

ACKNOWLEDGEMENT

I take this golden opportunity to express my deep sense of gratitude and thanks to all who have whole heartedly helped me in reaching this stage of submitting Ph.D. thesis. Without their co-operation completion of this work was not possible. It was a great privilege to work under the indispensable guidance of Prof. (Dr.) Pravin C. Patel, Textile Engineering Department, Faculty of Technology and Engineering, The M.S. University of Baroda, for his erudite guidance, kind co-operation, constructive critique, perpetual encouragement, timely advice, arranging for necessary facilities required for the studies and meticulous attention throughout the course of this work. It gives me immense pleasure to express my heartfelt thanks to Dr. M. V. Koranne, Ex-Head, Textile Engineering Department and Dr. T. N. Shaikh, (Off.) Head, Textile Engineering Department for giving me an authoritative support for the progress of my work. I express my heartfelt thanks to Shri D. A. Vasavada, Senior Associate Professor and Dr. H. R. Mankodi, Senior Associate Professor, Textile Engineering Department, for their kind support and guidance for my departmental course work as well as their moral support at all the stages during my research work. I thank all teaching staff members and textile testing laboratory staff of Textile Engineering Department, The M.S. University of Baroda, for extending their kind co-operation one way or the other during my work. My sincere thanks to Dr. Shah, Head-Textile Chemistry Department, Dr. B.H. Patel, Associate Professor of Textile Chemistry Department and Shri Kushal Desai, research scholar, Textile Chemistry Department, The M. S. University of Baroda for their valuable support and guidance during experiments in the laboratory. I owe my thanks to Dr. Nagar and Prof. (Dr.) Sadhna Rajput, Dean, Department of Pharmacy, The M.S. University of Baroda for their valuable co-operation and guidance for sample testing task. I am also thankful to Mr. Surve, lab assistant and Micro Biology laboratory staff for their kind help. My sincere thanks to Shri Lalit Agrawal, owner of Kalpataru Industries, Narol and Shri Ketan Thakkar, owner Balkrishna Textile Industries, Narol for allowing me to utilize the production and testing facilities. I am also very much thankful to all the II staff members of these industries for their kind co-operation. I am thankful to Shri Hitanshu Vora, Tutor, Shri H.L. Computer Center, Ahmedabad for his help graphics and formatting of the thesis. I thank Zydex Industries, Ahmedabad for providing me the required chemicals for my research work. I am highly grateful to medical fraternity, especially surgeons and microbiologists Civil Hospital, Ahmedabad for their kind cooperation. I also thank Shri Jignesh Shah, owner, Mahavir Corporation, Narol, Ahmedabad for providing me yarn and fabric samples as per the requirement. I am thankful to Shri Arpan Kharwa, Ph.D. scholar, Textile Engineering Department for providing fabric samples for my practical work. I am thankful to the Director General NIFT, all the administrative and academic authorities at H.O., Director NIFT Gandhinagar Shri Arindam Das, O.S.D Shri N.B. Vaishnav and my colleagues at NIFT Gandhinagar specially Shri Mahesh Shaw, Assistant Professor and Ms. Ettishri Rajput-Course Coordinator B.F.Tech. I am especially thankful to Shri Parag Adalja-Research Assistant, Shri Imran Ali Mansuri -Junior Assistant, Shri Sanjeev Jain-Research Assistant, Resource Centre, Shri Abdul Samad, Multi-Tasking Staff and all the Staff Members who have directly or indirectly helped me in my work. Last but not the least; I am thankful to my family for the kind cooperation throughout the period of my study.