Semester	**FIVE**
Course	**Major (Paper 4)**
Paper Code	**C3ST230541P**
Paper Title	Data Analysis - I
No. of Credits	**4**
Theory/Composite/ Practical	**Practical**
Minimum No. of preparatory hours per week a student has to devote	**6**
Number of Module	**ONE**
Syllabus	1. Problems related to methods of Estimation. 2. Construction of optimal tests in practice. 3. Problems on Power curves. 4. Problems related to Likelihood Ratio tests. 5. Construction of sequential tests for industrial problems and study their optimality through the OC curve & ASN functions. 6. Estimation problems in Linear Models. 7. Tests related to ANOVA, Regression, and ANCOVA models. 8. Construction simultaneous confidence intervals. 9. Construction of Price & Quantity Index numbers & interpret them. 10. Computation of income inequality. 11. Fitting of income distributions 12. Construction and interpretation of control charts. 13. Implementation of sampling inspection plans.
Learning Outcomes	o Application of Statistical Inference, o Application of Linear Models, o Application of Economic Statistics o Application of Statistical Quality Control
Reading/Reference List	Same as the relevant theory papers
Evaluation	100 marks. Continuous assessment.