Financial Statement Analysis:

Part 1: Theory & Definitions:

Question 11.1.1:
Five areas that financial ratios concentrate on are:

a) liquidity, profitability, debt, efficiency, market related;
b) profitability, strategy, liquidity, auditing, share prices;
c) liquidity, current ratio, quick ratio, interest cover, dividend cover;
d) market related, share prices, dividend policy, debt policy, strategy;
e) none of the above.

Question 11.1.2:
Ratios that measure the ability of the company to pay its short-term debts are called:

a) debt ratios;
b) cover ratios;
c) liquidity ratios;
d) profitability ratios;
e) none of the above.

Question 11.1.3:
Current assets divided by current liabilities is the definition of the:

a) interest cover ratio;
b) dividend cover ratio;
c) quick ratio;
d) current ratio;
e) none of the above.

Question 11.1.4:
The quick ratio is defined as:

a) current assets divided by current liabilities;
b) current assets divided by total debt;
c) current assets less inventory, divided by total liabilities;
d) current assets less inventory, divided by current liabilities;
e) none of the above.

Question 11.1.5:
Return on sales, return on assets and return on equity are examples of:

a) liquidity ratios;
b) profitability ratios;
c) debt ratios;
d) efficiency ratios;
e) market-related ratios.

Question 11.1.6:
Return on assets is defined as:

a) operating income divided by owners' equity;
b) operating income divided by sales;
c) operating income divided by total assets;
d) operating income divided by long-term assets plus debt;
e) none of the above.

Question 11.1.7:
Net income divided by shareholders' equity is the definition of:

a) return on sales;
b) return on assets;
c) return on equity;
d) asset turnover;
e) none of the above.

Question 11.1.8:
The debt to equity ratio measures;

a) the likelihood of the company going bankrupt in the short term;
b) the efficiency of the company;
c) the relative proportions of debt and equity in the capital structure;
d) liquidity;
e) none of the above.

Question 11.1.9:
The interest cover ratio measures:

a) the leverage of the company;
b) the efficiency of debt;
c) the weighted average cost of capital;
d) the relationship between interest and profit;
e) none of the above.

Question 11.1.10:
Total asset turnover, receivables turnover and inventory turnover ratios measure:

a) liquidity;
b) profitability;
c) efficiency;
d) debt;
e) market related factors.

Question 11.1.11:
The receivables turnover ratio is defined as:

a) sales divided by receivables;
b) receivables divided by sales;
c) receivables divided by one days' sales;
d) receivables plus bad debt allowances.
e) none of the above.

Question 11.1.12:
To measure the efficiency with which inventory is used the following ratio should be used:

a) inventory turnover ratio;
b) inventory holding period;
c) lower of cost or market valuation of inventory;
d) a or b, but not c;
e) a, b or c.

Question 11.1.13:
Earnings per share is affected by:

a) net income;
b) number of shares;
c) dividends;
d) a & b, but not c;
e) a, b & c.

Question 11.1.14:
The price to earnings ratio measures:

a) the rationality of the stock market;
b) the liquidity of the company;
c) the public's perception of the company;
d) the ethics of the company;
e) none of the above.

Question 11.1.15:
The dividend cover ratio is defined as:

a) dividend divided by net income;
b) dividend less interest paid and taxes;
c) operating income divided by dividend;
d) net income divided by dividend;
e) none of the above.

Question 11.1.16.
Which of the following is considered a profitability measure?

a. Days sales in inventory
b. Fixed asset turnover
c. Price-earnings ratio
d. Cash coverage ratio
e. Return on Assets

Question: 11.1.17:
Firm A has a Return on Equity (ROE) equal to 24%, while firm B has an ROE of 15% during the same year. Both firms have a Leverage Ratio equal to 0.8. Firm A has an asset turnover ratio of 0.9, while firm B has an asset turnover ratio equal to 0.4. From this we know that

a. Firm A has a higher profit margin than firm B
b. Firm B has a higher profit margin than firm A
c. Firm A and B have the same profit margin
d. Firm A has a higher equity multiplier than firm B
e. You need more information to say anything about the firm's profit margin

Part 2: Applications:

Question 11.2.1:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. The current ratio is:

a) 2.4:1;
b) 2.2:1;
c) 2.0:1;
d) 1.8:1:
e) none of the above.

