NEW RESULTS OF bs-γ-OPEN MAPPINGS AND sb-γ-OPEN MAPPINGS IN TOPOLOGICAL SPACES

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Abstract: In this paper, we introduce the notions of b-γ-continuous, b-γ-irresolute, b-γ-open, bs-γ-open and sb-γ-open mappings in topological spaces. With this notions, we also introduce b-γ-compact, b-γ-connected and b-γ-Lindelöff spaces Also we investigate some fundamental properties. Finally, we discuss the relationship among these mappings.

1. Introduction

In 1979, Kasahara [2] introduced the notion of an operation γ on topological spaces. After that the notion of γ-open sets was introduced by Ogata [3] in 1991. As a generalization of γ-open sets, Hariwan Z. Ibrahim [1] defined and investigated the notion of b-γ-open sets in general topological spaces. Recently, Sivashanmugaraja and Vadivel [5] introduced the notion of b-γ-open fuzzy sets in fuzzy topological spaces. The purpose of this paper is to introduce and investigate a new type of mappings called b-γ-continuous mappings, b-γ-irresolute, b-γ-open mappings, bs-γ-open mappings and sb-γ-open mappings. Connected and compactness are powerful tools in topology but they have many dissimilar properties. The notions of b-γ-compact, b-γ-connected and b-γ-Lindelöff spaces are also introduced. Further, we