QUANTITATIVE TECHNIQUES FOR MANAGEMENT

Q = 1									
Course Code	19HS2501A	Year	III	Semester	I				
Course Category:	Inter Disciplinary Elective	Branch	All Branches	Course Type	Theory				
Credits:	3	L-T-P	3 - 0 - 0	<b>Prerequisites:</b>	Nil				
Continuous Evaluation:	30	Semester End Evaluation:	70	Total Marks:	100				

	Course Outcomes									
	Upon successful completion of the course, the student will be able to -									
CO1	1 Understand the basic concepts for solutions to business problems (L2)									
CO2	<b>Apply</b> the analytical techniques in business transactions that would help in making effective business decisions (L3)									
CO3	<b>Analyze</b> problems in business transactions that would help in making effective business (L4)									
CO4	<b>Apply</b> the least square technique to find the equation of the curve. (L3)									
CO5	<b>Determine</b> the equation of the curve from the given data. (L4)									
CO6	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			DO				-		 PO12	PSO1	PSO2
CO1												2	
CO2	3											2	
CO3		3										2	
CO4	3											2	
CO5		3							2	2		2	

SYLLABUS							
Unit No.							
I	<b>Introduction to Statistics:</b> Meaning, Definition, Functions, Importance, Limitations of Statistics, Collection of Primary and Secondary Data.						
II	Measures of Central Tendency: Definition, Objectives, Characteristics and Techniques: Mean Median, Mode, Geometric Mean and Harmonic Mean.						
III	<b>Measures of dispersion</b> :Definition,Objectives, Characteristics and Techniques: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.	CO1, CO2, CO3					
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						

Ī	V	Curve Fitting: Method of least squares, straight line, parabola, exponential	CO1,					
		curve, power curve						
			CO5					

## **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, 4<sup>th</sup> 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