



Attempt questions first; check the separate key afterward. Show all working. Draw accurate figures where required.

A. Very short answers - 1 mark each

1. Find mean of 6, 8, 10, 12.
2. Find median of 4, 7, 9, 12, 15.
3. Ten pupils have mean score 60 and twenty have mean 75. Find combined mean.
4. Why is the simple average 67.5 incorrect here?
5. A test score 80 has weight 40% and score 70 has weight 60%. Find weighted mean.
6. Reverse the weights and recalculate.
7. Values 1, 2, 3 have frequencies 2, 3, 5. Find mean.
8. Find median and mode.

B. Short answers / practice - 2 marks each

9. A class has 12 boys and 18 girls. Find each percentage.
10. Represent it as a 100% stacked bar.
11. Group A has 20 of 50 reading fiction; group B has 30 of 100. Which has larger fiction share?
12. Which has more fiction readers in total?
13. The mean of 6 values is 14. Find their sum.
14. If one value 20 is removed, find remaining mean.
15. Draw a histogram for classes 0-10, 10-20, 20-30 with frequencies 3, 7, 5.
16. Identify the modal class.
17. Explain why unequal-width histogram bars need frequency density.
18. Find density for frequency 12 in interval 20-40.
19. Find range and median of 2, 5, 7, 8, 18.
20. Add an outlier 100 and find the new mean.

C. Application / reasoning - 3 marks each

21. Combine mixtures: 2 kg at ₹40/kg and 3 kg at ₹60/kg. Find mean price per kg.

22. Find total cost of the mixture.
 23. A bar has components 25, 35, 40. Express each as percentage of total.
 24. Explain what information is lost if only percentages are shown.
 25. Twenty observations have mean 15; ten more have mean 21. Find combined mean.
 26. Find the total sum.
 27. Eight values have mean 12 and twelve have mean 17. Find combined mean.
 28. Find weighted score for 70 with weight 30% and 90 with weight 70%.
 29. Find mean for values 2, 4, 6 with frequencies 3, 2, 5.
 30. A histogram class has width 5 and frequency 20. Find frequency density.
 31. A dataset's mean is 25. Each value is multiplied by 3. Find the new mean.
- ### D. Extended practice - 5 marks per pair
32. A recorded score 45 should be 65 among 20 scores with mean 50. Find corrected mean.
 33. Explain the correction without recalculating every score.
 34. Construct stacked bars for two families' monthly spending: A food 4000, rent 6000; B food 6000, rent 6000.
 35. Compare food shares using 100% stacked bars.

ANSWER KEY - Numerical / closed questions

- 1) 9. 2) 9. 3) 70. 4) Unequal group sizes. 5) 74.
6) 76. 7) 2.3. 8) 2.5; 3. 9) 40%; 60%. 11) A;
40% versus 30%. 12) B. 13) 84. 14) 12.8. 16)
10-20. 18) 0.6 per unit. 19) 16; 7. 20)
140/6 ≈ 23.33. 21) ₹52. 22) ₹260. 23) 25%, 35%,
40%. 24) Absolute totals. 25) 17. 26) 510. 27)
15. 28) 84. 29) 4.4. 30) 4 per unit. 31) 75. 32)
51. 35) A 40%; B 50%.