

ON SOME APPLICATION OF BAILEY'S TRANSFORM IN
GENERALIZED BASIC HYPERGEOMETRIC
TRANSFORMATIONS

Jayprakash Yadav, Vijay Yadav* and Manoj Mishra**

Department of Mathematics,
PDL College, Malad (W), Mumbai - 400064, INDIA

E-mail : jayp1975@gmail.com

*Department of Mathematics,
SPDT College, Andheri (E), Mumbai - 400059, INDIA

E-mail : vijaychottu@yahoo.com

**Department of Mathematics,
G. N. Khalsa college, Mumbai - 400019, INDIA

E-mail : manoj.mishra@gnkhalsa.edu.in

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Abstract: The object of this paper is to establish some transformations for generalized basic hypergeometric series by the application of Bailey's transform and some known results.

Keywords and Phrases: Generalized basic hypergeometric function, Bailey's transform, q -shifted factorial.

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1. Introduction

For $q < 1$ and real or complex a , the q -shifted factorial is defined as

$$(a; q)_n = \begin{cases} 1 & \text{if } n = 0; \\ (1 - a)(1 - aq)(1 - aq^2) \dots (1 - aq^{n-1}) & \text{if } n \in \mathbb{N} \end{cases} \quad (1.1)$$