PREFACE

I have much pleasure in expressing my deepest sense of gratitude to my supervisor Dr. Palash Mandal, Assistant Professor, Department of Botany, University of North Bengal and my co-supervisor Dr. Amitava Ghosh, Assistant Professor, Department of Botany, Asutosh College, Kolkata for their inspiration, encouragement and guidance throughout the execution of this research work. I would also like to express my sincere gratefulness to Dr. Phalguni Bhattacharyya, Head of the Department of Botany, Malda College for her kind permission to work in their laboratory.

I am grateful to Prof. A. P. Das and Dr. M. Chowdhury Department of Botany, University of North Bengal for providing various laboratory facilities, his ungrudging help and advice throughout the endeavour.

I am also indebted to Prof. A. Sen Head of the Department, Prof. P. K, Sarkar, Prof. B. N. Chakraborty, Prof. U. Chakraborty, Prof. A. Saha and Dr. S. C. Roy of Department of Botany, University of North Bengal for their valuable advice and encouragement throughout the course of the work.

I am also thankful to the Principle of the Asutosh College, Kolkata and also the Chairman, West Bengal College Service Commission, Dr. Dipak Kumar Kar for his kind permission to work in the laboratory of the Department of Botany under supervision of Dr. Amitava Ghosh as a research Scholar in UGC major project. Special thanks are due to University Grants Commission (UGC) for the financial support as Project fellow in a Major research project on Mulberry peptide (s) and Junior and Senior Research Fellowship under BSR scheme to carry out this piece of work.

I am also grateful to Dr. Sujoy Dasgupta and Mr. Swaroop Biswas of Bose Institute and also Nanotechnology centre, University of Calcutta for instrumentation support. I am also thankful to P. D. Gupta, Scientist-C, Silk conditioning and testing house, Central Silk Technological Research Institute, Central Silk Board, Malda, West Bengal for technical support. I am also grateful to Mr. Manash Bhowmik, office in charge of sericulture farm, Matigara, Siliguri and also thanks to office in charge of sericulture farm, Malda West Bengal for continuous supplying different Mulberry cultivars and silkworm race.

I further express my thanks to my laboratory members Dr. Mitali Ghosal, Mr. Saran Kumar Gupta, Ms. Sumira Mukhia, Ms. Arunika Subba, Mr. Sujoy Sen, Mr. Priyankar Roy, Mr. Dipayan Das and Satyajit Sarker.

I take this opportunity to express my heartfelt gratitude and respect to my beloved parents Shri. Pratip Kumar Jha and Smt. Lipika Jha. I am also grateful to all other family members for their endless inspiration, encouragement and affection throughout the endeavour. I am also indebted for all the valuable prayer and support of my near and dear ones who were there for me always.

Above all, I do thank almighty God for giving me strength, knowledge, patience, good health and guiding me towards goodness.