

東吳大學 102 學年度碩士班研究生招生考試試題

第 1 頁，共 5 頁

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| 系級 | 國際經營與貿易學系碩士班國際貿易金融組 | 考試時間 | 100 分鐘 |
| 科目 | 財務管理 | 本科總分 | 100 分 |

選擇題，共 20 題，每題 5 分，注意：所有選擇題皆須寫計算過程，若無計算過程不計分。

- Bavarian Sausage just issued a 10-year 12% coupon bond. The face value of the bond is \$1,000 and the bond makes SEMIANNUAL coupon payments. If the required return on the bond is 10%, what is the bond's price?
 - \$1,122.89
 - \$815.26
 - \$1,000.00
 - \$1,124.62
- You just bought a 5-year zero coupon bond with a \$1,000 face value for \$735.67. What is the yield to maturity of this bond?
 - 10.36%
 - 6.33%
 - 4.69%
 - 8.18%
- You are planning your retirement and you come to the conclusion that you need to have saved \$1,250,000 in 30 years. You can invest into an retirement account that guarantees you a 5% annual return. How much do you have to put into your account at the end of each year to reach your retirement goal?
 - \$81,314.29
 - \$18,814.30
 - \$23,346.59
 - \$12,382.37
- You set up a college fund in which you pay \$2,000 each year at the BEGINNING of the year. How much money will you have accumulated in the fund after 18 years, if your fund earns 7% compounded annually?
 - \$72,757.93
 - \$67,998.07
 - \$20,118.17
 - \$28,339.25

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5. Your parents set up a trust for you that you will not have access to until your 30th birthday, which is exactly 9 years from today. By prior arrangement, the trust will be worth exactly \$200,000 on your 30th birthday. You need cash today and are willing to sell the rights to that trust today for a set amount. If the discount rate for such a cash flow is 12%, what is the maximum amount that someone should be willing to pay you today for the rights to the trust on your 30th birthday?
 - a. \$72,122.01
 - b. \$178,571.43
 - c. \$224,000.00
 - d. \$225,000.00

6. Uncle Fester puts \$50,000 into a bank account earning 6%. You can't withdraw the money until the balance has doubled. How long will you have to leave the money in the account?
 - a. 9 years
 - b. 10 years
 - c. 11 years
 - d. 12 years

7. You are evaluating a perpetuity. The first payment is \$100, and it arrives in one year. Each subsequent annual payment will increase by 10%. If the discount rate is 8%, what is the present value of this perpetuity?
 - a. \$5,500
 - b. \$1,000
 - c. \$1,250
 - d. The present value is infinite

8. Smith Construction, Inc. is expected to pay a \$2.78 dividend next year. The dividend is expected to grow by 4% each year for the next three years. After that the company will never pay another dividend ever again. If your required return on the stock investment is 10%, what should the stock sell for today?
 - a. \$7.46
 - b. \$28.91
 - c. \$35.06
 - d. \$9.31

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第 3 頁，共 5 頁

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9. Miller Juice, Inc. just paid a \$3 dividend. The company is expected to pay a \$3.50 dividend next year and a \$4 dividend in two years. After that, dividends are expected to grow at 5% forever. If investors require a return of 12% on the investment, what should Miller Juice stock sell for today?
 - a. \$54.15
 - b. \$49.63
 - c. \$57.15
 - d. \$60.00

10. Over the last 3 years you have earned 5%, 7%, and 9% on your portfolio. What is the standard deviation of the returns of that portfolio?
 - a. .07
 - b. .02
 - c. .0004
 - d. none of the above

11. The risk-free rate is 5% and the expected return on the market portfolio is 13%. A stock has a beta of 1.5, what is its expected return?
 - a. 17%
 - b. 12%
 - c. 19.5%
 - d. 24.5%

12. Future Semiconductors is evaluating a new etching tool. The equipment costs \$1.0m and will generate after-tax cash inflows of \$0.4m per year for six years. Assume the firm has a 15% cost of capital. What's the NPV of the investment?
 - a. \$0.51m
 - b. \$0.45m
 - c. \$1.51m
 - d. \$1.69m

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第 4 頁，共 5 頁

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13. Consider a project with the following cash flows.

| Year | Cash Flow |
|------|-----------|
| 0 | -\$16,000 |
| 1 | 42,000 |
| 2 | -27,000 |

What's the IRR of the project? If a firm's cost of capital is 15%, should the firm accept the project?

- a. 50%; accept the project
- b. 12.5%; reject the project
- c. 12.5% and 50%; accept the project
- d. 12.5%, and 50%; reject the project

14. You are given the following information. What is the initial cash outflow?

| | |
|--|----------|
| Purchase and installation of new equipment | \$12,000 |
| Sale price of replaced equipment | \$ 4,000 |
| Book value of replaced equipment | \$ 3,000 |
| When the new equipment is installed: | |
| Inventory increase | \$ 2,000 |
| Accounts payable increase | \$ 1,000 |
| Tax rate | 40% |

- a. \$9,400
- b. \$9,000
- c. \$13,000
- d. \$10,600

15. A firm has a capital structure containing 40 percent debt, 10 percent preferred stock, and 50 percent common stock equity. The firm's debt has a yield to maturity of 9.50 percent. Its preferred stock's annual dividend is \$7.50 and the preferred stock's current market price is \$50.00 per share. The firm's common stock has a beta of 0.90 and the risk-free rate and the market return are currently 4.0 percent and 13.5 percent, respectively. The firm is subject to a 40 percent marginal tax rate. What is the WACC for the firm?

- a. 8.75%
- b. 8.93%
- c. 9.16%
- d. 10.06%

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16. Roy's Toy, Inc. currently has no debt outstanding. Its current cost of equity is 12% and the current value of the company is \$20,000,000. Roy is proposing to finance 1/4 of its assets with debt at a cost of 8% per annum. What will be Roy's cost of levered equity if things go as planned? Ignore any tax effects.
 - a. 12.00%
 - b. 13.00%
 - c. 13.33%
 - d. none of the above

17. A supplier has offered you credit terms of 3/10 net 30. What is the implied rate of interest in the terms?
 - a. 56.44%
 - b. 37.08%
 - c. 5.69%
 - d. 3.09%

18. Your cost of capital is 8% and you are offered a discount of 1% for early payment, otherwise the entire amount is due in 60 days. How many days after purchase will cause you to be indifferent between taking the discount and not taking the discount?
 - a. 46.08 days
 - b. 21.69 days
 - c. 13.91 days
 - d. 60 days

19. A 32-inch television sells in the United States for \$157. The same television sells in Canada for C\$212. What must the exchange rate be for Purchasing Power Parity to hold in this example?
 - a. \$1.3503/C\$
 - b. C\$1.3053/\$
 - c. \$0.7406/C\$
 - d. C\$0.7406/\$

20. Suppose that the one-year risk-free interest rate is 5% in the United States. The current spot rate is \$0.7642/C\$ and the one-year forward rate is \$0.7834/C\$. What must the Canadian one-year risk-free interest rate be in order for interest rate parity to hold?
 - a. 0.929%
 - b. 0.783%
 - c. 2.43%
 - d. 7.64%