars, viz WagonR, Alto, Santro, Swift and Micra and also five different types of pens, viz Linc, Reynolds, Parker, Cello and Montex.

- Q likes WagonR but does not like Parker or HMT.
- L likes Sonata and Reynolds but he does not like Micra.
- M likes Micra and Q&Q.
- R likes Santro and Cello.
- The person who likes WagonR also likes Fastrack.
- Linc pen is liked by the person who likes Swift and HMT.

34. Who among the following likes Montex pen?
1) P 2) Q 3) R 4) M 5) None of these

35. Which of the following cars is liked by L?
1) Alto 2) Micra 3) Santro
4) Swift 5) None of these

36. Who among the following like Parker pen and Fastrack respectively?
1) L, Q 2) R, P 3) M, Q
4) M, R 5) None of these

37. Titan is liked by which of the following persons?
1) L 2) M 3) Q 4) R 5) None of these

38. Which of the following combinations is/are true?
1) R – HMT – Swift – Linc
2) Q – Fastrack – WagonR – Montex
3) M – Q&Q – Santro – Cello
4) Only 1) and 3) are true
5) None of these

39. T is to the west of P and to the south of C. L is to the northeast of T and to the north of P. In which direction is C with respect to L?
1) East 2) West 3) South
4) Can't be determined 5) None of these

40. How many such pairs of letters are there in the word CONCLUDE, each of which has as many letters between them in the word as in the English alphabet (both backward and forward)?
1) Two 2) Three 3) Four
4) Five 5) More than five

Directions (Q. 41-45): In these questions, a relationship between different elements is shown in the statements. The statements are followed by two conclusions. Give answer
1) if only conclusion I is true
2) if only conclusion II is true
3) if either conclusion I or II is true
4) if neither conclusion I nor II is true
5) if both conclusions I and II are true

41. **Statements:** $C \geq E > N = T, L < W = N$
Conclusions: **I.** $N = W$ **II.** $E \geq L$

42. **Statements:** $R = E \leq S > P, Q \geq M > E$
Conclusions: **I.** $P > Q$ **II.** $M > R$

43. **Statements:** $X > W \geq D > B, G = T \geq W$
Conclusions: **I.** $G \geq D$ **II.** $T > B$

44. **Statements:** $N \leq R = K < L, F \leq U < L$
Conclusions: **I.** $R > F$ **II.** $N \geq U$

45. **Statement:** $C > R \geq T = M \leq P \leq N$
Conclusions: **I.** $C > M$ **II.** $T < N$

Directions (Q. 46-50): In each question below are given two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer
1) if only conclusion I follows.
2) if only conclusion II follows.
3) if either conclusion I or II follows.
4) if neither conclusion I nor II follows.
5) if both conclusion I and II follow.

(46-47):

Statements: Some books are copies.
All covers are copies.
No paper is a book.

46. **Conclusions:** **I.** No paper is a copy.
II. All books are not papers.

47. **Conclusions:** **I.** At least some books are not covers.
II. No copy is a cover.

(48-49):

Statements: All mice are cats.
No dog is a cat.
Some snakes are mice.

48. **Conclusions:** **I.** No mouse is a dog.
II. No cat is a dog.

49. **Conclusions:** **I.** At least some snakes are cats.
II. Some dogs are snakes.

50. **Statements:** All woods are tables.
No table is a chair.

Conclusions: I. At least some chairs are tables.
II. No wood is a chair.

Directions (Q. 51-55): Study the following information carefully and answer the questions given below:

Eight classmates S, T, U, V, W, X, Y and Z are sitting arround a circular area. Some of the students are facing the centre while some are not.

Note: Same direction means that if one person is facing the centre then the other person also faces the centre and if one person is facing outside then the other person also faces outside. **Opposite direction** means if one person is facing the centre then the other person faces outside and vice versa.

Y is not facing the centre. The immediate neighbours of Z face opposite directions. W sits second to the right of X, who sits on the immediate left of S. Immediate neighbours of U face the same direction. S faces inside the circle and sits third to the left of V. Only one person sits between V and Z and that person is neither U nor Y. W is not the immediate neighbour of U but both are facing opposite directions. T faces the same direction as X. T sits second to the right of U, who is on the immediate left of X. V sits second to the left of Z.

