

## 10.Data Sufficiency

This chapter aims at providing a thorough orientation in Data Sufficiency (DS) as a test area in BANK exams. It begins by providing a basic orientation to DS, the 'what's and Whys' of DS, the weight age given to DS at various national level tests, the various types of DS questions generally asked, etc.

The complete orientation to Data Sufficiency has been provided along with a detailed overview of

the four basic types of Data Sufficiency questions. These are

- 5 Option DS
- 4 Option DS (Direct)
- 4 Option DS (Twister)

### **DS Theory**

The Data Sufficiency (DS) section in any Banking exam Entrance test is generally covered either with the Mathematics section or Logical Reasoning section. The number of questions asked is generally 5Qs and you can save a lot of time by solving the DS questions very fast.

### **What is Data Sufficiency or DS all about?**

A typical DS set would be like a question followed by two statements and you have to check the sufficiency of data given, i.e., whether one of these two or both the statements are sufficient to get a **unique answer** for the given question.

Data Sufficiency is not about finding the answer but is all about whether we can find the answer or not using given clues.

Also in Data sufficiency even if we can give the answer as "no" using the clues given then those clues are sufficient to answer the question.

### **For example**

**Q1.** Is Suresh older than Mahesh?

- (A) Suresh is older than Rakesh
- (B) Rakesh is older than Mahesh.

**Explanation:** For a question like this, we can see that we need to establish a definite relationship between the ages of Suresh and Mahesh. Data statement (A) helps us get a relationship that Suresh is older than Rakesh ( $S > R$ ). But this statement is not sufficient in establishing the relationship between Suresh and Mahesh. Data statement (B) gives us that Rakesh is older than Mahesh ( $R > M$ )

This also does not give us the required relationship. But if we take both the statements

together, we can see that (i)  $S > R$  and (ii)  $R > M$ . Thus, we can conclude that  $S > M$ , i.e., Suresh is older than

Mahesh and hence a unique answer can be obtained for the given question.

### Prerequisites for solving Data Sufficiency questions

Questions on Data Sufficiency can come from any of the areas like mathematical aptitude, logical reasoning or any other quantitative area. It has been observed that DS questions can be formed using any of the topics of Maths like Number Theory, Ratio & Proportion, Work & Time, Permutations & Combinations, etc. But generally, there are a few hot favorites on which questions are made. These are the topics that students should be thorough with, so as to be in a position to crack DS. Questions can be solved very fast and more so in an Banking recruitment examination where speed is of utmost importance, these questions happen to be the best bet!

Generally, students should be thorough with the following few topics at least.

- **Number Theory and Number Systems** (types of numbers like real/complex, rational/ irrational, integers/whole numbers/ natural numbers, HCF/LCM, Functions, and Polynomials etc.)
- **Geometry** (Straight Lines, Triangles, Quadrilaterals, Circles and related theorems)
- **Mensuration** (2-D and 3-D figures along with their formulae for areas, perimeters, Circumference, surface area, volume etc.)
- **Reasoning** (Arrangement of Data, Number Series, Venn Diagrams etc.)
- **Data Interpretation** (Percentages, Growth, Trend etc.)
- **Basic Formulae of Mathematics**

### Weight age to DS

In Bank exams 5 marks are given for Data sufficiency topic. They come mostly in PO exams.

### A systematic approach to solving Questions

DS questions should always be solved in a systematic manner. By answering three basic questions, one can always arrive at the correct choice. In addition, if one can answer anyone of the three questions, the possibility of elimination of at least one of the choices exists and hence one can make intelligent guesses.

### The Three Basic Questions always remain

- I.** Is the FIRST statement alone sufficient to solve the problem?
- II.** Is the SECOND statement alone sufficient to solve-the problem?
- III.** Are BOTH the statements together sufficient to solve the problem?

Answers to the above questions should be given in **Yes** or **No** only. As a generation rule, try to answer the questions in order I, II, III. In many cases, you will not have to answer all three to get the choice. This is a foolproof method of solving any DS question.

