

S.D.E.
B.B.A. (2006 Course) Sem- II : WINTER - 2018
SUBJECT : BUSINESS STATISTICS- I

Day : Friday
Date : 30/11/2018

Time 10.00 AM TO 1.00 PM
Max. Marks : 80

W-2018-4448

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) Use of scientific calculator and graph papers is allowed.
- 4) Answers to both the section should be written on **SEPARATE** answer book.

SECTION- I

- Q.1** Define data. What are the types of data and data collection sources? Explain with suitable examples.
- Q.2** The mean and standard deviation of 200 items are found to be 60 and 20 respectively. At the time of calculations, two items were wrongly taken as 3 and 67 instead of 13 and 17. Find the correct mean and standard deviation.
- Q.3** Calculate median and mode for the following frequency distribution;

Classes	130- 134	135- 139	140- 144	145- 149	150- 154	155- 159	160- 164
Frequency	5	15	28	24	17	10	1

- Q.4** Find :
- a) Inter-quartile range
 - b) Semi inter-quartile range
 - c) Coefficient of quartile deviation

Marks	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of students	60	45	120	25	90	80	120	60

- Q.5** What are control charts? Describe different types of control charts with suitable examples.

P.T.O.

- Q.6** a) Define population and sample. Explain with suitable examples.
 b) Explain frequency distribution with proper illustrations.

- Q.7** Write short notes on any two;
 a) Skewness and kurtosis
 b) Importance of business statistics
 c) Applications of index numbers
 d) Causes of variation in quality

SECTION- II

- Q.8** For the following data

Commodities	Year 1970		Year 1980	
	Price	Quantity	Price	Quantity
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

Calculate;

- a) Laspeyre's price index
 b) Paasche's price index
 c) Fisher's price index

- Q.9** Draw histogram, frequency polygon and frequency curve from the data given below;

Age (years)	17-19	19-21	21-23	23-25	25-27	27-29	29-31
No. of students	7	13	24	30	22	15	6

- Q.10** A purchasing agent obtained samples of incandescent lamps from two suppliers. He had the samples tested in his own laboratory for the length of life with the following results:

Length of life (hrs)	Samples from	
	Company A	Company B
700 and under 900	10	3
900 and under 1100	16	42
1100 and under 1300	26	12
1300 and under 1500	8	3

Which company's lamps are more uniform?

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