1046-30-133   **Rosihan M. Ali*** (`rosihan@cs.usm.my`), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia. *On Analytic Multivalent Functions.* Preliminary report.

Let $\mathcal{A}_p$ be the class of all p-valent analytic functions $f(z) = z^p + a_{p+1}z^{p+1} + a_{p+2}z^{p+2} + \cdots$ in the open unit disk $\Delta = \{z \in \mathbb{C} : |z| < 1\}$. Subclasses of p-valent starlike and convex functions in the unit disk in the complex plane will be discussed. It is shown that every p-valent convex function is starlike. Subordination properties, as well as convolution results with prestarlike functions are obtained for these classes.

Additionally several interesting subordination results and best dominants are obtained for higher-order derivatives of p-valent functions.

Subordination results and best dominants are also determined on the *Dziok-Srivastava* linear operator

$$H_p^{(l,m)}(\alpha_1, \ldots, \alpha_l; \beta_1, \ldots, \beta_m) : \mathcal{A}_p \to \mathcal{A}_p$$

defined by the convolution

$$H_p^{(l,m)}(\alpha_1, \ldots, \alpha_l; \beta_1, \ldots, \beta_m)f(z) := h_p(\alpha_1, \ldots, \alpha_l; \beta_1, \ldots, \beta_m; z) * f(z)$$

$$= z^p + \sum_{n=p+1}^{\infty} \frac{(\alpha_1)_{n-p} \ldots (\alpha_l)_{n-p}}{(\beta_1)_{n-p} \ldots (\beta_m)_{n-p}} \frac{a_n z^n}{(n-p)!}.$$

These results are next applied to yield as special cases various known results. (Received August 01, 2008)

1