



**MEASI INSTITUTE OF MANAGEMENT  
CHENNAI-14**  
Approved by All India Council of Technical Education and  
Affiliated to the University of Madras, ISO 9001:2015 Certified Institute

**LESSON PLAN**

<b>Name of the Course</b>	Applied Operations Research	<b>Lecture</b>	3
<b>Type of the Course</b>	Core	<b>Theory</b>	1
<b>Course Code</b>	PMF2H	<b>Practical</b>	0
<b>Semester</b>	II	<b>Seminar</b>	1
<b>Maximum Hours</b>	60	<b>Credits</b>	4

Unit. No.	Details	Teaching type	Level	Method	Hours
<b>Unit I</b>	<b>Introduction:</b> Corporate Finance Origin - Nature, Scope & Characteristics	Understanding	L2	Lecture	4
	Models in Operations Research	Understanding	L2	Lecture	2
	Applications of Operations Research in functional management	Understanding	L2	Lecture	2
<b>Unit II</b>	<b>Linear programming problem model</b> - Formulation	Understanding	L2	Lecture	2
	Maximization & Minimization problem - Graphical method	Understanding	L2	Lecture	5
	Simplex method - Big M method - Artificial Variable	Reflective	L3	Heuristic	4
	Primal & Dual.	Understanding	L2	Lecture	1
<b>Unit III</b>	<b>Transportation Problem:</b> North / West corner Solution - Vogel's approximation method	Reflective	L3	Analytical	4
	MODI method - Degeneracy - Imbalance matrix	Reflective	L3	Heuristic	3
	Assignments model; Hungarian method	Reflective	L3	Analytic	3
	Traveling salesmen problem	Reflective	L3	Analytic	2
<b>Unit IV</b>	<b>Deterministic Inventory models</b> - Purchasing & Manufacturing models - Probabilistic inventory models	Reflective	L3	Analytic	2
	Replacement model	Reflective	L3	Analytic / Heuristic	3
	Sequencing	Reflective	L3	Analytic	3
	Brief Introduction to Queuing models.	Reflective	L3	Analytic	2



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	Networking - Programme Evaluation and Review Technique (PERT) and Critical Path Method (CPM) for Project Scheduling.	Reflective	L3	Analytic / investigating projects	10
<b>Unit V</b>	<b>Game Theory and Strategies</b> - Two person zero sum games	Understanding	L2	Lecture	2
	Mixed Strategies for games without saddle points	Reflective	L3	Analytic	2
	- Graphical	Reflective	L3	Analytic	2
	L.P Solutions	Reflective	L3	Analytic	2
<b>TOTAL HOURS</b>					<b>60</b>

Note:

Teaching Type	Level	Method
Memory level	L1	Drill, Review and Revision and Asking the question
Understanding level	L2	Lecture method, lecture demonstration method, discussion method, inductive and deductive, exemplification and explanation methods
Reflection level	L3	Problem solving method, investigating projects, Heuristic method, Experimental method, Inquiry oriented method, analytic method