PROGRAME NAME: **: B.A. (PROGRAMME)**
COURSE NAME : TRANSPORTATION AND NETWORK FLOW PROBLEMS
SEMESTER DURATION: **JULY TO DECEMBER**

Week	**Topic(s)**	**Teaching Methodology Adopted/ Continous Internal Evaluation**
1	Transportation problem and its mathematical formulation	Lectures
2	Northwest-corner method	Lectures/Discussion
3	Least cost method and Vogel approximation method for determination of starting basic feasible solution	Assignments/Quizzes
4	Algorithm for solving transportation problem	Presentations
5	Assignment problem and its mathematical formulation	Case Study
6	Hungarian method for solving assignment problem	Demonstartion
7	Traveling salesperson problem	Lectures
8	Network models	Discussion/Seminars
9	Minimum spanning tree algorithm	Tutorials
10	Shortest-route problem	Discussion
11	Maximum flow model	Lectures/Practicals

12	Project network representation	Practicals
13	CPM	Case Study
14	PERT	Case Study

Course Objectives: This course aims at providing applications of linear programming to solve real-life problems such as transportation problem, assignment problem, shortest-path problem, minimum spanning tree problem, maximum flow problem and minimum cost flow problem.

Course Learning Outcomes: This course will enable the students to solve:
i) Transportation, Assignment and Traveling salesperson problems.
ii) Network models and various network flow problems.