

ACKNOWLEDGEMENT

It is a matter of great pleasure to express my deep sense of gratitude to my revered teacher and research guide Dr. Ramesh Tikkar, Reader in Mathematics, Sardar Patel University for his valuable guidance and constant encouragement during the entire course of my research.

I express my gratitude towards Prof. M. D. Patel, Head, Department of Mathematics, Sardar Patel University and former head, Prof. M. H. Vasavada for the help I received throughout this work.

I thank Prof. S. J. Bhatt, Dr. G. M. Deheri, Dr. D. J. Karia and all other staff members of the Department of Mathematics, Sardar Patel University for their kind support during my academic career.

I am grateful to The Director, Inter-University Centre for Astronomy and Astrophysics, Pune, for the facilities given for library reference.

I wish to record thanks to Prof. N. V. Patel, Head, Department of Mathematics, The Faculty of Science, M S University of Baroda for his cooperation during the preparation of this thesis.

I express my sincere thanks to my wife Anit, my parents and sisters for their love and support during the entire period of research work.

Finally, I am grateful to my friend Sabu Chacko and Jayesh Macwan for computer work in the preparation of this thesis.

Vallabh Vidyanagar

Thomas V. O.

April, 1998