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

## Paper BC 2.3: BUSINESS MATHEMATICS AND STATISTICS

## **Theory : 3 Lectures**

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

UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (Tools)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
Unit II: Univariate Analysis	<ul> <li>(a) Measures of Central Tendency: Arithmetic mean, Geometric mean, Harmonic mean- Properties and applications. Median and other Partition values (quartiles, deciles, percentiles), Mode.</li> <li>(b) Measures of Dispersion: absolute and relative- Range, Quartile deviation, Mean deviation, Standard deviation and their coefficients; Properties of Standard deviation/ Variance.</li> </ul>	*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.	develop an understanding of the various averages and measures of dispersion to describe statistical data.	Evaluation through test

## LESSON PLAN (for the year APRIL 2021-AUGUST 2021) (Unit-wise)

Unit III: Bi- variate Analysis	<ul> <li>(a) Simple and Linear</li> <li>Correlation</li> <li>analysis:</li> <li>Meaning,</li> <li>Measurement</li> <li>(Karl Pearson's</li> <li>co-efficient and</li> <li>Spearman's</li> <li>Rank</li> <li>correlation) and</li> <li>Properties.</li> <li>(b) Simple and</li> <li>Linear</li> <li>Regression</li> <li>Analysis:</li> <li>Regression</li> <li>equations and</li> <li>estimation;</li> <li>properties of</li> <li>Regression</li> <li>coefficients;</li> <li>Relationship</li> <li>between</li> <li>correlation and</li> <li>regression.</li> </ul>	*online Lecture with the help of google meet. *used animated v i d e o s an d presentation for theoretical part * u s e d presentations and numbers to solve practical part.	understand the relationship between two variables through correlation and regression.	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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