6881 – C25 – C – M – 22

THIRD SEMESTER B.COM. (CBCS) DEGREE
EXAMINATION, MARCH/APRIL 2022
BUSINESS STATISTICS – I

Time : 3 Hours] [Max. Marks : 80

Instructions : *1) Simple calculator is **allowed**.*
*2) Graph sheets will be **supplied** on request.*

SECTION – A

I. Answer **any ten** of the following. (10×2=20)

1) a) State any two functions of statistics.

b) Mention the two stages of statistical investigation.

c) Mention the two sources of data.

d) What are the objects of classification ?

e) Define tabulation.

f) Write two dimensional diagrams.

g) Name the graphs used to locate mode.

h) Distinguish between inclusive class and exclusive class.

i) Find geometric mean of 2, 4, 8.

j) Find range and coefficient of range of 70, 60, 75, 90, 65.

k) Define standard deviation.

l) If CV = 22%, SD = 4, find the mean.

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SECTION – B

(3×5=15)

II. Answer **any three** of the following questions.

2) Mention the different parts of a good table. Give the specimen of the table.

3) Prepare a frequency distribution for the following data by taking class intervals as 10 – 20, 20 – 30, 30 – 40 and so on.

33	23	15	29	37	46	25	10	33	42
18	37	18	35	45	59	46	47	37	49
29	35	55	69	54	51	65	45	27	63

4) The mean age of a group of 40 students is 16 years and the mean age of another group of 60 students is 20 years. Find the combined mean age of students.

5) Draw a histogram for the following frequency distribution and hence find mode graphically.

C.I. :	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
f	13	17	15	13	10

6) Calculate standard deviation.

   Marks : 10 20 30 40 50 60 70 80 90

SECTION – C

III. Answer **any three** of the following questions. Question number **11** is case study, should be answered **compulsorily**.   **(3×15=45)**

7) Calculate mean, median and mode for the following data.

Income (in Rs.)	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
No. of persons	16	19	25	15	11	8	6

8) a) Write the difference between diagrams and graphs.
b) Draw less than ogive curve for the following data and hence find median.

C.I. :	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
f	10	20	25	20	10	5

9) Calculate mean deviation from median and also its relative measure.

Marks	less than 10	less than 20	less than 30	less than 40	less than 50
No. of Students	8	16	30	46	10

10) The following is the distribution of I.Q. of 100 children. Find the quartile deviation and the coefficient of quartile deviation.

IQ	less than 80	less than 90	less than 100	less than 110	less than 120	less than 130	less than 140
No. of children	2	16	33	55	77	95	100

11) A and B are owners of two similar industries.
An analysis of the monthly wages paid to the workers in the firms A and B give the following results.

	Firm A	Firm B
No. of workers	900	600
Avg. monthly wages	400	350
SD of wages	20	25

Find :
i) Which firm pays larger wage bill ?
ii) Which firm is consistent in individual wages ?
iii) Give your analysis.

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