ACKNOWLEDGEMENT

During the process of my research work many people, directly or indirectly, have helped me. I would like to avail this opportunity to express my gratitude to them. Throughout the course of this research work, I cannot forget the support and encouragement provided by my supervisor Dr. Ajay K. Sharma, presently, Associate Professor, Department of Mathematics, Central University of Jammu (formerly Assistant Professor, School of Mathematics, Shri Mata Vaishno Devi University, Katra). I thank him from the depth of my heart.

I am sincerely thankful to Prof. V. K. Bhat, Dean, Faculty of Sciences, for the academic support provided by him to carry out the research work.

I am thankful to Dr. A.K. Das, Head, School of Mathematics for providing all possible support in the School to carry out the research work.

I am indebted to Dr. Kuldip Raj, Dr. Sandeep Sharma and Dr. Sushil Kumar Mehta who taught me in the pre-Ph.D. course work and I cannot forget the support provided by all other faculty members of School of Mathematics. I am extremely grateful to them.

I am grateful to my parents Mr Tarsem Chand and Mrs Rekha Rani for their motivation and support. They always stood by me whenever I was in distress.

I am also thankful to DST India for their financial support through the Inspire Fellowship wide grant no. DST/INSPIRE Fellowship/2013/281 during the research work.

Further, my brother Sahil Verma, my sister Sumita Verma have been a great source of inspiration for me. They always provided all possible support and guidance. I am highly thankful to all of them.

It is difficult to recognize all those who helped me in one way or other during the course of this research work. On the other hand, I would like to express my sincere thanks to Mrs Elina Subhadarsini, Dr. Sunil Kumar Sharma and Dr. Ambika Bhat for supporting me during the entire period of my research work.

Finally, I am thankful to Prof.(Dr.) D. Mukhopadhyay, Hon’ble Vice-Chancellor, Shri Mata Vaishno Devi University for his kind support for the completion of this thesis.

Ram Krishan