

Multiple choice – 3 points each – 48 points total – Circle the correct answer

1. An investor who owns a well-diversified portfolio of financial assets should not be concerned with which of the following risks?
 - A. Systematic risk.
 - B. Market risk.
 - C. Firm specific.
 - D. Nondiversifiable.
 - E. They should not be concerned with any of these risks.

2. Annika has invested the following amounts in the following assets:

Asset	Amount	Expected Return
W6X Bond	\$12,000	8%
9J5 Stock	\$24,000	18%
4FY Stock	\$4,000	24%

Determine the expected return on the portfolio.
 - A. 18.8%
 - B. 15.6%
 - C. 10.9%
 - D. 12.7%
 - E. 14.1%

3. Which of the following is included as part of shareholder rights?
 - I. Shareholders have the right to vote.
 - II. Shareholders have the right to receive dividend payments when declared.
 - III. Shareholders have the right to participate in new equity issues.
 - A. I only
 - B. I and II only
 - C. II only
 - D. I and II only
 - E. I, II, and III

4. A financial asset with a beta of 0.85 has which of the following?
 - A. Systematic risk higher than the average systematic risk.
 - B. Total risk lower than the average total risk.
 - C. Unsystematic risk higher than the average unsystematic risk.
 - D. Market risk lower than the average market risk.
 - E. Insufficient information.

5. Leo purchased 75 shares in a firm that is currently paying a \$3.00 per share dividend. Leo paid \$63 for each share. Determine the dividend yield on the shares.
- A. 6.3%
 - B. 5.2%
 - C. 4.8%
 - D. 5.7%
 - E. 4.0%
6. A financial asset has an average return of 8% and a standard deviation of 10%. Determine the range of possible returns for this asset with a 68% level of confidence.
- A. -18% to 18%
 - B. -28% to 28%
 - C. -2% to 18%
 - D. 8 to 18%
 - E. -6% to 26%
7. Andrew has invested in a portfolio of ten assets and the beta of the portfolio is 0.75. Andrew purchases an eleventh asset with a very high beta. Which of the following statements is true?
- A. The unsystematic risk of Andrew's portfolio is likely to increase.
 - B. The expected return of Andrew's portfolio is likely to decrease.
 - C. The total risk of Andrew's portfolio is likely to decrease.
 - D. The expected return of Andrew's portfolio is likely to remain the same.
 - E. The expected return of Andrew's portfolio is likely to increase.
8. Rank small company stocks, Treasury bills, large company stocks and Treasury bonds from the highest to lowest return based on historical data.
- A. Treasury bills, large company stocks, small company stocks, Treasury bonds.
 - B. Treasury bonds, Treasury bills, large company stocks, small company stocks.
 - C. small company stocks, large company stocks, Treasury bills, Treasury bonds.
 - D. small company stocks, large company stocks, Treasury bonds, Treasury bills.
 - E. large company stocks, small company stocks, Treasury bonds, Treasury bills.
9. The stock price for Aven Co. was \$72 at the beginning of the year. The stock paid a dividend of \$2.25 at the end of the year, and the stock price at the end of the year was \$84.10. What was the total return?
- A. 2.68%
 - B. 3.13%
 - C. 8.56%
 - D. 16.81%
 - E. 19.93%

