Mathematics Questions for CUTE MBA, Railway, and Competitive Exams

1. Arithmetic

1. A train travels 360 km at a uniform speed. If the speed had been 5 km/h more, it would have taken 48 minutes less for the journey. Find the speed of the train.

2. The sum of the ages of a father and his son is 50 years. Ten years ago, the father's age was four times the son's age. Find their present ages.

3. If a person spends 75% of their income and saves Rs. 3000, what is their total income?

2. Algebra

1. Solve for x: $2x^2 - 5x + 3 = 0$

2. Find the sum of the roots of the quadratic equation $3x^2 - 7x + 2 = 0$.

3. The difference between two numbers is 7, and their product is 60. Find the numbers.

3. Percentage & Profit-Loss

1. A shopkeeper marks his goods 20% above the cost price and gives a discount of 10%. Find his profit percentage.

2. If the population of a city increases by 10% annually, what will be the population after 2 years if the present population is 50,000?

3. A man buys two articles for Rs. 2000 each. He sells one at 20% profit and the other at 10% loss. Find his overall gain or loss percentage.

4. Time, Speed & Distance

1. Two trains, 150 m and 200 m long, pass each other in 10 seconds when running in opposite directions at speeds of 40 km/h and X km/h. Find X.

2. A car covers a certain distance in 4 hours at a speed of 60 km/h. What would be the time taken if the speed is increased by 20 km/h?

3. A person walking at 5 km/h reaches his destination 20 minutes late. If he had walked at 6 km/h, he would have reached 10 minutes earlier. Find the distance to his destination.

5. Data Interpretation

1. The average of five numbers is 60. The average of the first two numbers is 55, and the average of the last two numbers is 65. Find the third number.

2. A factory produces 5000 units in January, and production increases by 5% every month. Find the production in April.

6. Probability & Permutation-Combination

1. A bag contains 4 red, 3 blue, and 2 green balls. If one ball is drawn at random, what is the probability that it is not red?

2. How many ways can the letters of the word "MATHS" be arranged?

3. A committee of 4 members is to be selected from 5 men and 3 women. In how many ways can this be done if at least one woman must be included?