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APPLICATIONS OF DIFFERENTIAL OPERATOR TO ANALYTIC AND MULTIVALENT FUNCTIONS WITH NEGATIVE COEFFICIENT

PRAVIN GANAPAT JADHAV[1] AND S. M. KHAIRNAR[2]
[1] Research Scholar, Shri Jagdishprasad Jhabarmal
Tibrewala University, Jhunjhunu, Rajasthan, India
Assistant Professor in Matematics,
Hon. Balasaheb Jadhav Arts, Commerce and
Science College, Ale, Pune-412411, India
[2] Professor and Head, Department of Engineering Science,
MIT Academy of Engineering, Alandi,
Pune -412105, India

Abstract

By means of certain differential operator we introduce and investigate two subclasses $P^*(p, \lambda, \phi, \delta, \alpha)$ and $Q^*(p, \lambda, \phi, \delta, \alpha)$ of p-valent analytic functions. The various results obtained here for each of these classes are sharp. We have attempted to obtain coefficient estimate, distortion theorem, radius of starlikeness, convexity and closure theorem for the classes $P^*(p, \lambda, \phi, \delta, \alpha)$ and $Q^*(p, \lambda, \phi, \delta, \alpha)$.

Key Words : *Multivalent function, Coefficient estimate, Distortion theorem, Radius of starlikeness, Differential operator.*

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