### The generation found 4 variation in DS are

Type 1.5-options DS

Type 2.4-options DS (Direct)

Type 3.4-options DS (Twister)

Type 4.4-options DS (GA)

### TYPE I

#### 5-Options DS

The directions for this type of questions are as follows

Mark your answer-as

- 1) if statement (A) alone is sufficient to solve the question, but statement (B) alone is not.
- 2) if statement (B) alone is sufficient to solve the question, but statement (A) alone is not.
- 3) if neither statement (A) nor statement (B) is individually sufficient to solve the question, but a combination of both is sufficient to solve the question.
- 4) if both the statements (A) & (B) are individually sufficient to solve the question.
- 5) if neither of the-statements alone, nor both the statements taken together are sufficient and more information is required to solve the question.

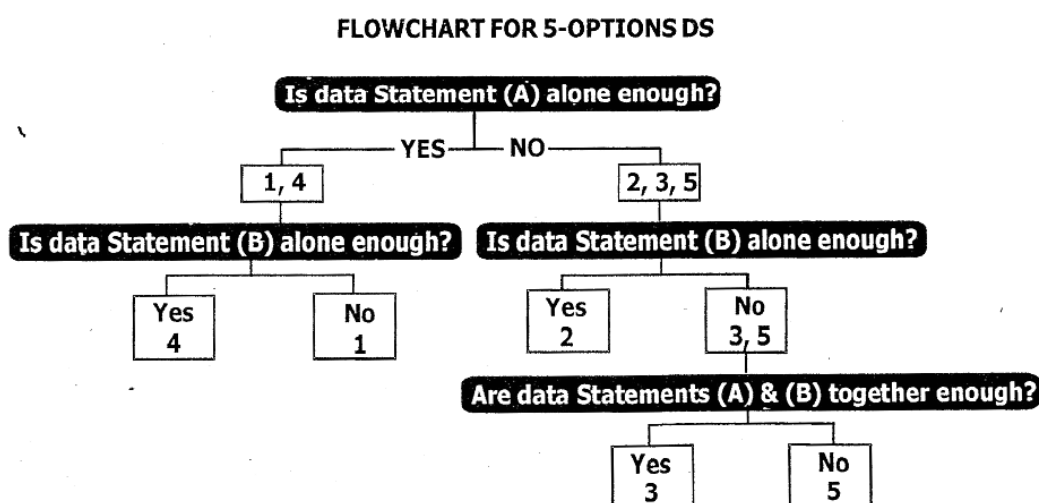
The above mentioned statements can be summarized as per the table given below

Directions	Mathematical Representation	Answer
If statement (A) alone is sufficient to solve the question, but statement (B) alone is not	A ✓ and B ×	1
If statement (B) alone is sufficient to solve the question. But statement (A) alone is not	A × and B ✓	2
If neither statement (A) nor statement (B) is individually sufficient to solve the question, but a combination of both is sufficient to solve the question	A × and B ×, but (A & B) ✓	3
If both the statements (A) & (B) are individually sufficient to solve the question	A ✓ and B ✓	4
If both the statements taken together are not sufficient and more information is required to solve the question	A ×, B × and (A & B) ×	5

Here is how to use the three Questions given earlier

If the answer to question I is Yes, then the only possible choices are 1) & 4). Now if the answer to question II is Yes, the choice must be 4) and if the answer to question II is No, the choice must be 1). If the answer to question I is No then the only possible choices are 2), 3) or 5). Now if the answer to question II is Yes, then the choice must be 2) and if the answer to question II is No the only possible choices are 3) or 5). Finally if the answer to question III is Yes, the correct choice is 3) and if the answer to question III is No, the choice is 5).

The discussion above can also be understood by the flow chart that follows



**Directions:** Each of the questions given below consists of a statement and /or a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is/ are sufficient to answer the given 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 are alone not sufficient to answer the question.

Give answer **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.

Give answer **3)** if the **data either in Statement I or in Statement II alone are sufficient** to answer the question.

Give answer **4)** if the **data even in both Statements I and II together are not sufficient** to answer the question.

Give answer **5)** if the **data in both Statements I and II together are necessary** to answer the questions.

