COMMON FIXED POINT THEOREMS FOR WEAKLY COMPATIBLE MAPPINGS IN DISLOCATED METRIC SPACE

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Dedicated to Prof. K. Srinivasa Rao on his 75th Birth Anniversary

Abstract: In this paper, we discuss the existence and uniqueness of common fixed point and some new common fixed point theorems for two pairs of weakly compatible mappings in a dislocated metric space, our results generalizes and improves many fixed point results in the present literature of fixed point theory in dislocated metric spaces.

Keywords and Phrases: Fixed point, common fixed point, dislocated metric space, weakly compatible maps.

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1. Introduction and Preliminaries

In 2000, Hitzler, P. and Seda, A. K. [5], introduced the concept of dislocated topology where the initiation of dislocated metric space is appeared. After the concept of dislocated metric space many authors have established fixed point theorem in dislocated metric space, one can see many results in the field of dislocated metric space [4-12]. Hitzler, P. and Seda, A. K. [5], generalized the famous Banach contraction principle [3] in this space. Aage, C.T. and Salunke, J. N. [1] and Isufati, A. [7], established some important fixed point theorems for single and pair of mappings in dislocated metric space. Jungck, G. and Rhoades B.E. [12], introduced the concept of weak compatibility then many interesting fixed point theorems of