51. How many persons are not facing the centre?
1) Two 2) Three 3) Four
4) One 5) None of these

52. Who among the following is on the immediate right of W?
1) T 2) Y 3) U 4) Z 5) None of these

53. Which of the following statements is/are true about T?
1) T is not facing the centre.
2) T sits third to the left of W.
3) T is an immediate neighbour of V and Z.
4) Only 1) and 2) are true
5) None of these

54. Who among the following is fourth to the right of X?
1) T 2) Z 3) Y 4) V 5) None of these

55. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?
1) Y, U 2) W, X 3) S, Z 4) Z, T 5) V, U

Directions (Q. 56-60): Study the following information carfully and answer the questions given below:

In a certain code language 'all books are for study' is written as 'sh fa ri ny ck', 'books purchased for library' is written as 'ny fa pa gl' and 'for study in library' is written as 'sh fa zo gl'.

56. What is the code for 'library' in the given code language?
1) fa 2) gl 3) ny
4) sh 5) None of these

57. What will be the code for 'all books in library' in the given code language?
1) ck zo ny gl 2) zo ny ri gl 3) ri ck gl zo
4) Either 1) or 2) 5) None of these

58. What is the code for 'all' in the given code language?
1) sh 2) pa
3) Either ck or ri 4) Either ny or ri
5) Other than those given as options

59. What does 'pa' stand for?
1) library 2) purchased 3) for
4) Can't be determined 5) None of these

60. 'ri' is the code for which of the following?
1) for 2) all 3) are
4) in 5) Either 2) or 3)

Directions (Q. 61-65): Study the following information carefully and answer the questions given below:

Seven friends with coded names B_1, B_2, B_3, B_4, B_5, B_6 and B_7 are sitting in a straight line facing north but not necessarily in the same order. B_3 sits at one ends of the row. B_1 is second to the left of B_2, who is third to the right of B_7. Only one person sits between B_3 and B_2. The one who sits in the middle of the row is not the odd-numbered person. B_6 does not sit adjacent to B_1 or B_7.

61. Who among the following is second to the left of B_1?
1) B_4 2) B_7 3) B_5
4) B_6 5) None of these

62. Who among the following sit on the extreme ends of the row?
1) B_5, B_3 2) B_7, B_3 3) B_5, B_6
4) B_1, B_2 5) None of these

63. Who among the following is the immediate neighbour of B_2 and B_3?
1) B_5 2) B_4 3) B_6
4) B_1 5) None of these

64. What is the position of B_4 with respect to B_5?
1) Second to the left 2) Third to the right
3) Fourth to the left 4) Can't be determined
5) None of these

65. Which of the following statements is/are true?
1) B_1 sits in the middle of the row.
2) B_6 is third from the right end.
3) B_7 is on the immediate left of B_1.
4) Only 1) and 3)
5) None of these

Test-III: Quantitative Aptitude

Directions (Q. 66-70): What will come in place of question mark (?) in the given number series?

66. 379 390 412 445 ? 544
1) 462 2) 511 3) 538 4) 489 5) 504

67. 25 29 56 72 ? 233
1) 124 2) 197 3) 97 4) 112 5) 202

68. 8 72 576 4032 24192 ?
1) 110960 2) 140250 3) 90624
4) 120960 5) 98248

69. 121 61 31 16 ? 4.75
1) 8 2) 8.5 3) 9.5 4) 7.2 5) 8.6

70. 7 27 106 ? 1680 6715
1) 420 2) 421 3) 427 4) 424 5) 411

Directions (Q. 71-75): What should come in place of question mark in the following questions?

