I. Multiple Choice Questions (Choose the best answer), 60%

1. Which of the following statements is most correct?
   a. If you add enough randomly selected stocks to a portfolio, you can completely eliminate all the *market* risk from the portfolio.
   b. If you formed a portfolio which included a large number of low beta stocks (stocks with betas less than 1.0 but greater than -1.0), the portfolio would itself have a beta coefficient that is equal to the weighted average beta of the stocks in the portfolio, so the portfolio would have a relatively low degree of risk.
   c. If you were restricted to investing in publicly traded common stocks, yet you wanted to minimize the riskiness of your portfolio as measured by its beta, then, according to the CAPM theory, you should invest some of your money in each stock in the market, i.e., if there were 10,000 traded stocks in the world, the least risky portfolio would include some shares in each of them.
   d. Diversifiable risk can be eliminated by forming a large portfolio, but normally even highly diversified portfolios are subject to market risk.
   e. Statements b and d are correct.

2. Which of the following is NOT correct in comparing a share repurchase to a cash dividend in a world with no taxes, transaction costs, or other market imperfections?
   a. The firm's EPS will be higher after the repurchase than it will be after the dividend.
   b. The firm's price/earnings ratio will be the same after the share repurchase or the cash dividend.
   c. The price of the firm's stock will be the same after the share repurchase or the cash dividend.
   d. The firm will have fewer shares of stock outstanding after the repurchase than it will after the dividend.
   e. The total wealth of an individual shareholder will not be affected by the share repurchase or the cash dividend.

3. Which of the following statements is false?
   a. When a corporation's shares are owned by a few individuals who are associated with or are the firm's management, we say that the firm is "closely held."
   b. A publicly owned corporation is simply a company whose shares are held by the investing public, which may include other corporations and institutions as well as individuals.
   c. Going public establishes a true market value for the firm and ensures that a liquid market will always exist for the firm's shares.
   d. When stock in a closely held corporation is offered to the public for the first time the transaction is called "going public" and the market for such stock is called the new issue market.
   e. It is possible for a firm to go public, and yet not raise any additional new capital.

4. Division A has a higher ROE than Division B, yet Division B creates more value for shareholders and has a higher EVA than Division A. Both divisions, however, have positive ROEs and EVAs. What could explain these performance measures?
   a. Division A is riskier than Division B.
   b. Division A is much larger (in terms of equity capital employed) than Division B.
   c. Division A has less debt than Division B.
   d. Statements a and b are correct.
   e. All of the statements above are correct

(背面仍有題目,請繼續作答)

5. Assume a firm has been growing at a 15 percent annual rate and is expected to continue to do so for 3 more years. At that time, growth is expected to slow to a constant 4 percent rate. The firm maintains a 30 percent payout ratio, and this year's retained earnings were \$1.4 million. The firm's beta is 1.25, the risk-free rate is 8 percent, and the market risk premium is 4 percent. If the market is in equilibrium, what is the market value of the firm's common equity (1 million shares outstanding)?
   a. \$ 6.41 million
   b. \$12.96 million
   c. \$ 9.17 million
   d. \$10.56 million
   e. \$ 7.32 million

6. Which of the following actions would reduce the firm's need for external capital (each to be considered independently, with other things held constant)?
   a. An increase in the dividend payout ratio.
   b. A decrease in the profit margin.
   c. A decrease in the days sales outstanding.
   d. An increase in expected sales growth.
   e. A decrease in the accrual accounts (accrued wages and taxes).

