ST.JOSEPH'S COLLEGEFORWOMEN (A), VISAKHAPATNAM

VIII SEMESTER   STATISTICS   TIME: 2Hrs/Week
ST 8251(2)   OPERATIONS RESEARCH IV   Max. Marks: 50
SYLLABUS

Course Objectives:

CO1: To acquire knowledge of scope of Operations Research

CO2: Understand to develop the optimization techniques that will be useful in the personal and professional life

CO3: Can apply Game theory to analyze existing situations wherever there are limited resources, different decision options and different outcomes from different choices.

CO4: To find optimum solution and formulate LPP to solve problems using simplex
methods

CO5: To apply with inventories of various goods with and without shortages to solve real life problems and derive study state solutions of Poisson queues .

Learning Outcomes:

At the End of this Course Students will be able:

LO1: To Formulate the problem in operations research.

LO2: To Establish the relationship between the variables and constraints by constructing the model to analyze existing situations wherever there are limited resources, different decision options, different outcomes from different choices.

LO3: To provide the idea of formulating mathematical model and their optimum solution in the contest of practical problems belonging to Government /Private sectors.

LO4: To Learn the tools like Linear Programming Problems, replacement and operational gamming.

LO5: To Familiar with the queuing and different design and develop inventory models

LO6: To Obtain a firm foundation in advanced OR techniques for the real life problems.

List of Practical

1. Simulation application to queuing problem

2. Simulation application to capita building

3. Graphical solution of Goal Programming problems

4. Extended simplex method problem for Goal Programming

5. Problems on EOQ models