λ_g^α-CLOSED AND λ_g^α-OPEN MAPS IN TOPOLOGICAL SPACES

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Abstract: In this paper, the aspect of λ_g^α-closed maps and λ_g^α-open maps are explored using the recently introduced λ_g^α-closed sets and λ_g^α-open sets in topological spaces. Initially, the standard properties of λ_g^α-closure and λ_g^α-interior with appropriate examples are studied. Further, characterizations of λ_g^α-closed maps and λ_g^α-open maps are also investigated.

Keywords and Phrases: λ-closed set, α-closed set, λ_g^α-closed set, λ_g^α-closed map and λ_g^α-open map.

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1. Introduction

Levine [7] introduced the notion of generalized closed sets in topological spaces. Following this, many researchers introduced several variation of generalized closed sets and investigated some stronger and weaker forms of them. Maki [10] continued the work of Levine and Dunham on generalized closed sets and closure operators by introducing the notion of Λ-sets in topological spaces.

A Λ-set is a set A which is equal to its kernel(= saturated set), i.e. to the intersection of all open supersets of A. Caldas et.al. [2] introduced the notion of λ-closure of a set by utilizing the notion of λ-closed sets defined by Francisco G Arenas et.al. [5]. They also studied the concept of λ-closed maps and studied various properties. Malghan [13] introduced the concept of generalized closed maps in topological spaces. Following this many researchers discussed various forms of