CONTENTS

Previ	ious Year Paper–Fully Solved				
• Im	portant Formulae	2–10		Calculus	
	Modern Algebra		1.	Differentiation (Different methods) and Differentiation from First	1
1.	Set Theory, Relation, Mapping and Number System	11–14	2. 3.	Principles Tangents and Normals Maxima and Minima	172–180 181–186 187–194
	Algebra		4.	Function and Limits	195–201
1.	Surds	15–18	5.	Elementary Integration, Integration	
2.	Simultaneous Quadratic Equations	19–22		by Substitution	202-207
3.	Arithmetic Progression	23–28	6.	Integration by Parts	208–213
4.	Geometric Progression	29–34	7.	Integration Continued	214-222
5.	Harmonic Progression	35–38	8.	Definite Integration	223-229
6.	Miscellaneous Series	39–44	9.	Application of Definite Integral	230-233
7.	Binomial Theorem	45–50	10.	Differential Equation	234-236
8.	Logarithm	51–53		-	
9.	Exponential and Logarithmic Series		1	Vector Analysis	
10.	Determinants and Matrices	60–63	1.	Position Vector, Addition, Subtrac-	
11.	Probability	64–67		tion and Products of Vectors	237–245
12.	Partial Fractions	68–70		Dynamics	
13.	Theory of Equations	71–73	1.	Velocity, Acceleration and	
14.	Permutations and Combinations	74–78		Rectilinear Motion	246-258
	Trigonometry		2.	Relative Motion	259-263
1.	Trigonometrical Identities	79–84	3.	Motion Under Gravity	264-272
2.	Trigonometric Equations	85–88	4.	Projectiles	273-285
3.	Relation Between Sides and Angles		5.	Laws of Motion	286-291
٥.	of a Triangle	89–93	6.	Impulse, Work, Power and Energy	292-300
4.	Solution of Triangle	94–99	7.	Collision of Elastic Bodies	301-309
	_		8.	Uses of Laws of Motion (Pulleys)	310–316
5. 6.	Properties of Triangle Heights and Distance	100–106 107–115		Statics	
7.	Inverse Circular Functions	116–122	1.	Composition and Resolution of	
		110-122		Two Forces	317–324
8.	Complex Number and De	100 100	2.	Equilibrium of Three Forces	
	Moivre's Theorem	123–128	2.	Acting on a Particle	325–333
Co-ordinate Geometry			3.	Equilibrium of more than Three	3 2 8 333
1.	Straight Line	129–131	٥.	Forces Acting on a Particle	334–337
2.	Equations Representing two		4.		338–343
	Straight Lines	132-137	5.	Moments and Couples	344–353
3.	Circle	138–147	6.	Equilibrium of Three Forces	5 1 1 COO
4.	Parabola	148–156	•	Acting on by a Rigid body	354–368
5.	Ellipse	157–166	7.	General Conditions of Equilibrium	
6.	Hyperbola	167–171	8.	Centre of Gravity	373–387
			9.	Friction	388–396