

Spring 2013 Final - 1:00 B

$$P2] \quad +7 \left(\beta_G = \frac{\text{COV}_{G, \text{SFP}}}{\text{VAR}_{\text{SFP}}} \right) \quad (7)$$

$$+7 \left(\text{COV}_{G, \text{SFP}} = \frac{1}{3} \left((3 - \bar{R}_G)(14 - \bar{R}_{\text{SFP}}) + (11 - \bar{R}_G)(2 - \bar{R}_{\text{SFP}}) + (7 - \bar{R}_G)(20 - \bar{R}_{\text{SFP}}) + (-18 - \bar{R}_G)(30 - \bar{R}_{\text{SFP}}) \right) \right) \quad (25)$$

$$+7 \left(\text{VAR}_{\text{SFP}} = \frac{1}{3} \left((14 - \bar{R}_{\text{SFP}})^2 + (2 - \bar{R}_{\text{SFP}})^2 + (20 - \bar{R}_{\text{SFP}})^2 + (30 - \bar{R}_{\text{SFP}})^2 \right) \right) \quad (13)$$

$$+4 \left(\bar{R}_G = \frac{1}{4} (3 + 11 + 7 - 18) \right) \quad (6)$$

$$+4 \left(\bar{R}_{\text{SFP}} = \frac{1}{4} (14 + 2 + 20 + 30) \right) \quad (10)$$

$$+8 \left(\beta_P = \left(\frac{400}{400+100} \right) \beta_G + \left(\frac{100}{400+100} \right) 0.1 \right) \quad (14)$$