Semester: II
Paper No: 5
Course Code: 2005
Paper: Introduction to Quantitative Techniques
Marks: 100 (Internal 25 + External 75)
Credits: 4
Semester End Examination: 75 Marks
Continuous Internal Evaluation: 25 Marks
Duration of the Exam: 3 hours

Internal Evaluation Criteria:
All modes of internal evaluation should be conveyed to the students in the beginning of the semester.

Criteria	Mode of Evaluation	Marks
Assignment	Assignment score	10
Written test	Paper evaluation	15
	Total	25

Objectives:
The students understands the basic Mathematical concepts and to apply Mathematical concepts in management.

Module	No.	Topics	Contact Hours	Weightage (%)
I	1.	**Determinant and matrices** Simple problems of determinant, crammer's rule of solving equations(two variables only) Addition and multiplication of matrices, inverse matrix, equation solving by using	15	25
II	2	Linear programming Formation of Linear programming, problems and solution of linear problems by graphical method up to two variables.	15	25

III	3	Limit and differentiation Simple problems of limits, definition of derivative, rules derivatives(sum, product, quotient), simple problems (exclude trigonometric functions) application of differentiation in business (average cost, marginal cost, marginal revenue, optimization of profit, maximum minima functions in economics)	15	25
IV	4	**Integration and its business application** finite and infinite integration, producer's and consumer's surplus, (excluding trigonometric function)	15	25
		Total	60	100

Reference Books

1   Business Statistics, Naval Bajpai, Pearson
2   Business Mathematics, ZameeruddinKazi, Vijay Khanna, S K Bhambri, Vikas Publication
3   Business Statistics, J K Sharma, Pearson