

AMBALA COLLEGE OF ENGINEERING AND APPLIED RESEARCH, AMBALA

ELECTRONICS & COMMUNICATION ENGINEERING

Subject : STATISTICS AND OPERATIONAL RESEARCH

Semester : 8th

Subject Code : ECO-15A

Lecture per Week: 3

Theory Marks : 75

Tutorials per Week: 0

Sessional Marks: 25

Practical: 0

LECTURE PLAN

Week	Theory	
	Lecture Day	Topic(including assignment /test)
1 st	1 st	Basics of Operational Research: Origin
	2 nd	Development of Operational Research
	8 th	Definition and Meaning of Operational Research
2 nd	4 th	Different Phases of an Operational Research Study
	5 th	Scope and Limitations of Operational Research
	6 th	Mathematical Modeling of Real Life Problems.
8 th	7 th	Revision
	8 th	Class Test
	9 th	Linear Programming Problem
4 th	10 th	Formulation,
	11 th	Examples on formulation
	12 th	solution by Graphical Method,
5 th	13 th	Examples on Graphical Method
	14 th	Theory of Simplex Method,
	15 th	Simplex Algorithm,
6 th	16 th	Examples on it
	17 th	Two phase Method
	18 th	Examples on it
7 th	19 th	Linear Programming Problem examples
	20 th	Revision
	21 st	Basic Statistics
8 th	22 nd	Measures of Central tendency Mean
	28 th	Different types of mean with examples
	24 th	Different types of mean with examples
9 th	25 th	Median
	26 th	Quartiles
	27 th	Mode

10 th	28 th	Geometric mean & Harmonic mean
	29 th	Measures of dispersion: Range
	30 th	Quartile deviation
11 th	31 st	Mean deviation
	32 nd	standard deviation
	38 th	coefficient of variation
12 th	34 th	Moments
	35 th	Skewness and Kurtosis
	36 th	Correlation, Coefficient of correlation
13 th	37 th	methods of calculations
	38 th	Lines of regression, Rank correlation
	39 th	Test of significance: Basic terminology,
14 th	40 th	large sample test for single proportion,
	41 st	difference of proportions,
	42 nd	single mean, difference of means,
15 th	48 th	Small samples test for single mean,
	44 th	difference of means,
	45 th	Chi-square test for goodness of fit

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