

3062 PRACTICE EXAM

ON 2 3 4

All questions are worth 5 points. You MUST SHOW how you got your answer to receive credit. Good Luck!

1. The decisions made by financial managers should all be ones which increase the:

- a. size of the firm.
- b. growth rate of the firm.
- c. marketability of the managers.
- ☒ d. market value of the existing owners' equity.
- e. financial distress of the firm.

2. The agency problem at MBNA was resolved by which of the following events:

- a. the shareholders elected a new board of directors
- b. a takeover by another company
- c. the shareholders elected a new chairman of the board of directors
- ☒ d. the board of directors fired the CEO
- e. an SEC investigation

3. Agency costs refer to:

- a. the total dividends paid to stockholders over the lifetime of a firm.
- b. the costs that result from default and bankruptcy of a firm.
- ☒ c. the costs of any conflicts of interest between stockholders and management.
- d. corporate income subject to double taxation.
- e. the total interest paid to creditors over the lifetime of the firm.

4. The Sarbanes-Oxley Act of 2002:

- a. imposed insignificant compliance costs on smaller corporations.
- ☒ b. caused some firms to "go dark".
- c. increases the ability of corporate officers to borrow money from their employer.
- d. required that the smaller firms on the NYSE be delisted.
- e. protects the management of a firm from the firm's shareholders.

5. Star Lakes has a debt ratio of 0.4. What is the debt-to-equity ratio?

- a. 1.67
- b. 1.5
- c. 1.0
- ☒ d. 0.67
- e. 0.5

$$\frac{D}{D+E} = \frac{.4}{1} \Rightarrow E = 1 - .4 = .6$$
$$D/E = .4/.6$$

6. A firm has the following account balances: cash of \$100, accounts receivable of \$200, accounts payable of \$300, inventory of \$300, fixed assets of \$800 and retained earnings of \$200. If common stock is \$500, what is the debt ratio?

- a. 0.43
- ☒ b. 0.50
- c. 1.00
- d. 1.40
- e. none of the above

$$DR = \frac{D}{TA} \quad \text{need } D + E$$

$$E = 500 + 200 = 700$$

$$TA = 100 + 200 + 300 + 800 = 1400$$

$$D = 1400 - 700 = 700$$

$$D/TA = 700/1400$$

7. A firm has 11,000 shares of stock outstanding, a \$44 per share price, sales of \$1 million, profit margin of 5%, and total asset turnover of 1.8. What is ROA?

- a. 8.2%
- b. 9.5
- c. 10.3
- d. 11.7
- e. none of the above

$$NI = .05(1 \text{ mil}) = 50,000$$

$$TA = \frac{\text{Sales}}{TATO} = \frac{1 \text{ mil}}{1.8} = 555,556$$

$$ROA = 50,000 / 555,556 = 9\%$$

8. In the example of earnings manipulation referred to as "asset dumping", IBM and Coca Cola

- a. used proceeds of asset sales to reduce overhead costs
- b. engaged in a swap transaction to increase their sales
- c. reported asset sales as operating income
- d. increased their sales by getting their customers to take product delivery early
- e. reported asset sales as non-operating income

9. A firm has sales of \$19,603 and a cash balance of \$514. Current liabilities are \$789. The Quick ratio is 3.4. How long does it take to collect payment on sales? (USE 365 DAYS)

- a. 60
- b. 40
- c. 45
- d. 50
- e. 55

$$QR = 3.4 = \frac{CA - inv}{CL} = \frac{\text{Cash} + AR}{CL} = \frac{514 + AR}{789}$$

$$AR = 2,169$$

$$DSO = \frac{AR}{\text{Sales}/365} = \frac{2169}{19603/365} = 40$$

10. You want to have \$260,000 saved 15 years from now. How much less do you have to deposit today to reach this goal if you can earn 8 percent rather than 7 percent on your savings?

- a. less than \$9,000
- b. between \$11,000 and \$13,000
- c. between \$13,000 and \$15,000
- d. between \$17,000 and \$19,000
- e. more than \$20,000

Compare PV

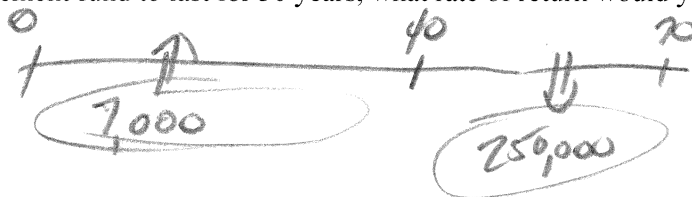
$$R = 7\% \quad PV = 260,000 \times DF_{.07,15} = 94,236$$

$$R = 8\% \quad PV = 260,000 \times DF_{.08,15} = 81,963$$

$$12,273$$

11. You would like to live on \$250,000 per year when you retire. Your strategy is to invest \$7,000 per year for 40 years at a 10% return. If you want the retirement fund to last for 30 years, what rate of return would you need during retirement?

