CERTAIN GENERALIZED FRACTIONAL CALCULUS FORMULAS AND INTEGRAL TRANSFORMS OF (p,q)-EXTENDED τ-HYPERGEOMETRIC FUNCTION

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Abstract: In this paper, we established certain image formulas of the (p,q)–extended τ hypergeometric function $R_{p,q}^{\tau}(a,b;c;z)$ by employing Marichev-Sigo-Maeda(M-S-M) fractional integration and differentation formulas. Corresponding special cases for the Saigo's, Riemann-Liouville and Erdelyi-Kober fractional integral and differential operators are also deduced which are earlier obtained by Solanki et al. [23]. Further certain integral transforms of the (p,q)–extended τ hypergeometric function $R_{p,q}^{\tau}(a,b;c;z)$ are established. All the results are represented in terms of the Hadamard product of the (p,q)–extended τ hypergeometric function $R_{p,q}^{\tau}(a,b;c;z)$ and the Fox-Wright function.

Keywords and Phrases: (p,q)-extended τ–hypergeometric function; (p,q) - extended hypergeometric function; Fractional calculus operators.

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