Gratitude is not only the greatest of virtues, but the parent of all the others. It makes sense of our past, brings peace for today and creates a vision for tomorrow. It is the inward feeling of the kindness received. Thankfulness is the natural impulse to express that feeling.

On the recollection of the Blessings, I now, with a high sense of gratitude, presume to offer up my sincere salutations to the Almighty, the Creator and Preserver. I dedicate my work to the Almighty, who walked with me throughout my endeavour, gave me courage to overcome the hurdles for the successful completion of my thesis.

I place on record with high gratitude my humble indebtedness to His Holiness Srimad Andavan Swamigal for his benign Blessings.

Rarely does someone get to influence a person's life in a positive way for a lifetime, fostering optimism and confidence, providing knowledge that leads to success, and being a good role model. I place on record my deep sense of gratitude to my erudite supervisor and guide, Dr. P. Brindha, Ph.D., E.I.M.P., Dean Life Sciences, for her assiduous guidance throughout my research period for without her valuable suggestions and guidance my degree would have been only a dream.

With a motherly care, understanding and encouraging she has always been a guiding spirit. Her deep insights and broad knowledge helped me to complete my work in the allocated span of time. Her unflinching guidance and constructive ideas and criticisms channeled my views and thoughts towards higher perspectives.

I am deeply grateful to my doctoral committee member Dr.S.Kalavathy Ph.D., Reader, Dept of Botany, Bishop Heber College, Trichy., for her constructive comments and suggestions, and support throughout my work.

I owe my profound thankfulness to Shri. N. Kasthuri Rangan, Secretary and Correspondent, Srimad Andavan Arts and Science College, Trichy 620 005. for providing all possible infrastructural facilities to carry out my research work.
I am most thankful to Shri. V. S. Narashiman, Former Secretary, Srimad Andavan Arts and Science College, Trichy 620 005 for identifying me and kindling research in my mind. I owe my sincere thanks to him for his constant encouragement and support which we received for the past few years.

I wish to express my warm and sincere thanks to Dr. K. Prema, Ph.D Director, Srimad Andavan Arts and Science College, Trichy 620 005 for her support and encouragement throughout the course of studies.

I owe my profound thankfulness to Dr. D. Siva Subramanian, Principal, Srimad Andavan Arts and Science College, Trichy 620 005, for his constant encouragement and support.

I wish to extend my heartfelt thanks to all my colleagues, Dr. J. Radhika, Dr. G. Jothi, Dr. M. Nivethetha, Dr. B. Saritha, Mr. G. Sridharan, Dr. N. Agnel Arul John, Mr. R. Sivasubramanian, and Mr. S. Sriman, for whom I have great regard, for their friendly enthusiastic support, timely help and encouragement.

I owe my heartfelt thanks to my friends Mr. V. Muthukumar and Mr. K. Athesh for their unflinching support throughout the course of my study.

I also wish to thank Mr. K. Ramesh and Ms. D. Rajeswari, Lab Technicians, Department of Biochemistry, Srimad Andavan Arts and Science College, Trichy 620 005 for their essential assistance and unflinching unprecedented help during my work.

Parents are the first teachers. They guide their children onto the right path shouldering problems sharing joyous moments and putting them on the right track. I owe my gratitude to my ever-loving parents Shri. G. Rangarajan and Shrimathi R. Latha for their constant encouragement which helped me to get through. Their love and affection was the motivating factor behind this mind blowing exercise.

Gratefulness is the key to a happy life. At this juncture I express my gratefulness to my beloved brother Mr. R. Srinivasan for all his unprecedented support and endurance during my tenure of work.
It is a paradoxical but profoundly true and important principle of life that the most likely way to reach a goal is to be aiming not at that goal itself but at some more ambitious goal beyond it. I at this juncture admit that it would have been a herculean task to achieve this goal without the support of all my well wishers. We can always find something to be thankful for, and there may be reasons why we ought to be thankful. Thank You.

R. PARThASARATHy