

國立高雄大學 104 學年度研究所碩士班招生考試試題

科目：財務管理  
考試時間：100 分鐘

系所：金融管理學系  
本科原始成績：100 分

是否使用計算機：是

**I. Multiple Choice Questions (2 points each, total 60 points)**

**Please write down the answers on the provided answer sheet.**

1. What happens to the security market line (SML) if the following events occur, other things constant: (1) inflation expectations increase, and (2) investors become more risk averse?
  - A. Shift down and have less slope
  - B. Shift down and keep the same slope
  - C. Shift up and have less slope
  - D. Shift up and keep the same slope
  - E. Shift up and have a steeper slope
  
2. The nominal risk free rate of interest is a function of
  - A. The real risk free rate and the rate of inflation.
  - B. The tax free rate plus the rate of inflation.
  - C. The T-bill rate plus the inflation rate.
  - D. The prime rate and the rate of inflation.
  - E. The real risk free rate and the investment's variance.
  
3. Capital market instruments include all of the following **except**
  - A. Treasury notes.
  - B. Municipal bonds.
  - C. U.S. government agency securities.
  - D. Repurchase agreements.
  - E. Corporate bonds.
  
4. An investor who purchases a call option:
  - A. Has the right to sell a given stock at a specified price during a designated time period.
  - B. Has the right to buy a given stock at a specified price during a designated time period.
  - C. Has the obligation to sell a given stock at a specified price during a designated time period.
  - D. Has the obligation to buy a given stock at a specified price during a designated time period.
  - E. None of the above.
  
5. An ETF(exchange traded fund) is priced \_\_\_\_\_:
  - A. at the open and close of trading.
  - B. once a day at the close of trading.
  - C. continuously during the trading day.
  - D. once a day at the opening of trading.
  - E. None of the above.
  
6. Convertible bonds are bonds
  - A. That have an option attached.
  - B. That are convertible into more bonds.
  - C. That are convertible from unsecured to secured status.
  - D. That are convertible into company stock.
  - E. That are convertible into specific assets.

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7. The hypothesis that market prices reflect all available information of every kind is called \_\_\_\_\_ form efficiency.
- A. weak
  - B. stable
  - C. open
  - D. strong
  - E. semistrong
8. If behavioral finance holds, this implies:
- A. some investors are irrational some of the time.
  - B. some investors are irrational all of the time.
  - C. all investors are irrational some of the time.
  - D. all investors are irrational all the time.
  - E. all investors are irrational none of the time.
9. The length of time between the sale of inventory and the collection of cash from receivables is called the:
- A. accounts payable period.
  - B. operating cycle.
  - C. cash cycle.
  - D. inventory period.
  - E. accounts receivable period.
10. An agreement to trade currencies based on the exchange rate today for settlement within two business days is called a(n) \_\_\_\_\_ trade.
- A. forward
  - B. futures
  - C. spot
  - D. option
  - E. swap
11. Suppose that the spot rate on the Canadian dollar is C\$1.20. The risk-free nominal rate in the U.S. is 4% while it is only 2% in Canada. Which one of the following **two-year forward rates** best establishes the approximate interest rate parity condition?
- A. C\$1.154
  - B. C\$1.177
  - C. C\$1.248
  - D. C\$1.224
  - E. C\$1.200

