

※ 考生請注意：本試題可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

Section A: Multiple Choice Questions (80 marks, 4 points each)

1. Data for Oakdale Furniture, Inc. is shown below. Now the expected inflation rate and thus the inflation premium increase by 2.0 percentage points, and Oakdale acquires risky assets that increase its beta by the indicated percentage. What is the firm's new required rate of return?

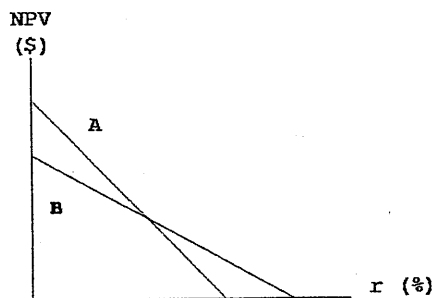
Beta:	1.50
Required return (r_s)	10.20%
RP_M :	6.00%
Percentage increase in beta:	20%

- a. 14.00%
- b. 14.70%
- c. 15.44%
- d. 16.21%
- e. 17.02%
2. Your company has just taken out a 1-year installment loan for \$72,500 at a nominal rate of 11.0% but with equal end-of-month payments. What percentage of the 2nd monthly payment will go toward the repayment of principal?
- a. 73.67%
- b. 77.55%
- c. 81.63%
- d. 85.93%
- e. 90.45%

3. The required returns of Stocks X and Y are $r_X = 10\%$ and $r_Y = 12\%$. Which of the following statements is CORRECT?
- If the market is in equilibrium, and if Stock Y has the lower expected dividend yield, then it must have the higher expected growth rate.
 - If Stock Y and Stock X have the same dividend yield, then Stock Y must have a lower expected capital gains yield than Stock X.
 - If Stock X and Stock Y have the same current dividend and the same expected dividend growth rate, then Stock Y must sell for a higher price.
 - The stocks must sell for the same price.
 - Stock Y must have a higher dividend yield than Stock X.
4. The current price of a stock is \$22, and at the end of one year its price will be either \$27 or \$17. The annual risk-free rate is 6.0%, based on daily compounding. A 1-year call option on the stock, with an exercise price of \$22, is available. Based on the binominal model, what is the option's value?
- \$2.43
 - \$2.70
 - \$2.99
 - \$3.29
 - \$3.62
5. The current price of a stock is \$50, the annual risk-free rate is 6%, and a 1-year call option with a strike price of \$55 sells for \$7.20. What is the value of a put option, assuming the same strike price and expiration date as for the call option?
- \$7.33
 - \$7.71
 - \$8.12
 - \$8.55
 - \$9.00

6. Cranberry Corp. has two divisions of equal size: a computer manufacturing division and a data processing division. Its CFO believes that stand-alone data processor companies typically have a WACC of 8%, while stand-alone computer manufacturers typically have a 12% WACC. He also believes that the data processing and manufacturing divisions have the same risk as their typical peers. Consequently, he estimates that the composite, or corporate, WACC is 10%. A consultant has suggested using an 8% hurdle rate for the data processing division and a 12% hurdle rate for the manufacturing division. However, the CFO disagrees, and he has assigned a 10% WACC to all projects in both divisions. Which of the following statements is CORRECT?
- While the decision to use just one WACC will result in its accepting more projects in the manufacturing division and fewer projects in its data processing division than if it followed the consultant's recommendation, this should not affect the firm's intrinsic value.
 - The decision not to adjust for risk means, in effect, that it is favoring the data processing division. Therefore, that division is likely to become a larger part of the consolidated company over time.
 - The decision not to adjust for risk means that the company will accept too many projects in the manufacturing division and too few in the data processing division. This will lead to a reduction in the firm's intrinsic value over time.
 - The decision not to risk-adjust means that the company will accept too many projects in the data processing business and too few projects in the manufacturing business. This will lead to a reduction in its intrinsic value over time.
 - The decision not to risk-adjust means that the company will accept too many projects in the manufacturing business and too few projects in the data processing business. This may affect the firm's capital structure but it will not affect its intrinsic value.

