ACKNOWLEDGEMENTS

I am grateful to the Almighty, the most beneficent and merciful for showering his blessings for the completion of the research work smoothly and pleasantly.

I expressed my deep sense of gratitude and heartfelt admiration to my research supervisor Dr. M. C. Somasekhara Reddy, Professor of Chemistry, Head of the Department of Physical Sciences without whose inspiring guidance, able supervision, kind encouragement and personal care, this research work would not have been completed.

I am very grateful to the All India Council for Technical Education (AICTE), New Delhi for the financial assistance through the F.No.:8017/RDII/MAT/201/March 6, 1998 to establish infrastructure required to carry out the present work.

I am indebted to the Management and Dr. P. Jayarami Reddy, Director without whose initiation, encouragement and support, the research activity would not have started in the erstwhile department of Chemistry and also this dissertation would not have taken the present shape.

I feel it a pleasure to express my gratitude to Dr. B. Sreenivasa Reddy, Principal for permitting to use the infrastructure available in the department.

I take the opportunity to express my gratefulness to Sri. A. Prasad, Laboratory Assistant, Department of Physical Sciences for his consistent support and concern in carrying out the experiments. I am thankful to Sri. A. Devendra Reddy and Sri. P. Hussain, Attenders of erstwhile departments of Chemistry and Physics respectively, for their help during the research work.

I express my gratitude to Sri. N. Sivaprasad Reddy, former Professor & Head and Sri. T. Chandrashekara Reddy, Professor & present Head, Department of Civil Engineering for permitting me to use the infrastructure available in their
department and I am thankful to Sri.K.Sridhar, Programmer, Department of Civil Engineering for his help in scanning the figures. I wish to thank Dr.Y.V.Mohana Reddy, Dean (Student Affairs) and Professor & Head, Department of Mechanical Engineering for providing the vacuum pump for the purification of compounds.

I acknowledge the help of Sri.S.B.Prabhakar, Joint Chief Environmental Engineer and Sri.P.Ramesh Chandra, Senior Scientific Officer, Zonal Office, Andhra Pradesh Pollution Control Board (APPCB), Kurnool in procuring total organic carbon and heavy metals data of the soap nut fruit pericarp material. I express my gratitude to Sri.B.Jayachandra Reddy, Part-Time Research Scholar, Departmrent of Physical Sciences in procuring the spectral data (IR, NMR and Mass) of the soap nut fruit pericarp material.


I express my deep sense of gratitude to my parents for their support and cooperation especially their untiring help in the preparation of soap nut fruit pericarp powder.

My heart felt thanks and affection to my husband Mr. M. A. Qhayyum for his support patience and cooperation extended during this research programme. My love is also due to my sons, Master Muzzammil Zeeshan, Master Muddassir Nauman and my daughter, Aqsa Fathima for their understanding and cooperation who missed my care during my absence.
Finally, I wish to express my gratitude to all my friends & well-wishers who helped me directly or indirectly in completing my research work smoothly and pleasantly.

June 2008

S.M. SARVAR JAHAN