財務金融學系

風險管理與保險學系

碩士班招生考試

(第1頁 共5頁)

財務管理 試題

(限用答案本作答)

答題說明:

- (1) 本科目考試可使用計算機,但不可使用電子辭典。
- (2)「單選題」未依指定格式作答者,不予計分。
- (3) 「填充題」小題題號及答案標示不清楚者,不予計分。

、單選題: 45%

作答格式(請務必標示題號,否則不予計分):

| 作答格式(請求 | 5必孫不起疏, | 名別小1007 | | |
|---------|---------|---------|-----|-----|
| 1. 答案 | 2. 答案 | 3. 答案 | 4. | 5. |
| 6. | 7. | 8. | 9. | 10. |
| 11 | 12. | 13. | 14. | 15. |
| 111. | 12. | | | |

- 1. You are evaluating whether to retire your current computer modem product and replace it with a new modem that incorporates new features. Which of the following would NOT be relevant to your decision-making process?
 - (A) \$50,000 spent on research and development costs over time on the older modem. (B) A loss in revenues of \$30,000 from terminating the old modem line. (C) Equipment you own with a market value of \$30,000 that can be used to build the new modems. (D) \$100,000 paid to a market research firm to evaluate the sales prospects for the new modem. out-well agreement in ob-
- 2. Use the following to answer question:

52 Weeks Yld Chg. Close Hi Lo Stock 48.72 20.10 Duke Energy 100s Lo PE Sym 0,56 30.20 31.55 29.40 20925 1.00 3.3 18 DUK 48.72

You believe that the required return on Duke stock is 16% and that the expected dividend growth rate is 12%, which is expected to remain constant for the foreseeable future. Is the stock currently overvalued, undervalued, or fairly priced?

- (D) Cannot tell without more information. (C) Fairly priced (A) Overvalued (B) Undervalued
- 3. Killnum Corp. announces that the dividend for the next year will be \$2.50 per share rather than the originally expected \$1.50 per share. From then on, it is expected that dividends will resume their historical constant growth rate of 5% per year. What would you expect to happen to the price of the stock? Ignore any tax effects. (A) The price will likely double. (B) The price will likely rise by less than 100%. (C) The price will likely rise by exactly 50%. (D) The price will remain unchanged.

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- 4. You note that the return on investment A tends to vary only slightly from its average, definitely less so than does investment B. Based on this, you believe that:
 - (A) A has a lower inflation premium than B. (B) A has a lower return volatility than B. (C)A has a higher variance than B. (D) A has a higher standard deviation than B.
- 5. You are a day trader of stocks and have discovered that you can earn unusually large returns by purchasing stocks at the open of the day's trading, selling them at noon, buying the shares back at 1:00, and selling the shares again right before the market close. Which of the following describes this trading strategy?
 - (A) This would not be a violation of market efficiency. (B) This would be a violation of weak form efficiency.
 - (C) This would be a violation of semi-strong form efficiency. (D) This would be a violation of strong form efficiency.
- 6. Use the following historical data over the 1926-2001 period to answer question:

| Asset | Average Return | Standard Deviation |
|----------------------------|----------------|--------------------|
| Large-company stocks | 12.7% | 20.2% |
| | 17.3% | 33.2% |
| Small-company stocks | | 9.4% |
| Long-term government bonds | | 3.2% |
| US.Treasury bills | | |

NOT state, with 95% confidence, that next year's stock return might be equal to?

(A) -30.4% (B) -25.6% (C) 33.5% (D) 52.0%.

- 7. Which of the following constitute acceptable means of making delivery on a stock index futures contract?

 (A)cash (B) treasury bills (C)Both of the above answers are correct (D)None of the above answers are correct.
- 8. Stock A has a beta coefficient of 0.9, and stock B has a beta coefficient of 1.2. Which of the following statements is FALSE regarding these two stocks?
 - (A) Stock A is less risky from the market's perspective than a typical stock, and stock B is more risky than a typical stock.

 (B)Stock B, if purchased, will increase the market risk of a portfolio more than stock A would (if purchased).

 (C)Stock A necessarily must have a lower standard deviation of returns than stock B.

 (D)Stock B must have a higher expected return than stock A if markets are efficient.
- 9. Which of the following is true regarding a stock with beta equal to 1.5?
 - (A)The stock has a 50% higher expected return than the average stock. (B) Given a market risk premium of 10%, the expected return on the stock would be 15%. (C)The stock has 50% more systematic risk than the average stock. (D) The standard deviation of the stock is 50% greater than the market portfolio.