1. What is the two digit number?

- I. The difference between the two digits is 9.
  - II. The sum of the digits is equal to the difference between the two digits.
2. What is the difference between the digits of a two – digit number?
    - I. The sum of the digits of that number is 8
    - II. One fifth of that number is 15 less than half of 44.
3. What is the number?
    - I. The sum of the two digits is 8. The ratio of the two digits is 1:3
    - II. The product of the two digits of a number is 12. The quotient of two digits is 3
4. By selling a product with 20% profit, how much profit was earned?
    - I. The difference between cost and selling price is ₹ 40
    - II. The selling price is 120% of the cost price.
5. What would have been the selling price per kg of rice?
    - I. 50 kg of rice was purchased for ₹ 3350 and ₹ 150 were spent on transport.
    - II. Profit earned was 5%
6. What is the percent profit earned by selling the product?
    - I. The profit earned was ₹ 50
    - II. Had it been sold for ₹ 310, the profit would be ₹ 70
7. What was the cost price of the suitcase purchased by Richard?
    - I. Richard got 20% concession on the labeled price.
    - II. Richard sold the suitcase for ₹ 2000 with 25% profit on the labeled price.
8. By selling a product for ₹ 100, how much profit was earned?
    - I. 20% profit would have been earned if it were sold for ₹ 90
    - II. The profit was one-third of the purchase price.
9. How much profit did Anand make by selling a bed?
    - I. He bought the bed with 40% discount on the labeled price.
    - II. He sold it with 20% profit on the labeled price.
10. What is the population of State A?
    - I. Population of State B is 80% of the population of State A
    - II. Average population of the States A and B is 18 lakh

11. What is the monthly salary of Mr. Naik?

- I. Mr. Naik's monthly expenditure on children's education is 20% of the total monthly expenditure.
- II. Monthly expenditure on transport is ₹ 1500 which is 15% of the total monthly expenditure.

12. What is the rate of simple interest?

- I. The total interest earned was ₹ 4000
- II. The sum was invested for 4 years

13. The simple interest on a sum of money is ₹ 50. What is the sum?

- I. The interest rate is 10% p.a.
- II. The sum earned simple interest in 10 years.

14. What is the sum which earned interest?

- I. The total simple interest was ₹ 7000 after 7 years.
- II. The total of sum and simple interest was double of the sum after 5 years.

15. What is the rate of compound interest?

- I. The principal was invested for 4 years.
- II. The earned interest was ₹ 1491

16. What will be the compounded amount?

- I. ₹ 200 were borrowed for 192 months at 6% compounded annually.
- II. ₹ 200 were borrowed for 16 years at 6%

17. What was the rate of interest on a sum of money?

- I. The sum fetched a total of ₹ 2522 as compound interest at the end of 3 years.
- II. The difference between the simple interest and the compound interest at the end of 2 years at the same rate was ₹ 40

18. What is Sonia's present age?

- I. Sonia's present age is five times Deepak's present age.
- II. Five years ago her age was 25 times Deepak's age at that time.

19. What is Reena's present age?

- I. Reena's present age is 5 times her son's present age
- II. Reena's age two years hence will be three times her daughter's age at that time.

20. Divya is twice as old as Shruti. What is the difference in their ages?

- I. Five years hence, the ratio of their ages would be 9:5  
II. Ten years back, the ratio of their ages was 3:1
21. The total of the present ages of A, B, C and D is 96 years. What is B's present age?  
I. The average age of A, B and D is 20 years.  
II. The average age of C and D is 25 years.
22. What is the average age of children in the class?  
I. Age of teacher is as many years as the number of children.  
II. Average age is increased by 1 year if the teacher's age is also included.
23. The average age of P, Q, R and S is 30 years. How old is R?  
I. The sum of ages of P and R is 60 years.  
II. S is 10 years younger than R.
24. How many children are there in the group?  
I. Average age of the children in this group is 15 years. The total age of all the children in this group is 240 years.  
II. The total age of all the children in the group and the teacher is 264 years. The age of the teacher is 9 years more than the average age of the children.
25. How many candidates were interviewed everyday by the panel A out of the three panels A, B and C?  
I. The three panels on an average interview 15 candidate's everyday.  
II. Out of a total of 45 candidates interviewed everyday by the three panels, the number of candidates by panel A is more by 2 than the candidates interviewed by panel C and is more by 1 than the candidates interviewed by panel B.
26. The average age of teacher and students in a class is 3 years more than the average age of students. What is the age of the class teacher?  
I. There are 11 students in the class.  
II. The average age of teacher and students is 14 years.
27. What will be the average weight of the remaining class?  
I. Average weight of 30 children out of total 46 in the class is 22.5 kg and that of the remaining children is 29.125 kg. A child having weight more than 40 kg is excluded.  
II. Average weight of a class of 46 children is 23.5 kg. A child weighing 46 kg is dropped out.