71. 72% of 630 ÷ 7 = ?
1) 69.8 2) 64.8 3) 72.6 4) 74.8 5) 78.8

72. $\frac{8}{5} \times 404 + 98\%$ of $820 + \frac{5}{4} \div \frac{9}{63} = ?$
1) 867.25 2) 1528.50 3) 1458.75
4) 1428.55 5) 1962.85

73. $(18)^2 - (16.4)^2 + (22)^2 = ?$
1) 539.04 2) 639.04 3) 593.40
4) 749.02 5) 247.40

74. 125% of 7200 + 25% of 8600 + 36% of 7200 = ?
1) 15748 2) 14742 3) 14748
4) 13742 5) 22490

75. $\sqrt{\sqrt{1500625}} = ?$
1) 45 2) 55 3) 15 4) 25 5) 35

76. A alone can do a piece of work in 5 days. B can do the same piece of work in 4 days. A and B are assigned to do the work for ₹2400. They complete the work in 2 days with the help of C. How much is to be paid to C?
1) ₹300 2) ₹480 3) ₹260
4) ₹240 5) ₹290

77. If a man can row 14.6 km downstream in 12 minutes and his rowing speed in still water is 60 kmph, how much distance can he cover upstream in 20 minutes? (in km)
1) 20 2) 14.33 3) 12.66 4) 14.66 5) 15.66

78. The ratio of three angles of a quadrilateral is 5 : 4 : 3. If the fourth angle is 150°, what is the value of the third largest angle? (in degrees)
1) 75 2) 87.5 3) 70
4) 90 5) 82

79. A woman has ₹1368 in one-rupee, two-rupee, five-rupee and ten-rupee denominations. If there are equal no. of coins of each denomination, what is the total no. of coins?
1) 296 2) 276 3) 304 4) 284 5) 316

80. A train crosses a 540m-long bridge in 16 seconds. If the length of the train is 100m, what is the speed of the train?
1) 104 kmph 2) 126 kmph 3) 144 kmph
4) 140 kmph 5) 110 kmph

81. A car covers 500 km at a speed of 50 kmph and then its speed increase to 60 kmph to cover another 630 km. What is the average speed of the car?
1) 56 kmph 2) 56.22 kmph 3) 52.12 kmph
4) 55.12 kmph 5) 60 kmph

82. What is the least number that should be added to 2691 to make it a perfect square?
1) 13 2) 17 3) 23
4) 19 5) 20

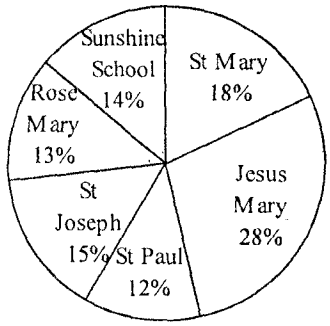
83. Rahul invested ₹2200 in each of the two schemes X and Y. Scheme X offers compound interest (compounded annually) and scheme Y offers simple interest. In both the schemes he invested for two years and the rates of interest of both the schemes were equal. If the interest earned by him from scheme X is ₹56.32 more than that earned by him from scheme Y, what is the rate of interest (pcpa) of both the schemes?
1) 26 2) 14 3) 36 4) 16 5) 24

84. Mr Saha's annual income is ₹600000. He spends 25% of his monthly income on house rent, 20% on household items and 15% on conveyance. If he invests four-fifths of the remaining amount in share market, what is the amount left with him every month?
1) ₹5000 2) ₹4200 3) ₹4400
4) ₹4250 5) ₹4000

85. A pipe can fill a tank in 6 hours, but due to a leakage it took 8 hours to fill the tank. If the tank is full, in what time will the tank become empty due to the leakage?
1) 22 hours 2) 24 hours 3) 34 hours
4) 20 hours 5) 36 hours

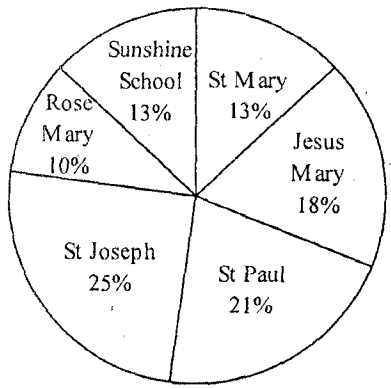
Directions (Q. 86-90): Study the following pie-charts and the information given below them carefully and answer the given questions.

Percentage of students from different schools attending an inter-school seminar



Total no. of students = 8000

Percentage of female students from different schools attending inter-school seminar.



