LO.a: Describe tools and techniques used in financial analysis, including their uses and limitations.

1. The use of financial ratio analysis is *most likely* limited in which of the following situations?
   A. Comparing companies using different accounting methods.
   B. Providing a means of evaluating management's ability.
   C. Providing insights into microeconomic relationships within a company that help analysts project earnings and free cash flow.

2. Thiago Silva, an equity research analyst, wants to analyze a company from different perspectives through financial ratios. He will *least likely* be able to determine:
   A. Creditworthiness.
   B. Current financial condition.
   C. Past performance.

3. Which of the following is *most likely* true about ratios?
   A. Ratios are indicators of some aspect of a company's performance telling what happened and why it happened.
   B. Ratios cannot be used to compare companies of different sizes.
   C. Ratios provide insights into a company's financial flexibility.

4. Which of the following is *least likely* a limitation of ratio analysis?
   A. The heterogeneity of a company's operating activities.
   B. The need to use judgment.
   C. The microeconomic relationships within a company.

5. Sam Robson wants to compare a specific metric for company J with the same metric for company K. Which of the following kinds of analyses is Robson *most likely* to conduct?
   A. A cross sectional analysis.
   B. A longitudinal analysis.
   C. A trend analysis.

6. Which of the following statements is *most* accurate?
   A. If revenue grows more quickly than assets, the company's efficiency may be improving.
   B. If inventory grows slower than revenue, the company is likely to face an operational problem with obsolescence.
   C. If net income is growing faster than revenue, the company's efficiency is declining.

7. With a vertical common size balance sheet, each item is divided by:
   A. The value of that item in the base year.
   B. Total assets.
   C. Total equity.

8. Which of the following is an analyst *most likely* to consider when deciding which financial ratios to use?
   A. An industry in which target companies are operating.

B. Current state of the economy.
C. Accounting policies.

9. Presenting the financial data of a company in relation to a single financial statement item is best known as:
A. Common-size analysis.
B. Time-series analysis.
C. Cross-sectional analysis.

10. In which of the following situations is ratio analysis *least* likely useful?
A. To compare two companies using different inventory valuation methods: one using LIFO and the other using FIFO.
B. To compare the changes in a company over time.
C. To assess a company's ability to raise capital and grow.

LO.b: Classify, calculate, and interpret activity, liquidity, solvency, profitability, and valuation ratios.

11. Selected financial information for Park's Company is provided below:

Sales	$2.3 million
Cost of goods sold	$0.98 million
Cash	$0.5 million
Accounts receivable	$0.8 million
Inventory	$0.25 million
Accounts payable	$0.5 million

The company's cash conversion cycle (in days) is *closest* to:
A. 33.9.
B. 48.6.
C. 66.2.

12. The interest coverage ratio is *most likely* an indicator of a company's:
A. efficiency.
B. liquidity.
C. solvency.

13. The balance sheet data of a company is presented below:

Current Assets	
Cash and cash equivalents	$ 1,900
Marketable securities	300
Notes and accounts receivable, trade	1,750
Allowance for doubtful accounts	(500)
Inventories	1,000
Deferred income taxes	540

Other current assets	250
Total current assets	**$ 5,240**
Current Liabilities	
Accounts payable and other accrued liabilities	$ 2,800
Current portion of borrowings	1,020
Other current liabilities	1,260
Total current liabilities	**$ 5,080**

The company's quick ratio is *closest* to:
A. 0.68.
B. 0.78.
C. 1.03.

14. The following selected balance sheet and ratio data are available for a company:

Metric	**2012**	**2011**
Cash and cash equivalents	90.0	
Marketable securities	350.5	
Accounts receivables	10.0	
Other current assets	120.1	
Total current assets	570.6	
Deferred revenues	75.0	
Other current liabilities	112.5	
Total current liabilities	187.5	
Cash ratio		2.15
Quick ratio		2.70
Current ratio		2.89

Which of the following ratios decreased between 2011 and 2012?
A. Cash.
B. Current.
C. Quick.

