Roll No. $\square$
Total No. of Questions : 07
B.Com. (2013 to 2017 Batch) (Sem.-2)

BUSINESS STATISTICS
Subject Code : BCOP-204
Paper ID : [B1120]
Time : 3 Hrs.
Max. Marks : 60

## INSTRUCTIONS 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 have to attempt any FOUR questions.

## SECTION-A

1. Answer briefly :
(a) Define business statistics.
(b) What are limitations of statistics?
(c) What is primary data?
(d) What is central tendency?
(e) What is Median?
(f) What is Lorenz Curve?
(g) What is skewness?
(h) What is Kurtosis?
(i) What is semi average method?
(j) What is method of least square?

## SECTION-B

2. Explain correlation in details.
3. Represent the following data by a histogram :

| Marks | No. of Students | Marks | No. of Students |
| :---: | :---: | :---: | :---: |
| $0-10$ | 8 | $50-60$ | 60 |
| $10-20$ | 12 | $60-70$ | 52 |
| $20-30$ | 22 | $70-80$ | 40 |
| $30-40$ | 35 | $80-90$ | 30 |
| $40-50$ | 40 | $90-100$ | 5 |

4. Calculate the median for the following frequency distribution:

| Marks | No. of Students | Marks | No. of Students |
| :---: | :---: | :---: | :---: |
| $45-50$ | 10 | $20-25$ | 31 |
| $40-45$ | 15 | $15-20$ | 24 |
| $35-40$ | 26 | $10-15$ | 15 |
| $30-35$ | 30 | $5-10$ | 7 |
| $25-30$ | 42 |  |  |

5. From the following table calculate the coefficient of correlation by Karl Pearson method:

| X | 6 | 2 | 10 | 4 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Y | 9 | 11 | $?$ | 8 | 7 |

Arithmetic mean of X and Y series are 6 and 8 respectively.
6. What are the components of time series? Explain measurement of trend in details.
7. Assume a four-yearly cycle and calculate the trend by the method of moving averages from the following data relating to the production of tea in India :

| Year | Production (m.ibs.) | Year | Production (m.ibs.) |
| :---: | :---: | :---: | :---: |
| 2000 | 464 | 2005 | 540 |
| 2001 | 515 | 2006 | 557 |
| 2002 | 518 | 2007 | 571 |
| 2003 | 467 | 2008 | 586 |
| 2004 | 502 | 2009 | 612 |

