

True-False

1. Time-series analysis helps identify financial trends over time for a single company.
2. Managers' ability to freely choose among several alternative reporting methods makes it more difficult for a financial analyst to evaluate the activities and condition of a company.
3. GAAP filters data needed for a complete and faithful picture in the financial reports.
4. The first step to informed financial statement analysis is a careful examination of the auditor's opinion.
5. Common size income statements recast each statement item as a percent of total assets.
6. Trend income statements recast each statement item as a percent of sales.
7. Trend statements provide a clearer indication of growth and decline than do common size statements.
8. Asset turnover is defined as sales divided by total assets.
9. The statement of cash flow is the most useful source of information when analyzing a company's credit risk.
10. The quick ratio measures the most immediate liquidity of a company.
11. Activity ratios describe the profitability of a company.
12. The only way a company can increase its operating profits per asset dollar is to expand the amount of sales generated from each asset dollar.
13. The current asset turnover ratio helps the analyst identify efficiency gains from improved accounts receivable and inventory management.
14. Differences in the business strategies companies adopt give rise to economic differences that are reflected as differences in asset utilization only.
15. Credit risk analysis uses financial ratios that focus on an assessment of liquidity and solvency.
16. The financial structure leverage ratio measures the degree to which the company uses long-term debt to finance assets.
17. Financial leverage is beneficial when the company earns more than the incremental after-tax cost of debt.
18. Non-GAAP earnings like EBITDA ignore some real business costs and can result in an incomplete picture of a company's profitability.
19. Cash flows are more accurately measured with EBITDA and pro forma earnings.
20. The Z score model combines five financial ratios in a precise way to

estimate a company's default risk.

Multiple-Choice Questions

Select the best answer from those provided.

21. A type of analysis that helps identify similarities and differences across companies or business units at a single moment in time is
 - a. trend analysis.
 - b. common size statements.
 - c. time-series analysis.
 - d. cross-sectional analysis.
22. An analytical tool that measures a company's performance against a predetermined standard is a/an
 - a. benchmark comparison analysis.
 - b. profitability analysis.
 - c. time-series analysis.
 - d. common size statement.
23. The financial statement reporting "filter" is
 - a. SEC reporting regulations that vary from GAAP for publicly traded companies.
 - b. SEC required reporting regulations for all entities.
 - c. management's manipulation of accounting data.
 - d. management's discretion to choose alternative accounting procedures within GAAP.
24. Which one of the following help the analyst remove the effects of an information filter?
 - a. Financial statements
 - b. Form 10K
 - c. Footnote disclosures
 - d. Trend analysis

Table 5-1

Manero Company included the following information in its annual report:

	2006	2005	2004
Sales	\$178,400	\$162,500	\$155,500
Cost of goods sold	115,000	102,500	100,000
Operating expenses	50,000	50,000	45,000
Net income	13,400	10,000	10,500

25. Refer to Table 5-1. In a common size income statement for 2006, the

operating expenses are expressed as

- a. 28.0%.
- b. 30.3%.
- c. 43.8%.
- d. 100.0%.

26. Refer to Table 5-1. In a common size income statement for 2004, the cost of goods sold are expressed as

- a. 40.0%.
- b. 64.3%.
- c. 100.0%.
- d. 230.0%.

27. Refer to Table 5-1. In a common size income statement for 2006, the cost of goods sold are expressed as

- a. 64.5%.
- b. 100.0%.
- c. 112.3%.
- d. 130.0%.

28. Refer to Table 5-1. In a trend income statement for 2004, where 2004 is the base year, sales are expressed as

- a. 84.4%.
- b. 92.6%.
- c. 100.0%.
- d. 150.5%.

29. Refer to Table 5-1. In a trend income statement for 2006, where 2004 is the base year, sales are expressed as

- a. 87.2%.
- b. 100.0%.
- c. 114.7%.
- d. 148.7%.

30. In a common size balance sheet, all items are expressed as a percentage of

- a. total assets.

b. total liabilities.

c. total equity.

d. total sales.

31. In a trend balance sheet, each balance sheet item is expressed as a percentage of

- a. total assets.
- b. the base year item.
- c. sales.
- d. equity.

Table 5-2

Hansel Corporation's condensed balance sheets appear below:

	(Base Year)		
Assets	2006	2005	2004
Current assets	\$55,000	\$56,500	\$70,000
Plant and equipment (net)	495,000	410,000	440,000
Intangible assets (net)	20,000	27,500	40,000
Total assets	\$570,000	\$494,000	\$550,000
Liabilities & Stockholders' Equity			
Current liabilities	\$40,000	\$ 35,000	\$32,500
Long-term liabilities	395,000	310,000	375,000
Stockholders' equity	135,000	149,000	142,500
Total liabilities & equity	\$570,000	\$494,000	\$550,000

32. Refer to Table 5-2. In a common size balance sheet for 2005, Plant and equipment (net) is expressed as

- a. 83.0%.
- b. 83.6%.
- c. 91.1%.
- d. 100.0%.

