Part A: Multiple Choice (78 points, 3 points for each question. Please select the best answer.)

1. Ethical behavior by management is consistent with the goal of shareholders value maximization in terms of:
   a. improved capital structure.
   b. enhanced reputation value.
   c. increased managerial benefits.
   d. higher dividend payments.
2. One reason suggesting that banks are good at channeling savings to corporations is that banks:
   a. can transfer loan risk to their depositors.
   b. are motivated by the potential for profit.
   c. do not have any income tax liability.
   d. have information to evaluate creditworthiness.
3. DEF Co. has $10 million in total capital, $3 million in net income, and a 20% cost of capital. What is the residual income for DEF?
   a. $1 million
   b. $1.4 million
   c. $2.4 million
   d. $5 million
4. The annual percentage rate (APR) for your automobile loan with monthly payment is 12%. What is the effective annual interest rate?
   a. less than 12%
   b. equal to 12%
   c. between 12% and 13%
   d. greater than 13%
5. Investor ABC holds two bonds, one with two years until maturity and the other with 10 years until maturity. Which of the following is more likely if interest rates suddenly increase by 2%?
   a. The two-year bond will decrease more in price.
   b. The 10-year bond will decrease more in price.
   c. Both bonds will decrease in price similarly.
   d. Neither bond will decrease in price, but yields will increase.
6. What is the internal rate of return (IRR) for a project that costs $1,000 and provides cash inflows of $600 for 2 years?
   a. less than 10%
   b. between 10% and 15%
   c. between 15% and 20%
   d. greater than 20%
7. Investor DEF holds a stock portfolio, including 25% of Stock A with a beta of 0.80, 50% Stock B with a beta of 1.2, and 25% Stock C with a beta of 1.8. What is the beta of the portfolio?
   a. less than 1.10
   b. between 1.10 and 1.20

c. between 1.20 and 1.30
d. greater than 1.30

8. When making capital budgeting decisions, the sunk costs are not included in calculating project cash flows because that they:
a. are usually small in magnitude.
b. revert at the end of the investment.
c. have no incremental effect.
d. reduce the estimated NPV.

9. DEF Co. is considering a new project, which requires $3,000 increase in inventory, $1,000 increase in accounts receivable, $3,500 increase in machinery, and a $2,000 increase in accounts payable. What will be the project's net effect on the working capital?
a. -$500
b. +$1,000
c. +$2,000
d. +$5,500

10. Suppose that a stock sells for $40 and will pay a $4.40 dividend which is expected to grow at a constant rate of 5%. The expected rate of return is:
a. less than 8%
b. between 8% and 12%
c. between 12% and 16%
d. higher than 16%

11. The reason that venture-capital funds prefer to invest in installments is to:
a. avoid tax liability.
b. identify and cut losses early.
c. increase the importance of the venture capitalist.
d. take advantage of the time value of money.

12. What is the expected return on the market portfolio when Treasury bills yield 6% and a stock with a beta of 1.2 is expected to yield 18%?
a. less than 10%
b. between 10% and 13%
c. between 13% and 15%
d. greater than 15%

13. The CFO of DEF Co. wants to maintain a target debt-to-equity ratio of 1/4. Suppose that the pre-tax cost of debt is 9%, and the firm's tax rate is 20%. Given that the WACC of the company is 18%, the cost of common equity is most likely to be:
a. less than 19%
b. between 19% and 20%
c. between 20% and 21%
d. greater than 21%

14. A firm with greater operating leverage:
a. Shows a lower percentage change in earnings for a given percentage change in

sales.

b. Shows a higher percentage change in earnings for a given percentage change in sales.

c. Tends to make greater use of variable costs in its cost structure.

d. Will have greater sales than otherwise identical firms.

15. Which of the following statements is incorrect?

a. By including more covenants, issuers increase their costs of borrowing.

b. Once bonds are issued, equity holders have an incentive to increase dividends at the expense of debt holders.

c. Covenants may restrict the level of further indebtedness and specify that the issuer must maintain a minimum amount of working capital.

d. If the covenants are designed to reduce agency costs by restricting management's ability to take negative NPV actions that exploit debt holders, then the reduction in the firm's borrowing cost can more than outweigh the cost of the loss of flexibility associated with covenants.

16. Which of the following statements is false?

a. When evaluating a capital budgeting decision, the correct tax rate to use is the firm's average corporate tax rate.

b. To determine the capital budget, firms analyze alternative projects and decide which ones to accept through a process called capital budgeting.

c. A new product typically has lower sales initially, as customers gradually become aware of the product.

d. Sunk costs have been or will be paid regardless of the decision whether or not to proceed with the project.