Total female students = 3500

86. What is the ratio of the number of female students from Rose Mary to the number of female students from St Joseph?
1) 2 : 3 2) 3 : 7 3) 4 : 5 4) 2 : 7 5) 2 : 5

87. What is the total number of male students from Jesus Mary and that from Sunshine School together?
1) 2175 2) 2275 3) 2272 4) 2725 5) 2075

88. What is the ratio of the number of male students from St Mary to the number of male students from Sunshine School?
1) 196 : 133 2) 197 : 134 3) 197 : 133
4) 199 : 133 5) 199 : 134

89. What is the ratio of the number of female students from Rose Mary to that of male students from the same school?
1) 36 : 68 2) 32 : 69 3) 38 : 69
4) 35 : 69 5) 37 : 69

90. The number of female students from St Mary is approximately what per cent of the number of male students from the same school?
1) 46 2) 28 3) 14 4) 23 5) 49

Directions (Q. 91-95): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer

1) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
2) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
3) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
4) if the data in both the statements I and II together are not sufficient to answer the question.
5) if the data in both the statements I and II together are necessary to answer the question.

91. What will be the cost of fencing of a circular park?
I. The area of the circular park is 1386 sq m.
II. The cost of fencing is ₹4 per metre

92. What was the percentage of discount given on the marked price of the TV?
I. 15% profit was earned by selling the TV for ₹14950. Had there been no discount, the profit percentage would have been 30%.
II. The cost price of the TV was ₹10000.

93. What is the area of a circle?
I. The diameter of the circle is 45 cm less than its circumference.
II. The radius of the circle is equal to the length of a rectangle whose perimeter is 39 cm.

94. How many students are there in the class?
I. The number of boys is 40 more than that of girls.
II. The difference between the no. of boys and that of girls is 20% of the number of girls.

95. Find the number which is divisible by 3.
I. The square of the number is divisible by 9.
II. The number lies between 721 and 724.

Directions (Q. 96-100): What approximate value should come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value.)

96. $65987 \div 62 \times 6 = ?$
1) 6538 2) 6187 3) 6386 4) 6281 5) 6440

97. $\sqrt{5689} = ?$
1) 81 2) 77 3) 79 4) 75 5) 74

98. $(56.55)^2 = ?$
1) 3160 2) 3198 3) 3249 4) 3205 5) 2975

99. $(8686 + 5204 + 7507) \div (2840 + 7099 + 6200) = ?$
1) 1.91 2) 2.71 3) 1.66 4) 2.05 5) 1.33

100. $(676\% \text{ of } 990) + 4880 = ?$
1) 11572 2) 12688 3) 13560
4) 12401 5) 11102

Answers

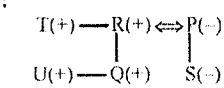
1. 3; Replace 'of' with 'with'
2. 1; Substitute 'Raju is neither intelligent'
3. 5
4. 4; Insert 'a' after 'in'
5. 4; Insert 'being' after 'of'

6. 4 **7.** 2 **8.** 5 **9.** 3 **10.** 1
11. 2 **12.** 1 **13.** 4 **14.** 3 **15.** 2

(16-20): CEDGAFB

16. 4 **17.** 1 **18.** 5 **19.** 3 **20.** 2
21. 3 **22.** 2 **23.** 5 **24.** 4 **25.** 2
26. 1 **27.** 4 **28.** 2 **29.** 5 **30.** 3

(31-33):



31. 3 **32.** 2 **33.** 1

(34-38):

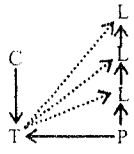
Person	Watch					Car					Pen				
	Tit	Son	Q&Q	HMT	Fas	Wag	Alt	San	Swi	Mic	Lin	Reynol	Par	Cel	Mon
L	×	√	×	×	×	×	√	×	×	×	×	√	×	×	×
M	×	×	√	×	×	×	×	×	×	√	×	×	√	×	×
P	×	×	×	√	×	×	×	×	√	×	√	×	×	×	×
Q	×	×	×	×	√	√	×	×	×	×	×	×	×	×	√
R	√	×	×	×	×	×	×	√	×	×	×	×	×	√	×

Summary

Person	Watch	Car	Pen
L	Sonata	Alto	Reynolds
M	Q&Q	Micra	Parker
P	HMT	Swift	Linc
Q	Fastrack	WagonR	Montex
R	Titan	Santro	Cello

34. 2 **35.** 1 **36.** 3 **37.** 4 **38.** 2

39. 4;



Thus, C may be to the northwest, west or southwest of L.