33. Refer to Table 5-2. In a common size balance sheet for 2004, Total liabilities and equity are expressed as

- a. 89.9%.
- b. 96.5%.
- c. 100.0%.

- d. 111.3%.
34. Refer to Table 5-2. In a trend balance sheet for 2006, Long-term liabilities are expressed as
- 69.3%.
 - 100.0%.
 - 105.3%.
 - 127.4%.
35. Refer to Table 5-2. In a trend balance sheet for 2005, Stockholders' equity is expressed as
- 10.2%.
 - 100.0%.
 - 104.6%.
 - 110.4%.
36. Trend statements are better than common size statements at indicating which of the following?
- Stability
 - Monetary changes
 - Profitability
 - Growth and decline
37. In a common size cash flow statement, all items are expressed as a percentage of
- sales.
 - total assets.
 - net income.
 - total equity.
38. Net Operating Profit After Taxes (NOPAT) subtracts which one of the following groups of items from net income?
- Nonrecurring items, interest, and distortions related to accounting quality concerns
 - Nonoperating items, after-tax interest, and distortions related to accounting quality concerns
 - Nonoperating items, nonrecurring items, and after-tax interest
 - Nonoperating and nonrecurring items, after-tax interest, and distortions related to accounting quality concerns
39. Return on Assets (ROA) measures a firm's
- cost effectiveness of its operating activities.
 - profitable use of its assets.
- profitability of sales.
 - return on shareholders' investment.
40. Which one of the following successful strategies will increase the Return on Assets (ROA)?
- Increase the investment in assets used in the business
 - Increase the operating profit margin
 - Decrease sales volume
 - Decrease the annual depreciation amounts of long-lived assets
41. The ratio that captures information about property, plant, and equipment utilization is
- current asset turnover.
 - long-term asset turnover.
 - asset turnover.
 - property turnover.
42. Companies that consistently earn rates of return above the competitive floor in the industry are considered to possess a
- dominant market share.
 - niche market.
 - competitive advantage.
 - monopolistic advantage.
43. Financial ratios used to determine credit risk include an assessment of
- liquidity and asset utilization.
 - asset utilization and profitability.
 - solvency and liquidity.
 - profitability and solvency.
44. Post Corporation purchases from suppliers on net 30 day terms, has an Accounts Receivable Turnover of 8 times, and an Inventory Turnover of 12 times. Cash inflows and outflows are
- evenly matched.
 - negatively mismatched by 60 days.
 - positively mismatched by 30 days.
 - negatively mismatched by 45 days.
45. The percentage of assets financed by long-term debt is best described by the
- debt to equity ratio.
 - interest coverage ratio.
 - long-term debt to asset ratio.

- d. long-term debt to tangible assets ratio.
46. When operating earnings and cash flows from operations are dissimilar, which of the following ratios is a better measure of long-term solvency?
- Interest coverage
 - Long-term debt to asset
 - Long-term debt to tangible assets
 - Operating cash flow to total liabilities

Table 5-3

Condensed financial data are presented below for the Phoenix Corporation:

	2006	2005
Accounts receivable	\$267,500	\$230,000
Inventory	312,500	257,500
Total current assets	670,000	565,000
Intangible assets	50,000	60,000
Total assets	825,000	695,000
Current liabilities	252,500	200,000
Long-term liabilities	77,500	75,000
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Sales	1,640,000	
Cost of goods sold	982,500	
Interest expense	10,000	
Income tax expense	77,500	
Net income	127,500	
Cash flow from operations	71,000	
Cash flow from investing activities	(6,000)	
Cash flow from financing activities	(62,500)	
Tax rate 30%		

47. Refer to Table 5-3. The return on assets ratio for 2006 is
- 16.3%.
 - 16.9%.
 - 17.7%.
 - 18.2%.
48. Refer to Table 5-3. The operating profit margin for 2006 is
- 7.9%.
 - 8.2%.
 - 8.5%.
 - 16.3%.
49. Refer to Table 5-3. The total assets turnover ratio for 2006 is