Question 11.2.2:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. The quick ratio is:

a) 1.7:1:
b) 1.2:1:
c) 1.0:1;
d) 0.8:1
e) none of the above.

Question 11.2.3:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. On the basis of the current ratio and the quick ratio, Minden Co is:

a) highly illiquid;
b) somewhat illiquid;
c) adequately liquid;
d) excessively liquid;
e) none of the above.

Question 11.2.4:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on sales is:

a) 8.0%;
b) 10.0%;
c) 12.5%;
d) 16.0%;
e) 20.0%.

Question 11.2.5:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on assets is:

a) 8.0%;
b) 10.0%;
c) 12.5%;
d) 16.0%;
e) 20.0%.

Question 11.2.6:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on equity is:

a) 8.0%;
b) 10.0%;
c) 12.5%;
d) 16.0%;
e) 20.0%.

Question 11.2.7:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on equity in comparison to their return on assets is:

a) roa is higher than roe because of leverage;
b) roa is lower than roe because of leverage;
c) roa is the same as roe;
d) they are both related to the return on sales;
e) none of the above.

Question 11.2.8:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their debt to assets ratio is:

a) 50.00%;
b) 65.00%;
c) 68.75%;
d) 220.00%;
e) none of the above.

Question 11.2.9:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. On the basis of the debt to equity ratio, Minded would be considered to have:

a) too much debt, making it a risky company to invest in;
b) just enough debt;
c) too little debt, making it a risky company to invest in;
d) too little debt, making it a low profitability investment;
e) none of the above.
f)

Question 11.2.10:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. The debt carries interest @ 5% per annum. The interest cover ratio is:

a) 5X;
b) 3X;
c) 2X;
d) 1.5X;
e) none of the above.

Question 11.2.11:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their receivables turnover ratio was:

a) 10.2X;
b) 9.4X;
c) 7.1X;
d) 5.6X;
e) none of the above.

Question 11.2.12:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their inventory holding period (to the nearest day) was:

a) 66 days;
b) 51 days;
c) 46 days;
d) 32 days;
e) none of the above.

Question 11.2.13:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. If Minded changed to a policy of just-in-time inventory management, their inventory turnover ratio would:

a) decrease;
b) stay the same;
c) increase;
d) there is insufficient information;
e) none of the above.

Question 11.2.14:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their total asset turnover ratio is:

a) 1.00X;
b) 1.25X;
c) 1.500X;
d) 2.3X;
e) none of the above.

Question 11.2.15:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue. Their earnings per share are:

a) $1:
b) $2;
c) $10;
d) $20;
e) none of the above.

Question 11.2.16:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue. Their dividend cover ratio is:

a) 5X;
b) 3X;
c) 2.5X;
d) 2X;
e) none of the above.

Question 11.2.17:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue, and the share price is $240 per share. The price to earnings ratio is:

a) 24X;
b) 12X;
c) 10X;
d) 8X;
e) none of the above.

ANSWERS

Part 1: Theory & Definitions:

Question 11.1.1:
Five areas that financial ratios concentrate on are:

a) **liquidity, profitability, debt, efficiency, market related;**
b) profitability, strategy, liquidity, auditing, share prices;
c) liquidity, current ratio, quick ratio, interest cover, dividend cover;
d) market related, share prices, dividend policy, debt policy, strategy;
e) none of the above.

Question 11.1.2:
Ratios that measure the ability of the company to pay its short-term debts are called:

a) debt ratios;
b) cover ratios;
c) **liquidity ratios;**
d) profitability ratios;
e) none of the above.

Question 11.1.3:
Current assets divided by current liabilities is the definition of the:

a) interest cover ratio;
b) dividend cover ratio;
c) quick ratio;
d) **current ratio;**
e) none of the above.

