

第一部分(是非題):第 1 ~ 3 大題,請作答於答案卡

第二部分(填充題):第 4 ~ 13 大題,請於制式試卷(答案本)上作答,“需列出”計算過程

第一部分：是非題 若答案為「是(T)」,請選A。若答案為「否(X)」,請選B。

1. Efficient Market Hypothesis and Capital Structure (是非題; T for True and X for False): 30%

- ( ) (1) When a market is efficient, the price of a security is equal to its fundamental value.
- ( ) (2) When a market is efficient, it is no need to time the market for issuing securities.
- ( ) (3) When a market is efficient, all the market participants are rational all the time.
- ( ) (4) The random walk theory of stock price movement implies that the market at least is semi-strong form efficient.
- ( ) (5) The price limits in Taiwan stock market enhance the market efficiency.
  
- ( ) (6) MM theory assumes no agency problems in the economy.
- ( ) (7) MM theory allows heterogeneous business risk.
- ( ) (8) MM theory allows heterogeneous expectation.
- ( ) (9) Pecking order theory asserts that firms prefer to have financial slack.
- ( ) (10) Pecking order theory asserts that there is a trade-off relationship between debt and equity financing.
- ( ) (11) In the MM economy with tax, a firm's weighted average cost of capital ( $R_{wacc}$ ) monotonic decreases with the increase of the ratio of debt over equity (D/E).
- ( ) (12) Pecking order theory asserts that the information cost of issuing debt is higher than that of issuing equity.

2. Dividend Policy (是非題; T for True and X for False): 10%

- ( ) (13) In the MM economy, investors can home-make their own dividend policy.
- ( ) (14) Paying cash dividends has a better effect than raising debts in reducing equity agency problems asserted by free cash flow hypothesis.
- ( ) (15) Share repurchase can pay out to shareholders without downward affecting share price.
- ( ) (16) A firm with less growth opportunities tends to adopt a low dividend payout policy.

3. Working Capital Management Policy (是非題; T for True and X for False): 10%

- ( ) (17) If a firm's cash conversion cycle is negative, the firm faces liquidity problems.
- ( ) (18) If a firm has a low bargaining power than its customers (other things being equal), the firm tends to need more working capital.
- ( ) (19) If a firm's carrying costs of inventory is higher (other things being equal), the firm tends to need more working capital.
- ( ) (20) If a firm adopts a more flexible short-term financing strategy, the firm may need more short-term financing in high seasons.

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第二部分：填充題

作答說明：下列共有 10 格的填充題，每格 5 分。回答時須在試卷上寫出題號((4)至(13))及對應之計算過程與答案

※※所有問題均請詳列計算過程，若只有答案將不予計分※※

※※填充題題型請至少計算至小數點後第二位※※

※※答案請標示清楚，如 ANS: \_\_\_\_\_ ※※

※※一律作答於所附之考試答案卷(本)上。若於試題卷上作答者，將不予計分※※

(4)	(4)之答案與計算過程
(5)	(5)之答案與計算過程
(6)	(6)之答案與計算過程
(7)	(7)之答案與計算過程
...	...
(13)	(13)之答案與計算過程

4. Suppose that you have \$100,000 invested in the market portfolio and that the stock price of Weezing Corp. suddenly drops to \$5.15 per share. Which of the following trades would you need to make in order to maintain your investment in the market portfolio? ANS: \_\_\_\_\_

1. Buy approximately 140 shares of Weezing Corp.
2. Sell approximately 155 shares of Lugia Inc.
3. Sell approximately 50 shares of Quagsire Oil
4. Sell approximately 95 shares of Totodile Motors

- A) 1 and 2  
 B) 3 only  
 C) 1, 3, and 4 only  
 D) 1, 2, 3, and 4  
 E) None of the above

5. Your firm is planning to invest in a new electrostatic power generation system that is all equity financed. Hoothoot Inc. is a firm that specializes in this business. Hoothoot has a stock price of \$20 per share with 26 million shares outstanding. Hoothoot's equity beta is 1.23. It also has \$300 million in debt outstanding with a debt beta of 0.05. If the risk-free rate is 2.2%, and the market risk premium is 8%, then your estimate of your cost of capital for electrostatic power generators is close to: ANS: \_\_\_\_\_

