ACKNOWLEDGEMENT

Selecting a research topic for doctoral work is always a difficult task. I am grateful to my guide Professor W. Sreehari for suggesting this topic. Without his help and continuous encouragement I could not have completed this work.

I am thankful to Professor H. C. Patel. Ex. Head. Department of Statistics, and Dr. A.M. Parikh, Head. Department of Statistics, for providing all possible facilities to carry out my work in the department, as well as for expressing their concern, from time to time, in the progress of my research work.

I wish to express my deep sense of gratitude for Professor A. G. Phatak who was an excellent teacher and has always been a source of inspiration for me. I thank Professor U.S. Sathe for his valuable suggestions during his visit to M. S. University. I also thank my friend Prashant Kirkire for helpful discussions on several occasions. Thanks are also due to my friend Mayank Ray for designing the title page.

Lastly. I thank all my friends and well-wishers who directly or indirectly helped me in the completion of this work.