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12. The expected inflation rate in Taiwan is 1.5% while it is 6% in China. A risk-free asset in China is yielding 8.5%. What yield should you expect on a risk-free Taiwan security?
- A. 2.0%
  - B. 2.5%
  - C. 3.0%
  - D. 3.5%
  - E. 4.0%
13. Based on capital market history, the order of the average return relationship from lowest to highest between securities is:
- A. corporate bonds, Treasury bills, small company stocks, large company stocks.
  - B. Treasury bills, corporate bonds, large company stocks, small company stocks.
  - C. Treasury bills, government bonds, large common stocks, corporate bonds, small company stocks.
  - D. Treasury bills, government bonds, large common stocks, corporate bonds, small company stocks.
  - E. small company stocks, corporate bonds, Treasury bills, government bonds, large company stocks.
14. Financial ratios that measure a firm's ability to pay its bills over the short run without undue stress are known as \_\_\_\_\_ ratios.
- A. asset management
  - B. profitability
  - C. market value
  - D. long-term solvency
  - E. short-term solvency
15. The following are important functions of financial markets:
- I) Source of financing; II) Provide liquidity; III) Reduce risk; IV) Source of information
- A. I only
  - B. I and II only
  - C. III and IV
  - D. I, II, III, and IV
  - E. IV only
16. Accounting profits and cash flows are:
- A. generally the same since they reflect current laws and accounting standards.
  - B. generally the same since accounting profits reflect when the cash flows are received.
  - C. generally not the same since GAAP allows for revenue recognition separate from the receipt of cash flows.
  - D. generally not the same because cash inflows occur before revenue recognition.
  - E. none of the above.

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17. Earnings per share is equal to:
- A. net income divided by total shareholders' equity.
  - B. net income divided by the par value of the common stock.
  - C. gross income multiplied by the par value of the common stock.
  - D. operating income divided by the par value of the common stock.
  - E. none of the above.
18. The receivables turnover ratio is measured as:
- A. accounts receivable divided by sales.
  - B. sales divided by accounts receivable.
  - C. sales minus accounts receivable, divided by sales.
  - D. accounts receivable times sales.
  - E. none of the above.
19. An investment has the following cash flows. Should the project be accepted if it has been assigned a required return of 9.5%? Why or why not?
- | <u>Year</u> | <u>Cash Flow</u> |
|-------------|------------------|
| 0           | -\$24,000        |
| 1           | \$ 8,000         |
| 2           | \$12,000         |
| 3           | \$ 9,000         |
- A. no; because the IRR is 9.89%..
  - B. yes; because the IRR is less than the required return by about 3.9%.
  - C. yes; because the IRR is positive.
  - D. no; because the IRR exceeds the required return by about 3.9%.
  - E. none of the above.
20. Which of the following are examples of an incremental cash flow?
- I. an increase in accounts receivable
  - II. a decrease in net working capital
  - III. an increase in taxes
  - IV. a decrease in the cost of goods sold
- A. I and III only
  - B. I, II, III, and IV
  - C. I and IV only
  - D. I, III, and IV only
  - E. none of the above.
21. All else constant, as the variable cost per unit increases, the:
- A. net profit increases.
  - B. sensitivity to fixed costs decreases.
  - C. degree of operating leverage decreases.
  - D. contribution margin decreases.
  - E. both B and D.

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22. Scenario analysis is different than sensitivity analysis:
- A. because no economic forecasts are changed.
  - B. because it is short and simple.
  - C. because scenario analysis deals with actual data versus sensitivity analysis which deals with a forecast.
  - D. because several variables are changed together.
  - E. both C and D.
23. Using the CAPM to calculate the cost of capital for a risky project assumes that:
- A. using the firm's beta is the same measure of risk as the project.
  - B. the firm is all-equity financed.
  - C. the financial risk is equal to business risk.
  - D. Both B and C.
  - E. Both A and B.
24. The slope of the characteristic line is the estimated:
- A. intercept.
  - B. market risk premium.
  - C. unsystematic risk.
  - D. market variance.
  - E. none of the above.
25. For a multi-product firm, if a project's beta is different from that of the overall firm, then the:
- A. CAPM can no longer be used.
  - B. project should be discounted using the overall firm's beta.
  - C. project should be discounted at the market rate.
  - D. project should be discounted at a rate commensurate with its own beta.
  - E. none of the above.
26. A key assumption of MM's Proposition I without taxes is:
- A. that financial leverage increases risk.
  - B. that individuals can borrow on their own account at rates less than the firm.
  - C. that individuals must be able to borrow on their own account at rates equal to the firm.
  - D. managers are acting to maximize the value of the firm.
  - E. none of the above.
27. The reason that MM Proposition I does not hold in the presence of corporate taxation is because:
- A. levered firms pay less taxes compared with identical unlevered firms.
  - B. bondholders require higher rates of return compared with stockholders.
  - C. earnings per share are no longer relevant with taxes.
  - D. dividends are no longer relevant with taxes.
  - E. both A and C.