- 1.7 times.
 - 2.0 times.
 - 2.2 times.
 - 2.4 times.
50. Refer to Table 5-3. The current ratio for 2006 is
- 1.4 to 1.
 - 2.0 to 1.
 - 2.7 to 1.
 - 3.4 to 1.
51. Refer to Table 5-3. The quick ratio for 2006 is
- 1.1 to 1.
 - 1.4 to 1.
 - 1.6 to 1.
 - 2.8 to 1.
52. Refer to Table 5-3. The accounts receivable turnover for 2006 is
- 2.0 times.
 - 6.4 times.
 - 6.6 times.
 - 7.1 times.
53. Refer to Table 5-3. The days receivable outstanding for 2006 is
- 51 days.
 - 55 days.
 - 60 days.
 - 183 days.
54. Refer to Table 5-3. The inventory turnover for 2006 is
- 2.61 times.
 - 3.12 times.
 - 3.45 times.
 - 3.80 times.

55. Refer to Table 5-3. The days inventory held for 2006 is
- 96 days.
 - 106 days.
 - 116 days.
 - 138 days.
56. Refer to Table 5-3. The long-term debt to assets for 2006 is
- 9.4%.
 - 10.2%.
 - 40.0%.
 - 43.4%.
57. Refer to Table 5-3. If the intangible assets in 2006 are \$50,000, the long-term debt to tangible assets for 2006 is
- 10.0%.
 - 10.2%.
 - 30.7%.
 - 42.5%.
58. Refer to Table 5-3. The interest coverage for 2006 is
- 12.8 times.
 - 13.8 times.
 - 20.5 times.
 - 21.5 times.
59. Refer to Table 5-3. The operating cash flows to total liabilities for 2006 is
- 13.4%.
 - 21.5%.
 - 23.4%.
 - 28.1%.
60. Refer to Table 5-3. If there is no preferred stock, the return on common equity for 2006 is
- 25.8%.
 - 27.9%.
 - 41.4%.
 - 43.4%.
61. Refer to Table 5-3. If there is no preferred stock, the common earnings leverage for 2006 is
- 92.0%.
 - 94.8%.
 - 100.0%.
 - 104.7%.
62. Refer to Table 5-3. If there is no preferred stock, the financial structure leverage for 2006 is
- 0.6 times.
 - 1.54 times.
 - 1.66 times.
 - 1.80 times.
63. Pro forma earnings, cash earnings, and EBITDA all
- conform to GAAP standards.
 - ignore some real costs of a business.
 - are alternate terms for net income
 - have concrete definitions.
64. Which of the following financial ratios is not a component of the Z score model?
- Working capital/total assets
 - Sales/total assets
 - Common stock/total assets
 - Retained earnings/total assets
- Explanation to Selected Multiple-Choice Questions**
25. Operating expenses \$50,000/Sales \$178,500 = 28.0%
26. Cost of goods sold \$100,000/Sales \$155,500 = 64.3%
27. Cost of goods sold \$115,000/Sales \$178,400 = 64.5%

28. 2004: $\$155,500/2004 \$155,500 = 100\%$
 29. 2006: $\$178,400/2004 \$155,500 = 114.7\%$
 32. Plant and equipment $\$410,000/\text{Total assets } \$494,000 = 83.0\%$
 33. Total liabilities & equity $\$570,000/\text{Total assets } \$570,000 = 100\%$
 34. L.T. liabilities 2006 $\$395,000/\text{L.T. liabilities } 2004 \$375,000 = 105.3\%$
 35. S.E. 2005 $\$149,000/\text{S.E. } 2004 \$142,500 = 104.6\%$
 44. Days: Purchases – A/R – Inventory = 30 – 45 – 30 = – 45 days
 47.
$$\frac{\text{net income } \$127,500 + \text{after-tax interest expense } \$10,000 \times (1 - .30)}{\text{average total assets } (\$825,000 + \$695,000)/2} = 17.5\%$$

48.
$$\frac{\text{net income } \$127,500 + \text{after-tax interest expense } \$10,000 \times (1 - .30)}{\text{sales } \$1,640,000} = 8.2\%$$

49.
$$\frac{\text{sales } \$1,640,000}{\text{average total assets } (\$825,000 + \$695,000)/2} = 2.2 \text{ times}$$

50.
$$\frac{\text{current assets } \$670,000}{\text{current liabilities } \$252,500} = 2.7 \text{ to } 1$$

51.
$$\frac{\text{quick assets } (\$670,000 - \$312,500)}{\text{current liabilities } \$252,500} = 1.4 \text{ to } 1$$

52.
$$\frac{\text{sales } \$1,640,000}{\text{average A/R } (\$267,500 + \$230,000)/2} = 6.6 \text{ times}$$

