

S.D.E.
B.C.A. (2004 Course Sem- IV : SUMMER - 2019
SUBJECT : COMPUTER ORIENTED STATISTICAL METHODS

Day : Monday
Date : 20/05/2019

Time : 10.00 AM TO 1.00 PM
Max. Marks : 80

S-2019-4976

N.B.:

- 1) Attempt **ANY FIVE** questions from Section – I. Each question carries **10** marks.
- 2) Attempt **ANY TWO** questions from Section – II. Each question carries **15** marks.
- 3) Answer to both the sections should be written in **SAME** Answer book.
- 4) Use of non-programmable **CALCULATOR** is allowed.

SECTION – I

- Q.1** Define ‘Statistics’ and discuss applications of Statistics in various fields.
- Q.2** Describe various types of Statistical data along with their collection methods.
- Q.3** Find Mean, Median and Mode for data given below:

Class	0 – 3	3 – 6	6 – 9	9 – 12	12 – 15
Frequency	20	12	17	16	3

- Q.4** Construct histogram using the following data:

Time slots	0 – 1	1 – 2	2 – 3	3 – 4	4 – 5
Frequency	6	13	9	2	1

- Q.5** Calculate Karl Pearson’s correlation coefficient between students attendance in class and their score.

Average attendance (in %)	60	65	70	75	80	85	90
Score (in %)	39	34	52	57	56	67	69

- Q.6** Obtain the regression equations for the data given below:

X	1	5	3	2	1	1	7
Y	4	6	1	0	0	1	2

- Q.7** Write short notes on **ANY TWO** of the following:

- a) Components of Time Series
- b) Scatter diagrams
- c) Sampling techniques

P.T.O.

SECTION – II

- Q.8** A consignment of 180 articles is classified according to the size of the articles as under. Find the standard deviation and its coefficient.

Measurement	No. of articles	Measurement	No. of articles
More than 90	0	More than 40	110
More than 80	5	More than 30	150
More than 70	14	More than 20	170
More than 60	34	More than 10	176
More than 50	65	More than 0	180

- Q.9** The weekly observations on cost of living index in a certain city for a year has the following frequency table:

Cost of living index	No. of weeks
140 – 150	5
150 – 160	10
160 – 170	20
170 – 180	9
180 – 190	6
190 – 200	2

- a) Construct cumulative frequency table for the above data.
b) Represent the above data by a frequency polygon.
- Q.10** In 1995, out of total 4000 workers in factory, 3300 were members of a trade union. The number of women workers was 500 out of which 400 did not belong to union. In 1994, the number of workers in the union was 3450 out of which 3200 were men. The number of workers who do not belong to the union was 760, of which 330 were women. Present this data in suitable tabular form.

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