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28. If a firm issues debt but writes protective and restrictive covenants into the loan contract, then the firm's debt may be issued at a \_\_\_\_\_ interest rate compared with otherwise similar debt.
- A. significantly higher
  - B. slightly higher
  - C. equal
  - D. lower
  - E. Either C or B
29. Which of the following are factors that favor a high dividend policy?
- I. stockholders desire for current income
  - II. tendency for higher stock prices for high dividend paying firms
  - III. investor dislike of uncertainty
  - IV. high percentage of tax-exempt institutional stockholders
- A. I and III only
  - B. II and IV only
  - C. I, III, and IV only
  - D. I, II, III, and IV
  - E. none of the above.
30. The information content of a dividend increase generally signals that:
- A. the firm has a one-time surplus of cash.
  - B. the firm has few, if any, net present value projects to pursue.
  - C. management believes that the future earnings of the firm will be strong.
  - D. the firm has more cash than it needs due to sales declines.
  - E. both B and C.

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**II. Problem Solving and Essay Questions (total 40 points)**

- Based on the portfolio theory, we can diversify risk by forming a portfolio. What are the major determinants of the portfolio risk? (10 points)
- The following table shows the information of Microsoft Corporation (MSFT) options expired on July 17, 2015 on the Yahoo Finance website. Assume that the spot price of MSFT is \$46.6 today. Based on the following information, write down the contract numbers which are in-the-money, at-the-money, or out-of-the-money. (10 points)

**Call**

Strike	Last	Bid	Ask	Change	%Change	Volume	Open Interest	Implied Volatility	Contract Number
44.00	4.00	4.10	4.20	0.20	+5.26%	13	356	20.97%	1
45.00	3.90	3.45	3.60	0.00	0.00%	10	1824	20.91%	2
46.00	2.91	2.96	3.05	-0.39	-11.82%	133	2622	20.79%	3
47.00	2.44	2.45	2.50	-0.30	-8.76%	85	4127	20.23%	4
48.00	1.98	2.03	2.07	-0.39	-16.46%	889	4238	20.14%	5

**Put**

Strike	Last	Bid	Ask	Change	%Change	Volume	Open Interest	Implied Volatility	Contract Number
44.00	1.93	1.94	1.97	0.20	+16.18%	105	538	24.06%	6
45.00	2.29	2.29	2.36	0.23	+16.99%	130	6915	23.76%	7
46.00	2.74	2.77	2.81	0.20	+9.06%	146	542	23.56%	8
47.00	3.30	3.25	3.35	0.36	+12.24%	8	998	23.65%	9
48.00	3.80	3.80	3.90	0.25	0.00%	2	1235	23.43%	10

- Joyce receives \$100 on the first of each month. Tess receives \$100 on the last day of each month. Both Joyce and Tess will receive payments for five years. At an 8% discount rate, what is the difference in the present value of these two sets of payments? (5 points)
- Your firm purchased a warehouse for \$385,000 six years ago. Four years ago, repairs were made to the building which cost \$60,000. The annual taxes on the property are \$20,000. The warehouse has a current book value of \$268,000 and a market value of \$245,000. The warehouse is totally paid for and solely owned by your firm. If the company decides to assign this warehouse to a new project, what value, if any, should be included in the initial cash flow of the project for this building? (5 points)
- NUK Company, a company in the 40% tax bracket, has riskless debt in its capital structure which makes up 30% of the total capital structure, and equity is the other 70%. The beta of the assets for this business is .9 and the equity beta is? (5 points)
- Given the following information, leverage will add how much value to the unlevered NUK Corp. per dollar of debt? (5 points)  
 Corporate tax rate: 34%  
 Personal tax rate on income from bonds: 20%  
 Personal tax rate on income from stocks: 30%