53.
$$\frac{365 \text{ days}}{\text{A/R turnover } 6.6} = 55 \text{ days}$$

OR

$$\frac{365 \text{ days} \times \text{average A/R} (\$267,500 + \$230,000)/2}{\text{sales } \$1,640,000} = 55$$

54.
$$\frac{\text{cost of goods sold } \$982,500}{\text{average inventory } (\$312,500 + \$257,500)/2} = 3.45 \text{ times}$$

55.
$$\frac{365 \text{ days}}{\text{inventory turnover } 3.45} = 106 \text{ days}$$

OR

$$\frac{365 \text{ days} \times \text{average inventory } (\$312,500 + \$257,500)/2}{\text{cost of goods sold } \$982,500} = 106$$

56.
$$\frac{\text{long-term debt } \$77,500}{\text{total assets } \$825,000} = 9.4\%$$

57.
$$\frac{\text{long-term debt } \$77,500}{\text{total assets } \$825,000 - \text{intangible assets } \$50,000} = 10.0\%$$

58

$$\frac{\text{net income } \$127,500 + \text{int. exp. } \$10,000 + \text{inc. taxes } \$77,500}{\text{interest expense } \$10,000} = 21.5 \text{ times}$$

59.

$$\frac{\text{operating cash flows } \$71,000}{\text{avg. current liab. } (\$252,500 + \$200,000)/2 + \text{l.t. liab. } \$77,500} = 23.4\%$$

60.
$$\frac{\text{net income } \$127,500}{\text{average common equity } (\$495,000 + \$420,000)/2} = 27.9\%$$

61.

$$\frac{\text{net income } \$127,500}{\text{net income } \$127,500 + \text{after-tax int. expense } \$10,000 \times (1 - .30)} = 94.8\%$$

62.
$$\frac{\text{average total assets } (\$825,000 + \$695,000)/2}{\text{average common equity } (\$495,000 + \$420,000)/2} = 1.66 \text{ times}$$

Essay and Computational Questions

65. List all GAAP and Non GAAP income measures you know

66. Reconcile EBITDA, Pro forma earnings and Analyst's operating earnings to GAAP net income

67. List the pros and cons of each of the following earnings measures:
- a. GAAP net income
 - b. EBITDA
 - c. Pro forma earnings
 - d. Analyst's operating earnings

Answers

- 1. E; True
- 2. M; True
- 3. M; True
- 4. M; False
- 5. M; False
- 6. M; False
- 7. M; True
- 8. M; False
- 9. E; True
- 10. M; True
- 11. E; False
- 12. M; False
- 13. M; True
- 14. M; False
- 15. M; True
- 16. M; False
- 17. M; True
- 18. M; True
- 19. M; False
- 20. M; True
- 21. E; (d)
- 22. E; (a)
- 23. M; (d)
- 24. M; (c)
- 25. M; (a)
- 26. M; (b)
- 27. M; (a)
- 28. M; (c)
- 29. M; (c)
- 30. M; (a)
- 31. M; (b)
- 32. M; (a)
- 33. M; (c)
- 34. M; (c)
- 35. M; (c)
- 36. M; (d)
- 37. E; (a)
- 38. M; (d)
- 39. M; (b)
- 40. D; (b)
- 41. M; (b)
- 42. M; (c)
- 43. M; (c)
- 44. D; (d)
- 45. E; (c)
- 46. M; (d)
- 47. M; (c)
- 48. M; (b)
- 49. M; (c)
- 50. M; (c)
- 51. M; (b)
- 52. M; (c)
- 53. M; (b)
- 54. M; (c)
- 55. M; (b)
- 56. M; (a)
- 57. M; (a)
- 58. M; (d)
- 59. M; (c)
- 60. D; (b)
- 61. D; (b)
- 62. D; (c)
- 63. M; (b)

64. M;(c)

65. Suggested Answer: GAAP net income, EBITDA, Pro forma earnings, Analyst's operating earnings

66 Suggested Answer: EBITDA: Add back income tax, depreciation and amortization expenses. Pro forma earnings, Analyst's operating earnings—not possible without exact detail of excluded items—there is no accepted definition.

67 Suggested Answer:

a. NI—Pros: components and guidelines are relatively clear (GAAP). Cons: subject to GAAP limitations (e.g., use of estimates).

b. EBITDA—Pros: components and guidelines are relatively clear (adjusted GAAP). May provide a more comparable measure for companies with different capital structures or asset compositions. Cons: may ignore important information.

c. Pro forma earnings—Pros: May allow management to convey relevant information. Cons: Subject to manipulation and opportunistic behavior (inclusion/exclusion of items). Components not always clear.

d. Analyst's operating earnings—Pros: May convey relevant information. Cons: may not have a consistent definition across providers.