APPENDIX F: PROVIDED FORMULAS

Provided Formulas

These formulas are available to exam candidates when taking the CFP® Certification Examination:

$$V = \frac{D_1}{r - g}$$

$$r = \frac{D_1}{P} + g$$

$$COV_{ij} = \rho_{ij}\sigma_i\sigma_j$$

$$\sigma_p = \sqrt{W_i^2\sigma_i^2 + W_j^2\sigma_j^2 + 2W_iW_jCOV_{ij}}$$

$$\beta_i = \frac{COV_{im}}{\sigma_m^2} = \frac{\rho_{im}\sigma_i}{\sigma_m}$$

$$\sigma_r = \sqrt{\frac{\sum_{t=1}^{n}(r_t - \bar{r})^2}{n}}$$

$$S_r = \sqrt{\frac{\sum_{t=1}^{n}(r_t - \bar{r})^2}{n-1}}$$

$$r_i = r_f + (r_m - r_f)\beta_i$$

$$\alpha_p = \overline{r_p} - \left[\overline{r_f} + \left(\overline{r_m} - \overline{r_f}\right)\beta_p\right]$$

$$T_p = \frac{\overline{r_p} - \overline{r_f}}{\beta_p}$$

$$D = \frac{1+y}{y} - \frac{(1+y) + t(c-y)}{c\left[(1+y)^t - 1\right] + y}$$

$$\frac{\Delta P}{P} = -D\left[\frac{\Delta y}{1+y}\right]$$

$$IR = \frac{R_P - R_B}{\sigma_A}$$

$$EAR = \left(1 + \frac{i}{n}\right)^n - 1$$

$$\text{TEY} = \text{r}/(1\text{-t})$$

$$AM = \frac{a_1 + a_2 + a_3 + \cdots + a_n}{n}$$

$$S_p = \frac{\overline{r_p} - \overline{r_f}}{\sigma_p}$$

$${}_1R_N = [(1+{}_1R_1)\,(1+E({}_2r_1))\ldots(1+E({}_Nr_1))]^{1/N} - 1$$

$$HPR = [(1+r_1) \text{ x } (1+r_2) \text{ x } \ldots(1+r_n)] - 1$$

$$\sqrt[n]{(1+r_1)\times(1+r_2)\times\ldots(1+r_n)} - 1$$