

國立高雄大學 102 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 by following the format on the provided answer sheet. No points earned without following the format.**

1. An investment is acceptable if the profitability index (PI) of the investment is:
  - A. greater than zero.
  - B. greater than the WACC.
  - C. greater than the internal rate of return (IRR).
  - D. greater than the net present value (NPV).
  - E. none of the above
2. If the interest rate on debt is lower than ROA, then a firm will \_\_\_\_\_ by increasing the use of debt in the capital structure.
  - A. increase the ROE
  - B. not change the ROE
  - C. decrease the ROE
  - D. change the ROE in an indeterminable manner
  - E. none of the above
3. All else equal, the payback period for a project will decrease whenever the:
  - A. initial cost decreases.
  - B. required return for a project increases.
  - C. assigned discount rate decreases.
  - D. cash inflows are moved later in time.
  - E. duration of a project is lengthened.
4. Including the option to expand in your project analysis will tend to:
  - A. have no effect on either a project's cash flows or its net present value.
  - B. increase the cash flows of a project but decrease the project's net present value.
  - C. decrease the internal rate of return (IRR) of a project.
  - D. increase the net present value of a project.
  - E. none of the above.
5. Beta is the slope of the:
  - A. efficient frontier.
  - B. efficient portfolio.
  - C. security market line.
  - D. capital market line.
  - E. None of the above.
6. MM Proposition I with corporate taxes states that:
  - A. capital structure can not affect firm value.
  - B. by raising the debt-to-equity ratio, the firm can lower its taxes and thereby decrease its total value.
  - C. firm value is maximized at an all debt capital structure.
  - D. All of the above.
  - E. None of the above.

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7. In calculating the NPV using the flow-to-equity approach the discount rate is the:
  - A. all equity cost of capital.
  - B. cost of equity for the levered firm.
  - C. all equity cost of capital minus the weighted average cost of debt.
  - D. weighted average cost of capital.
  - E. None of the above.
8. 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 can borrow on their own account at rates equal to the firm.
  - D. that individuals can borrow on their own account at rates greater than the firm.
  - E. None of the above.
9. The increase in risk to equityholders when financial leverage is introduced is evidenced by:
  - A. lower EPS as leverage increases.
  - B. a higher variability of EPS with debt than all equity.
  - C. lower ROE as leverage increases.
  - D. equivalence value between levered and unlevered firms in the presence of taxes.
  - E. None of the above.
10. The MM theory with taxes implies that firms should issue maximum debt. In practice, this is not true because:
  - A. debt is more risky than equity.
  - B. firms will incur large agency costs of short term debt by issuing long term debt.
  - C. bankruptcy is a disadvantage to debt.
  - D. Both A and C.
  - E. None of the above.
11. All else equal, the market value of a stock will tend to decrease by roughly the amount of the dividend on the:
  - A. dividend declaration date.
  - B. date of payment.
  - C. date of record.
  - D. ex-dividend date.
  - E. None of the above.
12. 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. future growth opportunity will be lower.
  - D. the firm has more cash than it needs due to sales declines.
  - E. None of the above.
13. From a tax-paying investor's point of view, a stock repurchase:
  - A. is more desirable than a cash dividend.
  - B. is equivalent to a cash dividend.
  - C. has the same tax effects as a cash dividend.

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- D. is more highly taxed than a cash dividend.  
E. creates a tax liability even if the investor does not sell any of the shares he owns.
14. Concerning convertible bonds, which of the following statements is not correct?  
A. The value of a convertible bond will generally be greater than its straight bond value.  
B. The value of a convertible bond will generally be greater than its conversion value.  
C. The coupon rate on a nonconvertible bond will generally exceed the coupon rate on an otherwise identical convertible bond.  
D. The difference between the conversion value and the straight bond value is the conversion premium.  
E. A convertible bond issue would generally have fewer restrictive covenants than an otherwise identical nonconvertible bond.
15. If an acquisition does not create value, then the:  
A. EPS of the acquiring firm must be the same both before and after the acquisition.  
B. EPS can change but the stock price of the acquiring firm should remain constant.  
C. price per share of the acquiring firm should increase because of the growth of the firm.  
D. EPS will most likely increase while the price-earnings ratio remains constant.  
E. None of the above.
16. If statistical tests of stock returns over time support the efficient market hypothesis, the resulting correlations should be  
A. Positive.  
B. Negative.  
C. Zero.  
D. Lagged.  
E. Skewed.
17. By combining lending and borrowing at the risk-free rate with the efficient portfolios, which of the followings is(are) correct?  
I. extend the range of investment possibilities.  
II. change efficient set of portfolios from being curvilinear to a straight line.  
III. provide a higher expected return for any level of risk except the tangential portfolio.  
A. I only  
B. II only  
C. I and II only  
D. II and III only  
E. I, II, and III
18. An investor who purchases a call option:  
A. Has the right to buy a given stock at a specified price during a designated time period.  
B. Has the right to sell a given stock at a specified price during a designated time period.  
C. Has the obligation to buy a given stock at a specified price during a designated time period.  
D. Has the obligation to sell a given stock at a specified price during a designated time period.  
E. None of the above.

