GENERALIZED INTEGRAL TYPE CONTRACTION AND COMMON FIXED POINT THEOREMS USING AN AUXILIARY FUNCTION

VISHAL GUPTA
Department of Mathematics,
Maharishi Markandeshwar(Deemed to be University)
Mullana, Haryana, India.
(E-mail: vishal.gmn@gmail.com)

NAVEEN MANI *
Department of Mathematics,
Sandip University,
Nashik, Maharashtra, India.
(E-mail: naveenmani81@gmail.com)

and

ARSLAN H. ANSARI
Department of Mathematics,
Karaj Branch, Islamic Azad University, Karaj, Iran.
(E-mail: analsisamirmath2@gmail.com)

Abstract. In this paper, with the help of new auxiliary function and without assuming the continuity and commutativity property of self maps, some common fixed theorems for generalized integral type contraction in complete metric spaces are proved. As application of our results, some corollaries are given. Also, some examples are given to justify the importance and existence of our findings in current research.

*Corresponding author
Communicated by Editors; Received August 18, 2017.
2010 AMS Subject Classification: 47H10, 54H25.
Keywords: Common fixed point, continuity, commutativity, auxiliary function, integral contraction.