

ASSIGNMENT
CHAPTER-14
TOPIC: STATISTICS

1. The median of the following data is 525. Find the values of x and y , if the total frequency is 100.

| | | | | | | | | | | |
|------|---------|----------|-----------|-----------|----------|----------|----------|----------|----------|-----------|
| C. I | 0 – 100 | 100- 200 | 200 - 300 | 300 – 400 | 400- 500 | 500- 600 | 600- 700 | 700- 800 | 800- 900 | 900- 1000 |
| F | 2 | 5 | x | 12 | 17 | 20 | y | 9 | 7 | 4 |

2. The median of the data is 28. Find the values of x and y , if the total frequency is 50.

| | | | | | |
|----------------|--------|---------|---------|---------|---------|
| Marks | 0 - 10 | 10 – 20 | 20 – 30 | 30 – 40 | 40 - 50 |
| No of students | 5 | x | 15 | y | 6 |

3. If the mean of the following distribution is 27, find the value of p .

| | | | | | |
|------|--------|---------|---------|---------|---------|
| C. I | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | 40 - 50 |
| F | 8 | P | 12 | 13 | 10 |

4. Find the missing frequency: mean = 50, Total frequency = 120.

| | | | | | |
|-----|----|-------|----|-------|----|
| x | 10 | 30 | 50 | 70 | 90 |
| f | 17 | F_1 | 32 | F_2 | 19 |

5. The mean of the following frequency distribution is 132 and the sum of the observations is 50. Find the missing frequencies f_1 and f_2 .

| | | | | | | |
|------|--------|---------|----------|-----------|-----------|-----------|
| C. I | 0 – 40 | 40 - 80 | 80 - 120 | 120 - 160 | 160 - 200 | 200 - 240 |
| F | 4 | 7 | F_1 | 12 | F_2 | 9 |

6. Find the mean, median and mode of the following data.

| | | | | | | | |
|------|--------|---------|---------|---------|---------|---------|---------|
| C. I | 0 - 10 | 10 - 20 | 20 – 30 | 30 – 40 | 40 - 50 | 50 - 60 | 60 - 70 |
| F | 6 | 8 | 10 | 15 | 5 | 4 | 2 |

7. The mode of the following frequency distribution is 55, find the values of x and y , If the total frequency is 50.

| | | | | | | |
|------|--------|---------|---------|---------|---------|---------|
| C. I | 0 - 15 | 15 - 30 | 30 - 45 | 45 - 60 | 60 - 75 | 75 - 90 |
| F | 6 | 7 | Y | 15 | 10 | X |

8. For a given data less than ogive and more than ogive intersect at a point $P(x, y)$. Then what does abscissa of the Point represents.

9. Write the empirical relationship between the three measures of central tendency

10. If median = 15 and mean = 16, find mode of the distribution.

11. Following is the distribution of marks obtained by 60 students: Calculate the arithmetic mean.

| | | | | | | |
|----------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Marks | More than 0 | more than 10 | More than 20 | More than 30 | More than 40 | More than 50 |
| No of students | 60 | 56 | 40 | 20 | 10 | 3 |

12. From the following data draw the two types of curves and find the median.

| | | | | | | |
|-------------|------------------|------------------|------------------|------------------|------------------|------------------|
| C. I | 200 - 220 | 220 - 240 | 240 - 260 | 260 - 280 | 280 - 300 | 300 - 320 |
| F | 7 | 3 | 6 | 8 | 2 | 4 |

13. Compute the arithmetic mean for the following data:

| Marks obtained | No of students |
|-----------------------|-----------------------|
| Less than 10 | 14 |
| Less than 20 | 22 |
| Less than 30 | 37 |
| Less than 40 | 58 |
| Less than 50 | 67 |
| Less than 60 | 75 |

