

Roll No. 

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Total No. of Pages : 02

Total No. of Questions : 07

**BBA (2011 Batch) (Sem.-3)**  
**BUSINESS STATISTICS**  
Subject Code : BB-304  
Paper ID : [C0216]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and a student has to attempt any FOUR questions.

**SECTION-A**

**1. Write short note on all of following :**

- a) Pie-Chart
- b) Positional Averages
- c) Applications of Geometric mean
- d) Probable Error
- e) Exponential smoothing
- f) Co-efficient of Variation
- g) Spearman's Rank Correlation
- h) Independent events
- i) Assumptions of Binomial distribution
- j) Equally likely events

**SECTION-B**

2. What do you mean by Correlation? Highlight in detail regarding different types of correlation.
3. Determine the value of Mode for following series :

<b>X</b>	<b>10-15</b>	<b>15-20</b>	<b>20-25</b>	<b>25-30</b>	<b>30-35</b>	<b>35-40</b>	<b>40-45</b>	<b>45-50</b>
f	4	8	18	30	20	10	5	2

4. What do you mean by Time Series Analysis? Elaborate the various components of Time Series giving the suitable examples.
5. What do you understand by Index Numbers? Discuss in detail regarding various problems faced in construction of Index Numbers.
6. In a bolt factory, machine A, B and C manufacture 40%, 35% and 25% of the total production respectively. 5%, 4% and 3% of their respective production is found to be defective. A bolt is drawn at random from total production and is found to be defective. What is the probability that it was manufactured by machine A or B or C?
7. Fit a regression line Y on X on following data and estimate the value of Y where X = 80 :

<b>X</b>	<b>60</b>	<b>62</b>	<b>65</b>	<b>70</b>	<b>73</b>	<b>75</b>	<b>71</b>
<b>Y</b>	10	11	13	15	16	19	14