Business 2019

Finance I

Lakehead University

Midterm Exam

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Time allowed: 2 hours.

Instructions: Calculators are permitted.
One 8.5×11 inches crib sheet is allowed.
Verify that your exam has 48 questions.
Test Form: A

Good luck!

For each of the following questions, choose the best answer.

1. A financial manager of a corporation is considering different operating strategies for the coming year. From a financial management standpoint, which of the following would be her optimal strategy?

   (a) **To undertake the plan that would maximize the current stock price**

   (b) To undertake the plan that would reduce the overall riskiness of the firm

   (c) To undertake the plan that would result in the largest profits for the year

   (d) To undertake the plan that would maximize her personal wealth

   (e) To undertake the plan that would lead to the most stable stock price for the year

2. Which of the following is an advantage of ownership of a corporation over that of a sole proprietorship?

   (a) The owners of the corporation have unlimited liability for the firm's debts

   (b) It is the simplest to start

   (c) **The corporation has an unlimited life**

(d) Dividends received by the corporation's shareholders are tax-exempt

(e) It is more difficult to transfer ownership in a corporation

3. Which of the following is NOT considered one of the basic questions of corporate finance?

   (a) Where will the firm get the long-term financing to pay for its investments

   (b) **At what rate of interest should a firm borrow**

   (c) What long-term investments should the firm take

   (d) What mixture of debt and equity should the firm use to fund its operations

   (e) How should the firm manage its working capital, i.e., its everyday financial activities

4. Which of the following is a type of agency cost?

   (a) The cost buying insurance on the firm's assets

   (b) The cost of a corporate jet needed to keep tabs on foreign operations

   (c) Salaries paid to the firm's managers

   (d) The costs of financing the firm

   (e) **The cost of an audit of the firm's financial statements**

5. If total assets = \$650, fixed assets = \$375, current liabilities = \$140, equity = \$265, long term debt = \$145, and current assets is the only remaining item on the balance sheet, what is the value of net working capital?

   (a) −\$165 (b) \$330 (c) \$290 (d) **\$135** (e) \$365

6. A(n) ______ can lose, at most, what s/he has already invested in a firm.

   I. common stockholder
   II. limited partner
   III. general partner
   IV. sole proprietor

   (a) **I and II only**

   (b) I only

   (c) I, II, and IV only

(d) II, III, and IV only

(e) II and III only

7. Brandy's Candies paid \$13 million in dividends during 1998, while also making net common stock repurchases of \$17 million. What was the cash flow to shareholders for 1998?

   (a) −\$4 million (b) \$4 million (c) **\$30 million** (d) \$17 million (e) \$13 million

8. Which of the following is NOT typically characterized as a current asset?

   (a) Inventory

   (b) Cash on hand

   (c) **Accounts payable**

   (d) Accounts receivable

   (e) Marketable securities

9. Which of the following would increase the financial leverage of a firm?

   (a) Net new equity is sold and existing bonds are paid off.

   (b) Total debt decreases and total assets remain constant.

   (c) Total assets increase and the debt to equity ratio remains constant.

   (d) **Net new bonds are sold and outstanding common stock is repurchased.**

   (e) Net new bonds are sold and an equivalent amount of short-term notes payable is paid off.

10. If net income = \$56,750, depreciation expense = \$20,000, interest expense = \$10,000, and the tax rate = 15%, what is operating cash flow?

    (a) **\$86,750** (b) \$82,250 (c) \$31,250 (d) \$95,250 (e) \$103,350

11. If a firm has taxable income of \$17.5 million and a total tax bill of \$6.1 million, its average tax rate is ______.

    (a) 15.0% (b) **34.9%** (c) 25.9% (d) 38.2% (e) 42.2%

12. If operating cash flow is \$900, net capital spending is \$211, and net working capital declines by \$73, what is cash flow from assets?

    (a) \$1,038 (b) **\$762** (c) \$1,184 (d) −\$616 (e) \$616

13. If net fixed assets were \$6.5 million on December 31, 1999 and \$11 million on December 31, 2000, and depreciation expense for 2000 was \$750,000, what was the firm's 2000 capital spending?

    (a) \$3.75 million (b) \$4.25 million (c) \$4.50 million (d) **\$5.25 million** (e) \$6.75 million

14. Calculate the depreciation expense using the following information: Sales = $\$20,000$; costs = $\$9,000$; addition to retained earnings = $\$5,000$; dividends paid = $\$1,500$; interest expense = \$950; tax rate = 35%.