15. The financial information for Pear Company is provided below:

Sales	$2.8 million
Cost of goods sold	$2.3 million
Purchases	$2.1 million
Average receivables	$0.6 million
Average inventory	$0.5 million
Average payables	$0.2 million

The company's cash conversion cycle (in days) is *closest* to:
A. 114.
B. 122.

C. 129.

16. An analyst wants to critically examine a company's liquidity and wants to use the most stringent test. He is *most likely* to select the:
    A. cash ratio.
    B. current ratio.
    C. quick ratio.

17. The following information is available about ABC Company:

	$ millions
Sales	2,400
COGS	1,440
Purchases	1,470
Average receivables	312.5
Average inventory	355
Average payables	72.5

XYZ's cash conversion cycle (in days) is *closest* to:
A. 120.
B. 156.
C. 138.

18. Which ratios measure operational efficiency?
    A. Activity.
    B. Liquidity.
    C. Profitability.

19. The following information is available for Pidku Enterprises:

Income Statement Extract	**2012**	**2011**
Revenue	$2 million	$1.5 million
Cost of goods sold	$1.5 million	$1.25 million
Gross profit	$0.5 million	$0.25 million
Balance Sheet Extract	2012	2011
Accounts receivable	$300,000	$275,000
Inventory	$275,000	$250,000
Accounts payable	$250,000	$225,000

Which of the following are *most likely* to be the inventory turnover and payables turnover for the company for FY2012?

	Inventory turnover	Payables turnover
A.	5.45	6.10
B.	5.71	6.42
C.	63.9	56.06

20. Faddy Corporation reported revenue of $150,000 for 2011. The income reported was $65,000. The opening balance of the accounts receivables account was $40,000 and the closing balance was $52,000. Assuming a 360-day year, what are the days of sales outstanding for Faddy Corporation?
    A. 110.4.
    B. 124.8.
    C. 254.7.

21. Which of the following is *most likely* accurate about the interpretation of activity ratios?
    A. A working capital turnover of 3.6 indicates that the company generates $3.6 of net income for every $1 of working capital.
    B. A low fixed asset turnover ratio may indicate a labor intensive environment.
    C. A high payables turnover ratio implies a low accounts payables balance relative to purchases.

22. Which of the following is *least likely* correct?
    A. A relatively high DSO indicates an inefficient collection of receivables.
    B. A high total asset turnover ratio implies an efficient usage of assets.
    C. A payables turnover ratio that is low relative to industry could indicate that the company is not making full use of the available credit facilities.

23. The following table shows the balance sheet extract for Pulpy Peaches Ltd.

Current Assets		**Current Liabilities**	
Cash	$75,000	Accounts payables	$65,000
Marketable securities	$60,000	Short term notes payable	$80,000
Accounts receivables	$56,000		
Inventory	$40,000		

    What is the cash ratio for the company?
    A. 0.52.
    B. 0.93.
    C. 1.32.

24. Mary Higgins is a financial analyst. She has the following information available for a leading company in the agricultural sector.

Days of inventory on hand	36.48
Days of sales outstanding	49.22

Payables turnover	8.99

Assume that there are 360 days in a year. What is the cash conversion cycle for the firm?
A. 27.30.
B. 45.66.
C. 76.71.

25. Which of the following is *least likely* correct about the interpretation of liquidity ratios?
   A. The quick ratio is more conservative than the current ratio and does not take inventory into account.
   B. The defensive interval ratio measures how long the company can continue to pay its expenses from its existing liquid assets.
   C. The longer the cash conversion cycle, the greater will be the liquidity of the company.

26. Steven Clark is a credit analyst. He is evaluating the solvency of NYC Public Limited. The following balance sheet extract is made use of for this analysis.