6. Using the information in the table and the average historical excess returns for both Jason Petroleum and the Market portfolio to estimate of Jason Petroleum's Beta. When using this estimated beta and the CAPM, the alpha for Jason Petroleum in 2001 is close to: ANS: \_\_\_\_\_

Year	Risk-free Return	Market Return	Jason Petroleum Return
2001	2.00%	5.00%	6.50%
2002	1.30%	-23.33%	-28.88%
2003	1.10%	19.99%	20.66%

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7. Consider the following four bonds that pay annual coupons. Assume that the YTM increases by 1% for each of the four bonds listed. Rank the bonds based upon the sensitivity of their prices from least to most sensitive. ANS: \_\_\_\_\_

Bond	Years to maturity	Coupon	YTM
A	2	0.00%	6.00%
B	6	7.50%	8.00%
C	18	15.00%	3.00%
D	20	8.00%	11.00%

8. Consider a corporate bond with a \$1000 face value, 11% coupon with semiannual coupon payments, 10 years until maturity, and a YTM of 8%. It has been 60 days since the last coupon payment was made and there are 182 days in the current coupon period. The dirty (cash) price for this bond is close to: ANS: \_\_\_\_\_

9. You expect that NTU Enterprise will have earnings per share of \$5 for the coming year. NTU plans to retain all of its earnings for the next three years. For the subsequent two years, the firm plans on retaining 50% of its earnings. It will then retain only 15% of its earnings from that point forward. Retained earnings will be invested in projects with an expected return of 15% per year. If NTU's equity cost of capital is 16%, then the price of a share of NTU's stock is close to: ANS: \_\_\_\_\_

10. Bob and Stephanie are saving for their daughter Eve's college education. Eve just turned 10 (at  $t = 0$ ), and she will be entering college 8 years from now. College tuition and expenses at NTU are currently \$15,500 a year, but they are expected to increase at a rate of 3% a year. Eve should graduate in 4 years--if she takes longer or wants to go to graduate school, she will be on her own. Tuition and other costs will be due at the beginning of each school year.

So far, Bob and Stephanie have accumulated \$10,000 in their college savings account (at  $t = 0$ ). To celebrate for the new year, they plan to save money at the first day of every year. Their long-run financial plan is to add an additional \$6,000 in each of the next 4 years. Then they plan to make 3 equal annual contributions in each of the following years,  $t = 5, 6,$  and  $7$ . They expect their investment account to earn 8%. How large must the annual payments at  $t = 5, 6,$  and  $7$  be to cover Eve's anticipated college costs? ANS: \_\_\_\_\_

11. After graduation, you plan to work for Glalie Corp. for 12 years and then start your own business. You expect to save and deposit \$6,000 a year for the first 6 years and \$23,000 annually for the following 6 years. The first deposit will be made a year from today. In addition, your grandma just gave you a \$20,000 graduation gift which you will deposit immediately. If the account earns 7.5% compounded annually, how much will you have when you start your business 12 years from now? ANS: \_\_\_\_\_

12. Evelyn reportedly was paid a \$16 million advance to write her book *Incredible Pikachu*. The book took one year to write. In the time she spent writing, Evelyn could have been paid to give speeches and appear on TV news as a political commentator. Given her popularity, assume that she could have earned \$5 million over the year (paid at the end of the year) she spent writing the book.

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Assume that once her book is finished, it is expected to generate royalties of \$10 million in the first year (paid at the end of the year) and these royalties are expected to decrease by 45% per year in perpetuity. Assuming that Evelyn 's cost of capital is 11% and given these royalties payments, the NPV of Evelyn 's book deal is close to: ANS: \_\_\_\_\_

13. Tesla Food Company is considering a new salsa whose data are shown below. The equipment to be used would be depreciated by the straight-line method over its 3-year life and would have a zero salvage value, and no change in net operating working capital would be required. Revenues and other operating costs are expected to be constant over the project's 3-year life. However, this project would compete with other Tesla products and would reduce their pre-tax annual cash flows. What is the project's NPV? ANS: \_\_\_\_\_

WACC	9%
Pre-tax cash flow reduction for other products (cannibalization)	\$5,000
Investment cost (depreciable basis)	\$90,000
Annual sales revenues	\$75,000
Annual operating costs (excl. depreciation)	\$30,000
Tax rate	34%

試題隨卷繳回