VALUATION AND PORTFOLIO MANAGEMENT
QUIZ 3 (Variant I)

Time: 20 minutes **Max. Marks 15 (1.5 marks /question)**

1. **Which statement about portfolio diversification is true?**
   A. Proper diversification can reduce or eliminate systematic risk.
   B. As more securities are added to a portfolio, total risk is likely to fall at a decreasing rate.
   C. Diversification reduces the portfolio's expected return because diversification reduces a portfolio's total risk.
   D. The risk-reducing benefits of diversification do not occur meaningfully until at least 30 individual securities are included in the portfolio.
2. **An analyst developed the following data on Stock X and the market:**
   Return on the market = **0.1200**
   Covariance between the return on Stock X and the return on the market = **0.0288**
   Correlation coefficient of the return on Stock X and the return on the market = **0.8000**
   Standard deviation of the return on Stock X = **0.1800**
   Standard deviation of the return on the market = **0.2000**
   Based on these data, the beta of Stock X is:
   A. 0.144.
   B. 0.720.
   C. 0.800.
   D. 0.889.
3. **Stocks A, B, and C each have the same expected return and standard deviation. The following table shows the correlation between the returns on these stocks.**

Correlation of Stock Returns			
	Stock A	**Stock B**	**Stock C**
Stock A	+1.0	+0.9	+0.1
Stock B	+0.9	+1.0	-0.4
Stock C	+0.1	-0.4	+1.0

   Given these correlations, the portfolio constructed from these stocks having the lowest risk is a portfolio:
   A. equally invested in stocks A and B.
   B. equally invested in stocks A and C.
   C. equally invested in stocks B and C.
   D. totally invested in stock C.
4. **The correlation coefficient of Portfolio X's returns and the market's returns is 0.95, and the correlation coefficient of Portfolio Y's returns and the market's returns is 0.60. Which of the following statements best describes the levels of portfolio diversification?**
   A. Both Portfolio X and Portfolio Y are well diversified.
   B. Both Portfolio X and Portfolio Y are poorly diversified.
   C. Portfolio X is well diversified and Portfolio Y is poorly diversified.
   D. Portfolio X is poorly diversified and Portfolio Y is well diversified.
5. **The return on an asset added to a portfolio is less than perfectly positively correlated with the returns of the other assets in the portfolio but has the same standard deviation. What effect will adding the new asset have on the standard deviation of the portfolio's return? The standard deviation:**
   A. Will increase.
   B. Will decrease.
   C. may increase or decrease, depending on the asset allocation model.
   D. may increase or decrease, depending on the individual securities mix in the portfolio.

6. **A risk-averse investor owning stock in White Corporation decides to add the stock of either Black Corporation or Green Corporation to her portfolio. All three stocks offer the same expected return and total risk. The covariance of returns between White stock and Black stock is -0.05 and White stock and Green stock is +0.05. Portfolio risk is expected to:**
   A. decline more by buying Black Corporation.
   B. decline more by buying Green Corporation.
   C. increase by buying either Black or Green Corporation.
   D. decline or increase, depending on other factors.
7. **According to the capital asset pricing model, the rate of return of a portfolio with a beta of 1.2 and a risk premium of 6.5 percent while the risk-free rate of 5 percent is:**
   A. 6.8%.
   B. 11.5%.
   C. 12.5%.
   D. 12.8%.
8. **An analyst regresses the excess returns of Stock J against the returns on a market index, M. Using the following regression equation,**
   $\mathbf{R_j = a_j + b_j R_m + e_j}$
   Which of the following statements is/are true?
   I. The intercept, a_j, is the amount of Stock J's price movement explained by the market.
   II. The term bj is the slope of the regression line and is assumed to be constant.
   III. The disturbance term, e_j, is assumed to be uncorrelated with the explanatory variable, R_m, and of zero expectation.
   A. I only.
   B. II only.
   C. II and III only
   D. I, II, and III.
9. **The expected return on a stock is frequently written as $r = \alpha + ßr_m$, where r_m is the expected return on the market. The capital asset pricing model says that in equilibrium:**
   A. $\alpha = 0$.
   B. $\alpha = r_f$ (the risk-free rate of interest).
   C. $\alpha = (1 - ß)r_f$.
   D. $\alpha = (1 - r_f)$.
   Which is correct?
10. **Which of the following statements about the security market line (SML) is FALSE?**
   A. Properly valued assets plot exactly on the SML.
   B. The SML leads all investors to invest in the same portfolio of risky assets.
   C. The SML provides a benchmark for evaluating expected investment performance.
   D. The SML is a graphic representation of the relationship between expected return and beta.

RESPONSE SHEET

Roll No. Name _____

Qs No.	1	2	3	4	5	6	7	8	9	10
Ans										