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**RELIABILITY INVOLVING GENERALIZED GAMMA,
GENERALIZED FOLDED LOGISTIC DISTRIBUTIONS
AND FGM COPULA**

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Abstract: This paper deals with reliability measure $P(Y < X)$ using FGM copula, when X and Y follow (a) Weibull and generalized gamma distributions, and (b) Rathie-Swamee generalized folded logistic distributions. The use of copula is better and widely employed than doing the classical joint distribution dependence. A few particular cases are also indicated.

Keywords and Phrases: Stress-strength reliability, $P(Y < X)$, FGM copula, Folded Rathie-Swamee, Gamma and Weibull distributions.

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1. Introduction

In literature, $R = P(Y < X)$ is a measure of component reliability when the component is subjected to a random stress Y and a random strength X . The component fails when the applied stress exceeds the strength. In the book by [6],