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Course Code: MAT331
Semester: IV

OPERATIONS RESEARCH LABORATORY

Course Objectives:

To help the learners to understand the various techniques available to solve linear, nonlinear, network, inventory and queuing models using R / Python Programme.

1. Graphical solution of LPP
2. Simplex and Big M methods in LPP
3. Two phase LP problems.
4. Dual and primal LP problems.
5. Implementing problems on Sensitivity Analysis.
6. Transportation problems.
7. Exercise problems Assignment problems.
8. Develop and solving problems on Queuing theory.
9. Estimation of Inventory model.
10. Exercise on Replacement theory.
11. Design and solve problems on PERT.
12. Solve problems on CPM.

COURSE LEARNING OUTCOMES

Upon successful completion of this course, the learner will be able to:

- Solve linear programming problem by graphical solution, simplex method and big M method, Two phase LP problems, Dual and primal LP problems.
- Analyze the Sensitivity Analysis.
- Solve the Transportation problems, Assignment problems, Queuing theory
- Solve the Inventory model and Replacement theory, PERT and CPM