Course: B.A. Programme
Semester: II
Paper: Basic Statistics for Economics
Teacher: Ms Priyambada Gupta

Week	Topic(s)	Teaching Methodology Adopted/ Continuous Internal Evaluation
1	Population and Samples	Interactive lecture
2	Types of Statistics, Sources of Data, Describing Qualitative and Quantitative data	Lectures and real world examples
3	Measures of Central Tendency	Problem Solving
4	Measures of Dispersion	Group solving problems
5	Probability	Practice Questions
6	Estimation of Population Parameters from Sample Data	Classroom discussion
7	Probability Distribution	Lectures
8	Probability Distribution	Practice Questions, Test
9	Covariance and Correlation	Summarizing all formulas
10	Properties of estimators	Interactive lecture
11	Confidence intervals	Graphs and diagrams, classroom discussion
12	Testing of Hypothesis	Interactive lecture , Case Study
13	Testing of Hypothesis	Assignments/Quizzes
14	Power of test	Remedial classes for slow learners
15	Revision	Presentations, MCQ tests, Discussions
16	Revision	Remedial Classes

Course: B.A. Programme
Semester: VI
Paper: Basic Computational Techniques for Data Analysis (SEC)
Teacher: Ms Priyambada Gupta

Week	Topic(s)	Teaching Methodology Adopted/ Continuous Internal Evaluation
1	Introduction to data bases and introduction to Excel Inputting of Data; basic Multiplication, Division and Addition of Data (Relatively and Absolutely); Formatting Cells particularly Decimal points; (vi)	Practical Sessions
2-3	Sorting of Data, Pivot Tables; Use of Line Graph, Column Chart, Histogram, Pie Chart and Scatter Plot.	Practical sessions
4	Measures of Central Tendency	Problem Solving
5	Measures of Dispersion	Group solving problems
6-8	Introduction to calculation of financial formulae: Net Present Value (NPV), Internal Rate of Return, Future Value, Equated Monthly Installment (EMI), Compound Growth Rate	Practice Questions
9-12	Review of the concepts of Correlation and Rank Correlation. Introduction to the method of Ordinary Least Squares (OLS). Testing of hypothesis	Classroom discussion and Practical session
13-15	Revision and Project work	Remedial Classes and project work discussion

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Course: B.A. (Hons.) Economics
Semester: II
Paper: Intermediate Mathematical Methods for Economics
Teacher: Ms Priyambada Gupta

Weeks	Topic(s)	Teaching Methodology
1-2	**Unit-1** Vector and Vector spaces; their operations, scalar product, norm, orthogonality; linear transformations: properties, system of linear equations	Lectures
3-4	Matrix representation and elementary operations; determinants: characterization, properties and applications	Lectures and Problem solving in class
5	Eigenvalues and eigenvectors, diagonalization, spectral theorem.	Lectures and problem set. Remedial discussion for slow learners. Internal Assessment and Continuous Assessment
6-8	**Unit-2** Functions of several real variables: Geometric representation: graphs and level curves; differentiable functions	Lectures on the current topics with discussion on the related topics covered in the previous semester
9	Higher order derivatives: properties and applications; the implicit function theorem	Solving and answering questions in groups for Continuous Assessment
10	Mid- Semester Break	
11	Application to comparative statics; homogeneous and homothetic functions: characterisation, applications.	Lectures and Test
12-13	**Unit-3** Multivariate optimization Convex sets; geometric properties of functions: convex functions, their characterisation, properties and applications; quasi-convex functions,	Lectures
14-16	Unconstrained optimisation: geometric characterisation, characterisation using calculus, applications	Lectures and Test. Problem Solving in class for Continuous Assessment