

SYLLABUS

PANJAB UNIVERSITY BCM 605: OPERATIONS RESEARCH

Objective: To understand the concepts and techniques of Operations Research for business decision making and to acquire required skills to solve various problems in OR.

UNIT-I

Operational Research—Meaning, Significance and Scope. Introduction to Linear Programming, Formulation of Linear Programming—Problem, Graphical Method, Simplex Method. Duality in Linear Programming, Definition of Dual Problem, General Rules in Converting any Primal into its Dual, Transportation Problem, Assignment Problem.

UNIT-II

Decision Theory: Decision Making under Uncertainty and Risk, Decision Trees. Replacement Problem (Individual and Group replacement Problems both). Games Theory : Two Persons Zero Sum Games, Pure Strategies, Mixed Strategies. Simulation; Meaning, Process, Advantages, Limitations and Applications.

PRACTICAL WORK

Use of Linear Programming in Industry.