COMMON FIXED POINT THEOREMS FOR CONVERSE COMMUTING MAPPINGS IN BICOMPLEX VALUED METRIC SPACES

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Abstract: The main purpose of this paper is to prove some common fixed point theorems for converse commuting self-maps for non-complete bicomplex valued metric spaces.Our results are the generalisations of the results of Chauhan & Sahper(2013) and Kumar et al.(2014). Moreover, some concepts of Choi et al., proved some fixed point theorems in connection with two weakly compatible mappings in bicomplex valued metric spaces published in Honam Mathematical Journal in 2017 and Jebril et al., proved common fixed point theorems under rational contractions for a pair of mappings in bicomplex valued metric spaces published in Journal of Interdisciplinary Mathematics in 2019 are used here.

Keywords and Phrases: Bicomplex valued metric space, converse commuting mappings, common fixed point.

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1. Introduction, Preliminaries and Definitions

The Banach contraction principle [5] is one of the most important and useful results in fixed point theory. Although the fixed point theory was first introduced