

CDOE
BACHELOR OF COMPUTER APPLICATIONS (CBCS-2018 COURSE)
B.C.A. Sem-III : WINTER :- 2021
SUBJECT: STATISTICS

Day : Friday
Date 18-02-2022

W-18999-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 70

N.B.:

- 1) Attempt any **FOUR** questions from Section –I. Each questions carries 10 marks.
- 2) Attempt any **TWO** questions from Section –II. Each questions carries 15 marks.
- 3) Answers to both the sections should be written in **SAME** answer book.
- 4) Use of non-programmable **CALCULATOR** is allowed.
- 5) Use graph paper **WHEREVER** necessary.

SECTION-I

Q.1 Define Statistics. Explain the importance of statistics in brief. **(10)**

Q.2 Draw less than Ogive curve and more than ogive curve for the given data: **(10)**

Classes	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	10	20	42	54	45	18	07

Q.3 Calculate Mean and Median for the following data: **(10)**

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	5	19	36	52	38	25	12

Q.4 For the given data: 25, 45, 56, 67, 78, 112, 120, 144, 156, 178. Calculate Mean Deviation about Mean. **(10)**

Q.5 Calculate Standard deviation for the following data: **(10)**

Age (in years)	10-20	20-30	30-40	40-50	50-60	60-70
No. of Persons	20	65	95	140	15	5

Q.6 Write short notes on any **TWO** of the following: **(10)**

- a) Sources of primary data collection
- b) Spearman's Rank Correlation Coefficient
- c) Limitations of Statistics

P. T. O.

SECTION-II

Q.7 Calculate Karl Pearson's coefficient of correlation for the following data: **(15)**

X	105	104	102	101	100	99	98	96	93	92
Y	101	103	100	98	95	96	104	92	97	94

Q.8 For the data given below: **(15)**

X	6	2	10	4	8
Y	9	11	5	8	7

Find:

- i) Regression equation X on Y
- ii) Regression equation Y on X
- iii) Value of X, when Y = 20

Q.9 Explain various components of time series analysis. **(15)**

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