國立中正大學
115學年度碩士班招生考試
試 題
[第3節]

科目名稱	財務管理
系所組別	財務金融學系

—作答注意事項—

※作答前請先核對「試題」、「試卷」與「准考證」之系所組別、科目名稱是否相符。

1. 預備鈴響時即可入場，但至考試開始鈴響前，不得翻閱試題，並不得書寫、畫記、作答。
2. 考試開始鈴響時，即可開始作答；考試結束鈴響畢，應即停止作答。
3. 入場後於考試開始40分鐘內不得離場。
4. 全部答題均須在試卷（答案卷）作答區內完成。
5. 試卷作答限用藍色或黑色筆（含鉛筆）書寫。
6. 試題須隨試卷繳還。

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Part A. Multiple Choice Questions (75 points, 3 points for each question. Please select the best answer)

1. You are evaluating two mutually exclusive investment projects, Project A and Project B, and must choose only one of them. As part of your decision process, you plan to use the incremental internal rate of return (incremental IRR) approach. To compute the incremental IRR, you should calculate the:
   A. Internal rate of return of the incremental cash flows between Project A and Project B.
   B. Internal rate of return for the individual cash flows of each project separately.
   C. Net present value of each project using the internal rate of return as the discount rate.
   D. Discount rate that makes the net present value of each project equal to one.

2. Which of the following most accurately defines a "proxy fight":
   A. A situation where the Board of Directors cannot reach a consensus regarding the appointment of the management team.
   B. A move where a competitor offers to sell their shares back to the company and give up their interest.
   C. A legal process that starts after a company is officially broke or cannot pay its debts.
   D. An attempt by people outside the company to get other shareholders' votes so they can change the current board of directors

3. The single-factor APT model that resembles the market model uses __________ as the single factor.
   A. arbitrage fees
   B. the inflation rate
   C. the market risk premium
   D. the risk-free return

4. MJ Enterprises' stock has historically generated an average annual return of 11.6 percent. The firm has just paid an annual dividend of $2.40, and dividends are expected to grow at a constant rate of 3 percent per year going forward. If you require the firm's historical average rate of return, what is the maximum price you should be willing to pay for the stock?
   A. $22.50 B. $28.74 C. $27.91 D.$28.89

5. A firm has a weighted average cost of capital (WACC) of 14 percent. The expected return on equity is 19 percent, and debt accounts for 60 percent of the firm's total assets. Assuming there are no taxes, what is the firm's cost of debt?
   A. 10.67% B. 6.50% C. 9.90% D. 11.14%

6. Your investment portfolio consists of 30 percent invested in Stock X, 50 percent in Stock Y, and the remaining 20 percent in Stock Z. The beta coefficients of Stock X, Stock Y, and Stock Z are 0.64, 1.48, and 1.04, respectively. What is the beta of the overall portfolio?
A. 1.01 B. 1.05 C. 1.09 D. 1.14

7. Rosina purchased a 15-year bond at par value when it was initially issued. The bond has a coupon rate of 7 percent and matures 13 years from now. If the current market rate for this type and quality of bond is 7.5 percent, then Rosina should expect:
A. the issuer to raise the coupon payments on the bond going forward.
B. the bond's market value today to be higher than its par value.
C. to incur a capital loss if she sells the bond at the current market price
D. the bond's current yield to fall below 7 percent.

8. According to the trade-off theory of capital structure, firms:
A. with greater business risk are expected to rely less on debt financing
B. increase their use of debt whenever borrowing costs are low.
C. are advised to maintain an equal mix of debt and equity financing.
D. employ debt as a means to offset high stock par values.

9. When investors already anticipate a dividend reduction, the formal announcement of a lower dividend will:
A. lead to a drop in the stock price that exceeds the amount of the dividend decrease.
B. result in a rise in the stock price if the dividend reduction is larger than expected.
C. indicate that the subsequent dividend will be reduced by an even greater amount.
D. have no impact on the stock price provided the announcement matches market expectations.

10. Wilson's Meats incurs fixed operating costs of $0.60 per pound of meat sold at a production level of 32,500 pounds. The firm sells top-grade ground beef at a price of $3.89 per pound, and the variable cost is $2.99 per pound. Given that depreciation expense amounts to $16,400, what is the firm's accounting break-even point?
A. 31,948 pounds B. 32,467 pounds C. 39,889 pounds D. 37,338 pounds

11. Assume the risk-free rate is 3.68 percent and the expected market risk premium is 7.84 percent. Using the CAPM, what is the expected return on a stock with a beta of 1.32?
A. 9.17% B. 14.03% C. 9.24% D. 13.12%

12. Wybro's Markets reports annual sales of $684,000 and operating costs of $437,000. The firm records depreciation expense of $109,400 and pays $13,800 in interest. Total assets amount to $712,000, the corporate tax rate is 35 percent, and the equity multiplier is 1.6. What is the firm's return on equity (ROE)?
A. 18.08% B. 7.06% C. 15.48% D. 13.92%

13. New Metals reports earnings before interest and taxes (EBIT) of $62,700. The firm has depreciation expense of $28,300 and interest expense of $11,400. The corporate tax rate is 34 percent. The company's price–earnings (P/E) ratio is 8.6, its profit margin is 7.2 percent, and there are 37,500 shares of common stock outstanding. What is the firm's current market price per share?
A. $5.09 B. $9.92 C. $12.48 D. $7.76

14. The semi-strong form of the efficient market hypothesis asserts that:
A. the efficient market hypothesis holds only partially.
B. professional investors are able to consistently earn abnormal returns, while individual investors cannot.
C. security prices fully incorporate all publicly available information.
D. stock price movements are not random.

