PREFACE

The present thesis entitled "On Fixed Point Theorems for Mappings in Various Spaces" embodies the results of researches carried out by me at the Department of Mathematics, Maharshi Dayanand University, Rohtak under the supervision of Dr. (Mrs.) Renu Chugh, Lecturer, Department of Mathematics, Maharshi Dayanand University, Rohtak.

The whole work is divided into nine chapters. Chapter I is introductory. In this chapter we present notations and terminology used in the sequel along with a résumé of hitherto known results inter-related with our results and a résumé of our results presented in the subsequent chapters.

The aim of Chapter II is to obtain some common fixed point theorems for five maps on a Metric space. In Chapter III, we establish some fixed point theorems for a family of commuting mappings in Bimetric spaces. Also, we extend the contraction mapping lemma of Drager and Foote to obtain some fixed point theorems for four commuting and mutually weak commuting mappings. Chapter IV is concerned with the study of common fixed point of three and five maps in complete metric spaces using the concept of asymptotic regularity at a point. The object of Chapter V is to obtain some common fixed point theorems for a family of mappings in Hausdorff spaces. In Chapter VI we extend the results of Yuel and Sharma and establish some fixed point theorems for mappings defined on a subset of normed space satisfying certain contractive condition using G-iterative process. Chapter VII and VIII are devoted to the study of some fixed point theorems for a family of mappings.
in 2-normed and 2-Banach spaces respectively. The last chapter of the thesis is concerned with the study of some fixed point theorems for three mappings from a Menger space into itself. Towards the end, references of various publications cited in the thesis, have been added.


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