10. Assume that the markets are semi-strong form efficient. Suppose that during a trading day important news is released for the first time concerning a certain company. This information indicates that one of the firm's oil fields, previously thought to be very promising, just came up dry. How would you expect the price of a share of stock in the firm to react to this information?
- A. The value of the stock will fall over time as investors begin to sell shares of the company.
 - B. The value of the stock will drop immediately to a price that reflects the new value of the firm.
 - C. The value of the stock will fall below what is considered appropriate because of decreased demand for the shares, but will eventually rise to the correct price.
 - D. The value of the shares will rise over a long period as investors sell the stock.
 - E. The stock price will not change as this type of information has no impact on markets that are semi-strong form efficient.
11. Catawampus Inc. stock had a return of 18.4% last year. The stock market as a whole had a return of 14.5% and the T-bill rate was 4.5%. What was the risk premium for this stock?
- A. 3.9%
 - B. 8.4%
 - C. 13.9%
 - D. 16.2%
 - E. 18.4%
12. A bond rating of AAA indicates a bond with _____ risk.
- A. zero default
 - B. zero interest rate
 - C. low default
 - D. low interest rate
 - E. zero coupon
13. You have an investment that earns a 12% return. The inflation rate is 5.5%. What is your real return?
- A. 2.3%
 - B. 2.6%
 - C. 6.2%
 - D. 8.1%
 - E. 17.5%
14. If two bonds are selling at a discount and are alike in all ways except the number of years to maturity, which will have the higher price today - one with 5 or 15 years to maturity (all else constant)?
- A. The 5 year bond.
 - B. The 15 year bond.
 - C. They will have the same price.
 - D. Cannot be determined from the information provided.

15. Answer the following two questions about portfolio risk and return. Assume all weights are positive. 1) Can the return of a portfolio return ever be lower than the lowest return on an individual security in the portfolio? 2) Can the variance of a portfolio ever be lower than the lowest variance of an individual security in the portfolio?
- A. 1) yes; 2) yes
 - B. 1) yes; 2) no
 - C. 1) no; 2) yes
 - D. 1) no; 2) no
 - E. 1) maybe; 2) no
16. By spreading our investment across many risky assets we can virtually eliminate _____ risk.
- A. market
 - B. systematic
 - C. nondiversifiable
 - D. firm specific
 - E. beta

Partial Credit - 52 points total – SHOW ALL WORK

Problem 1 (15 points) Calculate the WACC for the following firm:

Debt: 45,000 bonds with a 7 percent coupon, a par value of \$1,000, a current price quote of 115.32 with 12 years to maturity. 35,000 bonds with a 5.4 percent coupon, a par value of \$2,000, a current price quote of 106.35 with 25 years to maturity. Both bonds make semiannual coupon payments.

Common Stock: 3,500,000 shares of common stock with a price of \$78 and a beta of 1.1. The company expects to pay a dividend of \$4.65 next year and the dividends will grow at 4.2 percent forever.

Market: The corporate tax rate is 40 percent, the market risk premium is 7 percent, and the risk-free rate is 3.5 percent.

Problem 2 (10 points)

You find a bond with 19 years to maturity that has a semiannual coupon rate of 3.5 percent, a yield to maturity of 3.9 percent, and a par value of \$10,000. What is the dollar price of the bond? Suppose that the price of the bonds fell \$5 from yesterday's price. Did interest rates move up or down on this day?

Problem 3 (11 points)

Hailey Corp. has an unusual dividend policy. The company will pay a dividend of \$7, \$16, \$11, and \$2.90 for each of the next four years, respectively. Afterwards, the company has pledged to increase dividends by 5 percent per year indefinitely. If the required return on the company is 11 percent, how much should you pay for the stock today?

Problem 4 (11 points)

A stock has had returns listed below each year over the past 25 years. What was the average return, variance, and standard deviation of this stock's returns over this period?

Year 1	32%	Year 11	11%	Year 21	37%
Year 2	14%	Year 12	17%	Year 22	-6%
Year 3	9%	Year 13	28%	Year 23	-15%
Year 4	5%	Year 14	7%	Year 24	21%
Year 5	-20%	Year 15	3%	Year 25	14%
Year 6	38%	Year 16	-2%		
Year 7	16%	Year 17	5%		
Year 8	21%	Year 18	14%		
Year 9	-13%	Year 19	19%		
Year 10	8%	Year 20	9%		

Problem 5 (5 points)

In broad terms, why is some risk diversifiable? Why are some risks nondiversifiable? Does it follow that an investor can control the level of unsystematic risk in a portfolio, but not the level of systematic risk?