



Indraprastha College for Women

University of Delhi

Work Plan for ODD SEMESTER – 2026

Course Name:	B.COM (H)
Paper Title:	BUSINESS MATHEMATICS
Unique Paper Code:	2412082301
Semester:	3
Faculty(s):	NEHA ROHRA
Year:	2026

Work Plan			
Period	Unit No.	Learning Objective	Topics to be Covered
	1.	Assess the applicability of matrices as mathematical tools in representing a system of equations	Matrices and Determinants: Overview of Matrices
			Solution of a system of linear equations (having a unique solution and involving not more than three variables) using matrix inversion method
			Solution of a system of linear equations using Cramer's Rule
			Leontief Input Output Model (Open Model Only)
			Leontief Input Output Model (Open Model Only)
	2.	Develop programming for business problems involving constrained optimisation	Linear Programming using Solver Basic problems
			Formulation and Assumptions of LPP

			Solution by Graphical Method: Minimisation Case
			Solution by Graphical Method: Maximisation Case
	3.	Explain mathematical formulation and solution of problems related to finance including different methods of interest calculation, future and present value of money	Mathematics of Finance
			Present values, future values
			Present value of an annuity
			Present value of an annuity
			MID SEMESTER BREAK
			Cumulative interests
			Cumulative principals
			PMT, NPER, IPMT RATE
			Revision
	DISPERSAL OF CLASSES		

Unit TOPICS

I Unit 1: Matrices and Determinants (9 hours)

Overview of Matrices. Solution of a system of linear equations (having a unique solution and involving not more than three variables) using matrix inversion method and Cramer's Rule

Leontief Input Output Model (Open Model Only)

II Unit 4: Linear Programming (9 hours)

Formulation and Assumptions of LPP, Solution by Simplex Method- maximization and minimization cases.

III	Unit 5: Mathematics of Finance (9 hours)
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	Rates of interest: nominal, effective and their inter-relationships in different compounding situations. Compounding a sum using different types of rates. Applications relating to Depreciation of assets and average due date. Types of annuities: ordinary, due.
S. No.	Name of Authors/Books/Publishers
1.	Business Mathematics by J.K. Thukral
2.	Business Mathematics by SK Sharma and Gurmeet Kaur
3.	Business Mathematics by JK Singh
4.	Business Mathematics and Statistics by Ghosh & Sinha