LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

B.A. DEGREE EXAMINATION – **ECONOMICS**

THIRD SEMESTER – NOVEMBER 2007

EC 3500 - QUANTITATIVE TOOLS FOR ECONOMICS

Date : 27/10/2007 Time : 9:00 - 12:00

Part - A

(5 x 4 = 20 marks)

Answer any FIVE questions in about 75 words each.

- 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

Dept. No.

- 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.

- 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 | Colle | ege A | College B | | |
|---------|----------|--------|-----------|--------|--|
| Exam | 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 | 7 | 10 | 13 | 26 | 35 | 22 | 11 | 5 |
| Students: | | | | | | | | |

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. $(2 \times 20 = 40 \text{ marks})$

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. | Obtai | n the | two | regres | sion | lines | from | the | follov | ving | data | : |
|-----|-------|-------|-----|--------|------|-------|------|-----|--------|------|------|---|
| | | | | | | | | | | | | |

| X: | 27 | 27 | 27 | 28 | 28 | 29 | 29 | 29 | 30 | 31 |
|----|----|----|----|----|----|----|----|----|----|----|
| 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.

AN 6

Max.: 100 Marks

| stration. | | |
|-----------|--|--|
| | | |

 $(4 \times 10 = 40 \text{ marks})$