Balance Sheet Extract (millions of $)	**2011**	**2010**
Total equity	567	491
Long term debt	800	700
Other long term liabilities	450	450
Current liabilities	300	280
Total equity and liabilities	**2,117**	**1,921**

What is the average financial leverage of the company for 2011?
A. 3.73.
B. 3.82.
C. 3.97.

27. The reported earnings before interest and tax for Bling Corporation were $127,500. The corporate tax rate is 35%. Other bits of information are as follows:

Interest charges	$44,000
Lease payments	$20,000

What is the fixed charge coverage ratio for the company?
A. 1.61.
B. 1.98.
C. 2.30.

28. Which of the following is *most likely* to be known as ‘times interest earned’?
   A. Financial leverage.
   B. Fixed charge coverage.
   C. Interest coverage ratio.

29. Which of the following statements about solvency ratios is correct?
   A. A higher interest coverage ratio implies weaker solvency.

B. A higher fixed coverage ratio implies stronger solvency.
C. A higher debt to assets ratio implies stronger solvency.

30. Which of the following statements about profitability ratios is correct?
A. Return on common equity is a ratio of net income to average common equity.
B. Controlling operating costs can result in faster growth of operating profit margin than gross profit margin.
C. Higher product pricing and lower product costs result in higher gross profit margin.

LO.c: Describe relationships among ratios and evaluate a company using ratio analysis.

31. Sara Dawood is concerned about whether her business would be able to pay off the long-term loan obtained by a commercial bank. The ability of her company to meet long-term obligations is known as:
A. liquidity.
B. profitability.
C. solvency.

32. The current ratio for an industry is 2.4. Data for a firm in the industry is presented below:

As on December 31	**£ ‘000s**
Cash	120
Accounts receivable	400
Inventory	1400
Accounts payable	350
Taxes payable	250
Installment loan payable, due in three equal annual payments on June 30.	600

As compared to the industry the company is:
A. as liquid.
B. less liquid.
C. more liquid.

33. The following information (in millions) for a company is available:

	2013	2012
Short-term borrowings	$150	$152
Current portion of long-term interest bearing debt	200	195
Long-term interest bearing debt	1,200	1,150
Total shareholders’ equity	2,580	2,400
EBIT	362.5	325
Interest payments	75	62
Operating lease payments	30	34

What is the *most* appropriate conclusion an analyst can make about the solvency of the company? Solvency has:

A. improved because the debt-to-equity ratio decreased.
B. deteriorated because the debt-to-equity ratio increased.
C. improved because the fixed charge coverage ratio increased.

34. Selected information from a company's comparative income statements and balance sheets is presented below:

Selected Income Statement Data
for the year ended December 31st
(US$ thousands)

	2013
Sales revenue	\$2,050,000
Cost of goods sold	1,250,000
Net income	\$350,150

Selected Balance Sheet Data
as of December 31st
(US$ thousands)

	2013	**2012**
Current Assets		
Cash & investments	\$150,250	\$ 135,000
Accounts receivable	200,000	180,200
Inventories	205,000	150,800
Total current assets	\$555,250	\$466,000
Current Liabilities		
Accounts payable	\$150,000	\$125,000
Other current liabilities	50,000	\$50,000
Total current liabilities	\$500,000	\$75,000

The company operates in an industry in which suppliers offer terms of 2/10, net 30. The payables turnover for the average company in the industry is 8.5 times. Which of the following statements is *most accurate*? In 2013, the company on average:

A. took advantage of early payment discounts.
B. paid its accounts within the payment terms provided.
C. paid its accounts more promptly than the average firm in the industry.

35. In which of the following situations will cross-sectional analysis be most useful?

A. When comparing companies of different sizes which are in the same industry.
B. When comparing companies of the same size across different industries.
C. When evaluating the performance of a company over multiple time periods.

