

UNIVERSITY OF NORTH BENGAL

B.Com. General Part-II Examination, 2021

В.Сом.

PAPER-2G9

BUSINESS STATISTICS

Full Marks: 50

ASSIGNMENT

The figures in the margin indicate full marks. All symbols are of usual significance

Answer any *two* questions

 $25 \times 2 = 50$

10+8+7

1. (a) Find A.M. of the following frequency distribution:

Marks	0 and above	10 and above	20 and above	30 and above	40 and above	50 and above
No. of students	40	37	30	20	7	3

(b) Calculate the median of *x* from the following frequency distribution:

X	100-109	110-119	120-129	130-139	140-149	150-159	160-169
Frequency	69	79	37	19	7	3	2

(c) Find the Standard Deviation of *x* from the following distribution:

x	4.5	14.5	24.5	34.5	44.5	54.5	64.5
f	2	3	5	17	12	7	4

2. (a) Following are the data relating to test-score and sales performance of a group of 12+13 salesmen. Examine how sales performances are correlated with their test scores:

Salesman	Α	В	С	D	Е	F	G	Η	Ι
Test-Score	14	19	24	21	26	22	15	20	19
Sales	31	36	48	37	50	45	33	41	39

(b) Find the Regression equation of *Y* on *X* from the following table:

<i>X</i> :	25	27	29	33	26	32	35	31	36	30
<i>Y</i> :	20	24	24	29	21	26	28	30	29	28

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3. (a) Estimate the trend values using the data given by taking four yearly moving 12+13 average.

Year	Value	Year	Value
1999	12	2006	120
2000	25	2007	85
2001	40	2008	65
2002	55	2009	50
2003	70	2010	35
2004	85	2011	25
2005	100	2012	5

(b) From the following data prove that Fisher's Ideal Index satisfies both Time and Factor Reversal tests:

Commodity	Bas	se Year	Current Year		
Commonly	Price Quantity		Price	Quantity	
А	4	20	6	18	
В	5	15	6	12	
С	2	30	3	30	
D	1	50	1	60	
E	3	25	5	28	

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