**Multiple Choice Questions (Chapter 10):**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Investments A and B both offer an expected rate of return of 12%, but A has a higher correlation to the market portfolio. If the standard deviation of A is 20% and that of B is 30%, then investors would:    |  |  | | --- | --- | | A. | prefer A to B. |  |  |  | | --- | --- | | **B**. | prefer B to A. |  |  |  | | --- | --- | | C. | prefer a portfolio including both A and B. |  |  |  | | --- | --- | | D. | cannot answer without knowing investors' risk preferences. | |

2. Investments B and C both have the same standard deviation of 20% and have the same correlation to the market portfolio. If the expected return on B is 15% and that of C is 18%, then the investors would: 

|  |  |
| --- | --- |
| A. | prefer B to C. |

|  |  |
| --- | --- |
| **B**. | prefer C to B. |

|  |  |
| --- | --- |
| C. | reject both B and C. |

|  |  |
| --- | --- |
| D. | cannot answer without knowing investors' risk preferences. |

3. Suppose you invest equal amounts in a portfolio with an expected return of 16% and a standard deviation of returns of 18% and a risk-free asset with an interest rate of 4%. Calculate the expected return on the resulting portfolio. 

|  |  |
| --- | --- |
| **A**. | 10% |

|  |  |
| --- | --- |
| B. | 4% |

|  |  |
| --- | --- |
| C. | 12% |

|  |  |
| --- | --- |
| D. | 9% |

Expected return = 0.5 X 0.16 + 0.5 X 0.04 = 0.1

4. Suppose you invest equal amounts in a portfolio with an expected return of 16% and a standard deviation of returns of 18% and a risk-free asset with an interest rate of 4%. Calculate the standard deviation of the returns on the resulting portfolio. 

|  |  |
| --- | --- |
| A. | 8% |

|  |  |
| --- | --- |
| B. | 10% |

|  |  |
| --- | --- |
| C. | 20% |

|  |  |
| --- | --- |
| **D**. | 9% |

Standard Deviation = 0.5 X 0.18 = 0.09, given that the standard deviation of the risk-free rate is zero.

5. The correlation coefficient measures the: 

|  |  |
| --- | --- |
| A. | rate of return of individual stocks. |

|  |  |
| --- | --- |
| B. | direction of movement of the return of individual stocks. |

|  |  |
| --- | --- |
| **C**. | degree to which the returns of two stocks move together. |

|  |  |
| --- | --- |
| D. | degree of *s* unique risk present in the standard deviations of a pair of stocks. |

6. The correlation coefficient between a well-diversified portfolio and the risk-free asset is: 

|  |  |
| --- | --- |
| A. | +1.0 |

|  |  |
| --- | --- |
| B. | -1.0 |

|  |  |
| --- | --- |
| **C**. | 0.0 |

|  |  |
| --- | --- |
| D. | need further information |

7. The beta of Treasury bills is: 

|  |  |
| --- | --- |
| A. | +1.0. |

|  |  |
| --- | --- |
| B. | +0.5. |

|  |  |
| --- | --- |
| C. | -1.0. |

|  |  |
| --- | --- |
| **D**. | 0.0. |

8. The beta of the market portfolio is: 

|  |  |
| --- | --- |
| A. | 0.0. |

|  |  |
| --- | --- |
| B. | +0.5. |

|  |  |
| --- | --- |
| C. | -1.0. |

|  |  |
| --- | --- |
| **D**. | +1.0. |

9. The capital asset pricing model (CAPM) states which of the following: 

|  |  |
| --- | --- |
| **A**. | The expected risk premium on an investment is proportional to its beta. |

|  |  |
| --- | --- |
| B. | The expected rate of return on an investment is proportional to its beta. |

|  |  |
| --- | --- |
| C. | The expected rate of return on an investment is determined entirely by the risk-free rate and the market rate of return. |

|  |  |
| --- | --- |
| D. | The expected rate of return on an investment is determined entirely by the risk-free rate. |