- a. 7%
- b. 3%
- c. 10%
- d. 5%
- e. none of the above



$$1) FVA = 7,000 ACF_{.10,40} = 3,098,151$$

$$2) PVA, C, t \Rightarrow \text{find } r$$

$$ADF_{r,30} = \frac{PVA}{C} = \frac{3,098,151}{250,000} = 12.3926 \Rightarrow r = 7\%$$

12. Construct pro forma based on the following information:

- Sales are expected to increase by 60%.
- Increased operating efficiency is expected to reduce cost as percentage of sales by ten percentage points.
- Management plans to double the dollar amount of dividends.

What are the pro forma retained earnings?

- a. \$190
- b. \$202
- c. \$266
- d. \$294
- e. none of the above

$$\frac{750}{1000} = .75 - .10 = .65$$

IS 2007		Pro forma IS 2008	
Sales	\$1000	Sales	1600
Costs	750	Costs	1040
EBIT	250	EBIT	560
Int. exp.	50	Int. exp.	50
EBT	200	EBT	510
Tax (40%)	80	Tax	204
NI	120	NI	306
Dividends	20	Dividends	40
RE	100	RE	266

Based on the following balance sheets, answer questions 13 & 14.

Balance Sheet 2007				Pro forma Balance Sheet 2008			
Assets		Liabilities & Equity		Assets		Liabilities & Equity	
Cash	\$40	Acct Pay	\$70	Cash	52	Acct. Pay	91
Acct Rec	80	Notes Pay	90	Acct Rec	104	Notes Pay	90
Inventory	160			Inventory	234		
CA	280	LT Debt	290	CA	390	LT Debt	290
		Liabilities	450			Liabilities	471
FA	520	Stock	160	FA	520	Stock	160
		RE	190			RE	205
		Equity	350			Equity	365
Total Assets	\$800	Total L & E	\$800	Total Assets	910	Total L & E	836

+15 →

2007 sales were \$400 and are expected to increase by 30%. 2008 pro forma income statement retained earnings are projected to be \$15. Inventory is expected to increase as a percentage of sales by 5 percentage points. Other current asset and liabilities are projected at the same percentage of sales.

13. What are the pro forma total assets in 2008?

- a. 844
- b. 884
- c. 910
- d. 928
- e. none of the above

$$\begin{aligned} \text{Sales} &= 400(1.30) = 520 \\ \text{Inventory } 160/400 &= .40 + .05 = .45 \\ &\rightarrow .45(520) = 234 \end{aligned}$$

14. What are the pro forma total liabilities and equity in 2008?

- a. 821
- b. 836
- c. 884
- d. 923
- e. none of the above

15. If there was a financing surplus, what would be the most appropriate actions for the company to take?

- a. issue long-term debt or issue equity
- b. buy back stock or borrow money with a bank loan
- c. issue notes payable or issue stock
- d. repay a loan or pay dividends
- e. none of the above

16. An account grew from \$330.60 to \$500.00 over a 7 year period with semi-annual compounding. What is the periodic rate?

- a. 0.015
- b. 0.02
- c. 0.03
- d. 0.04
- e. 0.06

$$r/m? \quad m \times t = 2 \times 7 = 14$$

$$CF = \frac{FV}{PV} = \frac{500}{330.6} = 1.524 = (1 + r/m)^{14}$$

Solve for r/m or use Tables $r/m = .03$

17. A pawn shop charges a rate of 16% per month on loans to its customers. What is the effective annual rate?

- a. 17.2%
- b. 207%
- c. 192%
- d. 594%
- e. 494%

$$r/m = .16 \quad m = 12$$

$$EAR = (1.16)^{12} - 1 = 4.94$$

18. A bank has offered you a 5-year auto loan with an APR of 12%. If you can afford to make a quarterly payment of \$734.00, how much can you borrow?

- a. \$2,646
- b. \$10,920
- c. \$10,441
- d. \$5,303
- e. \$10,584

$$PVA = 734 \times ADF_{.12/4, 4 \times 5} = 10,920$$

19. Primanti Brothers is saving money to expand their parking lot. Three years ago, they set aside \$12,000 for this purpose. Today, that account is worth \$16,418. What rate of interest is Primanti Brothers earning on this money?

- a. 8.5%
- b. 10%
- c. 11.0%
- d. 12%
- e. 9%

$$r = \left(\frac{FV}{PV} \right)^{1/n} - 1 = \left(\frac{16,418}{12,000} \right)^{1/3} - 1 = 0.11$$

20. You have \$5,000 available for use. Your marginal tax rate is 33.3%. What is the best use of the money?

- a. Pay off a credit card balance with an APR of 6%
- b. Pay off an interest deductible student loan with an APR of 8%
- c. Invest at an annual return of 9%
- d. either option (a) or (b)
- e. either option (a) or (c)

Student loan $EAR = \left(1 + \frac{.08}{4} \right)^4 - 1 = .082 < .09$

C.C. $EAR = \left(1 + \frac{.06}{12} \right)^{12} - 1 = .0617$

BTL $= \frac{.0617}{1 - .333} = .0925 > .09$