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GENERALIZED FORM OF TRIPLED FIXED POINT THEOREMS IN PARTIALLY ORDERED METRIC SPACES

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Abstract. In this paper, we introduce a new concept known as FGH-tripled fixed point and prove existence and uniqueness of fixed points in partially ordered complete metric spaces. This concept is a generalization of tripled fixed point and an extension of FG-coupled fixed point. Our results extends and generalizes several results in literature particularly the results of Berinde and Borcut[Vasile Berinde, Marine Borcut, Tripled fixed point theorems for contractive type mappings in partially ordered metric spaces, Nonlinear Analysis, 74 (2011), 4889-4897].

1. Introduction

The new trends in fixed point theory is to find multidimensional fixed point results. Guo and Lakshmikantham [11] initiated this idea through coupled fixed points in cone metric spaces. Later in 2006 Gnana Bhaskar and Lakshmikantham [10] defined mixed monotone property and proved existence and uniqueness theorems for coupled fixed points in partially ordered metric spaces. Also as an application they discussed the existence of a unique solution to a

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