

Semester Lecture Plan

Name of the college: Government college of Arts Science and Commerce ,Sankhali

Name of Faculty: Deepak Bandiwadekar

Subject: Mathematics

Paper code: MAT 321 Linear Programming Problems

Program/Course: TYBSC

Division:

Academic year: 2025- 2026

Semester: V

Total Lectures: 30

Course Objectives: to understand the concept of optimisation, formulation of L.P.P. graphical & algebraic methods of solving an L.P.P., dual problems, Transportation & assignment problems

Expected course Outcome: students to understand the formulation & solutions of L.P.P. & special cases of Transportation & Assignment problems

Student learning outcome: The student will be able to get a practical idea about real life optimization problems & techniques of solving such examples

Month	Lectures From: To:		No. of lecture s allotted	Topic, Subtopic to be covered	Exercises/ assignment	ICT Tools	Reference books
JUNE/ JULY	23rd	28th	02	Formulation of L.P.P		Chalk & duster	Operations Research by Kanti Swarup Gupat & others
	30th	5th	02	Graphical solution			

	7th	12th	02	Simplex Method : slack variable			
	14th	19th	02	Simplex Method : Artificial variable Big M method			
	21st	26th	02	Simplex Method: Two phase method			
JULY/ AUGUST	28th	2nd	02	Duality			
	4th	9th	02	Dual Simplex Method			
	11th	16th	02	Post optimal analysis			

	18 th	23 rd & 25 th	02	Transportation Problems -IBFS			
SEPTEMBER	2nd	6th	02	Transportation Problems -IBFS			
	8th	13th	02	Transportation Problems- MODI			
	15 th	20th	02	Assignment Problems Hungarian Method			
	22nd	27th	02	Revision			
SEPTEMBER/OCTOBER	29th	4th	02	PRAC. EXAM			
	6th	11th	02	----			

	13th	18 th	02	-----			
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*** Assessment Rubrics**

Component	Max Marks
ISA 1	5
ISA 2	5
ISA 3	--
Practical	25
Semester End Exam	60