## B.A. DEGREE EXAMINATION - ECONOMICS

THIRD SEMESTER - APRIL 2017
EC 3502 - QUANTITATIVE TOOLS FOR ECONOMICS

Date: 02-05-2017
Dept. No. $\square$ Max. : 100 Marks

## PART-A (5 x 4 = 20 Marks) <br> Answer any FIVE Questions each in about 75 words

1. What are the functions of statistics?
2. Distinguish between primary and secondary data.
3. State the requisites for a good average.
4. List out the various measures of dispersion.
5. What are the uses of index numbers?
6. Define classification of data; state its different types
7. Explain the uses and limitations of range.

## PART-B (4 x 10 = $\mathbf{4 0}$ Marks) <br> Answer any FOUR Questions each in about 250words

8. Explain the importance of statistics, list out its limitations
9. Define tabulation; List out the essential features of a good frequency table
10. Calculate mean, median and mode from the following data.

| Weight | $: 100-110$ | $110-120$ | $120-130$ | $130-140$ | $140-150$ | $150-160$ | $160-170$ | $170-180$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Frequency : | 4 | 6 | 20 | 32 | 33 | 7 | 8 | 2 |

11. Explain the types of correlation with examples.
12. Briefly explain the four components of time series analysis
13. Diagrammatically illustrate the various types of bar diagrams
14. Find out standard deviation from the following data.

| Age | $: 20-25$ | $25-30$ | $30-35$ | $35-40$ | $40-45$ | $45-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of persons : 170 | 110 | 80 | 45 | 40 | 35 |  |

## PART-C (2 x 20 = 40 Marks)

## Answer any TWO Questions each in about 900 words

15. Discuss the various methods that are used in the collection of primary data and list out their merits and demerits
16. Calculate coefficient of Skewness based on quartiles and median from the following data

Variable : 0-10 $10-20 \quad 20-30 \quad 30-40 \quad 40-50 \quad 50-60 \quad 60-70 \quad 70-80$
$\begin{array}{lllllllll}\text { Frequency: } & 12 & 16 & 26 & 38 & 22 & 15 & 7 & 4\end{array}$
17. From the following data obtain two regression equations

| $\mathbf{X}$ | $:$ | 25 | 28 | 35 | 32 | 31 | 36 | 29 | 38 | 34 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{Y}$ | $:$ | 43 | 46 | 49 | 41 | 36 | 32 | 31 | 30 | 33 |
|  | 39 |  |  |  |  |  |  |  |  |  |

18. Construct Index number for the following data by
i) Fisher's method
ii) Marshall-Edgeworth method

| Commodity | 2007 |  | 2008 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Price | Quantity | Price | Quantity |
| A | 2 | 8 | 4 | 6 |
| B | 5 | 10 | 6 | 5 |
| C | 4 | 14 | 5 | 10 |
| D | 2 | 19 | 2 | 13 |

