## SARDAR PATEL UNIVERSITY

**Programme: BBA (Information Systems Management)** 

**Semester: II** 

Syllabus with effect from: DECEMBER 2011

Paper Code: UM02CBBS07	Total Credits: 3
Title Of Paper: Quantitative Techniques	

Unit	Description in detail	Weightage (%)
1	linear programming	25 %
	Lpp: Definition meaning assumption limitations users mathematical form	
	terminology (constraints, objective, function, solution, feasible solution)	
	Methods of solving lpp:	
	Graphical	
	Simplex (using only slack variables)	
	(Word problem are omitted)	
2	Transportation and assignment problems	25 %
	t.p. mathematical form	
	Methods for obtaining initial basic feasible solution	
	n.w corner method	
	matrix minima method	
	Vogel's approximations method	
	unbalanced t.p	
	assignment problem mathematical form	
	Hungarian method to solve maximization and minimization problem	
	Unbalanced assignment problem	
3	Theory of games	<b>25 %</b>
	Meaning of the term "GAME"	
	Types of game	
	Value to game	
	Saddle point	
	Game problem of mixed strategy	
	Solution of 2xs and mX2 games using graphical method	
	Solutions of mXn games using dominance rule	
	Limitation of theory of games	<b>0=</b> 0 /
4	Statically quality control	25 %
	Sqc meaning uses	
	Variation in quality	
	Example based on charts for variable (X and r charts)	
	And charts for attributes (P, np and c charts)	
	Difference between variable charts and attribute charts.	
	Difference between p and np charts	
	Note: 20% theory and 80% example	

## **Basic Text & Reference Books:**

- > quantities technique s in manatgemnet et by n.d. vahora the mc graw hill company (3<sup>rd</sup> edition)
- Quantitative techniques by c.r.kothari vikas publications house pvt. Ltd.(3<sup>rd</sup> edition)
- > statistic for management by k.k. sharma

