

**University of Alabama  
Culverhouse College of Business**

**FI 410  
Intermediate Financial Management**

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Name: \_\_\_\_\_ CWID: \_\_\_\_\_

**Quiz 2 (Practice)**

**Instructions:** Encircle the *one* correct answer to each multiple choice problem below. Each problem is worth 1 point. All the best!

1. Firms can pay out cash to their shareholders in the following ways:

- I) Dividends
- II) Share repurchases
- III) Interest payments

- A. I only
- B. II only
- C. I and II only
- D. III only

2. Dividends are decided by:

- I) The managers of a firm
- II) The government
- III) The board of directors

- A. I only
- B. II only
- C. III only
- D. I and II only

3. Which of the following lists events in the chronological order from earliest to latest?

- A. Record date, declaration date, ex-dividend date
- B. Declaration date, record date, ex-dividend date
- C. Declaration date, ex-dividend date, record date
- D. None of the above

4. On January 2, Michigan Mining declared a \$25-per-share quarterly dividend payable on March 9<sup>th</sup> to stockholders of record on February 9. What is the latest date by which you could purchase the stock and still get the recently declared dividend?

- A. February 5
- B. February 6
- C. February 7
- D. February 8

5. The following statements are true of dividend reinvestment plans (DRIPs):

- I) offered by the companies to their shareholders
- II) generally, new shares are issued at a discount
- III) the dividends are taxable as ordinary income

- A. I only
- B. I and II only
- C. I, II and III
- D. III only

6. The par value of the outstanding shares is defined as:

- A. Retained earnings
- B. Legal capital
- C. Book value of equity
- D. None of the above

7. According to financial executives' views about dividend policy, the following statement is the most frequently cited one:

- I) we try to avoid reducing the dividend
- II) we try to maintain a smooth dividend stream
- III) we look at the current dividend level
- IV) we are reluctant to make a change that may have to be reversed

- A. I only
- B. II only
- C. III only
- D. IV only

8. Investors generally interpret the announcement of an increase in dividends as:

- A. bad news and the stock price drops
- B. good news and the stock price increases
- C. a non-event and does not affect the stock price
- D. very bad news and the stock price plunges

9. Company X has 100 shares outstanding. It earns \$1,000 per year and expects to pay all of it as dividends. If the firm expects to maintain this dividend forever, calculate the stock price after the dividend payment. (The required rate of return is 10%)

- A. \$110
- B. \$90
- C. \$100
- D. None of the above

10. If the corporate tax rate is 35%, what is the maximum effective tax rate on dividends received by another corporation?

- A. 35%
- B. 30%
- C. 10.5%
- D. None of the above

11. If a firm is financed with both debt and equity, the firm's equity is known as:

- A. unlevered equity
- B. levered equity
- C. preferred equity
- D. none of the above

12. Modigliani and Miller's Proposition I states that:

- A. The market value of any firm is independent of its capital structure
- B. The market value of a firm's debt is independent of its capital structure
- C. The market value of a firm's common stock is independent of its capital structure
- D. None of the above

13. An investor can undo the effect of leverage on his/her own account by:

- I) investing in the equity of a levered firm
- II) by borrowing on his/her own account
- III) by investing in risk-free debt like T-bills

- A. I only
- B. II only
- C. III only
- D. I and III above

14. A firm has a debt-to-equity ratio of 1. Its (levered) cost of equity is 16%, and its cost of debt is 8%. If there were no taxes, what would be its cost of equity if the debt-to-equity ratio were zero?

- A. 8%
- B. 10%
- C. 12%
- D. 14%

15. Given the following data for U&P Company: Debt (D) = \$100 million; Equity (E) = \$300 Million;  $r_D = 6%$ ;  $r_E = 12%$  and  $T_C = 30%$ . Calculate the after-tax weighted average cost of capital (WACC):

- A. 10.5%
- B. 15%
- C. 10.05%
- D. 9.45%

16. If a firm borrows \$50 million for one year at an interest rate of 9%, what is the present value of the interest tax shield? Assume a 30% tax rate.

- A. \$50.00 million
- B. \$17.50 million
- C. \$1.445 million
- D. \$1.239 million

17. The reason that MM Proposition I does not hold good in the presence of corporate taxes is because:

- A. Levered firms pay lower taxes when compared with identical unlevered firms
- B. Bondholders require higher rates of return compared with stockholders
- C. Earnings per share are no longer relevant with taxes
- D. Dividends are no longer relevant with taxes

18. Bombay Company's balance sheet is as follows:

(NWC = net working capital; LTA = long term assets; D = debt; E = equity; V = firm value):

<u>Book Values</u>				<u>Market Values</u>			
NWC	200	500	D	NWC	200	500	D
LTA	<u>2300</u>	<u>2000</u>	E	LTA	<u>2800</u>	<u>2500</u>	E
	2500	2500	V		3000	3000	V

According to MM's Proposition I corrected for taxes, what will be the change in company value if Bombay issues \$200 of equity and uses it to make a permanent reduction in the company's debt? Assume a 35% tax rate.

- A. +\$140
- B. +\$70
- C. \$0
- D. -\$70

19. The trade-off theory of capital structure predicts that:

- A. Unprofitable firms should borrow more than profitable ones
- B. Safe firms should borrow more than risky ones
- C. Rapidly growing firms should borrow more than mature firms
- D. Increasing leverage increases firm value

20. A project costs \$14 million and is expected to produce cash flows of \$4 million a year for 15 years. The opportunity cost of capital is 20%. If the firm has to issue stock to undertake the project and issue costs are \$1 million, what is the project's APV?

- A. \$3.7 million
- B. \$4.5 million
- C. \$4.7 million
- D. \$3.0 million

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**Answers to Quiz 2 (Practice)**

1 C      11 B

2 C      12 A

3 C      13 D

4 C      14 C

5 C      15 C

6 B      16 D

7 A      17 A

8 B      18 D

9 B      19 B

10 C     20 A

### Solutions to the quantitative problems on Quiz 2 (Practice)

9. Dividend per share,  $d = 1000/100 = \$10$

So price =  $d/k = 10/.1 = \$100$ , since dividend is constant, i.e., a perpetuity

So price after dividend of \$10 =  $100 - 10 = \$90$

10.  $35(1-.7) = 10.5\%$  (due to 70% exclusion of div income for corporate investors)

14. Cost of equity if the debt-to-equity ratio were zero =  $k_{SU}$

$$k_{SL} = k_{SU} + (k_{SU} - k_D) D/S$$

$$\text{So } 16 = k_{SU} + (k_{SU} - 8) (1)$$

Solve for  $k_{SU}$ .

$$\begin{aligned} 15. k_{AL} &= (D/V) k_D (1-T) + (S/V) k_{SL} \\ &= (100/400) 6 (1-.3) + (300/400) 12 \end{aligned}$$

$$16. 50 (.09) (.3) / 1.09$$

$$18. -200 (.35)$$

$$20. -14 + 4 PVA_{15, 20\%} - 1 = -14 + 4 (4.6755) - 1 = \$3.7 \text{ m}$$