

CDOE
MASTER OF BUSINESS ADMINISTRATION (CBCS - 2020 COURSE)
M.B.A. Sem-I : WINTER :- 2021
SUBJECT: STATISTICAL TECHNIQUES

Day : Friday
Date 11/2/2022

W-22911-2021

Time : 10:00 AM-12:00 PM
Max. Marks: 50

N.B.

- 1) Attempt any **THREE** questions from Section I and attempt any **TWO** questions from Section II.
- 2) Both the Sections should be written in the **SAME** answer book.
- 3) Figures to the right indicate full marks
- 4) Use Graph paper if required. Use of **NON-PROGRAMMABLE** calculators is allowed

SECTION- I

- Q.1** The mean of the following frequency distribution was found to be 1.46. **(10)**

Number of accidents	Number of days
0	46
1	?
2	?
3	25
4	10
5	5
Total	200 days

Find the missing frequencies.

- Q.2** Asha, Beena and Chandani are given a problem to solve. The chances that they can solve the problem are $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{1}{4}$ respectively. What is the probability that the problem will be solved? **(10)**

- Q.3** The following table indicates the data on the number of patients visiting a hospital daily for a period of time. **(10)**

Number of patients	0-10	10-20	20-30	30-40	40-50	50-60
Number of days	7	11	16	28	24	14

Compute the median and mode.

- Q.4** A survey is conducted to study the effectiveness of an advertisement by calling people at random by asking the number of advertisements read or seen in a week (X) and the number of items purchased (Y) in that week (10)

X	5	10	4	3	2	7	3	6
Y	10	12	5	2	1	3	4	8

Calculate the Karl Pearson's Coefficient of correlation and comment on the result.

- Q.5** Write short Notes (Any TWO) (10)

- Advantages of sampling
- Scatter diagrams
- Conditional probability
- Coefficient of Variation

SECTION- II

- Q.6** Marks scored by two students in 5 tests are as follows (10)

A	68	71	70	75	76
B	61	92	93	51	48

Find coefficient of variation to conclude

- Who is a better scorer?
- Who is more consistent? Why?

- Q.7** Given the two regression lines, $x - y - 5 = 0$ and $x + y - 4 = 0$ (10)

Find

- Mean for X and Y
- Using regression lines, Predict X when $Y = 50$

Q.8 The weekly wages of workers in a factory is distributed as follows. (10)

Wages (Rs.)	No. of employees
300-350	8
350-400	13
400-450	18
450-500	25
500-550	16
550-600	13
600-650	7

- Draw histogram.
- Determine the modal wage of the workers

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