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FN 6450 (Financial Statements Analysis)

***PRACTICE EXAM QUESTIONS ON FINANCIAL LEVERAGE AND CAPITAL STRUCTURE***

1. The proposition that the value of a firm is independent of the firm's capital structure is called:

a. the capital asset pricing model.  
**B**. M&M Proposition I.  
c. M&M Proposition II.  
d. the law of one price.  
e. the efficient markets hypothesis.

2. The value of a firm is maximized when the:

a. cost of equity is maximized.  
b. tax rate is zero.  
c. levered cost of capital is maximized.  
**D**. weighted average cost of capital is minimized.  
e. debt-equity ratio is minimized.

3. Which of the following statements concerning financial risk are correct?

I. Financial risk is the risk associated with the use of debt financing.  
II. As financial risk increases so too does the cost of equity.  
III. Financial risk is wholly dependent upon the financial policy of a firm.  
IV. Financial risk is the risk that is inherent in a firm's operations. 

a. I and III only  
b. II and IV only  
c. II and III only  
**D**. I, II, and III only  
e. I, II, III, and IV

4. M&M Proposition I with taxes is based on the concept that:

a. the optimal capital structure is the one that is totally financed with equity.  
b. the capital structure of the firm does not matter because investors can use homemade leverage.  
c. the firm is better off with debt based on the weighted average cost of capital.  
**D**. the value of the firm increases as total debt increases because of the interest tax shield.  
e. the cost of equity increases as the debt-equity ratio of a firm increases.

5. The interest tax shield is a key reason why:

a. the required rate of return on assets rises when debt is added to the capital structure.  
b. the value of an unlevered firm is equal to the value of a levered firm.  
**C**. the net cost of debt to a firm is generally less than the cost of equity.  
d. the cost of debt is equal to the cost of equity for a levered firm.  
e. firms prefer equity financing over debt financing.

6. The optimal capital structure will tend to include more debt for firms with:

a. the highest depreciation deductions.  
b. the lowest marginal tax rate.  
c. substantial tax shields from other sources.  
**D**. low probabilities of financial distress.  
e. less taxable income.

7. The capital structure that maximizes the value of a firm also:

a. minimizes financial distress costs.  
**B**. minimizes the cost of capital.  
c. maximizes the present value of the tax shield on debt.  
d. maximizes the value of the debt.  
e. maximizes the value of the unlevered firm.

8. United Landscaping is an all equity firm that has 140,000 shares of stock outstanding. The company is in the process of borrowing $1.2 million at 8 percent interest to repurchase 30,000 shares of the outstanding stock. What is the value of this firm if you ignore taxes?

a. $2.57 million  
b. $4.14 million  
**C**. $5.60 million  
d. $7.00 million  
e. $8.13 million

**Firm value = 140,000 x ($1.2m / 30,000) = $5.6m**

9. Back Woods Coffee has expected earnings before interest and taxes of $34,500, an unlevered cost of capital of 14 percent, and debt with both a book and face value of $20,000. The debt has an annual 7 percent coupon. The tax rate is 35 percent. What is the value of the firm?

**A**. $167,179  
b. $174,015  
c. $177,778  
d. $203,518  
e. $241,414

**VU = [$34,500  (1  .35)] / .14 = $160,178.57; VL = $160,178.57 + (.35  $20,000) = $167,179**

10. Swedish Imports is an unlevered firm with an after-tax net income of $79,000. The unlevered cost of capital is 12 percent and the tax rate is 35 percent. What is the value of this firm?

a. $427,916  
b. $514,250  
c. $579,333  
d. $611,407  
**E**. $658,333

**VU = $79,000 / .12 = $658,333**

11. Sam's Men's Wear has 2,500 bonds outstanding with a face value of $1,000 each and a coupon rate of 7.5 percent. The interest is paid semi-annually. What is the amount of the annual interest tax shield if the tax rate is 34 percent?

a. $63.75  
b. $123.75  
c. $31,400.00  
**D**. $63,750.00  
e. $123,750.00

**Annual interest tax shield = 2,500 x $1,000 x .075 x .34 = $63,750**

12. Write a sample answer for the following question using your notes and the Ross, Westerfield and Jordan “Fundamentals of Corporate Finance” text. This question, in essence, summarizes the material on “Financial Leverage and Capital Structure”.

*Draw two graphs, one above the other. In the top graph, plot firm value on the vertical axis and total debt on the horizontal axis. Use the graph to illustrate the value of a firm under M&M without taxes, M&M with taxes, and MM with both taxes and bankruptcy costs. On the lower graph, plot the WACC on the vertical axis and the debt-equity ratio on the horizontal axis. Use the graph to illustrate the value of the firm's WACC under M&M without taxes, M&M with taxes, and MM with both taxes and bankruptcy costs. Explain (in about a page) what the two graphs tell us about firm value and its cost of capital under the three different theories.*