ACKNOWLEDGEMENT

I am grateful to my research guide, Professor A. K. Jafri for his invaluable suggestion, constructive criticism, and encouragement throughout the course of this study.

I am also indebted to the Chairman, Department of Zoology for providing the necessary laboratory facilities.

I would like to convey sincere appreciation to Professor M. S. Jairajpuri and Professor Durdana Jairajpuri for their thoughtfulness and constant encouragement.

I am grateful to my teachers Prof. Asif A. Khan, Dr. Shahid Siddiqui, Dr. Iqbal Parvez, Dr. Mukhtar A. Khan, Dr. A. L. Bilgrami, and Dr. S.A. Abidi for useful discussion and generous help.

My gratitude knows no bound when I think of the cooperation, help and moral support extended by Dr. Farhana Kausar.

Thanks are also due to Dr. Khowaja Jamal, Dr. Farooq Anwar and Dr. Niamat Ali, who have always been happy to render any help whenever sought for.

I am indebted to all my friends and colleagues, junior and senior specially Dr. Fauzia Sherwani, Dr. Anjum Nasreen Rizvi, Dr. (Ms.) Ayesha Arif Sultan, Dr. Shabana, Mr. Afzal, Ms Talat, Mr. Syeed Unto, Mr. Imtiaz, Dr. Badar, Ms. Rana Samad, Ms. Bushra, Mr. Farha, Ms. Jabeen, Ms. Shoeba and Ms. Nikhat.

The services rendered by Mr. Naseeruddin, Laboratory Assistant are deeply acknowledged.

Thanks are due to Dr. Nabi Khan and Mr. Ashfaq for their generous help and also to Mr. Nasir for emaculate typing of the thesis.

Finally, what I am and hope to be is due to the benevolence of my parents without whose blessings this effort may have not borne fruits.

Financial assistance rendered by the Indian Council of Agricultural Research and Council for Scientific and Industrial Research, New Delhi is gratefully acknowledged.

NAZURA USMANI