

Roll No. ....

Subject Code—8156

**B.B.A. (Second Year) EXAMINATION**

(Main/Re-appear Batch 2009 Onwards)

BBA-202

BUSINESS STATISTICS

*Time : 3 Hours*

*Maximum Marks : 70*

**Section A**

**Note :** Attempt any *Seven* questions.  $7 \times 5 = 35$

1. Discuss in brief the limitations of Statistics.
2. Calculate Harmonic mean from the following :  
375, 0.05, 0.5672, 0.0854
3. The sum of 20 observations is 300 and its sum of square is 5,000 and median is 15. Find its coefficient of skewness and coefficient of variation.

4. A bag contains 5 white and 3 black balls. Two balls are drawn at random one after the other without replacement. Find the probability that both balls drawn are black.
5. Define Geometric Mean. Also discuss its utility.
6. Explain the method of stratified random sampling.
7. Explain different types of classification of statistical data.
8. Distinguish between correlation and regression. Also explain the scope of regression analysis in business.
9. Distinguish between dispersion and skewness.
10. What is Normal Distribution ? Discuss in brief its applicability.

### **Section B**

**Note :** Attempt all the questions.

11. Find Quartile deviation from the following data : 12

Wages in Rs. (above)	No. of Workers
10	600
20	580
30	490
40	340
50	240
60	170
70	120
80	70
90	25

*Or*

Explain all the four components of a time series with appropriate examples.

12. Compute Karl Pearson's Coefficient of Correlation from the following data and give your comments on result : 12

X : 10 15 25 20 15 40 50 60

Y : 2.6 5.0 6.8 7.0 5.5 10.2 9.5 12.2

*Or*

Write notes on each of the following, also state their practical utility :

- (i) Geometric Mean
- (ii) Harmonic Mean
- (iii) Rank Correlation
- (iv) Trend Measurement.

13. With the help of the following data, prove that Fisher's ideal index satisfies both the time reversal test and the factor reversal test :

Commodity	Price Values		Price Values	
A	5	50	6	72
B	7	84	10	80
C	10	80	12	96
D	4	20	5	30
E	8	56	8	64

*Or*

Define probability. Discuss the various theorems of probability. Also discuss the Multiplication Law of Probability. 11