科目:財務管理	系所:金融管理學系	目不は田山笞城・日
考試時間:100 分鐘	本科原始成績:100分	<b>天</b> 召 使 用 訂 昇 機 ・ 天

## I. Multiple Choice Questions (3 points each, total 60 points) Please write down the answers on the provided answer sheet.

- 1. A conflict of interest between the stockholders and management of a firm is called:
  - a. stockholders' liability.
  - b. corporate breakdown.
  - c. legal liability.
  - d. corporate activism.
  - e. none of the above.
- 2. The current ratio is measured as:
  - a. current assets minus current liabilities.
  - b. current liabilities divided by current assets.
  - c. current liabilities minus inventory, divided by current assets.
  - d. cash on hand divided by current liabilities.
  - e. none of the above.
- 3. Which of the following statements concerning the effective annual rate are correct?
  - I. When making financial decisions, you should compare effective annual rates rather than annual percentage rates.
  - II. The more frequently interest is compounded, the higher the effective annual rate.
  - III. A quoted rate of 6% compounded continuously has a higher effective annual rate than if the rate were compounded daily.
  - IV. When borrowing and choosing which loan to accept, you should select the offer with the highest effective annual rate.
  - a. I and II only
  - b. I and IV only
  - c. I, II, and III only
  - d. II, III, and IV only
  - e. none of the above.
- 4. Which one of the following statements is correct concerning the payback period?
  - a. An investment is acceptable if its calculated payback period is less than some pre-specified period of time.
  - b. An investment should be accepted if the payback is positive and rejected if it is negative.
  - c. An investment should be rejected if the payback is positive and accepted if it is negative.
  - d. An investment is acceptable if its calculated payback period is greater than some pre-specified period of time.
  - e. none of the above.

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- 5. An investment is acceptable if its IRR:
  - a. is exactly equal to its net present value (NPV).
  - b. is exactly equal to zero.
  - c. is less than the required return.
  - d. is exactly equal to 100%.
  - e. none of the above.

6. The cash flows of a new project that come at the expense of a firm's existing projects are called:

- a. erosion costs.
- b. net working capital expenses.
- c. sunk costs.
- d. opportunity costs.
- e. none of the above.

7. 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. increase the initial cost of a project.
- d. decrease the net present value of a project.
- e. none of the above.

8. Comparing two otherwise equal firms, the beta of the common stock of a levered firm is \_\_\_\_\_\_ than the beta of the common stock of an unlevered firm.

- a. equal to
- b. less
- c. greater
- d. less or greater
- e. None of the above.
- 9. 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 greater 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.
- 10. 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. lower
  - b. higher
  - c. equal
  - d. Either B or C.
  - e. None of the above.

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- 11. A \_\_\_\_\_\_ pays the owner a fixed coupon payment every year until the maturity date, when the \_\_\_\_\_\_ value is repaid.
  - a. coupon bond; discount
  - b. discount bond; discount
  - c. coupon bond; par
  - d. discount bond; par
  - e. premium bond; premium
- 12. What is the return on a 5 percent coupon bond that initially sells for \$1,000 and sells for \$1,200 next year?
  - a. 5 percent
  - b. 10 percent
  - c. -5 percent
  - d. 25 percent
  - e. 15 percent
- 13. A "good" market is one
  - a. which is liquid, and offers reasonable transaction costs.
  - b. where prices reflect new information regarding supply and demand factors.
  - c. which provides accurate information on cost and volume for past transactions.
  - d. in which there is a strong likelihood of insider trading.
  - e. A, B, and C are true.
- 14. Utilizing the security market line an investor owning a stock with a beta of 2 would expect the stock's return to\_\_\_\_\_\_ in a market that was expected to decline 10%.
  - a. Rise or fall an indeterminate amount
  - b. Fall by 2%
  - c. Fall by 20%
  - d. Rise by 8%
  - e. Rise by 20%
- 15. All else constant, a coupon bond that is selling at a premium, must have:
  - a. a coupon rate that is equal to the yield to maturity.
  - b. a yield to maturity that is less than the coupon rate.
  - c. a market price that is equal to par value.
  - d. a yield to maturity that is equal to the coupon rate.
  - e. a coupon rate that is less than the yield to maturity.

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- 16. A type of short-term loan where the borrower sells its accounts receivables to the lender at a discount to face value is called:
  - a. a compensating balance.
  - b. an assignment.
  - c. a letter of credit.
  - d. factoring.
  - e. a bond.
- 17. You are planning a trip to Australia. The hotel will cost you A\$160 per night for seven nights. You expect to spend another A\$2,500 for meals, tours, and other expenses. How much will this trip cost you in U.S. dollars if the direct quote is 1.0503?
  - a. \$3,446.63
  - b. \$2,961.85
  - c. \$3,802.09
  - d. \$3,668.14
  - e. \$2,532.61
- 18. NUK Co. has sales of \$5,000,000, net income of \$800,000, total assets of \$2,000,000, and 200,000 shares of common stock outstanding. If Benkart's P/E ratio is 18, what is the company's current stock price?
  - a. \$36 per share
  - b. \$72 per share
  - c. \$45 per share
  - d. \$360 per share
  - e. \$120 per share
- 19. In January 2018, ABC Co. first sold its common stock to the public at \$120 per share and raised \$4.76 billion. This is an examples of
  - a. a primary market transaction.
  - b. a secondary market transaction.
  - c. a venture capital firm transaction.
  - d. a money market transaction.
  - e. a mutual fund transaction.
- 20. Assume that an investment is forecasted to produce the following returns: a 20% probability of a 12% return; a 50% probability of a 16% return; and a 30% probability of a 19% return. What is the standard deviation of return for this investment?
  - a. 16.1%
  - b. 5.89%
  - c. 15.7%
  - d. 2.43%
  - e. 2.9%

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

1. You buy an annuity which will pay you \$12,000 a year for ten years. The payments are paid on the first day of each year. What is the value of this annuity today at a 7% discount rate? (5 points)

2. What is the profitability index for an investment with the following cash flows given a 9% required return? (5 points)

Year	Cas	h Flow
0	-\$21	1,500
1	\$	7,400
2	\$	9,800
3	\$	8,900

- 3. Your firm has a pre-tax cost of debt of 7% and an unlevered cost of capital of 13%. Your tax rate is 35% and your cost of equity is 15.26%. What is your debt-equity ratio? (5 points)
- 4. The NUK Company has expected earnings before interest and taxes of \$2,100, an unlevered cost of capital of 14% and a tax rate of 34%. The company also has \$2,800 of debt that carries a 7% coupon. The debt is selling at par value. What is the value of this firm? (5 points)
- 5. You are planning to purchase an insurance policy. You have two choices to pay for the insurance premium. One is to pay in the beginning of the period and another is to pay at the end of the period. The amounts that you are going to pay for each period are the same. The insurance coverages are the same, too. Which will you choose to pay for the insurance premium? Please explain it. (10 points)
- 6. You are considering investing your money in two financial instruments of NUK Co. You can invest in either common stocks or preferred stock. Its common stock sells for \$50 per share and will pay a \$6 dividend next year which is expected to grow at a constant 5% rate. Its preferred stock sells for \$22.50 per share and pays \$1.80 in dividends. Calculate a firm's required rates of return for both equities. What accounts for the difference in returns, given that these are both forms of equity? (10 points)