Question 11.1.4:
The quick ratio is defined as:

a) current assets divided by current liabilities;
b) current assets divided by total debt;
c) current assets less inventory, divided by total liabilities;
d) **current assets less inventory, divided by current liabilities;**
e) none of the above.

Question 11.1.5:
Return on sales, return on assets and return on equity are examples of:

a) liquidity ratios;
b) <u>profitability ratios;</u>
c) debt ratios;
d) efficiency ratios;
e) market-related ratios.

Question 11.1.6:
Return on assets is defined as:

a) operating income divided by owners' equity;
b) operating income divided by sales;
c) <u>operating income divided by total assets;</u>
d) operating income divided by long-term assets plus debt;
e) none of the above.

Question 11.1.7:
Net income divided by shareholders' equity is the definition of:

a) return on sales;
b) return on assets;
c) <u>return on equity;</u>
d) asset turnover;
e) none of the above.

Question 11.1.8:
The debt to equity ratio measures;

a) the likelihood of the company going bankrupt in the short term;
b) the efficiency of the company;
c) <u>the relative proportions of debt and equity in the capital structure;</u>
d) liquidity;
e) none of the above.

Question 11.1.9:
The interest cover ratio measures:

a) the leverage of the company;
b) the efficiency of debt;
c) the weighted average cost of capital;
d) <u>the relationship between interest and profit;</u>
e) none of the above.

Question 11.1.10:
Total asset turnover, receivables turnover and inventory turnover ratios measure:

a) liquidity;
b) profitability;
c) <u>efficiency;</u>
d) debt;
e) market related factors.

Question 11.1.11:
The receivables turnover ratio is defined as:

a) <u>sales divided by receivables;</u>
b) receivables divided by sales;
c) receivables divided by one days' sales;
d) receivables plus bad debt allowances.
e) none of the above.

Question 11.1.12:
To measure the efficiency with which inventory is used the following ratio should be used:

a) inventory turnover ratio;
b) inventory holding period;
c) lower of cost or market valuation of inventory;
d) <u>a or b, but not c;</u>
e) a, b or c.

Question 11.1.13:
Earnings per share is affected by:

a) net income;
b) number of shares;
c) dividends;
d) <u>a & b, but not c;</u>
e) a, b & c.

Question 11.1.14:
The price to earnings ratio measures:

a) the rationality of the stock market;
b) the liquidity of the company;
c) <u>the public's perception of the company;</u>
d) the ethics of the company;
e) none of the above.

Question 11.1.15:
The dividend cover ratio is defined as:

a) dividend divided by net income;
b) dividend less interest paid and taxes;
c) operating income divided by dividend;
d) <u>net income divided by dividend;</u>
e) none of the above.

Question 11.1.16.
Which of the following is considered a profitability measure?

a. Days sales in inventory
b. Fixed asset turnover
c. Price-earnings ratio
d. Cash coverage ratio
e. <u>Return on Assets</u>

Question: 11.1.17:
Firm A has a Return on Equity (ROE) equal to 24%, while firm B has an ROE of 15% during the same year. Both firms have a Leverage Ratio equal to 0.8. Firm A has an asset turnover ratio of 0.9, while firm B has an asset turnover ratio equal to 0.4. From this we know that

a. Firm A has a higher profit margin than firm B
b. <u>Firm B has a higher profit margin than firm A</u>
c. Firm A and B have the same profit margin
d. Firm A has a higher equity multiplier than firm B
e. You need more information to say anything about the firm's profit margin

Part 2: Applications:

Question 11.2.1:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. The current ratio is:

a) **2.4:1; (($20,000+$70,000+$90,000)/$75,000=2.4)**
b) 2.2:1;
c) 2.0:1;
d) 1.8:1:
e) none of the above.

Question 11.2.2:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. The quick ratio is:

a) 1.7:1:
b) 1.2:1: (($20,000+$70,000)/$75,000=1.2:1)
c) 1.0:1;
d) 0.8:1
e) none of the above.

Question 11.2.3:
Minden Co has current assets that consist of cash: $20,000, receivables: $70,000 and inventory: $90,000. Current liabilities are $75,000. On the basis of the current ratio and the quick ratio, Minden Co is:

a) highly illiquid;
b) somewhat illiquid;
c) **adequately liquid; (CR>2:1, QR>1:1)**
d) excessively liquid;
e) none of the above.

