

Roll No.

Total No. of Pages : 03

Total No. of Questions : 09

BBA(2012 & Onwards Batches) (Sem.-3)

BUSINESS STATISTICS

Subject Code : BBA-304

Paper ID : [C1167]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTIONS-B** consists of **FOUR** Sub-sections : **Units-I, II, III & IV.**
3. Each Sub-section contains **TWO** questions each, carrying **TEN** marks each.
4. Student has to attempt any **ONE** question from each Sub-section.

SECTION-A

1. **Write briefly :**

- 1) Secondary Data.
- 2) Frequency Distribution.
- 3) Properties of Geometric Mean.
- 4) Positive & Negative Correlation.
- 5) Relative Measures of Dispersion.
- 6) Why there are two Regression lines?
- 7) Mutually Exclusive Events.
- 8) Additive Theorem.
- 9) Properties of Regression Coefficients.
- 10) If mode = 13, median = 20, find mean.

SECTION-B

UNIT I

2. Find out actual class intervals if Arithmetic Mean of the following distribution is 33 and assumed mean is 35.

Step deviations (d') :	2	1	0	-1	-2	-3
Frequency (f) :	10	20	30	25	10	5

Also find mode of the series.

3. The scores of two batsmen A & B in ten innings during a series are as under :

A	32	28	47	63	71	39	10	60	96	14
B	19	31	48	53	67	90	10	62	40	80

Which batsman is more consistent?

UNIT II

4. Calculate correlation co-efficient from the following data :

$$N = 10, \sum x = 140, \sum y = 150, \sum (x - 10)^2 = 180, \sum (y - 15)^2 = 215, \sum (x - 10)(y - 15) = 60$$

5. From the following data relating to ages of husbands and ages of wives calculate :
(i) Two regression equations, (ii) Most likely age of wife when husband's age is 25.

Age of Husbands :	22	23	23	24	26	27	28	30	30
Age of wives :	18	20	21	20	21	22	23	24	26

UNIT III

6. Below are given the figures of production of a factory.

Year :	2001	2003	2004	2005	2006	2007	2008
Prod.(in '000 tons) :	770	880	940	850	910	980	900

- Fit a straight line using least squares method and tabulate the trend value.
 - Eliminate the trend. What components of the time series are thus left over?
 - What is the monthly increase in production?
7. Calculate Fisher's Ideal Index No. from the following data. Also show that it satisfies Time Reversal Test and Factor Reversal Test :

Item	2006		2000	
	Price	Value	Price	Value
A	6	72	5	50
B	10	80	7	84
C	12	96	10	80
D	5	30	4	20
E	8	64	8	56

UNIT IV

8. Explain various schools of thought in the Theory of Probability.
9. (a) A card is drawn from a standard pack of cards. What is the probability that it is a king or a queen or a spade card ?
(b) Two dices are thrown thrice. What is the probability of getting a sum of 9,10 and 11 in first, second and third throws?