

ANALYTIC INEQUALITIES INVOLVING WEIGHTED
EXPONENTIAL ψ -BETA FUNCTIONS AND APPLICATIONSYU-MING CHU, MUHAMMAD UZAIR AWAN*, MUHAMMAD ZAKRIA JAVED,
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Abstract. Integral inequalities are the proficient aspect of mathematical analysis. Various techniques have been deployed to acquire to fresh inequalities which are beneficial in various area problems. The aim of this paper is to derive some new analytic inequalities involving generalized weighted exponential beta functions. To attain our primary objectives, we introduce the generalized exponential function $X_{\rho, \psi, \delta}(\varpi)$ and weighted form of exponential beta functions $\mathcal{F}(\rho, \psi, \delta)$. Furthermore, we briefly discuss their properties. we derive several inequalities in association with $X_{\rho, \psi, \delta}(\varpi)$ and $\mathcal{F}(\rho, \psi, \delta)$. As the applications of these new developments, we conclude some error estimates of Ostrowski's type inequalities, which show the significance of the obtained results.

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