

First Terminal Examination

Unit	Topics	Periods	Teaching Methods	Teaching Materials	Evaluation techniques & tools	Remarks
	Algebra ➤ Function ➤ Polynomial ➤ Linear programming	12	Question/ Answer Demonstration Practical	Graph Paper, Wooden Flake	Home Assignments Oral/ Written Exams	
	Matrix ➤ Determinant ➤ Inverse Matrix ➤ Solution of linear Equation ➤ by Matrix Method ➤ Cramer's Rule	10	Basic Introduction Questions Solving Application Method study	Matrix Box	Home Assignments Oral/ Written Exams	
	Trigonometry ➤ Multiple Angles ➤ Sub-multiple Angles	10	Question/ Answer Demonstration, Formula Derivation	A triangular structure, Graph	Home Assignments Oral/ Written Exams	
	Co-ordinate Geometry ➤ Angle between St. Lines ➤ Pair of St. Lines	10	Problem Solving, Question/Answer Practical	Graph Paper, Wooden Flake	Home Assignments Oral/ Written Exams	
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Subject: Opt. I Mathematics

Time: 3:00 hr

Specification grid for First Term Exam

Unit	Topics	1 mark	2 marks	4 marks	5 marks	Weightage
Algebra	Function	1	2	2		13
	Polynomials	1	2	1	1	14
	Linear Programming				1	5
Matrix	Determinant	2	2	1		10
	Inverse Matrix					
	Solution of linear Equation by Matrix Method					
	Cramer's Rule					
Trigonometry	Multiple Angles	2	2	2	1	31
	Sub-multiple Angles	2	1	2		
Co-ordinate Geometry	Angle between St. Lines	1	2	2	1	27
	Pair of St. Lines	1	2	1		
		10	13	11	4	100 marks

Note

1 Mark : Knowledge

2 Marks : Knowledge+ Understanding

4 Marks : Understanding+ Skills+ Application

5 Marks : Higher Ability (Skills+ Application)

Mid-Terminal Examination

Unit	Topics	Per	Teaching Methods	Teaching Materials	Evaluation techniques & tools	Remarks
	Algebra ➤ Sequence and Series ➤ Quadratic Equations and Graphs	18	Question Solving, Research Analysis and Synthesis	Graph	Home Assignments Oral/ Written Exams	
	Trigonometry ➤ Transformation of Trigonometric Functions ➤ Conditional Identities ➤ Trigonometric Equations	17	Question Solving, Research Demonstration Derivations	Right angled triangular structure Graph	Home Assignments Oral/ Written Exams	
	Co-ordinate Geometry ➤ Circle	6	Problem Solving, Practical	Geo-board	Home Assignments Oral/ Written Exams	
	Statistics ➤ Quartile Deviation ➤ Mean Deviation ➤ Standard Deviation	11	Field Visits and Data collections Analysis and Synthesis Problem Solving, Practical	Collection of primary/sec ondary data Government Report Bureau Publications	Home Assignments Oral/ Written Exams	
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Subject: Opt. I Mathematics

Time: 3:00 hr

Specification grid for First Term Exam

Unit	Topics	1 mark	2 marks	4 marks	5 marks	Weightage
Algebra	Function	1	1	1	1	7
	Polynomials	1	1			8
	Linear Programming			1		4
	Sequence and Series	1	1	1	1	12
	Quadratic Equations and Graphs				1	5
Matrix		1	1	1		7
Trigonometry	Multiple Angles	1	1	1		7
	Sub-multiple Angles		1	1		6
	Transformation of Trigonometric Functions	1	1			3
	Conditional Identities		1	1		6
	Trigonometric Equations		1	1		6
Co-ordinate	Angle between St. Lines	1	1	1		7
	Pair of St. Lines	1	1		1	3
Geometry	Circle	1	1			
Statistics	Quartile Deviation		1			11
	Mean Deviation			1		
	Standard Deviation	1		1		
Total		10	13	11	4	100 Marks

Note

1 Mark : Knowledge

2 Marks : Knowledge+ Understanding

4 Marks : Understanding+ Skills+ Application

5 Marks : Higher Ability (Skills+ Application)

Pre-Qualifying Examination

Unit	Topics	Per iods	Teaching Methods	Teaching Materials	Evaluation techniques & tools	Rem arks
	Limit and Continuity	7	Analysis, Demonstrations , Solvings	Graph	Assignments / Exams	
	Trigonometry ➤ Height and Distance	5	Demonstration, Derivations	Right angled triangular structure	Assignments / Exams	
	Vector ➤ Scalar Product ➤ Vector Geometry	18	Demonstration, Practicals Problem Solving, Concept Building	Graph	Home Assignments Oral/ Written Exams	
	Transformation ➤ Combined Transformation ➤ Matrix Transformation ➤ Inversion Circle	15	Practicals, Demonstrations	Graph Paper Wooden Flake Geometric Instruments	Home Assignments Oral/ Written Exams	
	Co-ordinate Geometry ➤ Conic Section	3	Conceptual & demonstrative teaching	Cone, Geometric Instruments	Home Assignments Oral/ Written Exams	
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