ACKNOWLEDGEMENT

Doing the best at first moment puts you in the best place for the next moment. This thesis was an attempt of doing the best at first moment which has turned into reality by contributions made by many.

At the very onset, I pay my obeisance to “The Almighty God” to empower me with the vision of perception and endurance to bring this task to realization. I thank Him for providing me this opportunity and granting me the strength and courage to keep going against all odds.

I would like to start with the persons who made the biggest difference in my life, my parents. The selfless and understanding attitude of my mother, Smt. Neena Gupta is highly acknowledged for inculcating self confidence and the determination to work hard in me. She has given me not only limits and structure but also space and confidence to step out towards independence. I thank my father Sh. Romesh Chander Gupta, who formed a part of my vision and taught me the good things that really matter. I am very fortunate to have parents like them. They have been there, motivating and inspiring every bit of me towards new possibilities in life. They have been a living role model to me, taking up new challenges every day, tackling them with all their grit and determination and always thriving to come out victorious. It’s their vigor and hunger to perform in adverse situations, which has inspired me to thrive for excellence and nothing less. They made me realize what I had only heard, “When the going gets tough, the tough get going”. I will never find words to tell what I owe to them, and if I start doing it, I would not know where to stop…thanks for everything.

I feel short of words in expressing my thanks to my younger brother, Mr. Paras Gupta for his evergreen blossom of love, care and affection that they extended to me from time to time.

Words prove a meager media to express my feelings for my dearest family members for their endless love, care and support in the due course of completion of this work. Their dedicated and untiring effort towards me has brought me at this stage of my life. Firstly I extend my heartily thanks to the eldest members of my family, my grandparents (Smt. Shanti Devi and late Sh. Ram Charan Bucha) and maternal grandparents (Smt. Kanta Devi and Sh. Narayan Das) for their love, care and blessings. Without their support this work would not have seen the light of the day. I am grateful to each and every member of my family for their valuable prayers.

It is a great privilege for me to work under the guidance of respect worthy supervisor, Dr. Sarbjeet Kour. Words are inadequate to express my appreciativeness to her. It gives me a great pleasure to put on record my deepest gratitude for her constant supervision, affectionate guidance, motherly treatment, sage advice, generous help, persistent encouragement, valuable instructions and untiring efforts in shaping and compilation of present research work.

I affiliate my sincere thanks to Prof. Seema Langer, Head, Department of Zoology, University of Jammu, for her generous attitude and providing me with the laboratory and library facilities.
I owe my gratitude towards Prof. K.K. Sharma, Prof. J.S. Tara, Prof. N.K. Tripathi, Prof. Roopma Gandotra, Dr. Sanjay Bhatia, Dr. Arti Sharma, Dr. Parvindar Kumar and Dr. Rakesh Panjaliya for their valuable suggestions and support during my research work.

I acknowledge the help received from non-teaching staff of Department of Zoology, University of Jammu for providing me necessary help during the course of study.

I sincerely admire all my lab mates namely Neha Antal, Sushma, Riti, Amandeep, Devinder, Kunal, Meenu, Neha, Rashmi, Radhika, Bandhana and Niharika for their prudent advices, constant encouragement, help and support during my research work.

I feel enraptured while placing thanks to bunch of my best friends who cherished, co-operated and encouraged me despite my eccentricities, namely, Payal, Roshi, Riya, Rupali, Sakshi, Raman Jasrotia, Aman, Ayush, Pallu, Nitika and all my cousins. To have such wonderful friends who were always there with a word of encouragement or listening ear made at every step of my research work easier.

I would not have contemplated this road without the best part of my life, my dearest friend and sister, Mrs. Harjeet Kour, whose understanding attitude and constant support made me to realize my self esteem and achieve this goal.

Special thanks to my cutest nephew Mr. Samraj Singh, whose smile relieved all the stress during this journey towards compiling this work.

I feel grateful to place special thanks to DST, INSPIRE programme, for providing financial assistance as Senior Research Fellowship which helped me to perform my work comfortably.

Shiwali Gupta