# 26 Lecture - MGT201

## Important Subjective

1. **What is the Security Market Line (SML)? Explain its significance in the Capital Asset Pricing Model (CAPM).**
   Answer: The SML is a graphical representation of the CAPM equation, which plots the expected return of a security or portfolio against its beta, the measure of systematic risk. The significance of the SML in the CAPM is that it provides a benchmark for evaluating whether a security is undervalued or overvalued based on its expected return and level of systematic risk.

2. **What is the difference between systematic risk and unsystematic risk? Give an example of each.**
   Answer: Systematic risk is the risk that is inherent in the overall market or economy and cannot be diversified away, whereas unsystematic risk is the risk that is specific to a particular company or industry and can be diversified away. An example of systematic risk is a recession or a market crash, while an example of unsystematic risk is a company-specific event, such as a product recall or a lawsuit.

3. **Explain the Capital Asset Pricing Model (CAPM) and how it is used to determine the expected return on an investment.**
   Answer: The CAPM is a model that uses the expected return of the market, the risk-free rate, and the beta of a security or portfolio to determine its expected return. The model assumes that investors are rational and risk-averse and that they require a higher return for taking on higher levels of systematic risk. The CAPM formula is: Expected Return = Risk-Free Rate + (Beta x Market Risk Premium).

4. **What is the beta of a stock, and how is it calculated?**
   Answer: The beta of a stock is a measure of its systematic risk, or how much it moves in relation to the overall market. It is calculated by comparing the returns of the stock to the returns of the overall market and dividing the covariance by the variance of the market returns.

5. **What is the market risk premium, and how is it calculated?**
   Answer: The market risk premium is the excess return that investors require to invest in the stock market over and above the risk-free rate. It is calculated by subtracting the risk-free rate from the expected return of the market.

6. **Explain the concept of diversification and how it relates to risk reduction in a portfolio.**
   Answer: Diversification is the process of spreading investments across different asset classes, industries, and companies to reduce risk. By investing in a diverse portfolio, an investor can reduce the impact of any individual security or sector on the overall performance of the portfolio.

7. **What is the risk-free rate, and why is it important in the CAPM?**
   Answer: The risk-free rate is the rate of return that an investor can earn on a risk-free investment, such as a U.S. Treasury bond. It is important in the CAPM because it represents the minimum return that an investor requires to take on any risk, and it is used as a baseline for determining the expected return of a security or portfolio.

8. **What is the difference between alpha and beta in the CAPM?**
   Answer: Beta is a measure of systematic risk, or how much a security or portfolio moves in relation to the overall market, while alpha is a measure of the excess return that a security or portfolio generates over and above its expected return based on its level of systematic risk.

9. **Explain the concept of efficient markets and how it relates to the CAPM.**
   Answer: Efficient markets are markets in which all available information is already reflected in the prices of securities, making it impossible to consistently outperform the market through stock selection or market timing. The CAPM assumes that markets are efficient and that all investors have access to the same information.

10. **What is the significance of the intercept of the SML in the CAPM?**
    Answer: The