28. Rahul, Anurag and Vivek started a business together. In what proportion would the annual profit be distributed among them?
- I. Rahul got one – fourth of the profit.
  - II. Rahul and Vivek contributed 75% of the total investment.
29. The towns A, B and C are on a straight line. Town C is between A and B. The distance from A to B is 100 km. How far is A from C?
- I. The distance from A to B is 25% more than the distance from C to B.
  - II. The distance from A to C is  $\frac{1}{4}$  of the distance from C to B.
30. How much time did X take to reach the destination?
- I. The ratio between the speeds of X and Y is 3:4
  - II. Y takes 36 minutes to reach the same destination
31. Two cars pass each other in opposite direction. How long would they take to be 500 km apart?
- I. The sum of their speeds is 135 km/hr
  - II. The difference of their speeds is 25 km/ hr
32. A train crosses a signal post in x seconds. What is the length of the train?
- I. The train crosses a platform of 100 metres in y seconds
  - II. The train is running at the speed of 80 km/hr
33. What was the speed of the running train?
- I. Length of the train was 300 metres
  - II. The train crossed the other stationary train whose length was 180 m in 4 seconds.
34. What is the speed of a running train which takes 9 seconds to cross a signal post?
- I. The length of the train is 90 m
  - II. The train takes 27 seconds to cross a platform of 180 m
35. What is the length of a running train?
- I. The train crosses a man in 9 seconds.
  - II. The train crosses a 240 m long platform in 24 seconds.
36. What is the speed of the train?
- I. 280 m long train crosses a signal pole in 18 seconds
  - II. 280 m long train crosses a platform in 45 seconds



37. What was the length of a running train crossing another 180 m long train running in the opposite direction?
- The relative speed of the two trains was 150 kmph.
  - The trains took 9 seconds to cross each other.
38. A train crosses another train running in opposite direction in  $x$  seconds. What is the speed of the train?
- Both the trains have the same length and are running at the same speed.
  - One train crosses a pole in 5 seconds.
39. A train crosses a pole in 10 seconds. What is the length of the train?
- The train crosses another train running in opposite direction with a speed of 80 km/hr in 22 seconds.
  - The speed of the train is 108 km /hr
40. What is the speed of the train whose length is 210 m?
- The train crosses another train of 300 m length running in opposite direction in 10 seconds.
  - The train crosses another train running in the same direction at the speed of 60 km /hr in 30 seconds.
41. What is the speed of the boat in still water?
- It takes 2 hours to cover the distance between A and B down stream.
  - It takes 4 hours to cover the distance between A and B upstream.
42. What is the speed of the boat in still water?
- The boat covers a distance of 48 kms in 6 hours while running upstream.
  - The boat covers the same distance in 4 hours while running downstream.
43. What is the speed of the boat in still water?
- The speed downstream of the boat is thrice the speed upstream.
  - The sum of the speeds of the boat, upstream and down stream is 12 kmph.
44. The area of a play ground is 1600 sq.m. What is its perimeter?
- It is a perfect square playground
  - It cost ₹ 3200 to put a fence around the playground at the rate of ₹ 20 per metre.
45. Area of a square is equal to the area of a circle. What is the circumference of the circle?
- The diagonal of the square is  $x$  inches.
  - The side of the square is  $y$  inches.