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19. What is the basic distinction between a primary and a secondary market?
- A. Proceeds from sales in the primary market go to the current owner of a security and proceeds in secondary market go to the original owner.
  - B. Primary markets involve direct dealings within regional exchanges.
  - C. New securities are sold in the primary market and outstanding securities are bought and sold in the secondary market.
  - D. Primary markets deal exclusively in bonds and secondary markets deal primarily in common stocks.
  - E. None of the above.
20. In a value weighted index,
- A. Exchange rate fluctuations have a large impact.
  - B. Exchange rate fluctuations have a small impact.
  - C. Large companies have a disproportionate influence on the index.
  - D. Small companies have an exaggerated effect on the index.
  - E. None of the above.
21. A portfolio manager is considering adding another security to his portfolio. The correlations of the 5 alternatives available are listed below. Which security would enable the highest level of risk diversification
- A. 0.0
  - B. 0.25
  - C. -0.25
  - D. -0.75
  - E. 1.0
22. The separation theorem divides decisions on \_\_\_\_\_ from decisions on \_\_\_\_\_.
- A. lending, borrowing
  - B. risk, return
  - C. investing, financing
  - D. risky assets, risk free assets
  - E. buying stocks, buying bonds
23. Unlike the capital asset pricing model, the arbitrage pricing theory requires only the following assumption:
- A. A quadratic utility function.
  - B. Normally distributed returns.
  - C. The stochastic process generating asset returns can be represented by a factor model.
  - D. A mean-variance efficient market portfolio consisting of all risky assets.
  - E. All of the above
24. Determinants of market liquidity include all **except** the
- A. Number of shares traded.
  - B. Dollar value of shares traded.
  - C. Bid-ask spread.
  - D. Number of security owners.
  - E. Market price per share.

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25. Economies of \_\_\_\_\_ exist whenever the same investment can support multiple profitable activities less expensively in combination than separately.
- A. scale
  - B. size
  - C. distance
  - D. scope
  - E. globalization
26. The "beta" is a measure of
- A. unique risk.
  - B. total risk.
  - C. market risk.
  - D. operational risk.
  - E. technology risk.
27. The difference between Total Assets of a firm and its Total Liabilities is called \_\_\_\_\_.
- A. Net working capital
  - B. Net current assets
  - C. Net worth
  - D. Net present value
  - E. Net cash flow
28. If you sold a corn futures contract for \$3.80 per bushel and the contract ended at \$3.50, how much will you net per bushel? (Assume no transaction costs.)
- A. \$3.75
  - B. \$0.30
  - C. -\$0.30
  - D. \$3.50
  - E. -\$3.50
29. Given the following data: Sales = 3200; Cost of goods sold = 1600; Average total assets = 1600; Average inventory = 200, calculate the asset turnover ratio:
- A. 2.0
  - B. 0.125
  - C. 1.33
  - D. 1.0
  - E. 0.5
30. A put option on the NUK stock, with an exercise price of \$100, is selling for \$5.00 and the stock price is also \$100. The put option has a delta of 0.5. If within a short period of time the stock price decreases to \$98, what would be the change in the price of the put option?
- A. increases by \$1.00
  - B. decreases by \$1.00
  - C. increases by \$2.00
  - D. decreases by \$2.00
  - E. increases by \$0.50

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

1. What is the cost of equity for NUK Corp., if it's corporate tax rate is 20%? The firm has a debt-to-equity ratio of 1.5. If it had no debt, its cost of equity would be 16%. Its current cost of debt is 10%. (5 points)
2. The NUK Corp. is planning construction of a new shipping depot for its single manufacturing plant. The initial cost of the investment is \$1 million. Efficiencies from the new depot are expected to reduce costs by \$110,000 forever. The corporation has a total value of \$60 million and has outstanding debt of \$40 million. What is the NPV of the project if the firm has an after tax cost of debt of 6% and a cost equity of 9%? (5 points)
3. The NUK Corp. uses packing machines to prepare its products for shipping. One machine costs \$136,000 and lasts about 4 years before it needs replaced. The operating cost per machine is \$6,000 a year. What is the equivalent annual cost of one packing machine if the required rate of return is 12%? (5 points)
4. The NUK Corp. has debt of \$80 million. Bonds with similar characteristics are yielding 6%. The company also has 4 million shares of common stock outstanding. The stock has a beta of 1.1 and sells for \$40 a share. The Treasury bill is yielding 4% and the market risk premium is 8%. NUK's tax rate is 35%. What is NUK's weighted average cost of capital? (5 points)
5. What is Du Pont Equation? If a firm wants to raise its return on equity (ROE), which three aspects can improve its ROE? (5 points)
6. What are the differences between an operating lease and a financial lease? (5 points)
7. When the financial markets become more globalized, the portfolio becomes less diversified. Explain the sentence above by using the concept of the portfolio theory. (10 points)