36. An analyst gathered the following data for two companies in the same industry:

	Company A	Company B
Days in sales outstanding	24	30
Days of inventory on hand	25	31

Days of payables	44	40
Current assets	$182,000	$189,000
Total assets	$401,000	$569,000
Current liabilities	$60,000	$66,000
Total liabilities	$329,000	$450,000
Shareholders' equity	$132,000	$121,000

Which of the following is the *most appropriate* conclusion the analyst can make? Compared to Company B, Company A:

A. has a longer time between cash outlay and cash collection.
B. has more financial risk.
C. is more liquid.

37. The current ratio for XYZ industry is 3.00. Data for a firm in XYZ industry is presented below:

As at June 30	**$ '000s**
Cash	800
Accounts receivable	700
Inventory	2,500
Accounts payable	500
Taxes payable	300
Installment loan payable, due in two equal annual payments on Dec 31.	800

The firm's current ratio relative to that of the industry is *best* described as being:

A. as liquid.
B. less liquid.
C. more liquid.

LO.d: Demonstrate the application of DuPont analysis of return on equity, and calculate and interpret effects of changes in its components.

38. The financial ratios of a company are given below:

Operating profit margin	23.8%
Net profit margin	14.0%
Total asset turnover	0.9
Return on assets	12.6%
Financial leverage	1.88
Debt to equity	0.88

The company's return on equity (ROE) is *closest* to

A. 23.7%.
B. 26.1%.
C. 32.4%.

39. Selected information for a company and the common size data for its industry are provided below:

	Company (£)	Common Size Industry Data (% of sales)
EBIT	100,000	22.0
Pretax profit	85,500	18.2
Net Income	74,200	13.5
Sales	350,000	100.0
Total assets	650,000	150
Total equity	400,00	65.5
ROE	18.6%	20.6%

The company's inferior ROE compared to that of the industry is most likely due to its:
A. tax burden ratio.
B. interest burden ratio.
C. financial leverage ratio.

40. The following financial data is available for a company:

ROA	5.6%
Total asset turnover	2.12
Financial leverage	1.89
Dividend payout ratio	52.3%

The company's sustainable growth rate is *closest* to:
A. 2.67%.
B. 5.05%.
C. 5.66%.

41. Which of the following will *least likely* result in an increase in a company's sustainable growth rate?
A. Higher tax burden ratio.
B. Higher interest burden ratio.
C. Higher dividend payout ratio.

42. Ali & Sons is operating in a highly fragmented industry, where competition among firms is very high. The company's ROE for last year was very high as compared to other firms in the industry. The company was *most likely* able to sustain this increase in ROE because it:
A. increased the prices of its product significantly.
B. decreased the prices of its product significantly.
C. took advanced measures for reducing working capital levels as a percentage of assets.

43. IMC telecom's, financial data is mentioned below:

Return on Assets (ROA)	5%
Total Asset Turnover	2.0
Financial Leverage	2.5
Dividends Payout Ratio	45%

IMC's sustainable growth rate is *closest* to:
A. 6.875%.
B. 5.625%.
C. 13.75%.

44. The gross profit margin for Amnesty Limited grew from 35% to 42% over the past one year. Which of the following is *least likely* an explanation for this increase?
A. The company charged higher prices for some of its products.
B. A new manufacturing process allowed for cost cutting.
C. Some office personnel were laid off and thus salary expense decreased.

45. The balance sheet extract for Silver Linings Limited is as follows:

Cost of goods sold	$450,000
Gross profit	$250,000
Expenses	$170,000
EBIT	$80,000
Interest charges	$15,000
EBT	$65,000
Tax	$26,000
Net Income	$39,000

What is the pre-tax margin for the company?
A. 3.7%.
B. 9.3%.
C. 14.4%.

46. Rob Westfield is an analyst. He gathers the following information for Panama Country Club.

Average total assets	$750,000
Average total liabilities	$480,000
EBIT	$210,000
EBT	$180,000
Tax	40%

Which of the following statements is *least likely* correct?
A. The return on assets is 14.4%.
B. The return on equity is 40.0%.
C. The return on total capital is 66.7%.

