

**M.A (ECONOMICS)**  
**(MAEC24204T) QUANTITATIVE METHODS II**  
**SEMESTER -II**

**MAX. MARKS:100**

**EXTERNAL:70**

**INTERNAL:30**

**PASS:40%**

**CREDITS:6**

**OBJECTIVES:**

- To understand the methods of central tendency and dispersion.
- To interpret the results drawn on elementary statistics.
- To introduce students to correlation and regression analysis.
- To graphically represent a group of empirical data.

**INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER:**

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions each from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any 10 questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

## **INSTRUCTIONS FOR THE CANDIDATES:**

Candidates are required to attempt any two questions each from the sections A, and B of the question paper, and any ten short answer questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

### **Section - A**

**Unit 1: Measures of Central Tendency:** Mean, Median, Mode

**Unit 2: Dispersion** - Objectives and significance of Good Measures, Measures of Dispersion - Range, Quartile Deviation, Mean Deviation and Standard Deviation (ungrouped data), Co-efficient of variation (CV), Lorenz Curve

**Unit 3: Correlation Analysis:** Karl Pearson's (excluding grouped data) and Spearman's rank formula

**Unit 4: Simple Regression Analysis:** regression meaning, properties, X on Y and Y on X

### **Section - B**

**Unit 5:** Meaning of Hypothesis, Characteristics of Hypothesis, Basic Concepts, Hypothesis Testing Procedures (Steps), Introduction to parametric and non-parametric tests.

**Unit 6:** Sampling distributions of a Statistics- Small Sample test or student-t test and its applications: t-test for single mean, difference of means, Paired t-test

**Unit 7:** Large Sample test: Introduction, Sampling of Attributes- test for Single Proportion, test for difference in proportion and F-test

**Unit 8:** Interpolation and Extrapolation.

### **Suggested Readings:**

- A.M Goon, M.K Gupta and B. Dasgupta, fundamental of statistics Vol-I, World Press Calcutta
- Anderson, D.R.; Sweeney, D.J. and Williams, T.A., "Statistics for Business and

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Economics”, 2<sup>nd</sup> edition (2011), Thompson, New Delhi.

- Gupta SC: Fundamental of statistics, S. Chand & Company. New Delhi
- Gupta, SP: Statistical Methods, S. Chand & Company. New Delhi
- Lehmann, E.L. (1986): Testing Statistical hypotheses (Student Edition).
- Monga, GS: Mathematics and Statistics for Economics, Vikas Publishing House, New Delhi.
- Zacks, S. (1971): Theory of Statistical Inference, John Wiley and Sons. New York.