15. For a well-diversified stock portfolio, the portfolio variance:
A. can be lower than the variance of the least risky individual stock in the portfolio.
B. is equal to the variance of the most volatile security included in the portfolio.
C. must be equal to or exceed the variance of the least risky stock held in the portfolio.
D. represents a weighted average of the individual securities' variances.

16. As additional, diverse securities are included in a portfolio, the _____ risk of the portfolio declines, whereas the _____ risk remains unchanged.
A. systematic; unsystematic
B. unsystematic; total
C. systematic; total
D. total; systematic

17. If a firm earns the WACC on its assets, then:
A. equityholders will be satisfied, but bondholders will not.
B. bondholders will be satisfied, but equityholders will not.
C. all capital providers will earn exactly their required rates of return.
D. the firm must be undertaking only projects with positive net present value.

18. Which of the following statements is ***correct***?
   A. Both the CAPM and the APT are purely empirical models.
   B. Both the APT and the CAPM imply that a security's expected excess return is proportional to its beta(s)
   C. Compared with the APT, the CAPM offers a more detailed approach to estimating a security's expected return.
   D. The CAPM assigns the market portfolio a beta of one, whereas the APT assigns the market a beta of zero.

19. A credit card charges interest on a monthly compounding basis and has an effective annual rate (EAR) of 12.67 percent. What is the card's stated annual percentage rate (APR)?
   A. 11.99%　　B. 12.00%　　C. 12.35%　　D. 11.87%

20. An investor purchases a share of stock for $26 today. After one year, the investor receives a $2 dividend and sells the stock for $30. Dividends are taxed at a rate of 40 percent, while capital gains are taxed at 20 percent. What is the investor's after-tax rate of return?
   A. 23.08%　　B. 31.15%　　C. 9.23%　　D. 16.92%

21. Kay has two annuities, each paying $500 per month for the next 12 years. One annuity pays at the beginning of each month (annuity due), and the other pays at the end of each month (ordinary annuity). If the discount rate is 7.25% APR compounded monthly, what is the difference between the present values of the two annuities?
   A. $308.00　　B. $331.01　　C. $289.98　　D. $312.50

22. Put-call parity can be used to show:
   A. the exact pricing relationship between put and call options that share the same exercise price and expiration date.
   B. the extent to which a call option can be in the money.
   C. the extent to which a put option can be in the money.
   D. that a call option is always worth twice as much as a put option when both have the same exercise price and maturity.

23. Debt covenants that limit a firm's ability to take on additional borrowing are mainly intended to protect:
   A. shareholders' residual claims on the firm's assets.
   B. managers by minimizing agency costs.
   C. debtholders against fluctuations in market interest rates.
   D. debtholders by reducing the risk that their claims will be diluted by new debt issues.

24. According to MM's dividend proposition, shareholders will:
    A. be willing to pay higher prices for stocks that distribute larger dividends.
    B. value stocks with lower dividend payouts more highly.
    C. not be willing to pay a premium for stocks with higher dividend payments.
    D. invest exclusively in firms that pay high dividends.

25. Which of the following statements ***correctly*** describes a holder of a call option?
    A. Call option holders are exempt from paying income taxes.
    B. Call option holders are not entitled to receive dividends
    C. The profit potential of a call option holder is limited.
    D. Investors who purchase call options cannot incur losses because they are not required to exercise them.

Part B. Problem Sets (25 points)

1. Riverside Bank Holdings has received a merger proposal from Pioneer County Financial Corp. Riverside's common stock is currently trading at $40 per share. As part of the merger agreement, Pioneer County Financial Corp. agrees to pay Riverside's shareholders a bonus of $10 per share.
   A. If Pioneer County Financial Corp.'s shares are currently trading at $65 per share. How many Pioneer County shares could be exchanged for one share of Riverside's shareholders? (5 points)
   B. Assume that Riverside Bank Holdings has 10,000 shares outstanding, and Pioneer County Financial Corp. has 30,000 shares outstanding. How many shares in the merged firm will Riverside Bank Holdings wind up with after the merge? (5 points)
   C. How many total shares will the merged firm have outstanding after the merger? (5 points)

2. Consolidated Bakeries requires 100,000 bushels of corn each quarter as an input for its production process. The current spot price of corn is $3.75 per bushel, but management is concerned that corn prices may increase over the next three months. To hedge against the risk of rising input costs, the firm considers purchasing call options on corn. Each option contract covers 5,000 bushels, has a strike price of $3.80 per bushel, and requires the payment of an option premium of $0.03 per bushel. Assume that Consolidated Bakeries purchases a sufficient number of call option contracts to fully hedge its quarterly corn requirement.
   A. If the spot price of corn in three months is $3.90 per bushel, calculate the total savings generated by using the call option hedge. (5 points)
   B. If the spot price of corn remains unchanged at $3.75 per bushel after three months, calculate the total cost of hedging. (5 points)