46. The area of a rectangle is equal to the area of a right – angled triangle. What is the length of the rectangle?
- I. The base of the triangle is 40 cm
  - II. The height of the triangle is 50 cm
47. What is the area of the rectangle?
- I. The difference between the sides is 5 cm
  - II. The measure of its diagonal is 10 cm
48. What is the area of the circle?
- I. The circumference of the circle is 308 m.
  - II. The radius of the circle is 28 m
49. What is the height of the triangle?
- I. The area of the triangle is 20 times its base.
  - II. The perimeter of the triangle is equal to the perimeter of a square of side 10 cm.
50. What will be the cost of painting the inner walls of a room if the rate of painting is ₹ 20 per square foot?
- I. Circumference of the floor is 44 ft.
  - II. The height of the wall of the room is 12 ft.
51. What is the weight of the iron beam?
- I. The beam is 9 m long, 40 cm wide and 20 cm high
  - II. Iron weighs 50 kg per cubic metre
52. What is the volume of 32 metre high cylindrical tank?
- I. The area of its base is 154 sq.m.
  - II. The diameter of the base is 14 m.
53. What is the volume of a cube?
- I. The area of each face of the cube is 64 sq.m.
  - II. The length of one side of the cube is 8 m
54. What is the volume of the cylinder?
- I. Height is equal to the diameter.
  - II. Perimeter of the base is 352 cm

55. What is the height of a circular cone?

- I. The area base of that cone is equal to the area of a rectangle whose length is 33 cm.
- II. The area of the base of that cone is 154 sq.cm.

56. A spherical ball of given radius  $x$  cm is melted and made into a right circular cylinder. What is the height of the cylinder?

- I. The volume of the cylinder is equal to the volume of the ball.
- II. The area of the base of the cylinder is given.

**Directions:** Each of the following questions consists of a question followed by three statements I, II and III. You have to study the question and the statements and decide which of the statement(s) is / are necessary to answer the question.

57. What will be the sum of two numbers?

- I. Among the two numbers, the bigger number is greater than the smaller number by 6.
  - II. 40% of the smaller number is equal to 30% of the bigger number.
  - III. The ratio between half of the bigger number and one – third of the smaller number is 2:1
- 1) I and either II or III
  - 2) II and III only
  - 3) All I, II and III
  - 4) Any two of the three
  - 5) None of these

58. What is the two – digit number?

- I. The difference between the two – digit number and the number formed by interchanging the digits is 27.
  - II. The difference between the two digits is 3.
  - III. The digit at unit's place is less than that at ten's place by 3.
- 1) I and II only
  - 2) I and III only
  - 3) All I, II and III only
  - 4) I, and either II or III
  - 5) Even with all I, II and III, answer cannot be given.

59. How many articles were sold?

- I. Total profit earned was ₹ 1596
- II. Cost price of article was ₹ 632
- III. Selling price per article was ₹ 765

- 1) Any two of the three
- 2) I and II only
- 3) II and III only
- 4) All I, II and III
- 5) Question cannot be answered even with the information in all the three statements.

60. How much profit did Manick earn on the cost price of an article by selling it?

- I. He got 15% discount on the marked price at the time of purchase.
- II. He sold it for ₹ 3060
- III. He earned 2% profit on the marked price

- 1) I and II only
- 2) II and III only
- 3) I only or II and III together
- 4) All I, II and III
- 5) Even I, II and III together are not sufficient to answer the question.

61. By selling an article, what is the profit % gained?

- I. 5% discount is given on list price.
- II. If the discount is not given, 20% profit is gained.
- III. The cost price of the article is ₹ 5000

- 1) Only I and II
- 2) Only II and III
- 3) Only I and III
- 4) All I, II and III
- 5) None of these

62. What was the percentage of discount given?

- I. 23.5% profit was earned by selling an almirah for ₹ 12350.
- II. If there were no discount, the earned profit would have been 30%.
- III. The cost price of almirah was ₹ 10000

- 1) Only I and II
- 2) Only II and III
- 3) Only I and III
- 4) All I, II and III
- 5) None of these

