

OBE based Teaching Lesson Plan 2019-20

Program: BBA (REGULAR)

Course Name: BUSINESS MATHEMATICS & STATISTICS

Course Code: M1 15 AR 104

Semester: I

Lecture hours: 60

Faculty in-charge: Prof Roshny Unnikrishnan

Course Outcome No.	Course Outcomes	T level Indicator
CO1.	Use the basic principles of arithmetic and theories of equation in business decision making	T3
CO2.	Apply the concept of interests, annuities and time value of money in financial decisions	T3
CO3.	Describe statistical data, construct and comprehend diagrammatic and graphic representation of data	T2
CO4.	Choose and interpret measures of central tendencies and dispersion	T3
CO5.	Analyze the underlying trend of time series data and predict future.	T4
CO6.	Examine the relationship between two variables by using Correlation and Regression Analysis	T4

Module No. & Topics Covered	Course Outcome No.	No. of Lecture Hours	Pre-Class Activity	Instructional techniques	Assessment	T level
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<p>Module 1- Theories of Equations</p> <p>Theory of equations: Linear, Quadratic, and Simultaneous - Application of equations in business and commerce.</p>	CO1	10 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems	Class test, Assignments	T3
<p>Module 2- Interest and Annuities</p> <p>Laws of indices and logarithms - Simple interest - Compound Interest - Annuities: Meaning - Types - Present Value and Future Value of annuity - Applied Problems on Perpetuity - Loans - Sinking fund - Endowment fund using Annuity Tables.</p>	CO2	10 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems	Class test, Assignments	T3
<p>Module 3- Introduction to Statistics</p> <p>Meaning and Definition of Statistics - Characteristic of Statistics - Functions, Scope and Limitations of Statistics - Classification and Tabulation of Data - Diagrammatic and Graphic</p>	CO3	8 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems	Class test, Assignments	T2

Representation of Data using Excel.						
Module 4 - Measures of Central Tendency and Dispersion Meaning - Arithmetic Mean - Weighted Mean - Combined Mean - Median - Mode - Empirical Relationship. Dispersion - Meaning - Range - Quartile Deviation - Mean Deviation - Standard deviation and their Coefficients.	CO4	14 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems, Case study analysis	Class test, Assignments	T3
Module 5- Time series Components of time series - Trend analysis by Moving Averages and Least Squares Method (linear).	CO5	6 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems	Class test, Assignments	T4

Module 6 - Correlation and Regression Correlation: Meaning, Karl Pearson's Coefficient of Correlation, Spearman's Correlation Coefficient Regression: Concept, the two Regression Equations.	CO6	12 Hrs	Course material and reference to text book and specific chapter for pre reading	Lecture , Illustrations, Practice problems	Class test, Assignments	T4
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Continuous Internal Assessment –

- Power point presentation in class on the given topic.
- Case study analysis
- Class test

Books for Reference:

- ❖ Goel Ajay and Goel Alka: Mathematics and Statistics.
- ❖ Akhilesh K B and Balasubrahmanyam S: Mathematics and statistics for Management.
- ❖ Dorai Raj: Business Mathematics.
- ❖ Dr. A K Arte & R V Prabhakar: A Textbook of Business Mathematics.
- ❖ Saha: Mathematics for Cost Accountants.
- ❖ Sanchethi & Kapoor: Business Mathematics.
- ❖ Soni: Business Mathematics.

- ❖ Zamirudding Khanna: Business Mathematics.
- ❖ Chikkodi & BG Satya Prasad: Business Statistics, Himalaya Publications.
- ❖ Dr. Asthana: Elements of Statistics, Chaitanya.
- ❖ Dr. B N Gupta: Statistics (Sahitya Bhavan), Agra.
- ❖ Dr. Sancheti & Kapoor: Statistics Theory, Methods and Application.
- ❖ Ellahance: Statistical Methods.
- ❖ S P Gupta: Statistical Methods, Sultan