17. Smith Co. has a dividend yield of 4.5% and a cost of equity capital of 12%. Smith Co. dividends are expected to grow at a constant rate indefinitely. The growth rate of Luther's dividends is:

a. 7.5%

b. 5.5%

c. 16.5%

d. 12%

18. Which of the following statements is incorrect?

a. The size effect is the observation that small stocks have positive alphas.

b. When considering portfolios formed based on the market-to-book ratio, most of the portfolios plot below the security market line.

c. The largest alphas occur in the smallest size deciles.

d. When considering portfolios formed based on size, although the portfolios with the higher betas yield higher returns, most size portfolios plot above the security market line.

19. Consider a project with free cash flows in one year of $90,000 in a weak economy or $117,000 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 risk-free interest rate is 5%. What is the NPV for this project?
    a. $6,250
    b. $14,100
    c. $10,000
    d. $18,600
20. Alpha Co. expects to have net income next year of $24 million and Free Cash Flow of $27 million. Alpha's marginal corporate tax rate is 40%.
    What is Alpha's EBIT?
    a. $43 million
    b. $40 million
    c. $45 million
    d. $60 million
21. Which of the following statements regarding poison pills is false?
    a. Companies with poison pills are harder to take over, and when they are taken over, the premium that existing shareholders receive for their stock is higher.
    b. Because a poison pill increases the cost of a takeover, all else equal, a target company must be in better shape to justify the expense of waging a takeover battle.
    c. Poison pills also increase the bargaining power of the target firm when negotiating with the acquirer because poison pills make it difficult to complete the takeover without the cooperation of the target board.
    d. By adopting a poison pill, a company effectively entrenches its management by making it much more difficult for shareholders to replace bad managers, thereby potentially destroying value.
22. According to the agency cost model of dividend policy, a firm with large amounts of free-cash flow, few positive-NPV investment opportunities, and numerous shareholders would be expected to have:
    a. a constant payout ratio dividend policy
    b. a low-regular-and-extra dividend policy
    c. a high dividend payout level
    d. a low dividend payout level
23. Which of the following statements is false?
    a. Global bonds combine the features of domestic, foreign, and Eurobonds, and are offered for sale in several different markets simultaneously.
    b. In a leveraged buyout (LBO), a group of private investors purchases all the

equity of a public corporation.

c. A term loan is a bank loan that lasts for a specific term.

d. Eurobonds are international bonds that are denominated in the local European currency of the country in which they are issued.

24. When considering a lease-versus-purchase decision, a firm will find purchasing more attractive if there is a __________ risk of obsolescence, borrowing opportunities are __________, and required lessor returns are __________.

a. low; inexpensive; high

b. low; expensive; high

c. low; expensive; low

d. high; inexpensive; high

25. Call options are being traded on stock of companies A and B. Both options have the same strike price and expiration date, and both stocks currently trade at the same price. However, company A's stock is more volatile than company B's stock. Based on that information the price for the call option on A should be

a. the same as the price for the call option on B

b. higher than the price for the call option on B

c. lower than the price for the call option on B

d. need more information to answer the question

26. Gama Co. has annual sales of $10 million, cost of goods sold of 60 percent, average age of inventory of 60 days, average collection period of 35 days, average payment period of 40 days, and purchases that are 50 percent of cost of goods sold. How much does Gama have invested in its cash conversion cycle assuming a 365-day year?

a. $1,287,671

b. $1,657,533.80

c. $1,452,054.50

d. $1,616,438.

Part B: Problems (22 points)

1. If you bought 2 round lots of stock ABC at $80 per share in January 8, 2013, you expect two months later the price of the stock will increase to $100. At that time (March 8, 2013), you will cash out by selling all shares. Suppose that stock ABC has been listed on the Taiwan Stock Exchange Corporation (TWSE) for three years. Suppose also that the stock market index on March 7, 2013 is forecasted to be 8,333. Given that your opportunity cost of capital is 6% (APR), and the securities' transaction fee(證券交易手續費)is charged at 0.1425% and securities transaction tax rate(證券交易稅)at 0.3%. <u>What is your expected economic profit from this investment?</u> (To get credits on this problem, it is necessary to write down detailed steps showing how you get your answer.) (6 points)

2. Explain why a firm may want to impose soft capital rationing. (5 points)

3. Consider the following zero-coupon yields on default free securities:

Maturity (years)	1	2	3	4	5
Zero-Coupon YTM	5.80%	5.50%	5.20%	5.00%	4.80%

The price today of a 3 year default free security with a face value of $1000 and an annual coupon rate of 6% is? (To get credits on this problem, it is necessary to write down detailed steps showing how you get your answer.) (5 points)

4. Suppose Sigma Co. is considering divesting one of its product lines. The product line is expected to generate free cash flows of $2 million per year, growing at a rate of 3% per year. Sigma has an equity cost of capital of 10%, a debt cost of capital of 7%, a marginal tax rate of 35%, and a debt-equity ratio of 2. If this product line is of average risk and Sigma plans to maintain a constant debt-equity ratio, what after-tax amount must it receive for the product line in order for the divestiture to be profitable? (To get credits on this problem, it is necessary to write down detailed steps showing how you get your answer.) (6 points)