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Total No. of Pages : 02
Total No. of Questions: 07
B.Com. (Sem.-2 ${ }^{\text {nd }}$ )

BUSINESS STATISTICS
Subject Code: BCOP-204
Paper ID : [B1120]
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 students has to attempt any FOUR questions.

## SECTION-A

1. Write briefly :
(a) What is the empirical relation in Mean, Median and Mode?
(b) What is the significance of measure of Dispersion?
(c) Discuss the properties of Correlation.
(d) Name various components of Time Series.
(e) What is Lorenz Curve?
(f) What is Harmonic Mean? What are its features?
(g) Distinguish between Skewness and Kurtosis.
(h) Distinguish between Correlation and Regression.
(i) Distinguish between Primary Data and Secondary Data.
(j) Discuss the Moving average method of Time Series.

## SECTION-B

2. What are the various methods of collecting Primary data? Which of these is most reliable and why?
3. The frequency distribution of weight in grams of mangoes of a given variety is given below. Calculate Arithmetic Mean and Median.

| Weight in grams | $410-419$ | $420-429$ | $430-439$ | $440-449$ | $450-459$ | $460-469$ | $470-479$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of mangoes | 14 | 20 | 42 | 54 | 45 | 18 | 7 |

4. (a) What do you mean by Statistics?! Discuss its Scope.
(b) Calculate the Mean and Standard Deviation for the following data:

| Value | $90-99$ | $80-89$ | $70-79$ | $60-69$ | $50-59$ | $40-49$ | $30-39$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 2 | 12 | 22 | 20 | 14 | 4 | 1 |

5. (a) What is tabulation? Explain the purpose of tabulation. What precautions would you take in tabulating statistical data?
(b) What do you mean by Regression? Discuss the various properties of Regression.
6. Following table gives the Index number of Security prices of joint stock Company pertaining to shares and debentures :

| Share Price Index | 73.2 | 85.8 | 78.9 | 75.8 | 77.2 | 81.2 | 93.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Debenture Price Index | 97.8 | 99.2 | 98.8 | 98.3 | 98.3 | 96.7 | 97.1 |

Find Rank Correlation coefficient.
7. Fit a straight line trend and estimate the trend values for the output of sugar. Also estimate the sugar output for 2009.

| Year | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: | ---: |
| Output (‘000 bags) | 90 | 100 | 104 | 88 | 98 | 106 | 110 |