40. 3; C O N C L U D E

41. 1; **Given statements:**
C ≥ E > N = T ... (i)
L < W = N ... (ii)
Combining both statements, we get
C ≥ E > N = T = W > L
Thus, N = W is true.
Again, E > L is true. But conclusion II (E ≥ L) is not true. Hence only I is true.

42. 2; **Given statements:**
R = E ≤ S > P ... (i)
Q ≥ M > E ... (ii)
Combining both statements, we get
Q ≥ M > E = R ≤ S > P
Thus, we can't compare P and Q. Hence I (P > Q) is not true. Again, conclusion II (M > R) is true. Hence only II is true.

43. 5; **Given statements:**
X > W ≥ D > B ... (i)
G = T ≥ W ... (ii)
Combining both statements, we get
X > W ≤ T = G and G = T ≥ W ≥ D > B
Thus, G ≥ D is true.
Again, T > B is true. Hence both I and II are true.

44. 4; **Given statements:**
N ≤ R = K < L ... (i)
F ≤ U < L ... (ii)
Combining both statements, we get
N ≤ R = K < L > U ≥ F
Thus, we can't compare R and F or N and U. Hence I (R > F) is not true.
Again, conclusion II (N ≥ U) is not true. Hence both I and II are not true.

45. 1; **Given statements:**
C > R ≥ T = M ≤ P ≤ N
Thus, C > M is true. But conclusion II (T < N) is not true. Hence only I is true.

46. 2; No paper is a book (E) + Some books are copies (I) = E + I = O* = Some copies are not papers. Hence I does not follow.
Again, No paper is a book (E) → conversion → No book is a paper (E). Thus, All books are not papers. Hence II follows.

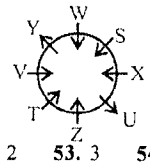
47. 4; Some books are copies (I) + (All covers are copies (A) → conversion →) Some copies are covers (I) = I + I = No conclusion. Hence conclusion I does not follow. Conclusion II does not follow because of the second statement.

48. 5; All mice are cats (A) + (No dog is a cat (E) → conversion →) No cat is a dog (E) = A + E = E = No mouse is a dog. Hence conclusion I follows. Conclusion II follows from the second statement.

49. 1; Some snakes are mice (I) + All mice are cats (A) = I + A = I = Some snakes are cats. Hence conclusion I follows.
Again, Some snakes are cats (I) + No cat is a dog (E) = I + E = O = Some snakes are not dogs. Hence conclusion II does not follow.

50. 2; No table is a chair (E) → conversion → No chair is a table (E). Hence conclusion I does not follow.
Again, All woods are tables (A) + No table is a chair (E) = A + E = E = No wood is a chair. Hence conclusion II follows.

(51-55):

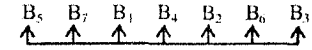


51. 1 **52.** 2 **53.** 3 **54.** 4 **55.** 5

(56-60):
all books are for study → sh fa ri ny ck ...(i)
books purchased for library → ny fa pa gl ...(ii)
for study in library → sh fa zo gl ...(iii)
From (i), (ii) and (iii), for → fa ... (iv)
From (i), (ii) and (iv), books → ny ...(v)
From (i), (iv) and (iii), study → sh ...(vi)
From (i), (iv), (v) and (vi), all/are → ri/ck ...(vii)
From (ii), (iii) and (iv), library → gl ...(viii)
From (ii), (iv), (v) and (viii), purchased → pa ...(ix)
From (iii), (iv), (vi) and (viii), in → zo ...(x)

56. 2 **57.** 4 **58.** 3 **59.** 2 **60.** 5

(61-65):



61. 3 **62.** 1 **63.** 3 **64.** 2 **65.** 3

66. 4; The series is +11, +22, +33, +44, ...
ie 379 + 11 = 390, 390 + 22 = 412,
412 + 33 = 445, 445 + 44 = **489**,

67. 2; The series is $+2^2, +3^3, +4^2, +5^3$, ...
ie $25 + 2^2 = 29$, $29 + 3^3 = 56$, $56 + 4^2 = 72$,
$72 + 5^3 = \mathbf{197}$, $197 + 6^2 = 233$ ...