47. While studying a research report, Andy Gibb came across the following ratios.

Interest burden	0.85
Tax burden	0.64
EBIT margin	7.50%
Financial Leverage	1.80
Total asset turnover	1.24

What is the return on equity for this company?
A. 1.67%.
B. 5.06%.
C. 9.11%.

LO.e: Calculate and interpret ratios used in equity analysis and credit analysis.

48. Which of the following statements is *least likely* accurate about credit analysis?
    A. Financial ratios are often used for credit analysis.
    B. A high coverage ratio implies good credit quality.
    C. A high leverage ratio implies good credit quality.

49. Which of the following is *least likely* a valuation ratio?
    A. Acid test ratio.
    B. Cash flow per share.
    C. Diluted earnings per share.

50. The sustainable growth rate is the product of:
    A. dividend payout ratio and earnings per share.
    B. dividend payout ratio and retention ratio.
    C. retention ratio and return on equity.

51. Billy James collected the following information from the cash flow statement of Daughtry Limited.

Cash flow from operations	$300,000
Cash flow from financing	$180,000
Cash flow from investing	($90,000)

The weighted average number of shares outstanding for this company is 100,000 shares. The cash flow per share for the company is *closest* to:
A. 1.8.
B. 3.0.
C. 3.9.

52. Which of the following ratios is *least likely* to be used in credit analysis?
    A. Interest coverage ratio.
    B. Assets to equity ratio.
    C. Price to earnings ratio.

LO.f: Explain the requirements for segment reporting, and calculate and interpret segment ratios.

53. For segment reporting, which of the following *must* be disclosed?
    I. Factors used to identify the segment
    II. Products and services sold by the segment
    III. A measure of the segments total assets and liabilities
    A. I and II only.
    B. II, and III only.
    C. I, II and III.

54. Which of the following ratios measures the overall efficiency of a segment?
    A. Segment turnover.
    B. Segment ROA.
    C. Segment debt ratio.

LO.g: Describe how ratio analysis and other techniques can be used to model and forecast earnings.

55. Mr. Smith, an analyst at Cyan Limited is forecasting net profit of the following three companies. He uses the five-year average net profit margins. The operating expenses and capital structures are similar for these companies.
    - Company A's products currently enjoy healthy margins because of its technological edge. New technologies typically replace old ones every three years in this industry.
    - Company B has been offering the same products throughout the period, and the demand and cost structures for its products have not experienced any significant changes.
    - Company C has recently restructured its product offerings focusing on high margin products only.

    Which of the three companies will have reliable forecasted net profit margin?
    A. Company C.
    B. Company B.
    C. Company A.

56. A computer generated analysis based on probability models for factors that drive outcomes is *most likely* to be known as:
    A. scenario analysis.
    B. sensitivity analysis.
    C. simulation.

Solutions

1. A is correct. Financial ratio analysis is limited by the use of alternative accounting methods. Accounting methods play an important role in the interpretation of financial ratios. The lack of consistency across companies makes comparability difficult to analyze and limits the usefulness of ratio analysis.

2. A is correct. Financial ratios alone are not sufficient to determine the creditworthiness of a company. Other factors must also be considered, such as examining the entire operation of the company, meeting with management, touring company facilities, and so forth.

3. C is correct. Statement A is incorrect because ratios explain what happened, but *do not* explain why it happened. Statement B is incorrect because ratios *allow* comparison of different sized companies.

4. C is correct. The microeconomic relationships within a company are the insights that the ratio analysis provides. Hence, this is not a limitation.

5. A is correct. The cross-sectional analysis allows for comparing a specific metric for a company with the same metric for another company.

6. A is correct. Statement B is incorrect because the company is likely to face an operational problem with obsolescence if the inventory grows *more quickly* that revenue. Statement C is incorrect because if net income is growing faster than revenue, the company's profitability increases.

7. B is correct. With a vertical common size balance sheet, each item is divided by total assets.

8. A is correct. Several ratios are industry specific; hence ratios should be selected based on the industry being evaluated.

