Acknowledgement

I wish to place on record my deepest sense of gratitude to my guide Dr. V. S. Jamode, Prof. and Head, Deptt. of Chemistry, Sant Gadge Baba Amravati University, Amravati, without his valuable guidance and influence, I would not have ever been able to contemplate doing my research work. I am indebted to him for his suggestions from time to time and in the preparation of this thesis and found myself fortunate to be benefited by his substantial talent and meticulous supervision during the phase of entire work, besides his multifarious academic activities.

I am immensely thankful to Dr. A. S. Aswar and Dr. D.D. Malkhede, Deptt. of Chemistry, Sant. Gadge Baba Amravati University, Amravati for providing constant inspiration during my research work.

I am very much thankful to an eminent personality of Dr. P. R. Rajput, Principal, Shankaral Khandekar Art, Science and Commerce College, Akola who not only served to boost my moral but also gave a fillip to the successful completion of this work and also to Dr. M.R. Maurya, Dr. V.V. Parhate, Dr. M.L. Narwade, P. G. Deptt. of Chemistry Vidhyabharti college, Amravati for their valuable suggestions and the encouragement during this work.

My sincere thanks are due to Dr. P.P. Deshahate who constantly motivated and encouraged me. I also express my thanks to Dr. S.L. Umak, Dr. S.P. Khadse, Deptt. of Geology, Shri Shivaji Sci. College, Amravati for their whole hearted co-operation, inspiration and suggestions.

I express my profound sense of gratitude to Dr. S.S. Deshmukh, Deptt. of Microbiology, Shri Shivaji Sci. College, Amravati for her valuable suggestion during Antimicrobial study.

I also would like to pay my sincere gratitude to Dr. U.S. Choudhary and Dr. J.A. Tidke, Deptt. of Botany, Sant Gadge Baba Amravati University, Amravati.

I am in short of word to express my indebtedness to Dr. K.N. Wadodakar V.M.V. College, Amravati.

I also express my thanks to Dr. J.M. Gajhiye, Scientist (NCL) and Dr. B. C. Bali, Incharge (NCL) Library Pune and Dr. J. D. Lokhande Deptt. of Chemistry, Pune Univ., Pune for their invaluable help and providing library facility.

I also thankfull to RSIC, Chandigargh for providing spectral data.
I have a pleasure in acknowledging the stimulating inspiration, sincere help and positive criticism from my colleagues and associates Ms. Prajakta N. Deshmukh, Ms. T. M. Bijwe, Mr. A. E. Gawande, Ms. S. D. Jawanjal, Ms. V. B. Badwaik, Ms. V. V. Dhande, Mrs. M. D. Joshi, Ms. J. C. Dadhichi, Mr. M. K. Rangadale and Mr. R. D. Deshmukh.

This strength needing task is made possible due to constant co-operation rendered by Mr. A. H. Suryawanshi, Mr. S. B. Satao, Mr. V. S. Ingale and Mr. Narekar non-teaching staff of Deptt. of Chemistry, Sant Gadge Baba Amravati University, Amravati.

I am grateful to offer special gratitude to Mr. Jadhao, Mr. Surkar, Mr. Bhore and Mr. Varhade staff members of Pro-V. C. Chamber.

Feelings are beyond the range that words can over. This piece of work is a tribute to the affection and blessing of my parents and my grandfather-a divine source of encouragement for me.

Last but not least, my special thanks go to my brother Ajay, sisters Ms. Sonali Mohod, Mrs. Monali & Brother-in-Law Mr. Vinod Gawande and my beloved friend Ms. Veena P. Prabhu for their encouragement, patience and understanding without which I would never have been able to achieve this place.

Finally I confirm my indebtedness to all those who have been in some way or the other moulding this work in present form and wish that these few words would go at least a small way in repaying them.

Jyotsna