ACKNOWLEDGEMENT

The researcher has availed an opportunity to complete the investigations presented in this thesis. During the period of her research work, she has consulted the contribution of various learned authors engaged in the research work on Fluid Mechanics. The researcher has used their contributions for the investigations presented in the thesis and used their books, monographs or research papers published in National / International Journals. Therefore, the researcher feels indebtedness to all of them.

The researcher owes a deep debt of gratitude to Dr. Atul Kumar Singh, M. Sc. (Maths.), Ph. D. (Maths.), D. Sc. (Maths.), Associate Professor and Head, Department of Mathematics, V. S. S. D. College, Kanpur-208002, under whose able guidance and supervision this work has been completed. His valuable guidance and supervision in the preparation of this thesis is praiseworthy. His sympathetic attitude has always been a source of inspiration to the researcher. The researcher has no words to express her deep sense of gratitude to Dr. Singh and will ever remain indebted.

The researcher submits her deepest regards to Dr. D. V. Sardesai, Principal, V. S. S. D. College, Kanpur-208002 to provide opportunity for availability of books and journals in the college library. She is equally thankful to the members of the Department of Mathematics, V. S. S. D. College, Kanpur-
208002, whose comments and enlightened discussions helped her during the period of research work. The librarians of I. I. T., Kanpur and C. S. J. M. University, Kanpur deserve thanks for their cooperation in providing all necessary facilities and guidance for locating the suitable reference books and Journals on the subject during the period of research work.

The researcher owes a deep debt of gratitude to Prof. N. P. Singh, M. Sc. (Maths.), M. A. (Econ.), M. Com., M. Ed., Ph. D. (Econ.), Ph. D. (Maths.), D. Sc. (Maths), M. N. A. Sc., (at present working as Director, Rama Institute of Engineering and Technology, Mandhana, Kanpur-209217) Ex-Reader and Head, Department of Mathematics, C. L. Jain (P.G.) College, Firozabad-283203, for comments and suggestions during the period of research work. His sympathetic attitude in the preparation of this work has always been a source of inspiration to the researcher. Without his effective and sincere guidance, this work would not have seen the light of the day.

The researcher shall remain indebted to her father Late Sri Bhuvnesh Bhusan Agnihotri an ideal person with jolly nature, to whom this thesis is dedicated, for his sustained interest in my thesis work and constant encouragement throughout the period of research work. The sweet memories of interactions with him during my study period have gone a long way to charge me in my present endeavor. The researcher shall fail in her duty if she does not express, at this juncture of thesis submission, her sense of gratitude and deep respect for the inspiration, which has provided the necessary momentum to the researcher in achieving this golden day. The researcher is also indebted to her mother Smt. Vineeta Devi for her calm and sincere cooperation throughout the
student life including research period. The researcher is also thankful to her brother Mr. Pankaj Agnihotri, In laws and husband, relatives and all family members for their blessings.

The researcher feels her moral duty to thank Dr. Ajay Kumar Singh, M. Sc. (Maths.), M. A. (Socio.), M. Ed., Ph. D. (Maths.), Ph. D. (Socio.), Ph. D. (Education), Senior Research Scholar, Department of Mathematics, C. L. Jain College, Firozabad-283203 and at present Principal, Shri Gopinath Inter College, Firozabad-283203, who helped her not only through his valuable comments and scholarly help during the period of research work but also helped in providing computational help for figures and tables. The researcher feels indebtedness for his sympathetic attitude.

The researcher is also thankful to her research colleagues, Dr. Arvind Kumar, Dr. Ashish Kumar, Mr. Akhilesh Kumar, Mr. Pawan Kumar Sharma, Mr. Dalvir Singh and Smt. Seema Raghav for their cooperation in various ways during the period of the research work.

At last but not the least, the researcher is grateful to all those who have directly or indirectly helped her during the period of this research work.

Permanent Address:
D/o Shri B. B. Agnihotri,
276 / C-1, Indra Nagar,
Kalyanpur, Kanpur,
Pin – 208 026 (UP)
Mobile: 9336101702

(Pratibha Agnihotri)
Research Scholar
Department of Mathematics,
V. S. S. D. College,
Kanpur-208002 (UP)
Mobile: 9936336070, 9935623812