

## CONTENTS

	Page
Acknowledgment	iii
Abstract in thai	iv
Abstract in English	v
Chapter 1 Introduction	1
Chapter 2 Preliminaries	3
2.1 Taylor polynomial	3
2.2 Taylor series	3
2.3 Integral equations	4
2.3.1 Volterra integral equations	4
2.3.1 Fredholm integral equations	4
2.4 Leibniz's rule	5
Chapter 3 Main results	6
3.1 Fundamental relations and solution method	6
3.1.1 Matrix representation for the differential part	7
3.1.2 Matrix representation for the integral part	9
3.1.3 Fundamental matrix equation	14
3.1.4 Relations for equations	16
3.1.5 Method of solution	18
3.2 Accuracy of solution	19
3.3 Examples	20
Chapter 4 Conclusions	42
References	43 44
Vita	44 45