Answer Key to Subunit 2.2 Assessment

1. Value-at-Risk (VaR) measures the worst expected loss under normal market conditions over a specific time interval at a given confidence level. The maximum probable annual loss (MPAL) works with a one-year probability loss distribution and chooses the selected lower percentile value as the MPAL.

2. A daily VaR of $10 million at 1% means 1 chance in 100 that a daily loss greater than $1 million occurs under normal market conditions.

3. For a normal distribution, a cumulative probability of 2.5% is roughly equal to 2 standard deviations away from the mean. The return at 2.5% probability is 10%-60% = -50%. Thus, VaR of the portfolio is $200 million x 50% = $100 million. In other words, the portfolio has an annual VAR equal to $100 million at 2.5%.

4. According to the Capital Asset Pricing Model, the expected return of any security is \( R_i + \beta [E(R_M) - R_f] \).