Chapter 11

1. Which of the following statements about risk is *false*?
   a. Risk requires the possibility of at least one outcome less favorable than the expected value.
   b. Risk requires the possibility of more than one outcome.
   c. Risk is one of the determinants of the required return.
   d. Risk aversion generally is assumed in finance to be a characteristic of the "marginal investor."
   e. All of the above statements are true.

2. Choose the correct answer for the following: (1) Which is the best measure of risk for choosing an asset which is to be held in isolation? (2) Which is the best measure for choosing an asset to be held as part of a diversified portfolio?
   a. Variance; correlation coefficient.
   b. Standard deviation; correlation coefficient.
   c. Beta; variance.
   d. Coefficient of variation; beta.
   e. Beta; beta.

3. A highly risk-averse investor is considering the addition of an asset to a 10-stock portfolio. The two securities under consideration both have an expected return equal to 15 percent. However, the distribution of possible returns associated with Asset A has a standard deviation of 12 percent, while Asset B's standard deviation is 8 percent. Both assets are correlated with the market with $\rho = 0.75$. Which asset should the risk-averse investor add to his/her portfolio?
   a. Asset A.
   b. Asset B.
   c. Both A and B.
   d. Neither A nor B.
   e. Cannot tell without more information.

4. The systematic (market) risk associated with an individual stock is most closely identified with the
   a. Standard deviation of the returns on the stock.
   b. Standard deviation of the returns on the market.
   c. Beta of the stock.
   d. Coefficient of variation of returns on the stock.
   e. Coefficient of variation of returns on the market.

5. The Security Market Line (SML) relates risk to return, for a given set of financial market conditions. If investors conclude that the inflation rate is going to increase, which of the following changes would be most likely to occur?
   a. The market risk premium would increase.
   b. Beta would increase.
   c. The slope of the SML would increase.
   d. The required return on an average stock, $r_A = r_M$, would increase.
   e. None of the indicated changes would be likely to occur.

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6. You have developed the following data on three stocks:

Stock	Standard Deviation	Beta
A	0.15	0.79
B	0.25	0.61
C	0.20	1.29

If you are a risk minimizer, you should choose Stock ____ if it is to be held in isolation and Stock ____ if it is to be held as part of a well-diversified portfolio.

a. A; A
b. A; B
c. B; A
d. C; A
e. C; B

7. Inflation, recession, and high interest rates are economic events which are characterized as

a. Company specific risk that can be diversified away.
b. Market risk.
c. Systematic risk that can be diversified away.
d. Diversifiable risk.
e. Unsystematic risk that can be diversified away.

8. You have developed data which give (1) the average annual returns on the market for the past five years, and (2) similar information on Stocks A and B. If these data are as follows, which of the possible answers best describes the historical betas for A and B?

Years	Market	Stock A	Stock B
1	0.03	0.16	0.05
2	−0.05	0.20	0.05
3	0.01	0.18	0.05
4	−0.10	0.25	0.05
5	0.06	0.14	0.05

a. $\beta_A > 0$; $\beta_B = 1$
b. $\beta_A > +1$; $\beta_B = 0$
c. $\beta_A = 0$; $\beta_B = -1$
d. $\beta_A < 0$; $\beta_B = 0$
e. $\beta_A < -1$; $\beta_B = 1$

9. Other things held constant, (1) if the expected inflation rate decreases, and (2) investors become more risk averse, the Security Market Line would shift

a. Down and have steeper slope.
b. Up and have less steep slope.
c. Up and keep same slope.

d. Down and keep same slope.
e. Down and have less steep slope.

10. HR Corporation has a beta of 2.0, while LR Corporation's beta is 0.5. The risk-free rate is 10%, and the required rate of return on an average stock is 15%. Now the expected rate of inflation built into r_{RF} falls by 3 percentage points, the real risk-free rate remains constant, the required return on the market falls to 11%, and the betas remain constant. When all of these changes are made, what will be the difference in required returns on HR's and LR's stocks?
a. 1.0%
b. 2.5%
c. 4.5%
d. 5.4%
e. 6.0%

11. You hold a diversified portfolio consisting of a $10,000 investment in each of 20 different common stocks (i.e., your total investment is $200,000). The portfolio beta is equal to 1.2. You have decided to sell one of your stocks which has a beta equal to 0.7 for $10,000. You plan to use the proceeds to purchase another stock which has a beta equal to 1.4. What will be the beta of the new portfolio?
a. 1.165
b. 1.235
c. 1.250
d. 1.284
e. 1.333

12. Oakdale Furniture Inc. has a beta coefficient of 0.7 and a required rate of return of 15 percent. The market risk premium is currently 5 percent. If the inflation premium increases by 2 percentage points, and Oakdale acquires new assets which increase its beta by 50 percent, what will be Oakdale's new required rate of return?
a. 13.5%
b. 22.8%
c. 18.75%
d. 15.25%
e. 17.00%

13. Here are the expected returns on two stocks:

	Returns	
Probability	X	Y
0.1	−20%	10%
0.8	20	15
0.1	40	20

If you form a 50−50 portfolio of the two stocks, what is the portfolio's standard deviation?
a. 8.1%
b. 10.5%

c. 13.4%
d. 16.5%
e. 20.0%

14. Assume there are only three possible states of nature for the economy in the future: boom, normal, and recession. If there is a 25% chance of a recession and a 30% chance of a boom, then what is the probability of a normal economy in the future?
a. 45%
b. 30%
c. 25%
d. 100%

15. The ____ the probability distribution, the ____ variability there is and the ____ likely it is that the actual outcome will approach the expected value.
a. looser; less; more
b. tighter; more; less
c. tighter; less; more
d. looser; more; less
e. both c and d are correct.

16. Risk averse investors require ____ rates of return for investments with ____ risk.
a. higher; lower
b. lower; higher
c. lower; lower
d. higher; higher
e. both c and d are correct

17. The beta of any portfolio can be computed as the
a. slope of the security market line
b. sum of the betas for each asset held in the portfolio divided by the number of assets in the portfolio.
c. the standard deviation of the expected returns of the portfolio minus the risk-free rate.
d. weighted average of the betas for each asset held in the portfolio.

18. ____ is the appropriate measure for stand-alone risk and ____ is the appropriate measure of risk when adding an asset to a diversified portfolio.
a. beta; variance
b. beta; standard deviation
c. standard deviation; beta
d. standard deviation; variance

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19. Which type of risk can be eliminated through diversification?
    a. total risk
    b. market risk
    c. firm specific risk
    d. none of the above