Data Sufficiency

Model 1: Necessary of the given Two Conclusions

Directions (1 - 30): 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 alone** are **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 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

2. 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.

3. 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.

4. 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

5. 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

6. Is Kareena the wife of Saif?

 I.   Kareena is a female person and Saif is a male person

 II. Kareena is the daughter of Saif

7. 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

8. 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

9. 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.

10. What would have been the selling price per kg of rice?

   I.   50 kg of rice was purchased for ₹ 3350 and ₹ 150 was spent on transport.

   II.   Profit earned was 5%

11. 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

12. 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.

13. 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.

14. 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.

15. What is the rate of simple interest?

   I.   The total interest earned was ₹ 4000

   II.   The sum was invested for 4 years

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. 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

20. 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.

21. 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 ¼ of the distance from C to B.

22. 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

23. 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 kmph

    II.   The difference of their speeds is 25 km/ hr

24. 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

25. What was the length of a running train crossing another 180 m long train running in the opposite direction?

    I.   The relative speed of the two trains was 150 kmph

    II.   The trains took 9 seconds to cross each other

26. The area of a play ground is 1600 sq m. What is its perimeter?

    I.   It is a perfect square playground

    II.   It cost ₹ 3200 to put a fence around the playground at the rate of ₹ 20 per m

27. 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

28. 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 m

29. 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

30. What is the volume of the cylinder?

    I.   Height is equal to the diameter

    II.   Perimeter of the base is 352 cm

Model 2: Necessary of the given Three Conclusions

Directions (31 - 35): 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.

31. How many articles were sold?

    I.   Total profit earned was Rs. 1596

    II.   Cost price of article was Rs. 632

    III.   Selling price per article was Rs. 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.

32. 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

33. 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.

34. 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 Rs. 400

III.   Simple interest earned per annum is Rs. 2000

     1) I only

     2) II only

     3) III only

     4) I and III only

     5) Either I only or II and III

35. 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

Model 3: Redundant of the given Three Conclusions

Directions (36 - 40): 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.

36. 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 Rs. 22000

  II.   The profit earned at the end of 3 years is 3/8 of the total investment.

 III.   The average amount of profit earned per year is Rs. 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

37. 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) I only

    3) III only

    4) I or III only

    5) All I, II and III are required

38. What is the cost of painting the two adjacent walls of a hall at Rs. 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

39. 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

40. What is the rate of interest per annum?

   I.   The amount becomes Rs. 11025 with compound interest after 2 years.

  II.   The same amount with simple interest becomes Rs. 11000 after 2 years.

 III.   The amount invested is Rs. 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

Answers

1 - 4	2 - 5	3 - 4	4 - 3	5 - 5	6 - 2	7 - 1	8 - 2	9 - 1	10 - 5
11 - 5	12 - 5	13 - 3	14 - 4	15 - 4	16 - 3	17 - 5	18 - 5	19 - 3	20 - 5
21 - 3	22 - 5	23 - 1	24 - 5	25 - 5	26 - 3	27 - 5	28 - 5	29 - 3	30 - 5
31 - 4	32 - 3	33 - 1	34 - 5	35 - 5	36 - 2	37 - 2	38 - 3	39 - 4	40 - 4