This thesis is the end of my journey in obtaining my Ph.D. It is a great pleasure to express my profound gratitude to all those people who have made this thesis possible by contributed in many ways to the success of this study and made it an unforgettable experience for me.

At this moment of accomplishment, first of all, I would like to thanks Prof. Manju Lata Agarwal (Retd.), Department of Operational Research, University of Delhi, for suggesting Dr. (Mrs.) Preeti Wanti Srivastava as my guide. I am also extremely indebted to my supervisor. Dr. (Mrs.) Preeti Wanti Srivastava, Associate Professor, Department of Operational Research, University of Delhi, without whom this work would not have been existed. She always gives her support, guidance, constructive criticism, encouragement, valuable advice and made corrections and extensive discussions for my work. I gratefully acknowledge her for her understanding, knowledge and personal attention which have provided good and smooth basis for my Ph.D. tenure. She provides necessary infrastructure and resources to accomplish my research work. I am very much thankful to her for picking me up as her student. Under her guidance, I learned a lot. I miss my ideal supervisor as she was always there to put me back on my feet and to show me the good direction.

I take this opportunity to sincerely acknowledge the UGC, New Delhi, for providing financial assistance in the form of Research Fellowship which reinforced me to perform my work comfortably.

I wish to thank all the faculty and staff members of the Department of Operational Research, University of Delhi, for their cooperation, and constant cheer during my research work.
The informal support and encouragement of all my friends specially, Nidhi Jain has been indispensable. She provided me constant support during this work. Special thanks to my family who kindled the encouragement in me to go for this higher academic pursuit.

Last but not least, I would like to thank my parents and siblings for their unwavering love, sincere encouragement, endless patience, and lifting me uphill this phase of life. With their blessings, and encouraging words, I am able to complete this work. I owe everything to them. Besides this, several people have knowingly and unknowingly helped me in the successful completion of this research work.

Neha Mittal