

Statistics

Introduction of Statistics

EXERCISE

Q.1 The class marks of distribution are :

6, 10, 14, 18, 22, 26, 30

Find the class size and the class interval.

Q.2 The class marks of distribution are : 47, 52, 57, 62, 67, 72, 77, 82, 87, 92, 97, 102.

Determine the class size, the class limits and the true class limits.

Q.3 Find the range of the following array of data :

70, 65, 71, 36, 55, 61, 62, 41, 40, 39, 35.

Q.4 Draw the ogive of the following distribution table:

| Class interval | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
|----------------|------|-------|-------|-------|-------|-------|
| Frequency | 10 | 5 | 8 | 6 | 6 | 4 |

Q.5 The weights (in kilograms) of 25 students are given as follows :

35, 38, 36, 37, 38, 35, 37, 36, 35, 38, 36, 36, 37, 37, 35, 38, 36, 35, 36, 37, 37, 38, 36, 38, 37.

Complete the following frequency table:

| Weights | 35 | 36 | 37 | 38 |
|-----------|----|----|----|----|
| Frequency | — | — | — | — |

Q.6 The marks scored by 55 students in a test are given below :

| Marks | No. of students |
|-------|-----------------|
| 0-5 | 2 |
| 5-10 | 6 |
| 10-15 | 13 |
| 15-20 | 17 |
| 20-25 | 11 |
| 25-30 | 4 |
| 30-35 | 2 |

Prepare a cumulative frequency table

Q.7 A cumulative frequency distribution table is given. Convert this into a frequency distribution table.

| Marks | below 45 | below 60 | below 75 | below 90 |
|-------------------|----------|----------|----------|----------|
| Number of student | 0 | 8 | 23 | 48 |

Q.8 Draw a frequency table for the following data:

| C.I. | C.F. |
|---------|------|
| 111-120 | 6 |
| 121-130 | 11 |
| 131-140 | 16 |
| 141-150 | 20 |
| 151-160 | 27 |
| 161-170 | 36 |
| 171-180 | 42 |
| 181-190 | 45 |
| 191-200 | 50 |

Q.9 Form the cumulative frequency table of less than series from following data :

| C.I. | Frequency |
|--------|-----------|
| 0-10 | 3 |
| 10-20 | 12 |
| 20-30 | 36 |
| 30-40 | 76 |
| 40-50 | 97 |
| 50-60 | 85 |
| 60-70 | 39 |
| 70-80 | 12 |
| 80-90 | 12 |
| 90-100 | 6 |

Q.10 Construct a c.f. table for the following data :

| C.I. | Frequency |
|-------|-----------|
| 4-7 | 3 |
| 8-11 | 10 |
| 12-15 | 12 |
| 16-19 | 8 |
| 20-23 | 5 |
| 24-27 | 9 |

ANSWER

1. Class size = 4, Ist Class interval = 4 - 8
2. Class size = 5, Class limit for first class = 44.5, 49.4.
3. 36
4. C.f. (10, 15, 23, 29, 35, 39)
5. 5, 7, 7, 6