9. A is correct.

10. A is correct. This is a limitation of ratio analysis.

11. A is correct. CCC = DOH + DSO – Days Payables = $\frac{365}{\frac{0.98}{0.25}} + \frac{365}{\frac{2.3}{0.8}} - \frac{365}{\frac{0.98}{0.5}} = 33.9$. When purchases are not available (as in this case), the COGS can be used to estimate payables turnover.

12. C is correct. Interest coverage ratio measures a company's ability to meet its interest obligations and is an indicator of company's solvency.

13. A is correct. Quick Ratio: $\frac{1900 + 300 + 1750 - 500}{5080} = 0.68$

14. C is correct. Cash ratio = $\frac{\text{Cash + Marketable securities}}{\text{Current liabilities}}$ = (90 + 350.5) / 187.5 = 2.3

    Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$ = 570.6 / 187.5 = 3.0

    Quick ratio = $\frac{\text{Cash + Marketable securities + Accounts receivables}}{\text{Current liabilities}} = \frac{90 + 350.5 + 10}{187.5}$ = 2.4

15. B is correct. CCC = DSO + DOH – Days Payables = $\frac{365}{\frac{2.8}{0.6}} + \frac{365}{\frac{2.3}{0.5}} - \frac{365}{\frac{2.1}{0.2}}$ = 122.

16. A is correct. The cash ratio determines how much of the company's short-term obligations can be settled with existing amounts of cash and marketable securities.

17. A is correct. Cash conversion cycle = Days sales outstanding + Days of inventory on hand – Days of payables

	Accounts receivable Days in Sales (DSO)	**Inventory Days on hand (DOH)**	**Accounts payables Days in payables**
	Sales/A/R	Cost of Goods Sold/ Inventory	Purchases/ Payables
Turnover	2,400/312.5 = 7.68 times	1,440/355 = 4.06 times	1,470/72.5 = 20.28 times
In days	365/7.68 = 48 days	365/4.06 = 90 days	365/20.28 = 18 days

    Cash conversion cycle = 48 + 90 – 18 = 120

18. A is correct. Activity ratios measure operational efficiency.

19. B is correct.

    $$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}} = \frac{1{,}500{,}000}{\frac{275{,}000+250{,}000}{2}} = 5.714$$

    $$\text{Payables turnover} = \frac{\text{Purchases}}{\text{Average trade payables}} = \frac{1{,}500{,}000 + 275{,}000 - 250{,}000}{\frac{250{,}000+225{,}000}{2}} = 6.42$$

20. A is correct.

    $$\text{Days of sales outstanding} = \frac{\text{Number of days in the period}}{\text{Receivables turnover}} = \frac{\text{Number of days in the period}}{\frac{\text{Revenue}}{\text{Average Receivables}}}$$

    $$\text{Days of sales outstanding} = \frac{360}{\left(\frac{150{,}000}{\frac{40{,}000+52{,}000}{2}}\right)} = 110.4$$

21. C is correct. Statement A is incorrect because a working capital turnover of 3.6 indicates that the company generates \$3.6 of revenue for every \$1 of working capital. Statement B is incorrect because a low fixed asset turnover ratio may indicate a capital intensive environment. Statement C is correct.

22. C is correct. Statements A and B are correct. Statement C is incorrect because a payables turnover ratio that is *high* relative to industry could indicate that the company is not making full use of the available credit facilities.

23. B is correct.

$$\text{Cash Ratio} = \frac{(\text{Cash} + \text{Marketable securities})}{\text{Current liabilities}} = \frac{75{,}000 + 60{,}000}{65{,}000 + 80{,}000} = 0.93$$

24. B is correct.

$$\text{Cash Conversion Cycle} = \text{DOH} + \text{DSO} - \text{Number of days of payables}$$

$$\text{Cash Conversion Cycle} = 36.48 + 49.22 - \left(\frac{360}{8.99}\right) = 45.66$$

25. C is correct. The longer the cash conversion cycle, the lower will be the liquidity of the company. Therefore, statement C is incorrect.

