LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600034
B.A.DEGREE EXAMINATION - ECONOMICS

SECONDSEMESTER - APRIL 2018
ST 2103- STATISTICAL METHODS FOR ECONOMICS

Date: 28-04-2018
Dept. No. $\square$ Max. : 100 Marks
Time: 01:00-04:00

## SECTION - A

Answer all the questions.
$(10 \times 2=20)$

1. Define Statistics.
2. What are the types of Classification?
3. What are the types of data under the method of data collection?
4. Write the Merits of Sampling Methods.
5. What are the measures of central tendency?
6. Find the Mode and Range for the following data 3,6,7,5,9,6,4,8.
7. Define Correlation.
8. State the properties of the Regression coefficient.
9. What is time series?
10. Define Index Numbers?

## SECTION- B

Answer any five questions.
11. Briefly describe Importance of statistics.
12. Explain in detail methods of collecting Primary data.
13. Differentiate between census method and Sample method in detail.
14. Find the Mean, Median and Mode for the following data.

| Class interval | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 2 | 4 | 5 | 10 | 8 | 4 | 2 |

15. Explain the various measures of dispersion.
16. Calculate Karl Pearson's coefficient of correlation between Age of cars and Maintenance cost

| Age of cars | 2 | 4 | 6 | 7 | 8 | 10 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maintenance cost | 16 | 15 | 18 | 19 | 17 | 21 | 20 |

17. Calculate the coefficient of rank correlation from the following data.

| X | 54 | 98 | 95 | 82 | 75 | 70 | 58 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 47 | 26 | 33 | 37 | 30 | 39 | 41 |

18. Describe the various components of time series.

## SECTION- C

## Answer Any two Questions

( $2 \times 20=40$ )
19. Describe about the various methods of diagrammatic and graphical representation of data.
20. From the following data, find out which share is more stable in its value.

| A | 55 | 54 | 52 | 53 | 56 | 58 | 52 | 50 | 51 | 49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B | 108 | 107 | 105 | 105 | 106 | 107 | 104 | 103 | 104 | 101 |

21. i) Explain in detail Simple Regression.
ii) Describe the uses and limitations of index numbers.
22. Calculate Laspeyre, Paasche And Fisher's Price and Quantity Index Number for the following data:

| Commodity | Quantity |  | Price |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2005 | 2000 | 2005 |
| A | 50 | 50 | 6 | 10 |
| B | 100 | 120 | 2 | 2 |
| C | 60 | 60 | 4 | 6 |
| D | 30 | 25 | 10 | 12 |

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