

IX - Mathematics Assignment No-01 - Statistics

(Q1) Explain the meaning of the following

(a) Primary Data

(b) Secondary Data

(c) Raw data

(d) Grouped data

(e) Frequency

(f) variate

(g) class interval

(h) class size

(i) class mark or mid value

(j) Cumulative Frequency

(k) class limits

(l) True class limits

(m) Range

(n) Array

Cont Pg-2

(Q2) The weights (in grams) of 40 apples are given below. Arrange the data in increasing order (an array) and construct a frequency table.

90, 75, 85, 70, 60, 70, 70, 75,  
100, 75, 110, 30, 40, 50, 45, 84,  
60, 55, 65, 100, 30, 85, 35, 80,  
65, 30, 40, 70, 75, 110, 70, 45,  
45, 40, 60, 55, 100, 80, 95, 85.

(Q3)<sub>A</sub> The temperature of a certain city in any month is given below. Construct f.d.t. (both inclusive and exclusive form) having 6 C.I.

31.4, 34.4, 35.6, 36.3, 36.7, 36.9, 34.7,  
31.6, 32.5, 33.3, 32.6, 33.5, 37.8, 37.5,  
34.9, 33.8, 30.4, 37.3, 37.0, 32.5, 36.4,  
35.2, 31.0, 32.4, 37.0, 36.9, 34.4, 35.3,  
30.3, 33.9,

(Q3)<sub>B</sub> The class marks of a distribution are:  
93, 163, 123, 103, 113, 133, 143, 153  
in mixed form. Find class size, class lts.  
and C.I.

Cont-Pg-3 →

(Q4) Form a frequency table for the following variables.

18, 27, 27, 20, 20, 16, 22, 17, 27, 20, 21, 16, 25  
 24, 16, 19, 21, 25, 20, 18, 27, 21, 16, 26, 16, 18  
 27, 25, 23, 26, 27, 16, 25, 27, 21, 22, 18, 24, 20,  
 20, 20, 27, 24, 26, 16, 22, 19, 22, 18, 19.

(Q5) Form a C.f.d.t with C.I. of 50.

628, 668, 650, 665, 620, 480, 560,  
 300, 328, 525, 420, 360, 440, 480,  
 360, 305, 326, 370, 470, 328, 306  
 325, 520, 360, 326, 440, 406, 664  
 421, 450, 480, 426, 405, 421, 565.

(Q6) Following is the record of ages of 50 students in a certain school. Form a f.d.t and C.f.d.t keeping one class as 12-15, 15 not included.

11, 15, 07, 20, 15, 18, 06, 19, 19, 16, 8, 17, 12  
 19, 18, 16, 06, 20, 13, 11, 10, 08, 14, 6, 19, 18  
 09, 08, 12, 15, 12, 14, 08, 12, 16, 15, 17, 09, 11,  
 07, 17, 11, 11, 18, 14, 12, 07, 13, 17, 13.

Cont-Pg-4



(Q7) Following is the distribution of ages (in years) of teachers in a certain school

| Ages in yrs     | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| NO. of teachers | 11    | 32    | 51    | 49    | 27    | 06    | 04    |

Answer the following

- Write the lower limit of the 2nd C.I
- Find the class-limits of the 4th C.I.
- Find the class-mark of the 6th C.I.
- Find the true-class-limits of 5th CI
- Find the class-size
- Construct a C. f. d. t.
- How many teachers are of age
  - less than 31 years
  - 36 years or more.

(Q8) Following is the table of class marks of various classes. Construct C.f.d.t.

| Class-mark | 146 | 152 | 158 | 164 | 170 | 176 | 182 | 188 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Frequency  | 3   | 6   | 8   | 10  | 5   | 4   | 3   | 1   |

(Q9) Extract a f.d.t from the following

(a)

| Age (in years) | Number of Persons |
|----------------|-------------------|
| Below 10       | 15                |
| " 20           | 28                |
| " 30           | 39                |
| " 40           | 60                |
| " 50           | 73                |
| " 60           | 80                |

(b)

| life time (in hrs) | No. of bulbs |
|--------------------|--------------|
| More than 1200     | 0            |
| " " 1100           | 8            |
| " " 1000           | 26           |
| " " 900            | 76           |
| " " 800            | 135          |
| " " 700            | 206          |
| " " 600            | 284          |
| " " 500            | 340          |

(Q10) Find the unknown entries a, b, c, d, e, f from the following c. f. d. t. Shows the heights of 50 students in a class.

| Class-interval (Hts in cm) | Frequency | C.f. |
|----------------------------|-----------|------|
| 150 - 155                  | 12        | a    |
| 155 - 160                  | b         | 25   |
| 160 - 165                  | 10        | c    |
| 165 - 170                  | d         | 43   |
| 170 - 175                  | e         | 48   |
| 175 - 180                  | 2         | f    |