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ON THE EXTENSION OF A CLASS OF BILATERAL GENERATING FUNCTION INVOLVING MODIFIED BESSEL POLYNOMIALS

Nabin Chandra Biswas and Amartya Chongdar*

Department of Mathematics,
Dum Dum Motijheel College,
1, Motijheel Avenue, Kolkata - 700074, West Bengal, INDIA

E-mail : nabinchandra_math@yahoo.com

*Meghdoot Apartment, Flat No. D 3, J-G /7,
Aswininagar, Kolkata - 700159, West Bengal, INDIA

E-mail : amartyajoy@gmail.com

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Abstract: In this note, we have obtained an extension of a general result on bilateral generating function of modified Bessel polynomials from the existence of a quasi-bilateral generating function.

Keywords and Phrases: Bessel polynomial, Generating function.

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1. Introduction

In [1], Chatterjea and Chakraborty defined quasi-bilateral generating relation as follows :

$$G(x,z,w)=\sum_{n=0}^{\infty}a_n w^n p_n^{(\alpha)}(x)q_m^{(n)}(z),$$

where the coefficients a_n's are arbitrary and $p_n^{(\alpha)}(x)$, $q_m^{(n)}(z)$ are two special functions of orders n and m and of parameters α and n respectively.