CONTENTS

PART I

THE FOUNDATIONS OF THE DIFFERENTIAL CALCULUS

I. NUMBER: INTERVAL: FUNCTION	Ţ
II. LIMITS	11
III. DERIVATIVES	25
IV. PARTICULAR FUNCTIONS	3 8
V. REAL NUMBERS: CONTINUOUS FUNCTIONS	50
PART II	
FUNCTIONS OF ONE VARIABLE	
VI. DIFFERENTIATION	72
VII. REPEATED DIFFERENTIATION	82
VIII. THE MEAN VALUE THEOREM	93
IX. EXTENSIONS OF THE MEAN VALUE THEOREM	108
X. INEQUALITIES	123
XI. MAXIMA AND MINIMA	128
XII. INDETERMINATE FORMS	137
PART III	
FUNCTIONS OF TWO OR MORE VARIABLES	
XIII. PARTIAL DIFFERENTIATION	150
XIV. THE TOTAL DIFFERENTIAL	16
XV. DIFFERENTIAL OPERATORS: TAYLOR'S EXPANSION	18-
XVI. THE SECOND DIFFERENTIAL	19
XVII. MAXIMA AND MINIMA	20
XVIII. RESTRICTED MAXIMA AND MINIMA	21

236
254
264
279
295