63. What is the rate of interest p.c. p.a.?

- I. An amount doubles itself in 5 years on simple interest.
  - II. Difference between the compound interest and the simple interest earned on a certain amount in 2 years is ₹ 400
  - III. Simple interest earned per annum is ₹ 2000
- 1) I only
  - 2) II only
  - 3) III only
  - 4) I and III only
  - 5) Either I only ;or II and III

64. What will be the compound interest earned on an amount of ₹ 5000 in 2 years?

- I. The simple interest on the same amount at the same rate of interest in 5 years is ₹ 2000
  - II. The compound interest and the simple interest earned in one year is the same
  - III. The amount becomes more than double on compound interest in 10 years.
- 1) I only
  - 2) II only
  - 3) III only
  - 4) I and II only
  - 5) None of these

65. What is the present age of Tanya?

- I. The ratio between the present ages of Tanya and her brother Rahul is 3:4 respectively.
  - II. After 5 years the ratio between the ages of Tanya and Rahul will be 4:5
  - III. Rahul is 5 years older than Tanya.
- 1) I and II only
  - 2) II and III only
  - 3) I and III only
  - 4) All I, II and III

5) Any two of the three

66. What is Ravi's present age?

- I. The present age of Ravi is half of that of his father.
- II. After 5 years, the ratio of Ravi's age to that of his father's age will be 6:11
- III. Ravi is 5 years younger than his brother.

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) All I, II and III
- 5) Even with all the three statements answer cannot be given.

67. How many marks did Tarun secure in English?

- I. The average marks obtained by Tarun in four subjects including English are 60.
- II. The total marks obtained by him in English and Mathematics together are 170.
- III. The total marks obtained by him in Mathematics and Science together are 180.

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) All I, II and III
- 5) None of these

68. What is R's share of profit in a joint venture?

- I. Q started business investing ₹ 80000
- II. R joined him after 3 months.
- III. P joined after 4 months with a capital of ₹ 120000 and got ₹ 6000 as his share of profit.

- 1) All I, II and III
- 2) I and III only
- 3) II and III only
- 4) Even with all I, II and III the answer cannot be arrived at.
- 5) None of these

69. How much did Rohit get as profit at the year – end in the business done by Nitin, Rohit and Kunal?

- I. Kunal invested ₹ 8000 for nine months, his profit was  $\frac{3}{2}$  times that of Rohit's and his

investment was four times that of Nitin.

II. Nitin and Rohit invested for one year in the proportion 1:2 respectively.

III. The three together got ₹ 1000 as profit at the year end.

- 1) Only I and II
- 2) Only I and III
- 3) Question cannot be answered even with the information in all the three statements.
- 4) All I, II and III
- 5) None of these

70. In how many days can the work be completed by A and B together?

I. A alone can complete the work in 8 days.

II. If A alone works for 5 days and B alone works for 6 days, the work gets completed.

III. B alone can complete the work in 16 days.

- 1) I and II only
- 2) II and III only
- 3) Any two of the three
- 4) II and either I or III
- 5) None of these

71. How many workers are required for completing the construction work in 10 days?

I. 20% of the work can be completed by 8 workers in 8 days.

II. 20 workers can complete the work in 16 days.

III. One – eighth of the work can be completed by 8 workers in 5 days.

- 1) I only
- 2) II and III only
- 3) III only
- 4) I and III only
- 5) Any one of the three

72. In how many days can 10 women finish a work?

I. 10 men can complete the work in 6 days.

II. 10 men and 10 women together can complete the work in  $3\frac{3}{7}$  days.

III. If 10 men work for 3 days and there after 10 women replace them, the remaining work is completed in 4 days.

- 1) Any two of the three

- 2) I and II only
- 3) II and III only
- 4) I and III only
- 5) None of these

73.If both the pipes are opened, how many hours will be taken to fill the tank?

- I. The capacity of the tank is 400 litres
- II. The pipe A fills the tank in 4 hours.
- III.The pipe B fills the tank in 6 hours.

- 1) Only I and II
- 2) Only II and III
- 3) All I, II and III
- 4) Any two of the three
- 5) Even with all the three statements, answer cannot be given.