Question 11.2.4:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on sales is:

a) 8.0%;
b) **10.0%; ($50,000/$500,000=10%)**
c) 12.5%;
d) 16.0%;
e) 20.0%.

Question 11.2.5:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on assets is:

a) 8.0%;
b) 10.0%;
c) **<u>12.5%;</u>** **<u>($50,000/($125,000+$275,000)=12.5%)</u>**
d) 16.0%;
e) 20.0%.

Question 11.2.6:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on equity is:

a) 8.0%;
b) 10.0%;
c) 12.5%;
d) **<u>16.0%;</u>** **<u>(($50,000-$10,000-$20,000)/$125,000) = 16%)</u>**
e) 20.0%.

Question 11.2.7:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their return on equity in comparison to their return on assets is:

a) roa is higher than roe because of leverage;
b) **<u>roa is lower than roe because of leverage;</u>**
c) roa is the same as roe;
d) they are both related to the return on sales;
e) none of the above.

Question 11.2.8:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. Their debt to assets ratio is:

a) 50.00%;
b) 65.00%;
c) **<u>68.75%;</u>** **<u>($275,000/($275,000+$125,000)=68.75%)</u>**
d) 220.00%;
e) none of the above.

Question 11.2.9:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. On the basis of the debt to equity ratio, Minded would be considered to have:

a) **too much debt, making it a risky company to invest in; ($275,000/$125,000 = 220% (>100% is risky))**
b) just enough debt;
c) too little debt, making it a risky company to invest in;
d) too little debt, making it a low profitability investment;
e) none of the above.
f)

Question 11.2.10:
Minden Co has sales of $500,000, operating profit of $50,000, interest expense of $10,000, tax expense of $20,000, total equity of $125,000 and total debt of $275,000. The debt carries interest @ 5% per annum. The interest cover ratio is:

a) 5X;
b) **3X;** **(($50,000-$20,000)/$10,000=3X)**
c) 2X;
d) 1.5X;
e) none of the above.

Question 11.2.11:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their receivables turnover ratio was:

a) 10.2X;
b) 9.4X;
c) **7.1X;** **($500,000/$70,000=7.1X)**
d) 5.6X;
e) none of the above.

Question 11.2.12:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their inventory holding period (to the nearest day) was:

a) **66 days;** **($90,000*365/$500,000=66 days)**
b) 51 days;
c) 46 days;
d) 32 days;
e) none of the above.

Question 11.2.13:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. If Minded changed to a policy of just-in-time inventory management, their inventory turnover ratio would:

a) decrease;
b) stay the same;
c) increase; **(with zero inventory, t/o ratio is infinitely high)**
d) there is insufficient information;
e) none of the above.

Question 11.2.14:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. Their total asset turnover ratio is:

a) 1.00X;
b) **1.25X;** **(($500,000/($180,000+$400,000-$220,000)=1.25X)**
c) 1.500X;
d) 2.3X;
e) none of the above.

Question 11.2.15:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue. Their earnings per share are:

a) $1:
b) $2;
c) $10;
d) **$20;** **($20,000/1,000 shares = $20 per share)**
e) none of the above.

Question 11.2.16:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue. Their dividend cover ratio is:

a) 5X;
b) 3X;
c) 2.5X;
d) **2X; (($50,000-$20,000-$10,000)/$10,000=2X)**
e) none of the above.

Question 11.2.17:
Minden Co has current assets of $180,000 (cash: $20,000, accounts receivable: $70,000, inventory: $90,000), and long-term assets that had cost $400,000, with accumulated depreciation to date of $180,000. Sales were $500,000, and operating profit was $50,000. Tax was $20,00 and interest paid was $10,000. a dividend of $10,000 was paid to the common shareholders. There are 1,000 shares in issue, and the share price is $240 per share. The price to earnings ratio is:

a) 24X;
b) **12X;** **($240/$20 EPS = 12X)**
c) 10X;
d) 8X;
e) none of the above.