7. A company just paid a \$2.00 per share dividend on its common stock (D_0 = \$2.00). The dividend is expected to grow at a constant rate of 7 percent per year. The stock currently sells for \$42 a share. If the company issues additional stock, it must pay its investment banker a flotation cost of \$1.00 per share. What is the cost of external equity?
   a. 11.76%
   b. 11.88%
   c. 11.98%
   d. 12.22%
   e. 12.30%

8. Normal projects C and D are mutually exclusive. Project C has a higher net present value if the WACC is less than 12 percent, whereas Project D has a higher net present value if the WACC exceeds 12 percent. Which of the following statements is most correct?
   a. Project D has a higher internal rate of return.
   b. Project D is probably larger in scale than Project C.
   c. Project C probably has a faster payback.
   d. All of the statements above are correct.
   e. Answers a and c are correct

9. A swap is a method for reducing financial risk. Which of the following statements about swaps, if any, is incorrect?
   a. A swap involves the exchange of cash payment obligations.
   b. The earliest swaps were currency swaps, in which companies traded debt denominated in different currencies, say dollars and pounds.
   c. Swaps are generally arranged by a financial intermediary, who may or may not take the position of one of the counterparties.
   d. A problem with swaps is the lack of standardized contracts, which limits the development of a secondary market.
   e. All of the statements above are correct.

10. If a company uses the same discount rate for evaluating all projects, which of the following results is likely?
    a. Accepting poor, high-risk projects.
    b. Rejecting good, low-risk projects.
    c. Accepting only good, low-risk projects.
    d. Accepting no projects.
    e. Answers a and b are correct.

(The following information applies to the next two problems.)

Oklahoma Instruments (OI) is considering a project that has an up-front cost of $250,000. The project's subsequent cash flows critically depend on whether its products become the industry standard. There is a 50 percent chance that the products will become the industry standard, in which case the project's expected cash flows will be $110,000 at the end of each of the next five years. There is a 50 percent chance that the products will not become the industry standard, in which case the project's expected cash flows will be $25,000 at the end of each of the next five years. Assume that the cost of capital is 12 percent.

11. Based on this information, what is the project's expected net present value?
    a. -$ 6,678
    b. $20,004
    c. -$24,701
    d. $45,965
    e. $15,303

12. Now assume that one year from now OI will know if its products will have become the industry standard. Also assume that after receiving the cash flows at t = 1, the company has the option to abandon the project. If it abandons the project it will receive an additional $100,000 at t = 1, but will no longer receive any cash flows after t = 1. Assume that the abandonment option does not affect the cost of capital. What is the estimated value of the abandonment option?
    a. $ 0
    b. $ 2,075
    c. $ 4,067
    d. $ 8,945
    e. $10,745

13. You manage a bond portfolio and believe that market interest rates are going lower over the next several months. To profit from your belief, you should:
    I. Reduce the average maturity of the portfolio by selling long-term bonds and buying short-term bonds.
    II. Lengthen the average maturity of the portfolio by buying long-term bonds and selling short-term bonds.
    III. Reduce the average coupon rate by selling high-coupon bonds and buying low-coupon bonds.
    IV. Increase the average coupon rate by buying high-coupon bonds and selling low-coupon bonds.
    a. I only
    b. I and II only
    c. II and III only
    d. I and IV only
    e. I, II, III, and IV

(背面仍有題目,請繼續作答)

14. Which of the following statements is most correct?
    a. An option's value is determined by its exercise value, which is the market price of the stock less its striking price. Thus, an option can't sell for more than its exercise value.
    b. As stock price rises, the premium portion of an option on a stock increases because the difference between the price of the stock and the fixed striking price increases.
    c. Issuing options provides companies with a low cost method of raising capital.
    d. The market value of an option depends in part on the option's time to maturity and on the variability of the underlying stock's price.
    e. The potential loss on an option decreases as the option sells at higher and higher prices because the profit margin gets bigger.

15. Which of the following statements is most correct?
    a. A firm can use retained earnings without paying a flotation cost. Therefore, while the cost of retained earnings is not zero, the cost of retained earnings is generally lower than the after-tax cost of debt financing.
    b. The capital structure that minimizes the firm's cost of capital is also the capital structure that maximizes the firm's stock price.
    c. The capital structure that minimizes the firm's cost of capital is also the capital structure that maximizes the firm's earnings per share.
    d. If a firm finds that the cost of debt financing is currently less than the cost of equity financing, an increase in its debt ratio will always reduce its cost of capital.
    e. Statements a and b are correct.