10. The graphical representation of the CAPM (capital asset pricing model) is called the: 

|  |  |
| --- | --- |
| A. | capital market line. |

|  |  |
| --- | --- |
| B. | characteristic line. |

|  |  |
| --- | --- |
| **C**. | security market line. |

|  |  |
| --- | --- |
| D. | none of the options. |

11. A stock return's beta measures: 

|  |  |
| --- | --- |
| A. | the stock's covariance with the risk-free asset. |

|  |  |
| --- | --- |
| **B**. | the change in the stock's return for a given change in the market return. |

|  |  |
| --- | --- |
| C. | the return on the stock. |

|  |  |
| --- | --- |
| D. | the standard deviation on the stock's return. |

12. Suppose the beta of Microsoft is 1.13, the risk-free rate is 3%, and the market risk premium is 8%. Calculate the expected return for Microsoft. 

|  |  |
| --- | --- |
| **A**. | 12.04% |

|  |  |
| --- | --- |
| B. | 15.66% |

|  |  |
| --- | --- |
| C. | 13.94% |

|  |  |
| --- | --- |
| D. | 8.65% |

Expected return = 0.03 + 1.13 X 0.08 = 0.1204

13. One would expect a stock with a beta of zero to have a rate of return equal to: 

|  |  |
| --- | --- |
| A. | zero. |

|  |  |
| --- | --- |
| B. | the market risk premium. |

|  |  |
| --- | --- |
| **C**. | the risk-free rate. |

|  |  |
| --- | --- |
| D. | the market rate of return. |

14. If a stock were underpriced, it would plot: 

|  |  |
| --- | --- |
| **A**. | above the security market line. |

|  |  |
| --- | --- |
| B. | below the security market line. |

|  |  |
| --- | --- |
| C. | on the security market line. |

|  |  |
| --- | --- |
| D. | on the Y-axis. |

15. The company cost of capital is the appropriate discount rate for a firm's: 

|  |  |
| --- | --- |
| A. | low-risk projects. |

|  |  |
| --- | --- |
| B. | high-risk projects. |

|  |  |
| --- | --- |
| **C**. | average-risk projects. |

|  |  |
| --- | --- |
| D. | risk-free projects. |

16. The cost of capital is the same as the cost of equity for firms that are financed: 

|  |  |
| --- | --- |
| A. | entirely by debt. |

|  |  |
| --- | --- |
| B. | by both debt and equity. |

|  |  |
| --- | --- |
| **C**. | entirely by equity. |

|  |  |
| --- | --- |
| D. | by 50% equity and 50% debt. |

17. The cost of capital for a project depends on: 

|  |  |
| --- | --- |
| A. | the company's cost of capital. |

|  |  |
| --- | --- |
| **B**. | the use of the capital (the project). |

|  |  |
| --- | --- |
| C. | the industry cost of capital. |

|  |  |
| --- | --- |
| D. | the company's level of debt financing. |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. Using a company's cost of capital to evaluate a project is:  I) always correct; II) always incorrect; III) correct for projects that have average risk compared to the firm's other assets    |  |  | | --- | --- | | A. | I only |  |  |  | | --- | --- | | B. | II only |  |  |  | | --- | --- | | **C.** | III only |  |  |  | | --- | --- | | D. | I and III only | |

19. Which of the following types of projects generally have the highest total risk? 

|  |  |
| --- | --- |
| **A**. | speculative ventures |

|  |  |
| --- | --- |
| B. | new products |

|  |  |
| --- | --- |
| C. | expansions of existing business |

|  |  |
| --- | --- |
| D. | cost improvements using known technology |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. Which of the following types of projects has average total risk?    |  |  | | --- | --- | | A. | speculative ventures |  |  |  | | --- | --- | | B. | new products |  |  |  | | --- | --- | | **C**. | expansions of existing business |  |  |  | | --- | --- | | D. | cost improvements | |

19. The market value of Charter Cruise Company's equity is $15 million and the market value of its debt is $5 million. If the required rate of return on the equity is 20% and that on its debt is 8%, calculate the company's cost of capital.

|  |  |
| --- | --- |
| A. | 20% |

|  |  |
| --- | --- |
| **B**. | 17% |

|  |  |
| --- | --- |
| C. | 14% |

|  |  |
| --- | --- |
| D. | 11% |

WACC = (5/20) X 0.08 + (15/20) X 0.2 = 0.17

20. The company cost of capital, when the firm has both debt and equity financing, is called the: 

|  |  |
| --- | --- |
| A. | cost of debt. |

|  |  |
| --- | --- |
| B. | cost of equity. |

|  |  |
| --- | --- |
| **C**. | the weighted average cost of capital (WACC). |

|  |  |
| --- | --- |
| D. | the return on equity (ROE). |