

CDOE
BACHELOR OF BUSINESS ADMINISTRATION (CBCS- 2018 COURSE)
B.B.A. Sem-II : WINTER :- 2021
SUBJECT: BUSINESS STATISTICS

Day : Thursday
Date 10/2/2022

W-18917-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 70

N.B.:

- 1) Attempt **ANY THREE** questions from Section – I and **ANY TWO** questions from Section – II.
- 2) Answers to both the sections should be written in **SEPARATE** answer book.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Statistical tables will be provided if necessary.
- 5) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Define the term ‘Correlation’. Explain the different types of correlation giving [14]
suitable examples.

Q.2 The following scores represent the final examination grade for an elementary [14]
statistics course:

23	60	79	32	57	47	52	70	82	36
80	77	81	95	41	65	92	85	55	76
52	10	64	75	78	25	80	98	81	67
41	71	83	54	64	72	88	62	74	43
60	78	89	76	57	48	84	90	15	79
34	67	17	82	69	74	63	80	85	61

Using the classes 10 – 20, 20 – 30, 30 – 40:

- a) Set up a frequency distribution.
- b) Construct a cumulative frequency distribution.
- c) Construct a histogram.

Q.3 With a view to study whether the working condition in a factory had any [14]
influence on the frequency of accidents, a researcher collected and tabulated
the accident data as follows:

Working Condition	No. of accidents	
	Less	More
Good	280	80
Bad	120	120

Using Yule’s coefficient find association between number of accidents and the
working condition in the factory. Draw inference from the result.

Q.4 Calculate the mean and median for the following frequency distribution. [14]

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
No. of students	6	5	8	15	7	6	3

Q.5 Write short notes on **ANY TWO** of the following: [14]

- a) Correlation analysis
- b) Theory of attributes
- c) Use of statistics in business analysis

P.T.O.

SECTION – II

Q.6 Given the following data: [14]

x	5	8	12	15	16
y	11	13	20	19	17

- a) Find Spearman coefficient of rank correlation.
- b) Find Karl Pearson's coefficient of correlation.

Q.7 Three machines A, B and C produce respectively 50%, 30% and 20% of the total number of items in a factory. The percentage of defective outputs of these machines are respectively 3%, 4% and 5%. If an item is selected at random, what is the probability that the selected item is defective? [14]

Q.8 From the data given below calculate two regression lines: [14]

x	10	20	30	40	50	60	70
y	20	50	70	80	90	60	40

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