CLASS: BBA   SEMESTER : I
BRANCH: BBA   SESSION : MO/2023

SUBJECT: MN107 BUSINESS STATISTICS

TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	Briefly discuss the stages in a statistical investigation.	[5]	1	1
Q.1(b)	Represent the following data by a histogram:	[5]	2	3

Unit Cost: 3-5   6-8   9-11   12-14   15-17   18-20   21-23
No. of items: 6   8   10   20   8   5   3

			CO	BL
Q.2(a)	State and explain the properties of arithmetic mean.	[5]	3	1,2
Q.2(b)	An incomplete distribution is given below:	[5]	2,4	2,3

Variable: 10-20   20-30   30-40   40-50   50-60   60-70   70-80
Frequency: 12   30   ?   65   ?   25   18

You are told that the median value is 46. Using the median formula, find the missing frequencies.

			CO	BL
Q.3(a)	What do you mean by dispersion of data? Why it is calculated?	[5]	3	4
Q.3(b)	A collar manufacturer is considering the production of a new style of collar to attract young men. The following statistics of neck circumference are available based on measurements of a typical group of college students:	[5]	2,4	2,3

Mid-Value (in inches): 12.0   12.5   13.0   13.5   14.0   14.5   5.0   15.5   16.0
No. of students: 2   16   36   60   76   37   18   3   2

Compute the standard deviation and co-efficient of variation.

			CO	BL
Q.4(a)	What do you mean by correlation? Discuss its types briefly.	[5]	3	1,2
Q.4(b)	Given the bivariate data:	[5]	2,4	3,5

X: 1   5   3   2   1   1   7   3
Y: 6   1   0   0   1   2   1   5

Fit a regression equation of Y on X.

			CO	BL
Q.5(a)	What is a time series? Discuss its components very briefly.	[5]	3	1,2
Q.5(b)	The following are the annual profits in lakhs of rupees, in a certain business:	[5]	2,4	4,5

Year: 2016   2017   2018   2019   2020   2021   2022
Profits: 60   72   75   65   80   85   95

Use the method of least square to fit a trend line to the above data.