Acknowledgement

A Ph.D. thesis is the presentation of serious work done of several years. During this period, I got moral support from many people. So, I like to put on record my deep acknowledgment to the persons who played their part in this research work.

At first, I want to express my sincere gratitude to my esteemed supervisor, Dr. Shyam Kishor, Assistant Professor in the Department of Mathematics and Astronomy, University of Lucknow, Lucknow for his skillful guidance throughout the course of research work. In spite of being engaged in academic and administrative works, he always gave me considerable time and made valuable suggestions. He provided me with a peaceful, cool and friendly atmosphere. Also, his cooperative nature always made me stress-free so that, I was able to work with full concentration. He is such an energetic person that accelerated me to complete this academic venture. It is not possible for me to reflect on words my heartiest gratitude towards him.

I am grateful to Prof. Bhasker Srivastava, Head of Department of Mathematics and Astronomy, University of Lucknow, Lucknow for his support and providing all the necessary facilities during my research work.

I am indebted to Prof. Rajendra Prasad, Prof. Pankaj Mathur, Prof. Poonam Sharma and all the other faculty members of the Department of Mathematics and Astronomy, University of Lucknow, Lucknow, for their support and encouragement during my research work.

My thanks are also due to all faculty members, librarian, staff members of the Department of Mathematics and Astronomy, University of Lucknow, Lucknow, my colleagues and Tagore library for their generous help and kind cooperation.

I would like to thank Dr. Jai Prakash, Mr. Shashikant Pandey, Mr. Puneet Kumar Gupt and Mr. Sushil Kumar for carefully reading some portion of the thesis and providing some important suggestions. To all my friends, thank you for your
suggestions understanding and encouragement in many moments. Further, I thank to all my friends and well wishes for their direct and indirect support during tenure of my work.

I am extremely indebted to my family members especially to my respected and beloved elder sister Alka Singh, who has always encouraged and inspired me to undertake higher studies and to devote myself to intellectual pursuits. I owe my deepest and most affectionate gratitude for her contributions and efforts from the bottom of my heart.

Finally, words are not adequate in my vocabulary to show an indebtedness to my God-like parents, Shri Harendra Singh and Smt. Sheela Singh who encouraged me throughout the span of this work. They are my ideal, who believed in me and always supported me in every decision by encouraging and filling a positive energy that never laid me down.

(ABHISHEK SINGH)
Department of Mathematics & Astronomy
University of Lucknow, Lucknow.

Dated:.................