UNIVERSITY OF TEXAS AT AUSTIN

Quiz # 25

Multifactor models.

Please, provide your **final answers only** to the following problems:

Problem 25.1. You are given the following information about the return of a security, using a three-factor model:

Factor	Beta	Expected Return
T	0.10	25%
U	0.12	20%
V	0.15	10%

The annual effective risk-free rate of return is 4%.

Calculate the expected return of this security using the given three-factor model.

   (a) About 0.075
   (b) About 0.08
   (c) About 0.085
   (d) About 0.09
   (e) None of the above.

Problem 25.2. You are given the following information about the return of a security, using a three-factor model:

Factor	Beta	Expected Return
T	0.12	12%
U	0.16	15%
V	0.20	10%

The expected return of this security using the given three-factor model is equal to 0.08. What is the annual effective risk-free rate of return?

   (a) About 0.375
   (b) About 0.415
   (c) About 0.485
   (d) About 0.595
   (e) None of the above.

Problem 25.3. You are given the following information about the return of a security, using a three-factor model:

Factor	Beta	Expected Return
T	0.12	16%
U	0.15	18%
V	0.18	20%

The effective risk-free interest rate is 0.04. What is the risk premium of the security?

   (a) About 0.0442
   (b) About 0.0642
   (c) About 0.0842
   (d) About 0.1042
   (e) None of the above.