ACKNOWLEDGEMENTS

Be grateful for whoever comes because
Each has been sent as steer from beyond
We need to beware of what other doing to us,
Applaud their efforts, acknowledge their success,
Encourage in their pursuits. When we all help each other, everybody wins

This thesis is the end of my journey in achieving the degree of my Ph.D. I have not traveled in a vacuum in this journey. This thesis has been kept on track and been seen through to completion with the support and encouragement of numerous people including my well wishers, my friends, colleagues, my family and their belief on me. At the end of my thesis I would like to thank all those people who made it possible and an unforgettable experience for me. I am pleasant to express my thanks to all those who contributed to the success of this study and made it an unforgettable experience for me in many ways.

Firstly, I would like to express my deep respect and thank to the almighty for his grace and blessings and for giving me the strength, will and wisdom to carry out my project successfully.

My earnest thanks are also due towards Prof. Aditya Shastri, Vice Chancellor, Banasthali University for providing the resources and kind permission to undertake the study in this institution.

Mere a few lines or a few pages are quite less to express my deep sense of gratitude to my respected teacher and project supervisor Dr Rakesh Yadav, Associate Professor, Banasthali University for his precious guidance, constant encouragement and affectionate behavior that enabled this thesis to
materialized and contributed to success. It would have been impossible to accomplish this work, without his great guidance. It gives me immense pleasure to have an opportunity to acknowledge him. I feel blessed in getting his kind scientific as well as social guidance in my life.

I express my immense respectful gratitude to Prof. Sarvesh Kumar Paliwal, Head, Department of Pharmacy, Banasthali University, for providing me an opportunity to work and for his kind cooperation and departmental facilities.

I would like to gratefully acknowledge the support of Dr Sampak Samanta and Dr Debasis Nayak, Associate Professor, Indian Institute of Technology (IIT), Indore, for helping me in building up my concepts, valuable suggestions, constant motivations and developing the ethics of my profession. Above all and the most needed, he provided me unflinching encouragement and support in various ways. I am indebted to him more than he knows.

I would like to thank Mrs Bhawana Sati for her valuable suggestion and constant support.

I am highly thankful to non-teaching staff members Mr Ram Avtar, Mr Sanjeev Kumar Jain, Mr Sunil Sharma, Mr Deepak Chauhan, Mr Shyam Bhardwaj, Mr Ramesh, Mr Buddhi and Mr Ganesh for their kind help in all phases of work.

My sincere thanks are due to the scientific staff at Banasthali University, IIT Indore and Panjab University for providing co-operation in the analysis of synthesized compounds.
I cannot even imagine where I would be today were it not for that handful of friends who have given me a heart full of joy. My deepest gratitude I must reserve for Mr Chetan Singh, Miss Seema Kesar and Miss Sneha Singh for their immeasurable understanding and emotional support. I am thankful to them for listening to my complaints and frustrations and believing in me.

My thesis would not have been completed without continuous contribution and support of my lab mates and friends. I wish to extend my special thanks to Babita Chaudhary, Pradeep Malik. My cordial thanks to my seniors, colleagues and juniors Soumen Biswas, Anuradha Dagar, Aastha Shori, Anurag Mishra, Ritudwaj Tiwary, Divya Gumber, Monika Maan and Suman Sharma.

No one can ever thrive in life without the blessings of elder in family. I thank from the core of my heart and convey my humble feelings of respect to my father Sh. Girijesh Mishra and my mother Smt. Geeta Mishra for their restless efforts, selfless sacrifices and prayers in order to fulfill my needs and ambition without which I could never have reached these heights. They are always with me in my dreams and in actions. I am thankful to my parents for always stood by me in my ups and downs.

A deep sense of appreciation to my dearest to my elder brother Mr Sudhish Kumar Mishra and I shall never forget the affection of my beloved brother Mr Manish Mishra. Without their loving support this study would have ever seen the light of the day.
I wish to take this opportunity to express my sincere regards cousins Miss Garima, Mr Ashutosh Mishra, Mr Ravitosh Mishra for the constant moral support they provided throughout my project, they stood by me in all the difficult times and have been a constant source of inspiration in all spheres of life. It is said that accomplish must be created to those who had put up the foundations of the particular core. Here I pay tributes to sister-in-law Mrs Poonam Mishra and my cute niece Tanvi and Arnav for lifting me up till this phase of life.

Finally, I would like to thank everybody who has helped me directly or indirectly for the success of this work. In the end I pay my tribute to the Almighty God who showered his blessings and helped me reach this destination.

Thankful I ever remain.............

Pooja Mishra
DEDICATED TO MY FAMILY

Family is attached by the power of love, understanding, never demanding, forgiveness and patience. How could I ever thank you for the moxie you gave, and for the mettle you imbibe. Your teachings hold the keys of my mystique. I am bonded by the pillars of your morale and ethos. Whenever I fail you bestowed the puissance, the vigor to stand up again with the vehemence. You all are the unsung idols of my life. Everything about me both nature and nurture comes from you all.