7. Projects A and B have identical expected lives and identical initial cash outflows (costs). However, most of one project's cash flows come in the early years, while most of the other project's cash flows occur in the later years. The two NPV profiles are given below:



Which of the following statements is CORRECT?

- a. More of Project A's cash flows occur in the later years.
- b. More of Project B's cash flows occur in the later years.
- c. We must have information on the cost of capital in order to determine which project has the larger early cash flows.
- d. The NPV profile graph is inconsistent with the statement made in the problem.
- e. The crossover rate, i.e., the rate at which Projects A and B have the same NPV, is greater than either project's IRR.

8. Langston Labs has an overall (composite) WACC of 10%, which reflects the cost of capital for its average asset. Its assets vary widely in risk, and Langston evaluates low-risk projects with a WACC of 8%, average-risk projects at 10%, and high-risk projects at 12%. The company is considering the following projects:

<u>Project</u>	<u>Risk</u>	<u>Expected Return</u>
A	High	15%
B	Average	12%
C	High	11%
D	Low	9%
E	Low	6%

Which set of projects would maximize shareholder wealth?

- a. A and B.
- b. A, B, and C.
- c. A, B, and D.
- d. A, B, C, and D.
- e. A, B, C, D, and E.

9. Last year Emery Industries had \$450 million of sales and \$225 million of fixed assets, so its FA/Sales ratio was 50%. However, its fixed assets were used at only 65% of capacity. If the company had been able to sell off enough of its fixed assets at book value so that it was operating at full capacity, with sales held constant at \$450 million, how much cash (in millions) would it have generated?
- \$74.81
 - \$78.75
 - \$82.69
 - \$86.82
 - \$91.16
10. Vasudevan Inc. forecasts the free cash flows (in millions) shown below. If the weighted average cost of capital is 13% and the free cash flows are expected to continue growing at the same rate after Year 3 as from Year 2 to Year 3, what is the Year 0 value of operations, in millions?
- | Year: | 1 | 2 | 3 |
|-----------------|-------|------|------|
| Free cash flow: | -\$20 | \$42 | \$45 |
- \$586
 - \$617
 - \$648
 - \$680
 - \$714
11. Which of the following statements is CORRECT?
- If a firm follows the residual dividend policy, then a sudden increase in the number of profitable projects is likely to reduce the firm's dividend payout.
 - The clientele effect can explain why so many firms change their dividend policies so often.
 - One advantage of adopting the residual dividend policy is that this policy makes it easier for corporations to develop a specific and well-identified dividend clientele.
 - New-stock dividend reinvestment plans are similar to stock dividends because they both increase the number of shares outstanding but don't change the firm's total amount of book equity.
 - Investors who receive stock dividends must pay taxes on the value of the new shares in the year the stock dividends are received.

12. Curry Corporation is setting the terms on a new issue of bonds with warrants. The bonds will have a 30-year maturity and annual interest payments. Each bond will come with 20 warrants that give the holder the right to purchase one share of stock per warrant. The investment bankers estimate that each warrant will have a value of \$10.00. A similar straight-debt issue would require a 10% coupon. What coupon rate should be set on the bonds-with-warrants so that the package would sell for \$1,000?
- 6.75%
 - 7.11%
 - 7.48%
 - 7.88%
 - 8.27%
13. Vafeas Inc.'s capital structure consists of 80% debt and 20% common equity, its beta is 1.60, and its tax rate is 35%. However, the CFO thinks the company has too much debt, and he is considering moving to a capital structure with 40% debt and 60% equity. The risk-free rate is 5.0% and the market risk premium is 6.0%. By how much would the capital structure shift change the firm's cost of equity?
- 5.20%
 - 5.78%
 - 6.36%
 - 6.99%
 - 7.69%
14. Blenman Corporation, based in the United States, arranged a 2-year, \$1,000,000 loan to fund a project in Mexico. The loan is denominated in Mexican pesos, carries a 10.0% nominal rate, and requires equal semiannual payments. The exchange rate at the time of the loan was 5.75 pesos per dollar, but it dropped to 5.10 pesos per dollar before the first payment came due. The loan was not hedged in the foreign exchange market. Thus, Blenman must convert U.S. funds to Mexican pesos to make its payments. If the exchange rate remains at 5.10 pesos per dollar through the end of the loan period, what effective interest rate will Blenman end up paying on the loan?
- 10.36%
 - 11.50%
 - 17.44%
 - 20.00%
 - 21.79%