    (a) $-\$7,571.43$ (b) \$7,571.43 (c) \$1,000 (d) **\$50** (e) \$8,725

15. Which of the following statements is TRUE?

    (a) Operating cash flow is always smaller than net income
    (b) Operating cash flow is always smaller than Earnings Before Interest and Taxes
    (c) Operating cash flow is always greater than Earnings Before Interest and Taxes
    (d) **Operating cash flow is always greater than net income**
    (e) Operating cash flow is always greater than sales

16. Which of the following statements is TRUE?

    (a) Operating cash flow is always greater than cash flow to shareholders.
    (b) Cash flow to shareholders is always smaller than cash flow to bondholders.
    (c) Cash flow from assets is always greater than cash flow to shareholders.
    (d) Cash flow from assets is always smaller than cash flow to bondholders.
    (e) **Statements (a), (b), (c), and (d) are false.**

17. Using the values in Table 1, find Dole Cola's operating cash flow in 2000.

    (a) \$1,595 (b) \$1,305 (c) **\$1,895** (d) \$1,005 (e) \$2,505

	1999	2000
EBIT	$1,800	$2,200
Depreciation	295	295
Interest	137	158
Long-term debt	3,600	4,200
Net fixed assets	9,015	9,230
Inventory	2,530	2,600
Dividends	250	275
Taxes	$500	$600

Table 1: Data for Dole Cola.

18. Using the values in Table 1, find Dole Cola's cash flow to bondholders in 2000.

    (a) $737 (b) $758 (c) −$442 (d) $463 (e) $442

19. Using the values in Table 1, find Dole Cola's net capital spending in 2000.

    (a) **$510** (b) $80 (c) −$80 (d) −$510 (e) $450

20. You have the following data for the Fosberg Winery. What is Fosberg's return on assets (ROA)? Return on equity = 15%; Earnings before taxes = $30,000; Total asset turnover = .80; Profit margin = 4.5%; Tax rate = 35%.

    (a) 9.3% (b) 3.9% (c) 5.7% (d) 6.4% (e) **3.6%**

21. In words, what does an equity multiplier of 2 mean?

    (a) Each dollar in assets the firm owns is supported by $2 in equity.
    (b) Each dollar in assets the firm owns is supported by $2 in debt.
    (c) Each dollar in assets the firm owns is supported by $4 in equity.
    (d) Each dollar in equity the firm has supports fifty cents in assets.
    (e) **Each dollar in equity the firm has supports $2 in assets.**

22. Which of the following sets of ratios is best to measure short-term solvency?

    (a) Quick ratio, inventory turnover, profit margin
    (b) Cash ratio, quick ratio, equity multiplier

(c) **Cash ratio, quick ratio, current ratio**

(d) Current ratio, return on assets, inventory turnover

(e) Market-to-book ratio, cash ratio, asset turnover ratio

23. All else unchanged, which of the following occurs when a firm buys inventory with cash?

    (a) **The quick ratio declines but the current ratio remains unchanged.**

    (b) The current ratio goes down if it was greater than 1 before the change.

    (c) The current ratio goes down if it was lower than 1 before the change.

    (d) The quick ratio goes up if it was lower than 1 before the change.

    (e) The quick ratio goes up if it was greater than 1 before the change.

24. Ratios that measure how efficiently a firm's management uses its assets in operations to generate bottomline net income are known as:

    (a) Asset management ratios.

    (b) Long-term solvency ratios.

    (c) Short-term solvency ratios.

    (d) Market value ratios.

    (e) **Profitability ratios.**

25. Folker Fried Chicken Company has a debt-equity ratio of 1.2. Return on assets is 6.5 percent, and total equity is $210,000. What is the equity multiplier?

    (a) **2.2** (b) 1.2 (c) 0.45 (d) 6.5 (e) 0.83

26. Y2K Inc. has sales of $1,250, total assets of $700, and a debt-equity ratio of 1.00. If its return on equity is 14 percent, what is its net income?

    (a) $175 (b) $550 (c) $98 (d) $55 (e) **$49**

27. Polka, Inc. has a debt-equity ratio of 2. Return on assets is 15 percent, and total equity is $310,000. Calculate its net income.

    (a) $46,500 (b) $93,000 (c) $23,250 (d) $69,750 (e) **$139,500**

28. Which of the following statements is TRUE regarding financial ratios?
    I. The cash ratio is always greater than the quick ratio.
    II. The quick ratio is always smaller than the current ratio.
    III. The market-to-book ratio is always smaller than one.
    IV. The return on equity is always greater than the return on assets.

    (a) I and II only
    (b) I only
    (c) I, II, and IV only
    (d) **II and IV only**
    (e) II, III and IV only

29. Which of the following is NOT a use of cash?

    (a) An increase in inventory.
    (b) A decrease in accounts payable.
    (c) A decrease in notes payable.
    (d) An increase in accounts receivable.
    (e) **An increase in long-term debt.**

30. Which of the following statements is FALSE?

    (a) **A market-to-book ratio smaller than one indicates that the firm has been successful overall in creating value for its shareholders.**
    (b) A current ratio greater than one can be a sign of good short-term solvency.
    (c) As long as a firm is not running out of stock and thereby foregoing sales, the higher the inventory ratio is, the more efficiently the firm is managing inventory.
    (d) The higher its total debt ratio, the more leveraged a firm is.
    (e) The higher the profit margin for a given level of sales, the higher the net income.

