#### PERCENTAGE

# **Basic Concepts**

### Finding 100%

- 1. In an examination 65 % of students are passed and no of failures is 420.Find the total strength?
- 2. A fruit seller had some mangoes. He sells 30% mangoes and still has 280 mangoes. Find the number of mangoes he had.

## **Percentage Increase/ Decrease**

- 3. If price of rice is 30% less than that of wheat, then price of wheat is how much per cent more than that of rice?
- 4. If Salary of Vivek is 25% more than the salary of Nilesh, then by what percent is salary of Nilesh less than Vivek?
- 5. Two numbers are less than a third number by 30% and 37% respectively. How much percent is the second number less than the first?
- 6. A student multiplied a number by 3/5 instead of 5/3. What is the percentage error.

### Net change

- 7. Ramesh's salary was reduced by 10% and then the reduced salary was increased by 10%. What was his ultimate loss?
- 8. If one side of a rectangle is first increased by 20% and the other side is decreased by 12%, then what is the change in area in percent?

### **Salary**

- 9. Radha spends 40% of her salary on food, 20% on house rent, 10% on entertainment and 10% on conveyance. If her savings at the end of the month are Rs 1500, then what is her monthly salary?
- 10. Surya spends 20% of his monthly salary on food, 40% of the remaining on house rent and balance amount spends on other items of routine expense. What is his yearly salary if he spends Rs. 5760 per month on other items of routine expenses?

#### **Election**

- 11. In an election which contested was contested by 2 candidates, one candidate got 40% of total votes and yet lost by 1000 votes. What is the total number of votes casted in the election?
- 12. In a particular constituency, 75% of voters cast their votes, out of which 2% were rejected. The winning candidate received 75% of the valid votes and bagged a total of 9261 votes. The total number of voters in the constituency is?

#### Mark based

- 13. Y has to score 40% marks to pass. He gets 20 marks and fails by 40 marks. The maximum marks of the exam are?
- 14. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks were 56% of the sum of their marks. What are the marks obtained by both of them?
- 15. In a test, A scored 10% more than B and B scored 5% more then C. If C scored 300 marks out of 400, then A's marks are?
- 16. In an examination, P scored 30 % marks and failed by 15 marks. Q scored 40 % marks and obtained 35 marks more than those required to pass. Find the pass percentage.

### Consumption

- 17. The price of diesel increases by 50 %. Find by how much percent a truck owner must reduce his consumption in order to maintain the same budget?
- 18. The price of rice falls by 25 %. By what percentage a person can increase the consumption of rice so that his overall budget does not change?

### Population/Machine

19. The population of a city is 50,000 at present. It increases at the rate of 10% per annum. What will be its population 3 yr from now?

- 20. The population of a city is 50,000 at present. It increases at the rate of 10% per annum. What was its population 2 years ago from present?
- 21. A town has population of 50,000 in 1988. In one year i.e. by 1989 it increased by 25%. Next year i.e. in 1990, it decreased by 30%. The next year in 1991 there was an increase of 40%. What is the population at end of 1991?
- 22. The value of lathe machine depreciates at the rate of 10 % per annum. If the cost of machine at present is Rs. 160,000, then what will be its worth after 2 years?
- 23. The value of Xerox machine depreciates at the rate of 10 % per annum. If the cost of machine at present is Rs. 75,000 then what was the value of machine before 2 years?
- 24. In a class, 15% of total number of students failed in Science, 25% of total number of students failed in Maths and 10% of total number of students failed in both. How much percentage of students passed in both Maths and Science?