Acknowledgement

I am grateful to Dr Santosh Yadav, mathematician and scientist of repute, for my initiation in this research work. Without his constant encouragement, the work would not have seen light of the day. I am deeply grateful to Dr Bibhu Prasad Sahoo, my research supervisor, who guided me throughout the period of research work. Despite his busy schedule, he always gave me time at the research centre and helped me in analyzing and interpreting the results of the research. I am also thankful to Dr Satish Verma, a great mathematician of high caliber, who provided me with softwares which made my computational work easy and smooth. I am really grateful to Dr Jaswinder Singh, a great agro-economist and Principal of SGTB Khalsa College, for allowing me to work at the college library. He always advised me on various issues of research during my research period. I am also grateful to my two elder brothers who always kept my nerves cool, and constantly encouraged me to produce an excellent research work. I cannot forget the help of the ever assisting staff of the college library. Last but not the least, the research work would not have been completed without the perseverance and immense patience of my parents.

SAKSHI JHAM