31. Lethbridge Mfg. Ltd. is currently operating at only 70 percent of fixed asset capacity. Current sales are $245,000. How fast can sales grow before any new fixed assets are needed?

    (a) **42.9%** (b) 70% (c) 30% (d) 233.3% (e) 2.3%

32. Which of the following statements is TRUE (assume a positive net income)?

   I. The sustainable growth rate is always greater than the internal growth rate.

   II. The sustainable growth rate is always smaller than the internal growth rate.

   III. The greater the profit margin, the smaller the sustainable growth rate.

   IV. The greater the retention ratio, the greater the internal growth rate.

   (a) I only

   (b) I and III only

   (c) II, III, and IV only

   (d) II and III only

   (e) **I and IV only**

33. A firm wishes to maintain a growth rate of 8 percent and a dividend payout ratio of 70 percent. The current profit margin is 14 percent and the firm uses no external financing sources. What must total asset turnover be?

   (a) 3.2 (b) **1.76** (c) 0.55 (d) 0.2469 (e) 0.8327

34. Which of the following is NOT a determinant of the sustainable growth rate?

   (a) Debt-equity ratio

   (b) Profit margin

   (c) **Inventory turnover**

   (d) Total asset turnover

   (e) Dividend payout ratio

35. Assume a firm has sales of $4,750 on assets totaling $2,500, net income of $375, and dividends of $225. What is the sustainable growth rate if the equity has a value of $1,500?

   (a) 17.6% (b) 22.9% (c)13.0% (d) 9.9% (e) **11.1%**

36. Fresh out of college, you are negotiating with your prospective new employer. They offer you a signing bonus of $2,000,000 today or a lump sum payment of $2,500,000 three years from now. If you can earn 8% on your invested funds, which of the following is true?

(a) Take the lump sum because it has a higher present value.

(b) **Take the signing bonus because it has a higher future value.**

(c) Take the signing bonus because it has a lower present value.

(d) Take the lump sum because it has a lower future value.

(e) Based on these numbers, you are indifferent between the two.

37. You expect to receive $25,000 at graduation in two years. You plan on investing it at 6 percent until you have $100,000. How long will you wait from now?

    (a) **25.79 years** (b) 23.79 years (c) 0.77 year (d) 12 years (e) 14 years

38. You need to borrow $18,000 to buy a truck. The current loan rate is 9.9% compounded monthly and you want to pay the loan off in equal monthly payments over 5 years. What is the size of your monthly payment?

    (a) $363.39 (b) **$381.56** (c) $374.04 (d) $455.66 (e) $394.69

39. You are offered an investment that requires you to put up $12,000 today in exchange for $40,000 12 years from now. What is the annual rate of return on this investment?

    (a) 30% (b) 33.3% (c) 27.8% (d) 70% (e) **10.6%**

40. At 6 precent annual interest rate, how long does it take, approximately, to double your money?

    (a) 6 years (b) 8 years (c) **12 years** (d) 18 years (e) 1 year

41. What is the effective annual rate of 8% compounded monthly?

    (a) 8 % (b) 8.16% (c) 151.82% (d) 8.24% (e) **8.30%**

42. The maximum effective annual rate that can be achieved with an APR of 12% is

    (a) infinity (b) 100% (c) **12.75%** (d) 12.55% (e) 12%

43. You are to make monthly deposits of $75 into a retirement account that pays 12 percent interest compounded monthly. If your first deposit will be made one month from now, how large will your retirement account be in 20 years?

    (a) infinitely large (b) $6,811.46 (c) $5,403.93 (d) $560.21 (e) **$74,194.15**

44. Maybe Life Insurance Co. is selling a perpetual annuity contract that pays \$625 monthly, the payments being made at the end of each month. The contract currently sells for \$50,000. What is the monthly return on this investment vehicle?

(a) **1.25%** (b) 80% (c) 12% (d) 15% (e) 7.2%

45. A 10-year annual annuity due with the first payment occurring at date $t = 5$ has a present value of \$30,000. If the discount rate is 16 percent per year, what is the annuity payment amount?

(a) \$13,036.89 (b) \$6,207.30 (c) \$639,644.08 (d) \$1,158,164.74 (e) **\$11,238.70**

46. What is the future value of \$5,000 in 12 years assuming an interest rate of 0 percent compounded semiannually?

(a) \$15,692.14 (b) \$0 (c) \$2,225.98 (d) **\$5,000** (e) \$12,142.37

47. What is the total future value six years from now of \$50 received in one year, \$200 received in two years, and \$800 received in six years if the discount rate is 8.00%?

(a) \$1,050.00 (b) \$1,047.93 (c) **\$1,145.56** (d) \$1,237.21 (e) \$1,269.15

48. Find the present value of a \$10,000 loan that has to be repaid according to the following scheme: A payment of \$5,000 will be made five years from now and a payment of \$15,000 will be made in 40 years.

(a) \$8,445.89 (b) \$1,223.90 (c) -\$225.18 (d) \$6,000 (e) **\$10,000**