ACKNOWLEDGEMENT

As the compilation of my unidirectional dream depicting my doctoral work completes its arduous journey from wish to fulfillment, a realization ensues that this upward climb towards the goal has been exciting, adventurous and at times challenging but the gracious acts of many people made it enjoyable and fruitful.

First of all, It fills me with great joy in expressing my gratitude to my supervisor Dr. Jatinder Kaur, Department of Botanical and Environmental Sciences, Guru Nanak Dev University, Amritsar, whose able guidance, creative thoughts and positive criticism had made this work a possibility. She had taken great pains starting from the initial planning of my research work right up to the drafting and correction of the thesis. She helped to widen the horizon of my knowledge and inculcated the spirit of patience and dedication.

Thanks are due to Dr. Palwinder Singh, Department of Chemistry, Guru Nanak Dev University, Amritsar for carrying out the chemical characterization of synthetic food dyes.

I pay my heartfelt thanks to Dr. Satwinderjeet Kaur, The Head, and Dr. Adarsh Pal Vig, former Head, Department of Botanical and Environmental Sciences, their constructive and valuable suggestion. My heartfelt thanks to Prof. A.K. Thukral, Prof. Avinash Nagpal, Prof. Renu Bhardwaj, Dr. Amarjeet Singh Soodan, Dr. Saroj Arora, Dr. Rajinder Kaur, Dr. Manpreet Singh Bhatti, and Er. Bhupinder Pal Singh for their constructive and insightful suggestions.

Financial assistance from Rajiv Gandhi National Fellowship (UGC) is also duly acknowledged.

I express my special thanks to Robin, Navdeep Singh, Saraswati Saini for their time to
time help. I greatly acknowledge the wholehearted co-operation of all my classmates, research fellows and lab-mates for their support. I want to express my special thanks to my friends Ashun Chaudhary, Ashita Sharma, Manish Kumar, Mandeep Kaur, Shakoor, Vaneet Kumar, Nisha Lakha, Rajwant Kaur, Simerpreet Sehgal and Jagdeep Kaur.

I also thank all the members of non-teaching Staff of Department of Botanical and Environmental Sciences, Guru Nanak Dev University, Amritsar for their cooperation.

I fall short of words to describe the depth of gratitude towards my parents, elder brothers, Er. Tajinder Singh and Dr. Manjinder Singh, my bhabhis, Mrs. Pawanbir Kaur and Mrs. Kalwinder Kaur to provide me great mental support during tough times.

How could I forget to thank my little angel Gurshabad Singh (my Babbu) for his innocent love and to make me relax during my stress periods.

Last but not the least, I would like to thank S. Kashmir Singh for his support and cooperation during the completion of my thesis.

At the end I would like to thank those I would not mention in acknowledgment but without their efforts I could not complete my Degree.

THANK YOU ALL!!

Maninder Kaur