

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

I. Multiple Choice Questions (3 points each, total 60 points)

Please write down the answers on the provided answer sheet.

1. All else equal, the payback period for a project will decrease whenever the:
 - a. initial cost increases.
 - b. required return for a project increases.
 - c. assigned discount rate decreases.
 - d. cash inflows are moved earlier in time.
 - e. none of the above.

2. Sensitivity analysis is conducted by:
 - a. holding all variables at their base level and changing the required rate of return assigned to a project.
 - b. changing the value of two variables to determine their interdependency.
 - c. changing the value of a single variable and computing the resulting change in the current value of a project.
 - d. assigning either the best or the worst possible value to every variable and comparing the results to those achieved by the base case.
 - e. none of the above.

3. Including the option to expand in your project analysis will tend to:
 - a. extend the duration of a project but not affect the project's net present value.
 - b. increase the cash flows of a project but decrease the project's net present value.
 - c. have no effect on either a project's cash flows or its net present value.
 - d. decrease the net present value of a project.
 - e. none of the above.

4. 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.

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

5. 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.

6. A firm should select the capital structure which:
 - a. produces the highest cost of capital.
 - b. has no debt.
 - c. minimizes taxes.
 - d. is fully unlevered.
 - e. none of the above.

7. When shareholders pursue selfish strategies such as taking large risks or paying excessive dividends, these will result in:
 - a. no action by debtholders since these are equity holder concerns.
 - b. positive agency costs, as bondholders impose various restrictions and covenants which will diminish firm value.
 - c. lower agency costs, as shareholders have more control over the firm's assets.
 - d. undertaking scale enhancing projects.
 - e. none of the above.

8. 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. the firm has more cash than it needs due to sales declines.
 - d. management believes that the future earnings of the firm will be strong.
 - e. none of the above.

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

9. A convertible bond has a 8% annual coupon and 15 years to maturity. The face value is \$1,000 and the conversion ratio is 40. The stock currently sells for \$20.875 per share. Similar nonconvertible bonds are priced to yield 9%. The value of the convertible bond is at least:
- \$919.39.
 - \$835.00
 - \$1,000.00.
 - \$1,570.11.
 - None of the above.
10. Modified internal rate of return:
- handles the multiple IRR problem by combining cash flows until only one change in sign change remains.
 - requires the use of a discount rate.
 - does not require the use of a discount rate.
 - Both A and B.
 - None of the above.
11. The current spot exchange rate, S_0 , is NT\$31.11 /USD. Suppose that the yield curve in both countries is flat. The risk-free rate on NT dollars, $r_{NT\$}$, is 1.35% and the risk-free interest rate on US dollars, r_{USD} , is 3.80%. Using the covered interest parity condition, the calculated one-year forward rate F_1 is closest to:
- NT\$31.8620/ USD
 - NT\$30.3757/ USD
 - NT\$30.8764/ USD
 - NT\$31.8568/ USD
 - NT\$30.8620/ USD
12. An investor starts with €1 million and converts it to £698,500, which is invested for one year. In a year, the investor has £736,170, which she then converts back to euros at an exchange rate of 0.78 pounds per euro. The annual euro rate of return earned was _____.
- 8.26 %
 - 5.39%
 - 7.45%
 - 5.62%
 - 5.39%

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

13. If the nominal interest rate is 3.2% and the inflation rate is 1.7%, what is the real interest rate?
- 1.47%
 - 3.20%
 - 1.70%
 - 1.11%
 - None of the above
14. Suppose you own 500,000 shares of common stock in a firm, NUK Co., with 50 million total shares outstanding. The firm announces a plan to sell an additional 5 million shares through a rights offering. The market value of the stock is \$32.5 before the rights offering and the new shares are being offered to existing shareholders at a \$1.50 discount. If you exercise your preemptive rights, how many of the new shares can you purchase?
- 32,500 shares
 - 50,000 shares
 - 62,500 shares
 - 45,000 shares
 - 100,000 shares
15. You purchase a \$1,000 face value convertible bond for \$975. The bond can be converted into 100 shares of stock. The stock is currently priced at \$5.25. At what minimum stock price would you be willing to convert?
- \$7.10
 - \$6.50
 - \$5.25
 - \$4.50
 - \$9.75
16. Assume that both firm X and firm Y formally agree to each put up \$20 million to form firm Z. The operations of firm Z are restricted to conducting research and development activities for the benefit of firms X and Y. Firm Z is a _____ of firms X and Y.
- joint venture
 - going-private transaction
 - conglomerate
 - subsidiary
 - leveraged buyout

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

17. The value of an option depends on the stock's price, the risk-free rate, and the
- Exercise price.
 - Variability of the stock price.
 - Option's time to maturity.
 - All of the above.
 - None of the above.
18. You have a portfolio consisting solely of stock TSM and stock CO. The portfolio has an expected return of 9.5%. Stock TSM has an expected return of 10% while stock CO is expected to return 8%. What is the portfolio weight of stock CO?
- 75%
 - 25%
 - 58%
 - 42%
 - 50%
19. The standard deviation of a portfolio will tend to increase when:
- a risky asset in the portfolio is replaced with Taiwan government bonds.
 - short-term bonds are replaced with Treasury Bills..
 - the portfolio concentration in a single cyclical industry increases.
 - the weights of the various diverse securities become more evenly distributed.
 - one of two stocks related to the semiconductor industry is replaced with a third stock that is unrelated to the semiconductor industry
20. Money market securities exhibit which of the following?
- Large denomination
 - Maturity less than one year
 - Low default risk
 - Contractually determined cash flows
- I, III, and IV
 - I, II, III, and IV
 - I, II, and III
 - II and IV
 - II, III, and IV

國立高雄大學 108 學年度研究所碩士班招生考試試題

科目：財務管理

系所：金融管理學系

是否使用計算機：是

考試時間：100 分鐘

本科原始成績：100 分

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

1. The cost of equity for NUK Corporation is 8.4%. If the expected return on the market is 10% and the risk-free rate is 5%, then the equity beta is _____. (5 points)
2. NUK Corp. has a total value of \$500,000 and debt valued at \$300,000. What is the weighted average cost of capital if the after tax cost of debt is 9% and the cost of equity is 14%? (5 points)
3. Firm B was worth \$450 and Firm A had a market value of \$375. Firm B acquired Firm A for \$425 because they thought the combination of the new Firm BA was worth \$925. What is the synergy from the merger of Firm B and Firm A? (5 points)
4. NUK Corp. has \$300 in inventory, \$600 in fixed assets, \$200 in accounts receivables, \$100 in accounts payable, and \$50 in cash. What is the amount of the current assets? (5 points)
5. Answer the following questions related to the security market line.
 - a. In the security market line (SML), what is the slope of SML? Draw a chart to demonstrate the SML. (4 points)
 - b. Which factor will affect the slope of SML? (3 points)
 - c. Which factor will make the SML have a parallel shift? (3 points)
6. An investor, Tom, has unrealized gains in 100 shares of NUK stock for which he does not wish to pay taxes. However, he is now bearish upon the stock for the short term. The stock is at \$76 and he buys a put for 100 shares with the strike price of \$75 for \$300. It means that Tom buy a put option of NUK stock for \$3. Assume that the transaction fees and taxes are ignored.
 - a. At expiration, the stock is at \$68. What is the net gain or loss on the entire stock/option portfolio? (5 points)
 - b. Which market price at expiration will make Tom break-even? (5 points)