THIRD SEMESTER - NOVEMBER 2007
EC 3500-QUANTITATIVE TOOLS FOR ECONOMICS
$\square$

## Part - A

Answer any FIVE questions in about 75 words each.
( $5 \times 4=20$ marks)

1. Define statistics.
2. Write short notes on the following
(a) Normal distribution
(b) Class interval
3. What are the characteristics of an ideal classification?
4. What method would you recommend for the following?
a. Family budget enquiry for the teachers of a college
b. Survey of the socio-economic conditions of the workers in a factory
5. What are the characteristics of a good average?
6. Distinguish between positive and negative correlation with an illustration.
7. What is meant by regression? Give an example.
Part - B

Answer any FOUR questions in about 300 words each. ( $4 \times 10=40$ marks)
8. Discuss the merits and limitations of statistics.
9. Explain the mathematical properties of A.M.
10. From the results of two colleges $A$ and $B$, state which of them is better and why?

| Name of <br> Exam | College A |  | College B |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Appeared | Passed | Appeared | Passed |
| M.A. | 30 | 2 | 100 | 80 |
| M.Com. | 50 | 45 | 120 | 95 |
| B.A. | 200 | 150 | 100 | 70 |
| B.Com. | 120 | 75 | 80 | 50 |
| Total | 400 | 295 | 400 | 295 |

11. Compute the quartile deviation from the following table

| Marks: | $11-15$ | $16-20$ | $21-25$ | $26-30$ | $31-35$ | $36-40$ | $41-45$ | $46-50$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No of <br> Students: | 7 | 10 | 13 | 26 | 35 | 22 | 11 | 5 |

12. From the following data calculate Bowley's coefficient of skewness:

| X: | 6 | 12 | 18 | 24 | 30 | 36 | 42 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| f: | 4 | 7 | 9 | 18 | 15 | 10 | 5 |

13. Discuss the properties of median.
14. Bring out the difference between correlation analysis and regression analysis.
Part - C

Answer any TWO questions in about 900 words each. ( $\mathbf{2} \times 20=40$ marks )
15. Compare the merits and demerits of the various measures of central tendency.
16. Obtain skewness and kurtosis from the following data:

| Height (in inches): | 61 | 64 | 67 | 70 | 73 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| No of students: | 5 | 18 | 42 | 27 | 8 |

17. Obtain the two regression lines from the following data:

| X: | 27 | 27 | 27 | 28 | 28 | 29 | 29 | 29 | 30 | 31 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{Y}:$ | 18 | 18 | 19 | 20 | 21 | 21 | 22 | 23 | 24 | 25 |

18. Analyse the factors which are taken into consideration for the construction of index numbers.
