

Lecture Plan		
Name of the College: Government College of Arts, Science and Commerce, Sanquelim-Goa		
Name of Faculty: Deepak G Bandiwadekar	Subject: Mathematics	
Paper code: MAT-324	Program: B.Sc.	Division: -
Academic year: 2025-26	Semester: VI	Total Lectures: 45
Course Objectives:		
1. To apply various optimisation techniques for decision making.		
Expected Course Outcome:		
1) Students will be able to understand the concepts of Project management, Game Theory, Inventory & Queueing theory		
Student Learning Outcome: Student will be able to		
1) Determine critical activities of a project & its completion time.		
2) Apply the concepts of Game theory for policy framing		
3) Grasp the Concepts of minimising queue length		
4) Study the maintenance of Inventories & related concepts.		

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
December	01/12/2025	06/12/2025	St. Francis Xaviers Feast 03	Introduction & syllabus sharing Concept of Project, activities, events Network diagram		Chalk & board	Operations Research Kanti Swarup, Gupta & Manmohan S.Chand
	08/12/2025	13/12/2025	03	Critical Path Analysis			
	15/12/2025	20/12/2025	Liberation Day 03	Examples Game theory introduction, two person zero sum game			
	22/12/2025	23/12/2025	02	Minimax -maximin principle,			
January	02/01/2026	03/01/2026	01	Games with Saddle points			
	05/01/2026	10/01/2026	03	Examples, Mix strategies games			
	12/01/2026	17/01/2026	03	Examples continued			
	19/01/2026	24/01/2026	03	Queueing system,			
	26/01/2026	31/01/2026	02 Republic Holiday	Distributions of arrivals etc			
February	02/02/2026	07/02/2026	03	Queueing models, Poisson systems			
	09/02/2026	14/02/2026	03	Model 1 & 2 -Derivation of Formulae			

	16/02/2026	21/02/2026	03	Model 3 & 4, Derivation of Formulae			
	23/02/2026	28/02/2026	03	Examples on Models Types of Inventories, costs & EOQ			
March	02/03/2026	07/03/2026	03 Holi	Deterministic models with shortages & without shortages: Derivation of Formulae			
	09/03/2026	14/03/2026	03	Derivation Continued			
	16/03/2026	21/03/2026	02 Gudi Padva / Id-UI Fitr	Derivation Continued			
	23/03/2026	28/03/2026	03 Ram Navami	Examples			
	30/03/2026	31/03/2026	02	Revision			

**\* Assessment Rubrics**

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
Practical	25
Project	Nil

Semester End Exam	60
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