INTERDISCIPLINARY ELECTIVE - I

QUANTITATIVE TECHNIQUES FOR MANAGEMENT

Course Code	19HS2501C	**Year**	III	**Semester**	I
Course Category	IDE-1	**Branch**	**IT**	**Course Type**	Theory
Credits	0	**L-T-P**	3-0-0	**Prerequisites**	Nil
Continuous Internal Evaluation:	30	**Semester End Evaluation**:	70	**Total Marks:**	100

Course Outcomes	
Upon successful completion of the course, the student will be able to -	
CO1	**Understand** the basic concepts for solutions to business problems (L2)
CO2	**Apply** the analytical techniques in business transactions that would help in making effective business decisions (L3)
CO3	**Analyze** problems in business transactions that would help in making effective business (L4)
CO4	**Apply** the least square technique to find the equation of the curve. (L3)
CO5	**Apply** the various methods to find the deviations and **submit a report (L3)**

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3-High, 2: Medium, 1:Low)														
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1													1	
CO2	3												1	
CO3		3											1	
CO4	3												1	
CO5									2	2			1	

SYLLABUS		
Unit No.	**Contents**	**Mapped CO**
I	**Introduction to Statistics:** Meaning, Definition, Functions, Importance, Limitations of Statistics, Collection of Primary and Secondary Data.	CO1,CO2,CO3
II	**Measures of Central Tendency:** Definition, Objectives, Characteristics and Techniques: Mean Median, Mode, Geometric Mean and Harmonic Mean.	CO1,CO2,CO3
III	**Measures of dispersion**: Definition, Objectives, Characteristics and Techniques: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.	CO1,CO2,CO3,CO5
IV	**Measures of Skewness & Kurtosis**: Definition, types of skewness, types of kurtosis, Karl-Pearson's Co-efficient, Bowley's Co-efficient, Kelly Co-efficient, Calculation of Raw Moments and Central Moments	CO1,CO2,CO3
V	**Curve Fitting:** Method of least squares, straight line, parabola, exponential curve, power curve	CO1,CO4

Learning Resources
Text Books:
1. S.C. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics, 11/e, Sultan Chand & Sons Publications, 2012. 2. Dr.T.K.V. Iyengar, Dr.B.Krishna Gandhi, S. Ranganatham, Dr. M.V.S.S.N. Prasad, "Probability & Statistics", Publications: S.Chand, 4th Revised Edition, 2012.
Reference Books:
1. S. Ross, a First Course in Probability, Pearson Education India, 2002. 2. Miller and Freunds, Probability and Statistics for Engineers,7/e, Pearson, 2008.
e- Resources & other digital material:
1. www.nptelvideos.com/mathematics/(Math Lectures from Mit,Stanford,IIT'S 2. nptel.ac.in/courses/111/106/111106150/ 3. nptel.ac.in/courses/111105035 4. FED Moodle