**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). |