

P R E F A C E

The dissertation entitled, "Study of Some Fixed Point Theorems In Metric Space" has been divided into three chapters.

In chapter-I, we have given the short account of the development of the fixed point theory by various research workers in metric and two metric spaces.

Chapter-II covers the study of some fixed point theorems in metric space and ^{complete} metric spaces.

In 1988 Y.C.Paliwal has proved a fixed point theorem for a pair of continuous self-mappings of a metric space. As sequel to above work a fixed-point theorem for sequence of self-mappings in metric space has been proved and further it is shown that this theorem is a generalization of Y.C.Paliwal's theorem.

In 1978, Kishorimohan Ghosh and S.K.Chatterjea have investigated a fixed point theorem in metric space for two self mapping. After considering this work a fixed point theorem, for sequence of self mappings in the complete metric space has been established.

In 1980, D.S.Jaggi and Bal Kishan Das have investigated an extension of Banach's Contraction Principle through a rational expression. Following the formalism of these research workers we have - proved the following fixed point theorems in complete metric spaces.

- i) Fixed point theorem for self map in complete-metric space.
- ii) Fixed point theorem for pair of self mappings in complete metric space.
- iii) Fixed point theorem for sequence of self - mappings in complete metric space.

Chapter-III is devoted to study some fixed point theorems in two metric space and in complete two metric space.

In 1978 K.Ghosh and S.K.Chatterjea have investigated a fixed point theorem for two self mapping in metric space. Following their work we proved the following fixed point theorems.

- i) Fixed point theorem for the self mapping in complete two metric space.
- ii) Fixed point theorem for self map in two metric space.
- iii) Fixed point theorem for pair of mapping in two metric space.
- iv) Fixed point theorem for sequence of mapping in two metric space.