STATISTICS CM091201

Multiple Choice Questions : **1 mark each**

1. If the mean of the data x, x + 1, x + 3, x + 6 is $\frac{15}{2}$, then the value of x is :

   (a) 3 (b) 4 (c) 5 (d) 6

2. Class mark of a particular class is 10.5 and class size is 7, then the class interval is :

   (a) 10.5–17.5 (b) 3.5–10.5 (c) 7–17.5 (d) 7–14

3. Median of the data 5, 9, 8, 6, 3, 5, 7, 12, 15 is :

   (a) 3 (b) 5 (c) 6 (d) 7

4. The mean of 10 numbers is 55. If one number is excluded, their mean becomes 50, the excluded number is :

   (a) 60 (b) 70 (c) 80 (d) 100

5. The range of the data 25.7, 16.3, 2.8, 21.7, 24.3, 22.7, 24.9 is :

   (a) 22 (b) 22.9 (c) 21.7 (d) 20.5

Very Short Answer Type Questions : **2 marks each**

6. Find the mean of first 10 natural numbers.

7. The mean marks scored by 100 students was 40. Later on, it was discovered that a score of 53 was misread as 83. Find the correct mean marks.

8. Find median of following data : 17, 23, 57, 46, 33, 29, 28, 30, 34. If observation 23 is removed from data then find new median.

Short Answer Type Questions : **3 marks each**

9. The following observations have been arranged in ascending order where median of the data is 63 :

   29, 32, 48, 50, x, x + 2, 72, 78, 84, 95. Find the mean of the data.

10. In a city, the weekly observation made in a study on the cost of living index are given in the following table :

Cost of the living index	140-150	150-160	160-170	170-180	180-190	190-200	Total
No. of weeks	5	10	20	09	06	02	52

Draw the frequency polygon for the data given above.

11. Construct a histogram for the following data :

Class Interval	10-19	20-29	30-39	40-49	50-59
Frequency	20	15	45	60	75

Long Answer Type Questions : **5 marks each**

12. The weights (in grams) of 30 oranges, picked at random from a basket of oranges are given below :

90, 30, 45, 55, 65, 60, 50, 75, 70, 60, 70, 70, 60, 95, 85, 80, 35, 45, 40, 45, 55, 30, 110, 75, 100, 40, 60, 85, 40, 100

Construct a grouped frequency distribution table with equal class intervals, one of them being 30-40.

13. Draw a histogram and frequency polygon (in the same diagram) for the following data :

Class	440-460	460-480	480-500	500-520	520-540	540-560	560-580	580-600
Frequency	2	4	3	5	3	2	1	4