

ANNEXURE - III

**SCHEME AND SYLLABUS FOR THE POST OF MANDAL PLANNING &
STATISTICAL OFFICER / ASSISTANT STATISTICAL OFFICER IN DIRECTORATE
OF ECONOMIC AND STATISTICS DEPARTMENT**

Scheme of Examination

Written Examination (Objective Type)	No.of Questions	Duration (Minutes)	Maximum Marks
Paper-I: General Studies and General Abilities	150	150	150
Paper-II: Statistics (Common for all) (Degree Level)	150	150	150
Total			300

Name of the Papers	Language Of Examination
PAPER-I: General Studies and General Abilities	Bilingual i.e., English and Telugu
Paper-II: Statistics (Common for all) (Degree Level)	

SYLLABUS

PAPER-I: GENERAL STUDIES AND GENERAL ABILITIES

1. Current Affairs – Regional, National and International
2. International Relations and Events.
3. General Science; India's achievements in Science and Technology
4. Environmental issues and Disaster Management
5. Economy of India and Telangana
6. Geography of India with a focus on Telangana
7. Indian Constitution and Polity with a focus on local self Government
8. Society, Culture, Heritage, Arts and Literature of Telangana
9. Policies of Telangana State
10. History of Modern India with a focus on Indian National Movement
11. History of Telangana with special emphasis on Movement for Telangana Statehood
12. Logical Reasoning, Analytical Ability and Data Interpretation
13. Basic English

Paper-II: STATISTICS
(Common for All) (Degree Level)

I. Introduction to Statistics

Meaning, importance and limitations of statistics - Collection of data - Primary and Secondary data. Sampling (Random, Non Random) - Census - Schedule and questionnaire – Frequency distribution - Tabulation - Diagrammatic and graphic presentation of data.

II. Measures of Central Tendency, Dispersion, Skewness and Kurtosis

Meaning, objectives and characteristics of measures of central tendency - Types of Averages: Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Deciles, Percentiles - Properties of averages and their applications.

Dispersion: Meaning and properties - Types: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation.

Skewness: Meaning - Karl Pearson's and Bowley's Measures of Skewness and Kurtosis.

III. Probability

Random experiment, sample space, event, algebra of events, probability on a discrete sample space, basic theorems of probability and simple examples based on theorems, conditional, probability of an event, independent events, Baye's theorem and its applications.

IV. Concept of Random variable

Discrete and Continuous, Bernouli, Binominal and Poisson distributions, Normal distribution and its applications and uses. Concept of Un biased estimator, consistency, efficiency and sufficiency, large and small sample tests. Concept of null and alternative hypothesis,

V. Correlation and Regression:

Correlation: Meaning and uses - Types of correlation - Karlpearson's correlation coefficient - Spearman's Rank correlation - Probable error.

Regression analysis: Meaning and utility - Comparison between Correlation and Regression - Regression Equations - Interpretation of Regression Coefficient.

VI. Analysis of Time Series and Index Numbers:

Time Series Analysis: Meaning and utility - Components of time series - Measurement of trend and seasonal variations - Utility of decomposition of time series - Decentralization of data.

Index Numbers: Meaning and importance - Methods of construction of index numbers: Price Index Numbers, Quantity Index Numbers - Tests of Adequacy of Index Numbers - Deflating Index Numbers - Cost of living Index Numbers - Limitation of Index Numbers .

VII. SAMPLING TECHNIQUES

Complete enumeration vs. Sampling, estimation of Sample size and Simple, Stratified and Systematic Random Sampling.

VIII. Basics of Computers:

Binary system, Octal and Hexadecimal systems. Conversion to and from Decimal systems. Codes, Bits, Bytes and Words. Memory of a computer, Arithmetic and Logical operations on numbers. Precision. AND, OR, XOR, NOT and Shift/Rotate operators, Algorithms and Flow charts, MS-Office.