74.What is the speed of the train?

- I. The train crosses a tree in 13 seconds.
- II. The train crosses a platform of length 250 m in 27 seconds.
- III.The train crosses another train running in the same direction in 32 seconds

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) Any two of the three
- 5) None of these

75.What is the speed of the train?

- I. The train crosses a signal pole in 18 seconds.
- II. The train crosses a platform of equal length in 36 seconds.
- III.Length of the train is 330 m

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) III and either I or II only
- 5) Any two of the three

76.What is the speed of the stream?



- I. The boat covers 24 km in 6 hours moving upstream.  
II. The boat covers 24 km in 3 hours moving downstream.  
III. The ratio between the speed of the boat and stream is 3:1 respectively.

- 1) Any two of the three  
2) I and II only  
3) II and III only  
4) I and III only  
5) All I, II and III

77. What is the area of the rectangular field?

- I. The perimeter of the field is 110 m  
II. The length is 5 m more than the width  
III. The ratio between length and width is 6:5 respectively.

- 1) I only  
2) any two of them  
3) All the three  
4) II only  
5) None of them

78. What is the area of the hall?

- I. Material cost of flooring per square metre is ₹ 2.50  
II. Labour cost of flooring the hall is ₹ 3500  
III. Total cost of flooring the hall is ₹ 14500

- 1) I only  
2) II only  
3) All the three  
4) II and III only  
5) None of this

79. What is the cost of flooring the rectangular hall?

- I. Length and breadth of the hall are in the respective ratio of 3:2  
II. Length of the hall is 48 m and cost of flooring is ₹ 85 per sq.m.  
III. Perimeter of the hall is 160 m and cost of flooring is ₹ 85 per sq.m.

- 1) I only  
2) II only  
3) All the three

- 4) Any one of them
- 5) any two of them

80. What is the area of a right – angled triangle?

- I. The perimeter of the triangle is 30 cm
- II. The ratio between the base and the height of the triangle is 5:12
- III. The area of the triangle is equal to the area of a rectangle of length 10 cm

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) III and either I or II only
- 5) None of these

81. What is the capacity of the cylindrical tank?

- I. The area of the base is 61600 sq.cm.
- II. The height of the tank is 1.5 times the radius.
- III. The circumference of base is 880 cm.

- 1) Only I and II
- 2) Only II and III
- 3) Only I and III
- 4) Any two of the three
- 5) Only II and either I or III

**Directions:** Each of these questions is followed by three statements. You have to study the question and all the three statements given to decide whether any information provided in the statement(s) is redundant and can be dispensed with while answering the given question.

82. What is the percent profit earned by the shopkeeper on selling the articles in his shop?

- I. Labeled price of the article sold was 130% of the cost price.
- II. Cost price of each article was ₹ 550.
- III. A discount of 10% on labeled price was offered.

- 1) Only I
- 2) Only II
- 3) Only III
- 4) All the three are required or I and II

5) Question cannot be answered even with information in all the three statements.

83. Mr. Gupta borrowed a sum of money on compound interest. What will be the amount to be repaid at the end of 2 years?

- I. The rate of interest is 5 p.c. p.a
- II. Simple interest fetched on the same amount in one year is ₹ 600
- III. The amount borrowed is 10 times the simple interest in 2 years.

- 1) I only
- 2) III only
- 3) I or II only
- 4) II and either I or III only
- 5) All I, II and III are required

84. What is the total compound interest earned at the end of 3 years?

- I. Simple interest earned on that amount at the same rate and for the same period is ₹ 4500
- II. The rate of interest is 10 p.c.p.a.
- III. Compound interest for 3 years is more than the simple interest for that period by ₹ 465

- 1) I and II only
- 2) II and III only
- 3) I and III only
- 4) Either I or II or II and III.
- 5) Any two of the three

85. What is the rate of interest per annum?

- I. The amount becomes ₹ 11025 with compound interest after 2 years.
- II. The same amount with simple interest becomes ₹ 11000 after 2 years.
- III. The amount invested is ₹ 10000

- 1) I or II only
- 2) II or III only
- 3) I or III only
- 4) I or II or III only

5) All I, II and III are required

86. What will be the ratio between ages of Sam and Albert after 5 years?

- I. Sam's present age is more than Albert's present age by 4 years.
- II. Albert's present age is 20 years.
- III. The ratio of Albert's present age to Sam's present age is 5:6.