15. Suppose a U.S. firm buys \$200,000 worth of television tubes from a Mexican manufacturer for delivering 60 days with payment to be made in 90 days (30 days after the goods are received). The rising U.S. deficit has caused the dollar to depreciate against the peso recently. The current exchange rate is 5.50 pesos per U.S. dollar. The 90-day forward rate is 5.45 pesos/dollar. The firm goes into the forward market today and buys enough Mexican pesos at the 90-day forward rate to completely cover its trade obligation. Assume the spot rate in 90 days is 5.30 Mexican pesos per U.S. dollar. How much in U.S. dollars did the firm save by eliminating its foreign exchange currency risk with its forward market hedge?
- \$0
 - \$1,834.86
 - \$4,517.26
 - \$5,712.31
 - \$7,547.17
16. Buster's Beverages is negotiating a lease on a new piece of equipment that would cost \$100,000 if purchased. The equipment falls into the MACRS 3-year class, and it would be used for 3 years and then sold, because the firm plans to move to a new facility at that time. The estimated value of the equipment after 3 years is \$30,000. A maintenance contract on the equipment would cost \$3,000 per year, payable at the beginning of each year. Alternatively, the firm could lease the equipment for 3 years for a lease payment of \$29,000 per year, payable at the beginning of each year. The lease would include maintenance. The firm is in the 20% tax bracket, and it could obtain a 3-year simple interest loan, interest payable at the end of the year, to purchase the equipment at a before-tax cost of 10%. If there is a positive Net Advantage to Leasing the firm will lease the equipment. Otherwise, it will buy it. What is the NAL?
- \$5,736
 - \$6,023
 - \$6,324
 - \$6,640
 - \$6,972

17. Which of the following statements is most CORRECT?
- Warrants have an option feature but convertibles do not.
 - The coupon rate on convertible debt is normally set below the coupon rate that would be set on otherwise similar straight debt even though investing in convertibles is more risky than investing in straight debt.
 - One important difference between warrants and convertibles is that convertibles bring in additional funds when they are converted, but exercising warrants does not bring in any additional funds.
 - The value of a warrant to buy a safe, stable stock should exceed the value of a warrant to buy a risky, volatile stock, other things held constant.
 - Warrants can sometimes be detached and traded separately from the debt with which they were issued, but this is unusual.
18. Blazer Inc. is thinking of acquiring Laker Company. Blazer expects Laker's NOPAT to be \$9 million the first year, with no net new investment in operating capital and no interest expense. For the second year, Laker is expected to have NOPAT of \$25 million and interest expense of \$5 million. Also, in the second year only, Laker will need \$10 million of net new investment in operating capital. Laker's marginal tax rate is 40%. After the second year, the free cash flows and the tax shields from Laker to Blazer will both grow at a constant rate of 4%. Blazer has determined that Laker's cost of equity is 17.5%, and Laker currently has no debt outstanding. Assume that all cash flows occur at the end of the year, Blazer must pay \$45 million to acquire Laker. What is the NPV of the proposed acquisition? Note that you must first calculate the value to Blazer of Laker's equity.
- \$ 45.0 million
 - \$ 68.2 million
 - \$ 86.5 million
 - \$113.2 million
 - \$133.0 million
19. Which of the following are **NOT** ways risk management can be used to increase the value of a firm?
- Risk management can increase debt capacity.
 - Risk management can help a firm maintain its optimal capital budget.
 - Risk management can reduce the expected costs of financial distress.
 - Risk management can help firms minimize taxes.
 - Risk management can allow managers to defer receipt of their bonuses and thus postpone tax payments.