26. B is correct.

$$\text{Financial Leverage} = \frac{\text{Average total assets}}{\text{Average total equity}} = \frac{\frac{2{,}117+1{,}921}{2}}{\frac{567+491}{2}} = 3.82$$

27. C is correct.

$$\text{Fixed charge coverage} = \frac{\text{EBIT} + \text{Lease payments}}{\text{Interest payments} + \text{Lease payments}} = \frac{127{,}500 + 20{,}000}{44{,}000 + 20{,}000} = 2.30$$

28. C is correct.
The interest coverage ratio is known as times interest earned.

29. B is correct. A higher debt to assets ratio implies weaker solvency.

30. C is correct. Return on common equity is a ratio of (net income – preferred dividends) to average common equity.

31. C is correct. The ability to meet long-term obligations is known as solvency.

32. A is correct.
Current ratio = Current assets ÷ Current liabilities

Current assets:	**£ '000s**	Current liabilities:	**£ '000s**
Cash	120	Accounts payable	350
Accounts receivable	400	Taxes payable	250
Inventory	1,400	Loan, first installment	200
Total	1,920	Total	800

Current ratio = 2.4

33. A is correct. The debt–equity ratio decreased, thereby improving solvency; the fixed charge ratio remained the same.

Fixed charge coverage ratio $= \frac{\text{EBIT} + \text{Lease payments}}{\text{Interest payments} + \text{Lease payment}}$

Fixed charge coverage ratio 2013 = $\frac{362.5 + 30}{75 + 30}$ = 3.74

Fixed charge coverage ratio 2012 = $\frac{325 + 34}{62 + 34}$ = 3.74

Debt-to-equity ratio = $\frac{\text{Total debt}}{\text{Equity}}$

Debt-to-equity ratio 2013 = (150 + 200 + 1200) / 2580 = 60.0%

Debt-to-equity ratio 2012 = (152 + 195 + 1150) / 2400 = 62.4%

34. C is correct.

Purchases = COGS + Ending inventory – Beginning inventory

Purchases = 1250000 + 205000 – 150800 = 1304200

Payables Turnover = Purchases ÷ Average payables

Payables Turnover = 1304200 ÷ (1/2 x (150000 + 125000) = 9.5

Days Payables = 365 / 9.5 = 38.4

The firm's days in payables is 38.5 days; therefore, it appears the firm does not normally take supplier-provided discounts (paying in 10 days) nor pay its accounts within the 30-day terms provided. However, on average, the firm is paying faster than the average firm in the industry (42.9 days).

35. A is correct. Cross-sectional analysis is most helpful when comparing companies of different sizes which are in the same industry. Option B is not correct because ratios might not be comparable across industries. Option C deals with time-series analysis.

36. C is correct.

Company A has a higher current ratio and shorter cash conversion cycle and it therefore more liquid. The lower financial leverage ratio indicates that it has less financial risk, not more, and it has less time between cash outlay and cash collection.

Measure	Definition	Company A	Company B
Current ratio	CA/CL	3.03	2.86
Cash conversion cycle	DOS + DOH – Days payable	5	21
Financial Leverage	Total assets/Sh equity	3.04	4.70

37. C is correct.

Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$

Current Assets	**Amount**	**Current Liabilities**	**Amount**
Cash	800	Accounts payable	500
Accounts receivable	700	Taxes payable	300
Inventory	2,500	Loan payable, first installment	400
Total	4,000	Total	1,200

The higher the current ratio, the more liquid the company. Thus, with a current ratio of 3.33 (4,000 ÷ 1,200), the company is more liquid than the industry, with a current ratio of 3.00.