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| 10. In a bear market which option positions make money? |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. Buying a call |
| II. Writing a call |
| III. Buying a put |
| IV. Writing a put |
| (A) I and II (B) I and IV (C) II and III (D) II and IV. |
| 11. A bank with long term fixed rate assets funded by short term floating rate liabilities could hedge this risk by |
| I. Buying a T-bond futures contracts |
| II. Buying options on a T-bond futures contract |
| III. Enter into a swap agreement to pay a fixed rate and receive a variable rate was some to |
| IV: Enter into a swap agreement to pay a variable rate and receive a fixed rate |
| (C) Therefore (C) Therefore (C) Therefore |
| 12. You have \$500,000 available to invest. The risk-free rate as well as your borrowing rate is 8%. The return |
| on the risky portfolio is 16%. If you wish to earn a 22% return, you should |
| |
| (A) invest \$125,000 in the fisk-field asset (B) invest 4574,000 in the fisk-field asset |
| (D)borrow \$375,000. |
| 13. What is the expected return on the market? |
| de return et al. |
| SMEs PRO |
| |
| Will the state of |
| 55. |
| 0 beta 25 1 see |
| (A) 5% (B)10% (C)15% (D)none of the above. |
| 14. If you expect a market downturn, one potential defensive strategy would be to |
| (A)buy stock index futures (B)sell stock index futures (C)buy stock index options (D)sell foreign |
| exchange futures. |
| 15. Which is a true statement regarding the variance of risky portfolios? |
| (A) The higher the coefficient of correlation between securities, the greater will be the reduction in the |
| portfolio variance. (B) There is a direct relationship between the securities coefficient of correlation and |
| the portfolio variance. (C)The degree to which the portfolio variance is reduced depends on the degree o |
| correlation between securities. (D)none of the above. |
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二、填充題:55% (每一小題 5 分,作答時請務必標上小題之題號(1)~(11),否則不予計分)

1. Which of the following two stocks is more volatile based on their historical returns? (1)

 Year
 1
 2
 3
 4
 5

 Return A
 .05
 .08
 .11
 .14
 .17

 Return B
 .20
 .22
 .24
 .26
 .28

2. What is the beta for a portfolio equally weighted in four assets: A, the market portfolio; B, which has half the risk of A; C, which has twice the risk of A; and D, which is risk-free? (取至小數第三位)____(2)____

3. Given the following information, what is the portfolio standard deviation (取至小數第四位)? (3)

| State | Probability | Return |
|-----------|-------------|--------|
| Boom | .25 | .40 |
| Good | .50 | .15 |
| Recession | .25 | .05 |

4. Use the following to answer questions:

| | Standard Deviation | Beta |
|------------|--------------------|------|
| Security X | 0.35 | 1.45 |
| Security Y | 0.28 | 1.06 |
| | 0.44 | 1.22 |

(a) Which security has the greatest total risk? (4)

(b). Which security has the greatest expected return? (5)

- 5. A firm with no debt has 200,000 shares outstanding valued at \$20 each. Its cost of equity is 12%. The firm is considering adding \$1 million in debt to its capital structure. The coupon rate would be 8% and the bonds would sell for par value. The firm's tax rate is 34%. How much will the firm be worth after adding the debt?

 (6)
- 6. Consider a treasury bill with a rate of return of 5% and the following risky securities:

Security A: E(r) = .15; $\sigma^2 = .0400$

Security B: E(r) = .10; $\sigma^2 = .0225$

Security C: E(r) = .12; $\sigma^2 = .1000$

Security D: E(r) = .13; $\sigma^2 = .0625$

The investor must develop a complete portfolio by combining the risk-free asset with one of the securities mentioned above. The security the investor would choose as part of his complete portfolio would be

(7)____

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7. Use the following to answer questions:

| Summary Output | |
|-----------------------|-------|
| Regression Statistics | |
| Multiple R | 0.35 |
| R Square | 0.12 |
| Adjusted R Square | 0.02 |
| Standard Error | 38.45 |
| Observations | 12 |

| | Coefficients | Standard Error | t Stat | P-value |
|-----------|--------------|----------------|--------|---------|
| Intercept | 4.05 | 15.44 | 0.26 | 80 |
| Market | 1.32 | 0.97 | 1.36 | .10 |

- (a). The characteristic line for this stock is __(8)
- (b). (9) percent of the variance is explained by this regression
- 8. Use the following to answer questions:

The average returns, standard deviations and betas for three funds are given below along with data for the S&P 500 index. The riskfree return during the sample period is 6%.

| Fund A | Avg. Return 13.6% | | Dev. 0% | Beta 1.1 |
|--------------|----------------------|-------|------------|-------------|
| В | 13.1% | 0.000 | 5% | 1.0 |
| C S&P 500 | ∤ | | 0% 5% | 1.0 |

- (a). The fund with the highest Sharpe index of performance is ______.
- (b). The fund with the highest Treynor index of performance is __(11)___.

試題完