68. 4; The series is ×9, ×8, ×7, ×6, ×5, ...
ie 8 × 9 = 72, 72 × 8 = 576, 576 × 7 = 4032,
4032 × 6 = 24192, 24192 × 5 = **120960**, ...

69. 2; The series is +1 ÷ 2, repeated ...
ie 121 + 1 ÷ 2 = 61, 61 + 1 ÷ 2 = 31, 31 + 1 ÷ 2 = 16, 16 + 1 ÷ 2 = **8.5**, ..

70. 2; The series is ×4 − 1, ×4 − 2, ×4 − 3, ×4 − 4, ...
ie 7 × 4 − 1 = 27, 27 × 4 − 2 = 106,
106 × 4 − 3 = **421**, 421 × 4 − 4 = 1680,
1680 × 4 − 5 = 6715, ...

71. 2; $? = \frac{72\times630}{100\times7} = 64.8$

72. 3; $? = \frac{8}{5}\times404+\frac{98\times820}{100}+\frac{5}{4}\times\frac{63}{9}$
= 646.4 + 803.6 + 8.75 = 1458.75

73. 1; $? = (18)^2 - (16.4)^2 + (22)^2$
= 324 − 268.96 + 484 = 539.04

74. 4; $? = \frac{125\times7200}{100}\times\frac{25\times8600}{100}+\frac{36\times7200}{100}$
= 9000 + 2150 + 2592 = 13742

75. 5; $? = \sqrt{(1500625)^{\frac{1}{2}}} = \sqrt{1225} = 35$

76. 4; Part of work C alone can do in 1 day

$= \frac{1}{2}-\left(\frac{1}{5}+\frac{1}{4}\right) = \frac{1}{2}-\frac{9}{20} = \frac{1}{20}$

Hence C alone can complete the work in 20 days.

Now, the ratio of wages = $\frac{1}{5} : \frac{1}{4} : \frac{1}{20}$
= 4 : 5 : 1
∴ The amount received by C
$= \frac{1}{10}\times2400 = ₹240$

77. 5; Downstream speed
$= \frac{14.6\times60}{12} = 73$ kmph

Speed of man in still water = 60 kmph
Current's speed = 73 – 60 = 13 kmph
Upstream speed = 60 – 13 = 47 kmph
In 60 minutes he can row 47 km.

In 20 minutes he can row $\frac{47}{60}\times 20 = 15.66$ km

78. 3; The sum of the angles of the quadrilateral
$5x + 4x + 3x + 150° = 360°$
or, $12x = 210°$
$\therefore x = 17.5°$
The angles are 150°, 87.5°, 70° and 52.5°
$\therefore$ Third largest angle = 70°

79. 3; Let the no. of coins of each denomination be x.
Then, $x + 2x + 5x + 10x = 1368$
or, $18x = 1368$
$\therefore x = 76$
Total no. of coins = $76 \times 4 = 304$

80. 3; Speed of the train
$= \frac{540+100}{16} = \frac{640}{16} = 40$ m/s
$\therefore$ Speed $= 40\times\frac{18}{5} = 144$ kmph

81. 4; Average speed $= \frac{500+630}{10+10.5} = \frac{1130}{20.5}$
$= 55.12$ kmph

82. 1; Taking approx square root of 2691
$51^2 < 2691 < 52^2$
Reqd number = $52^2 - 2691 = 2704 - 2691 = 13$

83. 4; Difference $= \frac{pr^2}{100}$
(Rates of SI and CI are equal)

ie $\frac{56.32\times100\times100}{2200} = r^2$

or, $r^2 = \frac{5632}{22} = 256$

$\therefore r = \sqrt{256} = 16\%$

84. 5; Monthly income of Saha
$= \frac{600000}{12} = ₹50000$
Now, he spends (25 + 20 +15) = 60%
Remaining amount = (100 – 60)% of 50000
= 40% of 50000 $= \frac{40}{100}\times50000 = ₹20000$
Now, he invests $\frac{4}{5}$ in share market
$= 20000\times\frac{4}{5} = ₹16000$
Remaining amount left = 20000 – 16000 = ₹4000

