

VCD 6/12/23  
 FY-BSc. SEM I DESCRIPTIVE STATISTICS I HRS- 3 MARKS 100

Note: (i) All questions are compulsory.

(ii) Use of Calculator is allowed.

Q.1) Answer the following questions

a) State True or False, Correct if necessary:

(10)

- Frequency curve always passes through origin.
- In Stem and leaf diagram, stem consists of trailing digits.
- Range can be calculated if we have open end classes.
- Mean deviation is least when it is calculated from mean.
- Standard Deviation is second order central moment

b) Answer in one sentence:

(10)

- What do you mean by scale of measurement.
- Explain consistency of attributes.
- What is mean empirical relation between mathematical means.
- Give mean of first 15 natural numbers.
- Write formula for calculating Karl Pearson's coefficient of skewness.

Q.2) Attempt any two.

(20)

- Write all condition for consistency of data for three Attributes.
- Why we tabulate data? What are some component of tables? Write some features of a good table.
- Write detailed note on sources of data.

Q.3) Attempt any two.

(20)

- Write a note on Histogram and Frequency Polygon.
- Write merit and demerits of a) Mean b) Mode
- Find median for following data and locate it graphically.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f	10	18	25	22	17	13	30	5

## Q.4) Attempt any two.

(20)

- i) Write detailed note on Measure of Dispersion.
- ii) Show that Variance is independent of change of origin but depends on change in scale.  
Write expression of Variance for combined data.
- iii) find the variance, standard deviation and coefficient of variance of following data.

C.I.	20-40	40-60	60-80	80-100	100-120	120-140
f	7	12	16	13	13	4

## Q.5) Attempt any two.

(20)

- i) What are notation and terminology used in Theory of attributes, Prove that total number of class frequencies in case of 'k' attributes is  $3^k$ .
- ii) Find all the Quartiles and D6 graphically as well as by formula.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	8	12	20	34	14	2

- iii) The daily sales of news papers (in 00') are given below:

42,42,35,36,33,33,28,29,18,27,31,32,33,32,39,52,55,65,36,37,38

Draw Box-plot and comment on your inference.

\*\*\*\*\* All The Best \*\*\*\*\*

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f	10	18	32	33	17	13	30	20