

Subject Code: 1CM1010422

**Subject Title: FUNDAMENTAL OF BUSINESS
STATISTICS - 4**

Course Objective: To make the students aware about different fundamentals statistical approaches which are applicable in corporate world.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)		
Lecture	Tutorial	Practical	Credit	University Assessment	Institutional Assessment	Total
3	-	-	3	70	30	100

Subject Contents

Sr. No	Topic	Total Hours	Weight (%)
1	Differentiation: Definition of derivative of function $y = f(x)$, Derivatives of some simple functions like $ax + b$, $ax^2 + bx + c$, $1/x$, \sqrt{x} by definition and derivatives of some standard functions like x^n , e^x , a^x , $\log x$ (without proof). Working rules of differentiation (without proof). Sums on the basis of the rules and above referred functions.	9	25%
2	Application of Derivatives: Definition of second order derivative, Maximum and minimum value of a function and its uses in commerce (business), Sums related to Cost, Revenue and Profit. Application of derivative in economics. Demand – Supply and their laws. Price elasticity of demand and supply, Marginal Revenue, Marginal Cost, Average Revenue and examples related to them.	9	25%
3	Integration: Introduction, Definition, Simple Rule of integration, Some Standard results, Integration by Substitution, Integration by Parts, Method of Partial Fraction, Definite integrals and related examples.	9	25%
4	Time Series: Meaning and uses of Time Series, meaning of analysis of time series and its components (Trend, Cyclical Variation, Seasonal Variation, Irregular Variation). Different methods of obtaining trend (Theoretical explanation) Sums of obtaining Trend (by graphical and moving average method only), Seasonal variation and Irregular variation, Seasonal indices and its sums.	9	25%

Reference Books:

1. Business Mathematics, B.S. Shah Prakashan.
2. Kapoor V.K.: Business Mathematics, Sultan Chand & Sons, New Delhi.
3. Sancheti & Kapoor: Business Statistics, Sultan Chand & Sons, New Delhi.
4. Sancheti & Kapoor: Business Mathematics, Sultan Chand & Sons, New Delhi.
5. Mukhopadhyay, P. Mathematical Statistics, New Central Book Agency, Calcutta.
6. Trivedi and Trivedi: Business Mathematics, Pearson India Ltd. New Delhi.