- 1) II and either I or III only
- 2) II only
- 3) III only
- 4) I or III only
- 5) II or III only

87. What is the difference between the present ages of Ayush and Deepak?

- I. The ratio between Ayush's present age and his age after 8 years is 4:5.
- II. The ratio between the present ages of Ayush and Deepak is 4:3.
- III. The ratio between Deepak's present age and his age four years ago is 6:5

- 1) Any two of I, II and III
- 2) I or III only
- 3) II and either I or III only
- 4) All I, II and III are required
- 5) Even with all the three statements, the answer cannot be obtained

88. What is the average salary of 15 employees?

- I. Average salary of 7 clerical cadre (out of the 15 employees) is ₹ 8500.
- II. Average salary of 5 officer cadre (out of the 15 employees) is ₹ 10000
- III. Average salary of the 3 sub-staff employees (out of the 15 employees) is ₹ 2500.

- 1) None
- 2) Only I
- 3) Only II
- 4) Only III
- 5) Question cannot be answered even with information in all the three statements

89. Three friends, P, Q and R started a partnership business investing money in the ratio of 5:4:2 respectively for a period of 3 years. What is the amount received by P as his share

in the total profit?

- I. Total amount invested in the business is ₹ 22000
- II. The profit earned at the end of 3 years is  $\frac{3}{8}$  of the total investment.
- III. The average amount of profit earned per year is ₹ 2750

- 1) I or II or III
- 2) Either III only or I and II together
- 3) Any two of the three
- 4) All I, II and III are required.
- 5) None of these

90. In how many days can the work be completed by A, B and C together

- I. A and B together can complete the work in 6 days.
- II. B and C together can complete the work in  $3\frac{3}{4}$  days.
- III. A and C together can complete the work in  $3\frac{1}{3}$  days

- 1) Any one of the three
- 2) I only
- 3) II only
- 4) III only
- 5) Information in all the three statements is necessary to answer the question.

91. 8 men and 12 women are working together in a field. After working for 3 days, 5 men and 8 women leave the work. How many days will be required to complete the work?

- I. 19 men and 12 women together can complete the work in 18 days.
- II. 16 men can complete two – third of the work in 16 days.
- III. In a day, the work done by three men is equal to the work done by four women.

- 1) I only
- 2) II only
- 3) III only
- 4) Any two of the statements
- 5) II or III only

92. What is the length of a running train P crossing another running train Q?

- I. These two trains take 18 seconds to cross each other.
- II. These trains are running in opposite directions.
- III. The length of train Q is 180 m

- 1) I only
- 2) II only
- 3) III only
- 4) All I, II and III are required
- 5) Even with I, II and III, the answer cannot be obtained.

93. At what time will the train reach city X from city Y?

- I. The train crosses another train of equal length of 200 m and running in opposite direction in 15 seconds.
- II. The train leaves city Y at 7.15 am for city X situated at a distance of 558 km.
- III. The 200 m long train crosses a signal pole 10 seconds.

- 1) II and III only
- 2) II only
- 3) III only
- 4) I or III only
- 5) All I, II and III are required.

94. What is the cost of painting the two adjacent walls of a hall at ₹ 5 per sq.cm. which has no windows or doors?

- I. The area of the hall is 24 sq.m.
- II. The breadth, length and height of the hall are in the ratio of 4:6:5 respectively
- III. Area of one wall is 30 sq.m.

- 1) I only
- 2) II only
- 3) III only
- 4) Either I or III
- 5) All I, II and III are required

95. What is the area of the given rectangle?

- I. Perimeter of the rectangle is 60 cm
- II. Breadth of the rectangle is 12 cm
- III. Sum of two adjacent sides is 30 cm

- 1) I only
- 2) II only

- 3) III only
- 4) I and II only
- 5) II and either I or III only

## Answers

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