16. Firm A, which is considering a vertical merger with another firm, Firm T, currently has a required return of 13 percent. The required return of the target firm, Firm T, is 18 percent. The expected return on the market is 12 percent and the risk-free rate is 6 percent. Assume the market is in equilibrium. If the combined firm will be one and one-half times as large as the acquiring firm using book values what will be the beta of the new merged firm?
    a. 1.20
    b. 1.45
    c. 1.59
    d. 1.72
    e. 2.00

17. If the inflation rate in the United States is greater than the inflation rate in Sweden, other things held constant, the Swedish currency will
    a. Appreciate against the U.S. dollar.
    b. Depreciate against the U.S. dollar.
    c. Remain unchanged against the U.S. dollar.
    d. Appreciate against other major currencies.
    e. Appreciate against the dollar and other major currencies.

18. Which of the following would decrease a portfolio's systematic risk?
    a. Common stock is sold and replaced with Treasury bills.
    b. Stocks with a beta equal to the market beta are added to a portfolio of Treasury bills.
    c. Low-beta stocks are sold and replaced with high-beta stocks.
    d. A stock is sold in favor of a different stock with the same beta.
    e. The portfolio beta is less than one and the risk-free rate declines.

19. Which of the following managers has a direct influence on the firm's inventory holdings?
    - I. Cash manager
    - II. Production manager
    - III. Payables manager
    - IV. Purchasing manager
    - a. I only
    - b. II only
    - c. II and IV only
    - d. I and III only
    - e. III only

20. An increase in which of the following, all else the same, leads to an increase in call option values?
    - I. Exercise price
    - II. Stock price
    - III. Time to expiration
    - IV. Volatility
    - a. I and III only
    - b. II and IV only
    - c. I, II, and III only
    - d. I, II and IV only
    - e. II, III, and IV only

II. Short Essay Questions, 40%:

1. Consider the following statement by a financial manager: "Since we are financing our new manufacturing facility 100% with equity, we must evaluate it using a higher rate of return than we would if we financed a portion of the facility with debt." Do you agree? Why or why not? Be sure to fully explain the rationale behind your argument. (5%)

2. Equity of a levered firm can be recognized as a call option on the firm's value.
    - a. Explain the interpretation of equity ownership as equivalent to owning a call option on the assets of the firm. (5%)
    - b. A firm has $40 million face value outstanding of zero coupon bonds that mature in three years. The current market value of the firm's assets is $43 million, with a standard deviation of 35% per year. If the risk-free rate is 8% per year compounded continuously, what the market value of the firm's equity is? (5%)
    - c. Based on the information provided in (b), please calculate the value of an American call option written on the firm's equity, with an exercise price of $18 million and an expiration day three years from now. (5%)

3. The following is a summary of an article from The Wall Street Journal.

"Google wants the IPO process to be more democratic and is offering its IPO via an auction. Corporate governance experts, however, are not impressed with their governance practices. Google is offering two classes of stock, A shares and B shares. The A shares offer one vote per share and the B shares offer 10 votes per share. The problem is, the B shares are going to founders and other insiders which effectively allows the founders to retain control of the firm. Irv DeGraw, an assistant professor of finance, believes that since investors are giving Google three billion dollars, they should have more of a say in Google's strategic decisions.

Since the share structure allows the founders to retain most of the voting rights, the company will qualify as a "controlled" company. A controlled company does not have to maintain a majority of outside directors on its board nor does it have to have all of the committees that are required by NYSE and NASD listing requirements."

a. Irv DeGraw, assistant professor of finance, suggests that because investors are handing over 3 billion dollars to Google, they should have more input into how Google is run. Do you agree? Why or why not? (Make sure you address the fact that Google is relatively young and its founders MAY be critical to its ongoing strategic plan). (10%)

b. Governance initiatives are intended to mitigate agency problems. Discuss how voting classes of stock and majority of outside directors would help a firm mitigate agency problems. (10%)