

**朝陽科技大學 101 學年度碩士班招生考試試題**

系(所)別：財務金融系  
 組別：一般生  
 科目：財務管理

總分：100 分  
 第 1 頁共 3 頁

Multiple Choice:(4 points per question, total 60 points)

- Which of the following statements is false? (A) As firms mature, their earnings exceed their investment needs and they begin to pay dividends. (B) Total return equals earnings multiplied by the dividend payout rate. (C) Cutting the firm's dividend to increase investment will raise the stock price if, and only if, the new investments have a positive NPV. (D) We cannot use the constant dividend growth model to value the stock of a firm with rapid or changing growth.
- Which of the following statements is false? (A) Firm specific news is good or bad news about the company itself. (B) Firms are affected by both systematic and firm-specific risk. (C) When firms carry both types of risk, only the firm-specific risk will be diversified when we combine many firms' stocks into a portfolio. (D) The risk premium for a stock is affected by its idiosyncratic risk.
- Suppose you have \$10,000 in cash and you decide to borrow another \$10,000 at a 6% interest rate to invest in the stock market. You invest the entire \$20,000 in an exchange traded fund (ETF) with a 12% expected return and a 20% volatility. The volatility of your investment is closest to:  
 (A) 40% (B) 20% (C) 30% (D) 24%
- In practice which market index is most widely used as a proxy for the market portfolio in the CAPM?  
 (A) Dow Jones Industrial Average (B) AAA Rated Corporate Bond (C) S&P 500 (D) U.S. Treasury Bill
- Assume that the CAPM is a good description of stock price returns. The market expected return is 8% with 12% volatility and the risk-free rate is 3%. New news arrives that does not change any of these numbers, but it does change the expected returns of the following stocks:

Stock	Expected Return	Volatility	Beta
ABC company	8%	28%	1.2

- The expected alpha for ABC company is closest to: (A) -3.00% (B) -1.00% (C) 1.00% (D) 3.00%
- Consider a project with free cash flows in one year of \$60,000 in a weak economy or \$150,000 in a strong economy, with each outcome being equally likely. The initial investment required for the project is \$80,000, and the project's cost of capital is 15%. The NPV for this project is closest to:  
 (A) \$6,250 (B) \$14,100 (C) \$11,300 (D) \$18,600
  - Define  $S$  as stock price and  $K$  as exercise price. The payoff to the holder of a call option is given by:  
 (A)  $C = \max(S - K, 0)$  (B)  $C = \min(K, 0)$  (C)  $C = \max(K - S, 0)$  (D)  $C = \min(K - S, 0)$

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8. Dual class shares are best defined as (A) a process where a company issues both common and preferred stock to finance the company. (B) a scenario in which companies have more than one class of shares and one class has superior voting rights over the other class. (C) a scenario in which 51% of the shares are held by a holding company which is part of a pyramid structure. (D) a process where a company issues shares in two separate countries each trading on a separate stock exchange.
9. Accounts payable is a (A) Long-term Liability. (B) Current Asset. (C) Long-term Asset. (D) Current Liability.
10. You have an investment opportunity in Germany that requires an investment of \$250,000 today and will produce a cash flow of €208,650 in one year with no risk. Suppose the risk-free rate of interest in Germany is 6% and the current competitive exchange rate is €0.78 to \$1.00. What is the NPV of this project? Would you take the project? (A) NPV = 0; No (B) NPV = -\$2,358; No (C) NPV = \$2,358; Yes (D) NPV = \$13,650; Yes
11. You are considering investing \$600,000 in a new automated inventory system that will provide and after-tax cost savings of \$50,000 next year. These cost savings are expected to grow at the same rate as sales. If sales are expected to grow at 5% per year and your cost of capital is 10%, then what is the NPV of the automated inventory system? (A) \$400,000 (B) \$500,000 (C) -\$100,000 (D) \$1,000,000
12. A three-month treasury bill sold for a price of \$99.311998 per \$100 face value. The yield to maturity of this bond expressed as an EAR is closest to:  
(A) 2.5% (B) 2.8% (C) 3.2% (D) 4.0%
13. TBC industries presently pays an annual dividend of \$1.50 per share and it is expected that these dividend payments will continue indefinitely. If TBC's equity cost of capital is 12%, then the value of a share of TBC's stock is closest to: (A) \$10.00 (B) \$15.00 (C) \$14.00 (D) \$12.50
14. Savings that come from combining the marketing and distribution of different types of related products are called (A) horizontal integration. (B) vertical integration. (C) economies of scale. (D) economies of scope.
15. You overhear your manager saying that she plans to book an Ocean-view room on her upcoming trip to Miami for a meeting. You know that the interior rooms are much less expensive, but that your manager is traveling at the company's expense. This use of additional funds comes about as a result of: (A) an agency problem. (B) an adverse selection problem. (C) a moral hazard. (D) a publicity problem.

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第 3 頁共 3 頁

True/False:(2 points per question, total 10 points)

1. The expected returns for individual stocks increase proportionately with volatility.
2. Anyone who purchases the stock on or after the ex-dividend date will not receive the dividend.
3. In a horizontal merger, the target and the acquirer operate in unrelated industries.
4. When a firm uses debt, the interest tax shield provides a corporate tax benefit.
5. Beta measures total risk, while volatility measures only systematic risk.

Essay:(10 points per question, total 30 points)

1. UTC is a clothing retailer with a current share price of \$10.00 and with 25 million shares outstanding. Suppose that UTC announces plans to lower its corporate taxes by borrowing \$100 million and using the proceeds to repurchase shares. Suppose that UTC pays corporate taxes of 40% and that shareholders expect the change in debt to be permanent. Assume that capital markets are perfect except for the existence of corporate taxes and financial distress costs. If the price of UTC's stock rises to \$10.80 per share following the announcement, calculate the present value of UTC's financial distress costs.
2. In March 2012, Perrigo Co. (PRGO) had a share price of \$39.20. They had 91.33 million shares outstanding. In addition, PRGO had \$845.01 million in outstanding debt, and cash of \$257.09 million. Find Perrigo's market capitalization and enterprise value.
3. Two years ago you purchased a new SUV. You financed your SUV for 60 months (with payments made at the end of the month) with a loan at 5.9% APR. Your monthly payments are \$617.16 and you have just made your 24th monthly payment on your SUV. What is the amount of your original loan?