

Programme Name: PGDM Term: I

Name of the Course: Quantitative Techniques I

Maximum marks: 100 No. of Sessions: 10

Name of the Faculty: Prof. Vibhuti Save

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#### **Learning Objectives:**

- 1. To understand statistical methods
- 2. To study when to use these methods
- 3. To understand how decision making will be efficient using quantitative techniques
- 4. To study QT by using Application software
- 5. To study how to analyse the data & How to predict the result from that analysis

#### **Reference Books:**

- Quantitative techniques in management 4th ed. /by Vohra, N D. New Delhi: TMH, 2010.
- Quantitative techniques for managerial decisions /by Sharma, J K. New Delhi: Macmillan, 2010.
- Quantitative methods in management: Problems & solutions/by Selvaraj, R.- New Delhi: Excel, 2008.
- Quantitative techniques for management /by Jaisankary, S. New Delhi: Excel Books, 2005.



### <u>Plan:</u>

Sessio n No	Topics to be covered	Books referred/ Recommended/ References-Print/Articles/ News/Research papers/ Online database/ Software /Simulations used	Learning outcomes	Evaluation of Students understanding by MCQs, Quiz, Short Test
1	Charts and Graphs & Measures of Central Tendencies for Grouped and Ungrouped Mean, Median and Mode	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.  Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.	How to calculate mean median mode	Problem solving, discussions
2	Measures of Variability and Shape	Quantitative methods in management: Problems & solutions/by Selvaraj, R New Delhi: Excel, 2008.  Quantitative techniques for management /by Jaisankary, S New Delhi: Excel Books, 2005.	Graphical representation of data	Problem solving, discussions



		c Year (2016-2017)		
3	Probability Theory & Application	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.	Decision making	Problem solving, discussions
		Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.		
4	Probability Distribution & Uses (Discrete & Continuous)	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.  Quantitative techniques for managerial decisions /by Sharma, J K New		Problem solving, discussions
		Delhi: Macmillan, 2010.		
5	Sampling Techniques & Sample surveys,	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.	Population parameter	Problem solving, discussions
	Estimation & Testing Of	Demi: 1MH, 2010.		
	Hypotheses	Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.		



	Academic Teal (2010-2017)			1
6	Analyzing Bi-Variate Data & Analysis of variance	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.  Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.	ANOVA Response Variable F ratio	Problem solving, discussions
7	Correlation & Regression Analysis	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.  Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.	Determine whether a linear relationship actually exists	Problem solving, discussions
8	Multiple Regression  Analysis & Model  Building in Regression  analysis	Quantitative methods in management: Problems & solutions/by Selvaraj, R New Delhi: Excel, 2008.  Quantitative techniques for management /by Jaisankary, S New Delhi: Excel Books, 2005.	<ul> <li>Least Square Method</li> <li>Value prediction using Dependent &amp; Independent variables</li> </ul>	Problem solving, discussions



		Ticauciin	c Icai (2010-2017)	
9	Time Series Analysis & Developing Forecasting Models	Quantitative techniques in management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.  Quantitative techniques for managerial decisions /by Sharma, J	How to decompose time series data into their various components & to forecast by using decomposition	Problem solving, discussions
10	Non Parametric Analysis	K New Delhi: Macmillan, 2010.  Quantitative techniques in	techniques  Test significance	Problem solving,
	& Decision Analysis	management 4th ed. /by Vohra, N D. – New Delhi: TMH, 2010.	association between categorical variables	discussions
		Quantitative techniques for managerial decisions /by Sharma, J K New Delhi: Macmillan, 2010.		

### 2. Practical Approach : Other activities (Atleast 4 distinct activities)

Sr. No.	Activity Name	Topic Coverd	Learning outcomes	Source
1	Role Play			
2	Industry Visit			



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3	Academic Projects	Sampling	How to apply population parameter	Case
4	Book Review			
5	Group Discussion			
6	Business Quiz / Business News sharing	Quiz on testing	Which test for what data	
7	Videos / Simulation	Simulation on Decision Making	Decision on available of data	Dummy Data
8	Use of Softwares and Labs	SPSS & Excel	Use of IT in QT	Dummy Data
9	Any other activity			



### **Evaluation:**

### I) Internal:

Component	Details	Marks
Class Test		10
Presentation	Primary data collection and analysis of that data	5
Case Study		3
Participation		2
Others		

**Signature of Faculty** 

Signature of the Co-ordinator