Portfolio Management

1.In general, which of the following institutions will most likely have a high need for liquidity and a short investment time horizon?
A. Banks
B. Endowments
C. Defined benefit pension plans

Answer: A
Banks have a short term horizon and high liquidity needs.

2.Which of the following is least likely a part of the execution step of the portfolio management process?
A. Security analysis
B. Portfolio construction
C. Performance measurement

Answer: C
Performance measurement is a part of the feedback step of the portfolio management process. The execution step includes asset allocation, security analysis, and portfolio construction.

3. Selected information about shares of two companies is provided below:

Stock	Standard Deviation	Correlation of Returns	Portfolio Weights
Cable Incorporated	30%	0	68%
GPTA Company	20%	32%	

The standard deviation of returns of the portfolio formed with these two stocks is closest to:
A. 25.04%.
B. 26.80%.
C. 32.85%.

Answer: A
Portfolio standard deviation $=\sqrt{(0.68^2)(0.3^2)+(0.32^2)(0.2^2)+2(0.68)(0.32)(0.65)(0.3)(0.2)} = 0.2504$.

4.Which of the following statements is least likely to be an assumption about investor behavior underlying the Markowitz model?
A. Investors maximize one-period expected return
B. Investors base their decisions solely on expected return and risk
C. Investors have utility curves that are a function of expected returns and variance.

Answer: A
Investors maximize one-period expected utility, and their utility curves demonstrate diminishing marginal utility of wealth.

5.Relative to an investor with a steeper indifference curve, the optimal portfolio for an investor with a flatter indifference curve will most likely have:
A. a lower level of risk and return
B. a higher level of risk and return
C. the same level of risk and return

Answer = B
Because a less risk-averse investor's highest utility, given the low slope of his indifference curve, is likely to touch the capital allocation line at a point which would represent a portfolio with higher risk and more expected return.

6. Which of the following statements is least accurate? An investor may construct a portfolio located on the capital market line (CML) by:
A. investing a portion of his capital in the risk-free asset and the balance in a fully diversified portfolio of all equities
B. investing a portion of his capital in the risk-free asset and the balance in a fully diversified portfolio of all risky assets
C. borrowing capital at the risk-free rate and investing all his capital plus all borrowed capital in a fully diversified portfolio of all risky assets

Answer: A
This statement is incorrect. Portfolios located on the CML may be constructed by: 1) investing a portion of an investor's capital in the risk-free asset and the balance in the market portfolio which consists of all risky assets, or 2) borrowing capital at the risk-free rate and investing all of an investor's capital plus all borrowed capital in the market portfolio.

7.A completely diversified portfolio will most likely result in the elimination of:
A. systematic variance
B. unsystematic variance
C. both systematic and unsystematic variance

Answer: B
A completely diversified portfolio, such as the market portfolio, will eliminate all unsystematic risk. Systematic risk cannot be diversified away.

8.The slope of the security market line (SML) represents the portion of an asset's expected return attributable to:
A. total risk.
B. market risk.

C. diversifiable risk.

Answer: B

The slope of the SML is the market risk premium, E(Rm) – Rf. It represents the return of the market less the return of a risk-free asset. Thus, the slope represents the portion of expected return that reflects compensation for market or systematic risk.

9. The following table shows data for the stock of JKU and a market-index.
Expected return of JKU: 15%
Expected return of market index:12%
Risk free rate: 5%
Standard deviation of JKU returns: 20%
Standard deviation of market index returns: 15%
Correlation of JKU and market index returns: 0.75
Based on the capital asset pricing model (CAPM), JKU is most likely:
A. overvalued.
B. undervalued.
C. fairly valued.

Answer = B

$\beta_{JKU} = \rho_{JKU,M} \times \sigma_{JKU} / \sigma_M = 0.75 \times 0.2/0.15 = 1.0$ $E(R_{JKU}) = RFR + \beta_{JKU} \times (R_M - RFR) = 0.05 + 1 \times (0.12 - 0.05) = 0.12$ The required rate of return of JKU is 12% and the expected return of JKU is 15% therefore JKU is undervalued relative to the Security Market Line (SML). The risk-return relationship lies above the SML.

10. Which of the following factors is least likely to impact an individual's ability to take risk?
A. Time horizon
B. Personality type
C. Expected income

Answer = B

An individual's ability to take risk is impacted by such factors as time horizon and expected income. Personality type is most likely to impact an individual's willingness to take risk.