

***Abstract :***

In this thesis we introduce some convergence theorems for different type of iterations and we study the existence and uniqueness of a fixed point . Also we establish a general theorems to approximate fixed point of z-operators on a normal space through the Mann iteration process with errors .

Finally , we show that Mann iteration convergence faster than Ishikawa iteration for the class of zamfirescu . operators for an arbitrary closed convex subset of Banach space