

Aptitude Assignment

Topics Covered:

- Mathematical Aptitude
- Critical Thinking
- Data Sufficiency

1. Mathematical Aptitude:

Q1. In a row of books, Harry is 7th from the left, and Hermione is 15th from the right. If there are 10 books between them, how many books are there in the row?

- a) 31
- b) 33
- c) 35
- d) 37

Q2. The average of five consecutive even numbers is 34. What is the largest number among these five numbers?

Q3. A company has a total of 200 employees, out of which 30% are managers. If 40% of the managers are female, how many female managers are there in the company?

Q4. The sum of the ages of a father and his son is 60 years. Six years ago, the father's age was five times the age of his son. What are their current ages?

Q5. In a class of 80 students, 60 students play cricket, 45 students play football, and 25 students play both games. How many students play only one game?

Q6. A bookstore sells both new and used books. The price of a new book is Rs. 500, and the price of a used book is Rs. 300. If the store sold a total of 50 books and earned Rs. 20,000 in revenue, how many used books were sold?

Q7. A company's revenue increased by 20% in the first quarter and decreased by 10% in the second quarter. What was the net percentage change in revenue over the two quarters?

2. Critical Thinking:

Q1. If all roses are flowers and some flowers are tulips, which of the following statements must be true?

- a) All tulips are roses.
- b) Some roses are tulips.
- c) All flowers are roses.
- d) Some flowers are not tulips.

Q2. If apples are fruits, and some fruits are green, which of the following statements must be true?

- a) All apples are green.
- b) Some apples are green.

- c) All green things are apples.
- d) Some green things are apples.

Q3. A survey of 500 customers was conducted, and 80% of them rated the product as excellent. Based on this data, the company claims that 80% of all its customers find the product excellent. Which of the following, if true, most seriously weakens this claim?

- a) 80% of the surveyed customers are repeat buyers.
- b) The survey was conducted via an online form, and only those customers who were highly satisfied were likely to participate.
- c) The product has received several positive reviews from reputable sources.
- d) A competitor's product received a higher percentage of excellent ratings in a similar survey.

Q4. A company plans to launch a new advertising campaign to increase its brand visibility. The company's advertising budget is limited, and they want to target the most effective advertising channels. Which of the following strategies would be most appropriate to determine the impact of the advertising campaign?

- a) Conduct surveys to measure brand awareness before and after the campaign.
- b) Increase the advertising budget for all channels to ensure broader coverage.
- c) Launch the campaign simultaneously on all available channels.
- d) Measure the company's sales at the end of the campaign to determine its success.

Q5. A manufacturing plant produces two types of smartphones: Model A and Model B. Model A has a higher profit margin, but it takes longer to manufacture than Model B. The plant wants to increase overall profits. Which of the following, if true, would best support the decision to produce more of Model A?

- a) The market demand for Model A is consistently higher than that of Model B.
- b) The cost of materials required for producing Model A is lower than that of Model B.
- c) The plant has excess production capacity that can be utilized for manufacturing Model A.
- d) The production time for Model A can be significantly reduced by optimizing certain processes.

3. Data Sufficiency:

Directions for Q1-Q3.

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 your answer as

- (1) If the data either in statement I alone or in statement II alone are 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 in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- (4) If the data even in both statements I and II together are not sufficient to answer the question.

Q1. What will be the cost of the second necklace?

- I. The cost of the first necklace is $\frac{1}{5}$ more than the second and the cost of the third necklace is $\frac{2}{5}$ more than the second. The total cost of all the three neckless is Rs. 1,20,000.
- II. The cost of the first necklace $\frac{2}{5}$ more than the second. The cost of the third necklace is the least and total cost of all the three necklaces is Rs. 1,20,000.

Q2. What was the ratio between the ages of P and Q four years ago?

- I. The ratio between the present ages of P and Q 3:4.
- II. The ratio between the present ages of Q and R is 4 : 5.

Q3. 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 weighting 46 is dropped out.

Directions for Q4.

In each of the following questions a question is asked followed by three statements. You have to study the questions and all the three statements given and decide whether any information provided in the statement(s) is/are redundant and not required while answering the questions.

P, Q and R together invested an amount of Rs. 20,000 in the ratio of 5:3:2. What was the per cent profit earned by them at the end of one year?

- A. Q's share in the profit is Rs. 2,400.
- B. The amount of profit received by P is equal to the amount of profit received by Q and R together.
- C. The amount of profit received by Q and R together is Rs. 4,000.

- (1) A and B both
- (2) A or C only
- (3) B and A or C only
- (4) B and C both