COURSE: B.Com (prog) CBCS, Semester II (sec A)

Paper BC 2.3: BUSINESS MATHEMATICS AND STATISTICS

Theory : 4 Lectures

SUBJECT OBJECTIVES: The objective of this course is to familiarize students with the applications of Mathematics and Statistical techniques in business decision making.

LESSON PLAN (for the year APRIL 2021-AUGUST 2021)

UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (Tools)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
Unit I:Business Mathematics	Differential Calculus: Mathematical functions and their types – linear, quadratic, polynomial; Concepts of limits and continuity of a function; Concept and rules of differentiation; applications of differentiation - elasticity of demand and supply, Maxima and Minima of functions relating to cost, revenue and profit. (c) Basic Mathematics of Finance: Simple and Compound interest (including continuous compounding); Rates of interest- nominal and effective and their inter- relationships; Compounding and discounting of a sum using different types of rates.	*online Lecture with the help of google meet. *used animated v i d e o s a n d presentation for theoretical part * u s e d presentations and numbers to solve practical part.	acquire proficiency in using different mathematical tools (calculus and mathematics of finance) in solving real life business and economic problems.	Evaluation through test

(Unit-wise)

Unit II: Uni- variate Analysis	(a) Measures of Dispersion: absolute and relative- Range, Quartile deviation, Mean deviation, Standard deviation and their coefficients; Properties of Standard deviation/ Variance.	*online Lecture with the help of google meet. *used animated videos and presentation for theoretical part * u s e d presentations and numbers to solve practical part.	develop an understanding of the measures of dispersion to describe statistical data.	Evaluation through test
Unit III: Bi- variate Analysis	(a) Simple and Linear Correlation analysis: Meaning, Measurement (Karl Pearson's co-efficient and Spearman's Rank correlation) and Properties.	*online Lecture with the help of google meet. *used animated v i d e o s a n d presentation for theoretical part * u s e d presentations and numbers to solve practical part.	understand the relationship between two variables through correlation.	Evaluation through test
Unit IV: Index Numbers	Meaning and uses; Construction of index numbers: Aggregatives and average of relatives – simple and weighted; Tests of adequacy of index numbers; Computation and uses of Consumer Price Index (CPI).	*online Lecture with the help of google meet. *used animated v i d e o s a n d presentation for theoretical part * u s e d presentations and numbers to solve practical part.	understand the construction and application of index numbers to real life situations.	Evaluation through test

Unit V: Time Series	Components; additive and multiplicative models; Trend analysis - moving averages and method of least squares (linear trend).	*online Lecture with the help of google meet. *used animated videos and presentation for theoretical part * u s e d presentations and numbers to solve practical part.	understand the trends and tendencies over a period of time through time series analysis.	Evaluation through test
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