A NOTE ON INTEGRAL REPRESENTATION OF (α, β, γ)-ORDER OF MEROMORPHIC FUNCTION

Tanmay Biswas, Sudipta Kumar Pal* and Chinmay Biswas**

Rajbari, Rabindrapally, R. N. Tagore Road
Krishnagar, Kotwali, Nadia - 741101, West Bengal, INDIA

E-mail : tanmaybiswas_math@rediffmail.com

*Department of Mathematics,
Jangipur College, Jangipur,
Murshidabad - 742213, West Bengal, INDIA

E-mail : palsudipto2017@gmail.com

**Department of Mathematics,
Nabadwip Vidyasagar College,
Nabadwip, Nadia -741302, West Bengal, INDIA

E-mail : chinmay.shib@gmail.com

Abstract: The classical growth indicators of entire and meromorphic functions are order and type, which are generalized by several authors during the past decades. Chyzhykov et al. have first introduced the generalized growth scale, namely the φ-order (see [3]) taking φ as an increasing unbounded function. But, Heittokangas et al. [5] have introduced another new concept of φ-order of entire and meromorphic functions considering φ as subadditive function. Later, Belaïdi et al. [1] have extended the above ideas and have introduced the definition of (α, β, γ)-order of entire and meromorphic functions, where $\alpha \in L_1$-class, $\beta \in L_2$-class, $\gamma \in L_3$-class. In this paper, our motive is to develop the integral representations of (α, β, γ)-order and (α, β, γ)-lower order of a meromorphic function. We also investigate their equivalence relation under some certain conditions.