Exam name: FA

**PROBLEM 2**

Mini problem 1

| Balance sheet | |
|---|---|
| **Intangible assets** | |
| Amortization since inception | -89000 |
| Copyright | 120000 |
| Patents | 60000 |
| Goodwill | 140000 |
| **Total intangible assets** | 231000 |

| Income statement | | |
|---|---|---|
| **Revenues** | | |
| Sale of IT service | 170000 | |
| Total revenues | | 17000 |
| **Expenses** | | |
| Amortization expense | -32000 | |
| Loss on sale of copyright | -12000 | |
| Research and development costs | -160000 | |
| Total expenses | | -204000 |
| **Net income** | | -187000 |

Mini problem 2

a)

| Statement of cash flows | | |
|---|---|---|
| **Cash flows from operating activities** | | |
| Net income | 60000 | |
| add back: depreciation | 20000 | |
| Total cash flows from operating activities | | 80000 |
| **Cash flows from investing activities** | | |
| Purchase of truck | -15000 | |
| Total cash flows from investing activities | | -15000 |
| **Cash flows from financing activities** | | |
| Dividends | -30000 | |
| Note payable | 40000 | |
| Total cash flows from financing activities | | 10000 |
| **Increase in cash flow** | **75000** | |
| **Cash balance beginning of year** | **50000** | |
| **Cash balance end of year** | **125000** | |

b) The difference between net income and cash flows from operations comes from depreciation. Depreciation allocates the cost of decreasing values of a company's assets over time. Because the decrease in value does not affect cash, depreciation, which is recorded in the income statement and decreases net income, is added back to net income in the statement of cash flows.

As in 2014 the total of $80000of cash is generated from operations and net income is 60000, depreciation must amount to 80000-60000=20000.

Mini problem 3

Current ratio = current assets / current liabilities

Current assets =11000+35000+33000+4000+2000=85000

Current liabilities = 61000

Current ratio = 85000/61000 = **1.39**

Quick ratio = (Cash + marketable securities + current receivables) / current liabilities

Cash + marketable securities + current receivables = 11000+0+35000= 46000

Current liabilities = 61000

Quick ratio = 46000/61000= **0.75**

As the current ratio is above one, current assets > current liabilities. This indicates that the company is liquid enough to pay for current debt. Because the quick ratio is much lower than (almost half of) the current ratio, it becomes evident that Cargo Corporation's current assets are to a large part composed of inventory, which is part of the numerator of the current ratio but not of the quick ratio, while the denominator is the same.

Mini problem 4

| **Trial balance** | **debit** | **credit** |
|---|---|---|
| Retained earnings | | 49000 |
| Accounts receivable | 8000 | |
| Accounts payable | | 24000 |
| Capital stock | | 185000 |
| Land | 153000 | |
| Cash | 14000 | |
| Equipment | 20000 | |
| Notes payable | | 17000 |

| | | |
|---|---|---|
| Buildings | 80000 | |
| **Total** | **275000** | **275000** |

The total credit balance of Revlon equals 275000, by adding up retained earnings, accounts payable, capital stock and notes payable.

**PROBLEM 3**

1. **Journal entries**

| Date | Account | Debit | Credit |
|---|---|---|---|
| May 1 | Cash | 12000 | |
| | Stock | | 12000 |
| | To record capital contribution by both owners of $6000. | | |
| May 1 | Equipment | 300 | |
| | Accounts payable | | 300 |
| | To record purchase of lighting equipment. | | |
| May 5 | Vendor fee expense | 25 | |
| | Cash | | 25 |
| | To record payment of monthly fee. | | |
| May 9 | Tent | 2400 | |
| | Cash | | 2400 |
| | To record purchase of event tent. | | |
| May 10 | Supplies | 100 | |
| | Accounts payable | | 100 |
| | To record purchase of miscellaneous supplies. | | |
| May 15 | Advertisement expense | 75 | |
| | Cash | | 75 |
| | To record payment of advertising bill. | | |
| May 17 | Cash | 1500 | |
| | Service revenue | | 1500 |
| | To record receiving payment for service. | | |
| May 24 | Accounts receivable | 800 | |
| | Summer camp revenue | | 800 |
| | To record bill to local park. | | |

| | | | |
|---|---|---|---|
| May 29 | Cash | 400 | |
| | Accounts receivable | | 400 |
| | To record payment of 50% of bill to local park. | | |
| May 30 | Cash | 2000 | |
| | Service revenue | | 2000 |
| | To record receiving cash payment for parties | | |
| May 30 | Wage expense | 300 | |
| | Cash | | 300 |
| | To record wage payment to friend for help. | | |
| May 31 | Accounts payable | 100 | |
| | Cash | | 100 |
| | To record payment of supplies purchased on May 10. | | |