38. A is correct. ROE = ROA * Financial leverage = 12.6% x 1.88 = 23.7%.

39. C is correct.

	Company	**Industry**
Tax burden ratio	=74.2/85.5 = 0.87	13.5/18.2 = 0.74
Financial leverage	650/400 = 1.625	150/65.5 = 2.29
Interest burden ratio	85.5/100 = 0.855	18.2/22 = 0.83

40. B is correct.
Sustainable growth rate = retention ratio (*b)* × ROE.
b = 1- Dividend payout ratio = 1 - 0.523 = 0.477
ROE = ROA x Financial leverage = .056 x 1.89 = 0.10584
Sustainable growth rate = *b* x ROE = 0.477 x 0.10584 = 0.0505 = 5.05%

41. C is correct.
Sustainable growth rate = Retention ratio * ROE.
A higher dividend payout ratio means a lower retention ratio.
The higher a company's ROE and its ability to finance itself from internally generated funds (a higher retention ratio), the greater its sustainable growth rate. In the five-factor ROE, any factor that increases ROE will increase sustainable growth:
ROE = Tax burden * Interest burden * EBIT margin * Asset turnover * Leverage.

42. C is correct. Either decreasing or increasing the prices is not sustainable in a highly fragmented and competitive industry. Increasing the price will lead to a decrease in sales because customers switch easily in competitive industries. On the other hand, decreasing the price will lead to a price war, which will reduce the profit for the all the firms in the industry.

43. A is correct.
Sustainable growth rate = retention ratio (b) × ROE
    1) Retention ratio = 1 – payout ratio
       Retention ratio = 1 – 0.45 = 0.55
    2) ROE = ROA × financial leverage
       ROE = 0.05 × 2.5 = 12.5%
Sustainable growth rate = 0.55 × 0.125 = 6.875%.

44. C is correct.
A decrease in salary expense has an impact on the net profit margin and not the gross profit margin since it is a non-operating expense. Higher prices will increase the gross profit margin, all else equal. Lower manufacturing costs will decrease COGS and increase the gross profit margin.

45. B is correct.

$$\text{Pre} - \text{tax margin} = \frac{\text{EBT}}{\text{Revenue}} = \frac{\text{EBT}}{\text{COGS} + \text{GP}} = \frac{65{,}000}{450{,}000 + 250{,}000} = 9.30\%$$

46. C is correct.

$$\text{Return on total capital} = \frac{\text{EBIT}}{\text{Debt} + \text{Equity}} = \frac{210{,}000}{750{,}000} = 28\%$$

47. C is correct.

$$\text{Return on equity} = \text{Interest burden} * \text{Tax burden} * \text{EBIT margin} * \text{Asset turnover} * \text{Leverage}$$
$$\text{Return on equity} = 0.85 * 0.64 * 0.075 * 1.80 * 1.24 \approx 0.0911$$

48. C is correct. Financial ratios are frequently used for credit analysis. A high coverage ratio implies good credit quality. High leverage means a relatively high level of debt. This implies high credit risk and low credit quality.

49. A is correct. The acid test ratio is a liquidity ratio and not a valuation ratio.

50. C is correct. Sustainable growth rate is the product of retention ratio and return on equity.

51. B is correct.

$$\text{Cash flow per share} = \frac{\text{Cash flow from operations}}{\text{Weighted average number of shares outstanding}} = \frac{300{,}000}{100{,}000} = 3.0$$

52. C is correct. Interest coverage ratios and leverage ratios (such as assets/equity) are used in credit analysis. The price to earnings ratio is used in equity analysis.

53. C is correct. All the items need to be listed. Refer to the notes for other items that need to be listed.

54. A is correct. Turnover ratios measure efficiency. Net profit margin measures profitability. The debt ratio measures leverage.

55. B is correct. Company B will have reliable forecasted net profit margin because it has been offering the same products and its demand and cost structures have been stable, too. Therefore, its net profit margin forecast should be stable and most reliable.

56. C is correct. A computer generated analysis based on probability models for the factors that drive outcomes is known as simulation.