85. 2; The leakage can empty the full tank
in $\left(\frac{1}{6}-\frac{1}{8}\right) = \frac{4-3}{24} = \frac{1}{24} = 24$ hours

86. 5; Number of female students in Rose Mary = 10% of 3500 = 350
Number of female students in St Joseph = 25% of 3500 = 875
$\therefore$ Reqd ratio = 350 : 875 = 2 : 5

87. 2; Number of male students in Jesus Mary = Number of total students in Jesus Mary – Number of female students in Jesus Mary
= 28% of 8000 – 18% of 3500
= 2240 – 630 = 1610
And number of male students in Sunshine school = Number of total students in Sunshine School – Number of female students in Sunshine School
= 14% of 8000 – 13% of 3500 = 1120 – 455 = 665
Total number of male students from Rose Mary and Sunshine School together
= 1610 + 665 = 2275

88. 3; Number of male students from St Mary = Total student in St Mary – Total female students in St Mary = 18% of 8000 – 13% of 3500 = 1440 – 455 = 985.
Again, number of male students from Sunshine $= \frac{14\times8000}{100}-\frac{13\times3500}{100}$
= 1120 – 455 = 665
Number of males from Sunshine = 665
$\therefore$ Reqd ratio = 985 : 665 = 197 : 133

89. 4; Number of female students from Rose Mary = 10% of 3500 = 350
Number of male students from Rose Mary = 13% of 8000 – 350 = 1040 – 350 = 690
$\therefore$ Reqd ratio = 350 : 690 = 35 : 69

90. 1; Number of female students from St Mary = 13% of 3500 = 455
Number of male students from St Mary = 985
$\therefore$ Reqd % $= \frac{455}{985}\times100 \approx 46\%$ (approx)

91. 5; **From I and II:** Area of the circular park = $\pi r^2 = 1386$
$\therefore r^2 = \frac{1386\times7}{22} = 441$
$\therefore r = 21$
Perimetre of the circular park = $2\pi r$
$= 2\times\frac{22}{7}\times21 = 44 \times 21 = 924$m
$\therefore$ Cost of fencing the circular park
$= 924 \times 4 = ₹3696$

92. 1; **From I.** The selling price is ₹14950 at 15% profit.
So, CP $= \frac{14950\times100}{115} = ₹13000$
When no discount is allowed the profit becomes 30%.
$\therefore$ MP $= 13000\times\frac{130}{100} = ₹16900$

% discount $= \frac{16900-14950}{16900}\times100$
Hence only I is sufficient to answer the question.

93. 1; **From I:** Diameter = 2r, Circumference = $2\pi r$
Thus, $2\pi r - 2r = 45$ cm
This will give us the value of r and we can therefore find the area (πr^2) of the circle. Hence I alone is sufficient.
From II: We can't find length of a rectangle merely from its perimeter. Hence II alone is not sufficient.

94. 5; Statement I alone is not sufficient because we do not know the no. of girls.
Similarly II alone is not sufficient.
Combining I and II, we get
40 = 20% of total girls
Total strength = 220% of the total girls
$= \frac{40}{20}\times220 = 440$

95. 2; **From I.** If the number is divisible by 3 it can be written as 3x.
Square of the number = $(3x)^2 = 9x^2$
Hence the no. is divisible by 9. Thus, statement I is not sufficient.
From II. The nos. lying between 721 and 724 are 722 and 723. Hence the no. is 723. Hence statement II alone is sufficient to answer.

96. 3; $? = \frac{65987}{62}\times6 \approx 6385.8 \approx 6386$

97. 4; $? \approx \sqrt{5689} \approx 75$

98. 2; $? = (56.55)^2 \approx (56.55)^2 = 3197.90 \approx 3198$

99. 5; $? = \frac{21397}{16139} \approx 1.33$

100. 1; $? = \frac{676}{100}\times990+4880$
$= 6.76 \times 990 + 4880$
$= 6692.4 + 4880 \approx 11572$