

LESSON PLAN

SUBJECT: OPERATIONS RESEARCH

YEAR: 2016-17 (MECH-A)

Period		Date (Tentative)	Topic	Unit No.	Teaching Methodolog y	Remarks
3,4	2	06.12.2016	Introduction to operations research, History, Definition	I	Class Room	
1	3	08.12.2016	OR models, OR Techniques	I	Class Room	
5	4	09.12.2016	Phases of implementing OR in practice	I	Class Room	
3,4	6	13.12.2016	Introduction to linear programming problem formulation	I	Class Room	
1	7	15.12.2016	Introduction to Graphical solution	I	Class Room	
5	8	16.12.2016	Graphical solution formulation	I	Class Room	
3,4	10	20.12.2016	Problems of Graphical solution	I	Class Room	
1	11	22.12.2016	Problems of Graphical solution	I	Class Room	
5	12	23.12.2016	Problems of Graphical solution	I	Class Room	
3,4	14	27.12.2016	Special cases of Graphical solution	I	Class Room	
1	15	27.12.2016	Simplex method formulation			
1	16	30.12.2016	Artificial variables techniques	I	Class Room	
5	17	03.01.2017	Unrestricted variables, Degeneracy	I	Class Room	
3,4	19	05.01.2017	Transportation problem Formulation,	II	Class Room	
1	20	06.01.2017	Optimal solution, Unbalanced transportation problems	II	Class Room	
5	21	10.01.2017	Degeneracy problems	II	Class Room	

3,4	23	17.01.2017	Examples of Transportation problem	II	Class Room	
		19.01.2017 to 23.01.2017	Mid examination-I		Class Room	
1	24	24.01.2017	Introduction to Assignment problems	II	Class Room	
5	25	27.01.2017	Formulation	II	Class Room	
3,4	27	31.01.2017	Problems of Assignment problems	II	Class Room	
1	28	02.02.2017	Traveling salesman problem.	II	Class Room	
5	29	03.02.2017	Introduction to Sequencing	III	Class Room	
3,4	31	07.02.2017	Problems with n jobs and two machines	III	Class Room	
1	32	09.02.2017	Optimal sequence algorithm	III	Class Room	
5	33	10.02.2017	Problems with n jobs and three machines	III	Class Room	
3,4	35	14.02.2017	Problems with n - jobs and m - machines (graphic solution)	III	Class Room	
1	36	16.02.2017	Introduction to queuing theory	III	Class Room	
5	37	17.02.2017	Characteristics of Queuing models	III	Class Room	
3,4	39	21.02.2017	Classification, (M/M/1:(FCFS/ ∞ / ∞))	III	Class Room	
1	40	23.02.2017	(M/M/1:(FCFS/N/ ∞ ,	III	Class Room	
5	41	24.02.2017	(M/M/C:(FCFS/ ∞ / ∞ models.	III	Class Room	
3,4	43	28.02.2017	Excises problems	III	Class Room	
		01.03.2017 to 03.03.2017	Mid examination-II			
3,4	45	07.03.2017	Introduction to Replacement	IV	Class Room	
1	46	09.03.2017	Replacement of items that deteriorate with time	IV	Class Room	

5	47	10.03.2017	Value of money unchanging and changing	IV	Class Room	
3,4	49	14.03.2017	Replacement of items that fail completely	IV	Class Room	
1	50	16.03.2017	Excises problems	IV	Class Room	
5	51	17.03.2017	Introduction to theory of games	IV	Class Room	
3,4	53	21.03.2017	Two-person Zero-sum games, Maximum-Minimax principle	IV	Class Room	
1	54	23.03.2017	Games without saddle points, Mixed Strategies	IV	Class Room	
5	55	24.03.2017	m x 2 & 2 x n games	IV	Class Room	
3,4	57	28.03.2017	Dominance property, Algebraic solutions to rectangular games	IV	Class Room	
1	58	30.03.2017	Introduction to network models	V	Class Room	
5	59	31.03.2017	Project network, CPM and PERT	V	Class Room	
3,4	61	04.04.2017	Critical path scheduling	V	Class Room	
1	62	06.04.2017	Cost considerations in project scheduling	V	Class Room	
5	63	07.04.2017	Excises problems	V	Class Room	
		11.04.2017 to 15.04.2017	Mid examination-III			