CHAPTER-7

PERCENT AND PERCENTAGE

QUESTION BANK

1.   Express each of the following as a fraction:
     (i) 48%
     (ii) 220%
     (iii) 2.5%

2.   Express each of the following as a decimal:
     (i) 6%
     (ii) 72%
     (iii) 125%

3.   Express each of the following as a percentage:
     (i) 9/25
     (ii) 31/25
     (iii) 1/25

4.   Convert the ratio 4 : 5 to percentage.

5.   Express 125% as a ratio.

6.   (i) What per cent of 150 is 96?

     (ii) What per cent of 5 kg is 200 g?

     (iii) What per cent of 2 litres is 250 mL?

7.   Find $4\frac{1}{2}$% of Rs 3600.

8.   If 16% of a number is 72, find the number.

9.   A man saves 18% of his monthly income. If he saves Rs 3780 per month, what is his monthly income?

10. A football team wins 7 games, which is 35% of the total games played. How many games were played in all?

11. Amit was given an increment of 20% on his salary. If his new salary is Rs

30600, what was his salary before the increment?

12. Sonal attended her school on 204 days in a full year. If her attendance is 85%, find the number of days on which the school was opened.

13. A's income is 20% less than that of B. By what per cent is B's income more than A's?

14. The price of petrol goes up by 10%. By how much per cent must a motorist reduce the consumption of petrol so that the expenditure on it remains unchanged?

15. The population of a town increases by 8% annually. If the present population is 54000, what was it a year ago?

16. The value of a machine depreciates every year by 20%. If the present value of the machine be Rs 160000, what was its value last year?

17. An alloy contains 40% copper, 32% nickel and rest zinc. Find the mass of zinc in one kg of the alloy.

18. Balanced diet should contain 12% of proteins, 25% of fats and 63% of carbohydrates. If a child needs 2600 calories in his food daily, find in calories the amount of each of these in his daily food intake.

19. Gunpowder contains 75% nitre and 10% sulphur. Find the amount of gunpowder which carries 9 kg nitre. What amount of gunpowder would contain 2.5 kg sulphur?

20. Divide Rs 7000 among A, B and C such that A gets 50% of what B gets and B gets 50% of what C gets.

21. Find the percentage of pure gold in 22-carat gold, if 24-carat gold is 100% pure.

22. The salary of an officer is increased by 25%. By what per cent should the new salary be decreased to restore the original salary?

23. Express:
    (i) 24% as a fraction;
    (ii) 105% as a decimal;
    (iii) 4 : 5 as a percentage;
    (iv) 56% as a ratio.

24. If 34% of a number is 85, find the number.

25. The value of a machine depreciates every year by 10%. If the present value of the machine is Rs 54000, what was its value last year?

26. An alloy contains 30% copper, 42% nickel and rest zinc. Find the mass of zinc in 1 kg of alloy.

27. In a class, 60% of the total number of students is boys and there are 14 girls. How many students are there in the class?

28. *Fill in the blanks.*
    (i) $7\frac{1}{2}$% of Rs 1200 =.........
    (ii) 240 mL is .... % of 3 L.
    (iii) If x% of 35 is 42, then x = ...
    (iv) 12/5 = ...%.
    (v) 120 = (.........) % of 80.

29. Which is largest in $8\frac{1}{3}$%, $\frac{4}{25}$ and 0.15?

30. *Mark (✓) against the correct answer:*
    What per cent of 2/9 is 14/5?
    (a) 2.5%
    (b) 5%
    (c) 7.5%
    (d) 10%

31.　*Mark (✓) against the correct answer:*

A number decreased by 30% gives 84. The number is

(a) 90

(b) 110

(c) 120

(d) 135

32.　*Mark (✓) against the correct answer:*

(?)% of 320 is 48?

(a) 25%

(b) 15%

(c) 14%

(d) 9%

33.　*Mark (✓) against the correct answer:*

What per cent of 45 is 54?

(a) $83\frac{1}{3}$%

(b) 104%

(c) 108%

(d) 120%

34.　*Mark (✓) against the correct answer:*

A number exceeds 25% of itself by 60. The number is

(a) 75

(b) 45

(c) 80

(d) 65

35.　*Mark (✓) against the correct answer:*

5% of which number is 12?

(a) 120

(b) 180

(c) 240

(d) 320

36. *Write 'T' for true and 'F' for false for each of the following:*
    (i) 6% of 8 is 48.
    (ii) 6: 5 = 30%.
    (Iii) 3/5=60%.
    (iv) 6 hours = 25% of a day.

37. Write each of the following as percentage.
    (i) 7/25
    (ii) 14/625
    (iii) 5/8
    (iv) 0.8
    (v) 0.005
    (vi) 3:25
    (vii) 11: 80
    (viii) 111: 125
    (ix) 13: 75
    (x) 15: 16
    (xi) 0.18

38. x is 5% of y, y is 24% of z. If x = 480, find the values of y and z.

39. A coolie deposits Rs 150 per month in his post office Savings Bank account.
    If this is 15% of his monthly income, find his monthly income.

40. Asha got 86.875% marks in the annual examination. If she got 695 marks,

find the total number of marks of the examination.

41. Deepti went to school for 216 days in a full year. If her attendance is 90%, find the number of days on which the school was opened.

42. A garden has 2000 trees. 12% of these are mango trees 18% lemon and the rest are orange trees. Find the number of orange trees.

43. Balanced diet should contain 12% of proteins, 25% of fats and 63% of carbohydrates. If a child needs 2600 calories in this food daily, find in calories the amount of each of these in his daily food intake.

44. A cricketer scored a total of 62 runs in 96 balls. He hit 3 sixes, 8 fours, 2 two's and 8 singles. What percentage of the total runs came in
(i) Sixes
(ii) 4's
(iii) 2's
(iv) Singles

45. A cricketer hit 120 runs in 150 balls during a test match. 20% of the runs came in 6's, 30% in 4's, 25% in 2's and the rest in 1's. How many runs did he score in
(i) 6's
(ii) 4's
(iii) 2's
(IV) Singles
what % of his shots was scoring ones?

46. Radha earns 22% of her investment. If she earns Rs 187, then how much did she invest?

47. Rohit deposits 12% of his income in a bank. He deposited Rs 1440 in the bank during 1997. What was his total income for the year 1997?

48. An alloy contains 32% copper, 40% nickel and rest zinc. Find the mass of the zinc in 1 kg of the alloy.

49. A motorist travelled 122 kilometers before his first stop. If he had 10%of his journey to complete at this point, how long was the total ride?

50. A certain school has 300 students, 142 of whom are boys. It has 30 teachers, 12 of whom are men. What percent of the total number of students and teachers in the school is female

51. Aman's income is 20% less than that of Anil. How much percent is Anil's income more than Aman's income?

52. The value of a machine depreciates every year by 5%. If the present value of the machine be Rs 100000, what will be its value after 2 years?

53.   The population of a town increases by 10% annually. If the present population is 60000, what will be its population after 2 years?

54.   In the new budget, the price of petrol rose by 10%. By how much percent must one reduce the consumption so that the expenditure does not increase?

55.   Mohan's income is Rs 15500 per month. He saves 11% of his income. If his income increases by 10%, then he reduces his saving by 1%, how much does he save now?

56.   Shikha's income is 60% more than that of Shalu. What percent is Shalu's income less than Shikha's?

57.   Rs 3500 is to be shared among three people so that the first person gets 50% of the second, who in turn gets 50% of the third. How much will each of them get?

58.   After a 20% hike, the cost of Chinese Vase is Rs 2000. What was the original price of the object?