# CONTENTS

I  ABBREVIATIONS AND SYMBOLS  vi

II  LIST OF PUBLICATIONS  viii

III  THE PRESENT RESEARCH WORK

**CHAPTER 1:** Introduction to the Title  01

**CHAPTER 2:** Synthesis and Characterization of Polymeric Resins and their Lanthanide(III) Polychelates  31

**CHAPTER 3:** Lanthanide(III) Polychelates as Catalysts for Biginelli Reactions  52

**CHAPTER 4:** Antimicrobial study of Synthesized Resins and their Lanthanide (iii) Polychelates  68

**CHAPTER 5:** Ion exchange study of Lanthanides with Synthesized Resins  83

IV  CERTIFICATES FOR SEMINARS AND CONFERENCES  106

V  FULL TEXT PUBLISHED ARTICLES