



Quantitative Analysis

Sno	No of hours	No of days	QUANTITATIVE ANALYSIS - CONTENT
1	3	1	Introduction to Statistics of Management
			<i>Why should I take this course and who uses statistics</i>
			<i>Features that makes learning easier</i>
2			Grouping and Displaying data to convey meaning - Tables and Graphs
			<i>How data be arranged using Data Array and Frequency distribution</i>
			<i>Constructing Frequency Distribution</i>
3			Measures of Central Tendency and Dispersion in Frequency Distributions
			<i>A measure of central Tendency - The Arithmetic mean/The weighted mean/The Geometric Mean/The Median/Mode</i>
			<i>Dispersion and its uses, Average Deviation Measures</i>
			<i>Relative Dispersion: The Coefficient of Variation</i>
4	3	1	Probability 1- Introductory Ideas
			<i>Basic Terminology in Probability</i>
			<i>Three types of Probability</i>
			<i>Probabilities under conditions of Statistical Independence and Dependence</i>
5			Probability Distributions
			<i>What is Probability distribution?</i>
			<i>Random variables</i>
			<i>Binomial/Poisson/Normal distribution</i>
			<i>Choosing the correct Probability distribution</i>
6	6	2	Sampling and Sampling Distributions
			<i>Introduction to Sampling/Random Sampling</i>
			<i>Sampling distribution</i>
7			Estimation
			<i>Point Estimates</i>
			<i>Interval Estimates and Confidence Intervals</i>
			<i>Calculating Interval Estimates of the Mean/Proportion from Large Samples</i>
			<i>Interval Estimates using the t Distribution</i>
			<i>Determining the sample size in Estimation</i>
8			Testing Hypotheses - One Sample Tests
			<i>Concepts Basics to the Hypothesis - Testing procedure</i>
			<i>Hypothesis Testing of Means when the Population Standard deviation is Known/Unknown</i>
			<i>Measuring the power of Hypothesis test</i>
			<i>Hypothesis Testing of Proportions - Large Samples</i>
9			Testing Hypotheses - Two Sample Tests
			<i>Hypothesis testing for diff between Means and proportions</i>
			<i>Testes for diff between Means Large/Small sample sizes</i>
			<i>Tests for diff between Means with dependent samples</i>
			<i>Tests for diff between proportions: Large sample sizes</i>

10	3	1	Quality and Quality control
			<i>Total Quality Management</i>
			<i>x /R/p charts</i>
11	3	1	Simple Regression and Correlation
			<i>Estimation using the Regression line</i>
			<i>Correlation Analysis</i>
			<i>Making Inferences about Population parameters</i>
			<i>Using Regression and correlation analyses: Limitations, Errors and Caveats</i>
12			Multiple Regression and Modelling
			<i>Multiple Regression and Correlation Analysis</i>
13			Non parametric Methods
			<i>Introduction to Non parametric Statistics</i>
			<i>The Sign test for paired data</i>
14			Time Series and Forecasting
			<i>Introduction to Time series</i>
			<i>Trend Analysis</i>
			<i>Cyclical/Seasonal/Irregular variation</i>
15			Index numbers
			<i>What is Index number</i>
			<i>Unweighted and weighted Aggregates Index</i>
			<i>Average of relative methods</i>
			<i>Quality and Value Indices</i>
16	3	1	Decision Theory
			<i>Expected Profit under Uncertainty</i>
			<i>Marginal Analysis</i>
			<i>Utility as a Decision Criterion</i>
			<i>Decision Tree Analysis</i>