## 2. Income statement

| | |
|---|---|
| Revenues | 4300 |
| Expenses | -400 |
| **Net income** | **3900** |

## 3. Balance sheet

| **Assets** | | | **Liabilities & Stockholder's equity** | | |
|---|---|---|---|---|---|
| Cash | 13000 | | Accounts payable | 300 | |
| Supplies | 100 | | **Total liabilities** | | 300 |
| Accounts receivable | 400 | | Stock | 12000 | |
| **Total current assets** | | 13500 | Retained earnings | 3900 | |
| Tent | 2400 | | **Total stockholder's equ.** | | 15900 |
| Equipment | 300 | | | | |
| **Total non-current assets** | | 2700 | | | |
| **Total** | **16200** | | | **16200** | |

**PROBLEM 4**

**DONG ENERGY**

The financial analysis of DONG shows that the company has not been very profitable during its last 5 accounting periods. The company has incurred increasing losses from 2010-1014:

| Profit margin | net income/net sales | | | | |
|---|---|---|---|---|---|
| | 2014 | 2013 | 2012 | 2011 | 2010 |
| | -3% | -2% | -8% | 7% | 8% |

As profits were negative, returns on assets, as well as return on equity also show to negative.

| ROA | Net income/Average total assets | | | | |
|---|---|---|---|---|---|
| | 2014 | 2013 | 2012 | 2011 | 2010 |
| | -2% | -1% | -3% | 3% | 3% |

| ROE | Net income/average equity | | | | |
|---|---|---|---|---|---|
| | 2014 | 2013 | 2012 | 2011 | 2010 |
| | -4% | -3% | -10% | 8% | 9% |

However return on assets does not fall as drastically relative to the profit margin over the years. The reason for this can be found in the asset turnover ratio, which multiplied with the profit margin results in the ROA. This ratio in fact showed a steady increase, which implies that ROA is mainly driven by the company's asset turnover.

| Asset turnover ratio | Net sales/Average total assets | | | | |
|---|---|---|---|---|---|
| | 2014 | 2013 | 2012 | 2011 | 2010 |
| | 0,49 | 0,48 | 0,42 | 0,40 | 0,40 |

A company which incurs losses seems to be a risky investment. As ROA and ROE almost have the same value, it seems like the company has a relatively high debt to equity ratio, to keep returns to stockholders on this level through leverage. (This would have to be further explored when analyzing the solvency of the company. )

What are the reasons for the company's losses? Is there an explanation, which makes an investment in DONG seem less risky and speculative?

A big part of DONG's business is to source and distribute oil and gas. This requires high levels of investments in the production assets, which is one reason for outflows of cash. Furthermore, the

company's income is dependent on international oil prices, which have been very low in recent years. In the note "Critical accounting estimates and judgements" DONG states to depreciate the production assets using the unit of production method. However changed expectations concerning future annual production and assumptions for future market conditions such as market prices also have to be accounted for. Therefore DONG faced extremely high impairment costs.

Impairment for property, plant and equipment in 2014 was twice as high (-16106) as only one year before (-8260) and explains, why the losses of the company increased.

A more useful measurement than the profit margin for the company's profitability would therefore be the EBITDA (Earnings before interest, taxes, depreciation and amortization) to net sales ratio, as it does not take impairment into the account in net income.

| EBITDA/net sales | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|
| | 28% | 20% | 11% | 27% | 26% |

Of course these percentages are too high to compare them to the profit margin. However they show positive growth in last three years and relatively high numbers, which imply a healthy business.

Moreover cash flow increased and the company sold equity, so it might not be as risky to invest as it seems.

No time left