Financial Accounting Exam 2016

Nb. Commas and points are to be consistent as in Danish excel. Decimal point is comma and thousand separator is the point.

Problem 1: Multiple Choice

1: e

2: b

3: d

4: b

5: a

6: d

7: a

8: a

The two following questions are both numbered "9" I have answered them in the order they appear, and called them "9.a" and "9.b" respectively.

9.a: a

9.b: a

10: a

11: d

12: a

13: b

14: c

15: c

Mini Problem 2:

A) To prepare the Statement of Cash Flows the indirect method is used.

Statement of Cash Flows

Cash flows from operating activities		
Net income	$ 60.000,00	
Adjustments for accruals and deferrals	$ 20.000,00*	
Total Cash Flow from operations		$ 80.000,00
Cash flows from investing activities		
Purchase of Truck	$ -15.000,00	
Total Cash Flow from investments		$ -15.000,00
Cash Flows from Financing activities		
Inflow from loan from bank	$ 40.000,00	
Outflow from Dividends	$ -30.000,00	
Total Cash Flow from Financing		$ 10.000,00
Cash at beginning of the year		$ 50.000,00
Cash at the end of the year		$ 125.000,00

B) As also indicated by the above Statement of Cash Flows, the difference between net income and cash flows from operations is due to the adjustments for accruals and deferrals. This complies with the indirect method used, where cash flows from operations are calculated by adjusting the Net Income. The adjustment follows three steps 1) Adding back non-cash expenditures, 2) adjusting for accruals and deferrals in current assets and current liabilities, and 3) adding back losses and subtracting gains.

* The adjustments are calculated as 80,000-60,000.

Problem 2: Mini Problems

Mini Problem 1

Balance Sheet

Assets		
Intangible Assets		
Copyright	$ 120.000,00	
Patents	$ 60.000,00	
Goodwill	$ 140.000,00	
Total Intangible Assets		$ 320.000,00

Income Statement

Revenue		
Sale of IT Services	$ 170.000,00	
Total revenue		$ 170.000,00
Less: Expenses		
Research and development costs	$ 160,00	
Accumulated Amortization	$ 89.000,00	
Loss on sale of copyright	$ 12.000,00	
Total Expenses		$ -101.160,00
Partial Net Income		$ 68.840,00

Mini Problem 3:

Assumptions:

1. As the current liabilities aren't stated, and are necessary to calculate the current ratio, I assume, (as also requested by the exam guards) that the Current liabilities equals 61,000.
2. The Current Ratio is calculated as: $current\ ratio = \frac{Current\ Assets}{Current\ Liabilities}$
3. The Quick ratio is calculated as: $Quick\ ratio = \frac{Cash+Accounts\ Receivable}{Current\ Liabilities}$

Calculations:

$$Current\ ratio\ of\ Cargo\ Corporation = \frac{85.000}{61.000} = 1{,}39$$

$$Quick\ ratio\ of\ Cargo\ Corporation = \frac{11.000+35.000}{61.000} = 0{,}75$$

Explanations:

The current ratio indicates, that using all its current assets Cargo Corporation is able to pay back its current debt (current liabilities) 1,39 times. However, using the Quick ratio, this number drops to 0,75. This means that using only the utter most liquid assets (cash and accounts receivables) Cargo Corporation is not fully able to pay back its current liabilities. With regards to the Composition of the current assets a large part of them are placed in cash and accounts receivables, however another large part is in the inventory, which is why the quick ratio is low.

Mini problem 4

Assumptions:

1. As also required by the exam guards I assume all the dates in this problem to be "January 1 2015". I.E. Revlon also collected 12.000 and paid 11.000 on Jan. 1. 2014, and *not* on Jan. 31.

Calculations:

To present my calculations I have prepared the entire trial balance, though not part of the assignment.

	Trial Balance	
Cash	$ 14.000,00*	
Accounts receivables	$ 8.000,00*	
Equipment	$ 20.000,00	
Buildings	$ 80.000,00	
Land	$ 153.000,00	
Accounts Payable		$ 24.000,00
Notes Payable		$ 17.000,00*
Capital Stock		$ 185.000,00
Retained Earnings		$ 49.000,00
Total	$ 275.000,00	$ 275.000,00

*The above marked accounts were, in accordance with the text and assumptions, calculated as following:

*Cash	13000+12000-11000
*Accounts receivables	20000-12000
*Notes Payable	28000-11000

Answer:

The Credit balance (which as it should in a trial balance equals the debit balance) equals $275.000,00

Problem 3:

1 Journal Entries

To prepare the Journal entries the following classifications are used: (A) current assets, (nA) Non-current Assets, (L) Current liabilities, (LL) Long-term liabilities, (SE) Stockholders' equity, (E) Expenses and (R) Revenue.

Date	Journal	Debit	Credit
May 1	(A) Cash	$ 12.000,00	
	(SE) Capital Stock		$ 12.000,00
	*Received contribution of 2*6000*		
May 1	(nA) Lighting Equipment	$ 300,00	
	(L) Accounts Payable		$ 300,00
	Purchased Lighting Equipment on an open account		
May 5	(E) City Fee	$ 25,00	
	(A) Cash		$ 25,00
	Paid monthly fee to city.		
	Assumably with cash (due to amount and transaction type)		
May 9	(nA) Tent (equipment)	$ 2.400,00	
	(A) Cash		$ 2.400,00
	Purchased an event tent for cash		
May 10	(A) Supplies	$ 100,00	
	(L) Accounts Payable		$ 100,00
	Purchased supplies on account with terms n/30		
May 15	(E) Advertisement expense	$ 75,00	
	(A) Cash		$ 75,00
	Purchased advertisement sign, which is here treated as an expense.		
May 17:	(A) Cash	$ 1.500,00	
	(R) Sales revenue		$ 1.500,00
	Customers' payments for services with Cash.		
	Due to the accrual basis, it is assumed the revenue was earned, i.e. that the service was also provided.		

May 24	(A) Accounts Receivables	$ 800,00	
	(R) Sales revenue		$ 800,00
	Billed local park for services provided.		
May 29	(A) Cash	$ 400,00	
	(A) Accounts Receivables		$ 400,00
	Park pays half of the amount: 800/2		
May 30	(A) Cash	$ 2.000,00	
	(R) Sales Revenue		$ 2.000,00
	Customers paid cash for service provided *Due to the accrual basis, it is assumed the revenue was earned, i.e.* that the service was also provided.		
May 30	(E) Wages Expense	$ 300,00	
	(A) Cash		$ 300,00
	Paid wages to a helping friend - treated as a regular wage expense		
May 31	(L) Accounts Payable	$ 100,00	
	(A) Cash		$ 100,00
	Paid amount due on supplies: $100		

2 Income Statement

Income Statement: May 31, 2015

Revenue		
Sales Revenue		$ 4.300,00
Less: Expenses		
Fees	$ 25,00	
Advertisement expenses	$ 75,00	
Wage Expenses	$ 300,00	
Total Expenses		$ -400,00
Net Income:		$ 3.900,00

Statement of Retained Earnings

The Statement of Retained Earnings is Included as an extra step, though not required by the assignment, to ease the preparation of the balance sheet.

As no Dividends are paid the retained Earnings equal the Net income.

Statement of Retained Earnings: May 31, 2015	
Net Income	$ 3.900,00
Less: dividends	$0
Retained Earnings	$ 3.900,00

3 Balance Sheet

The balance sheet is classified into Assets, which is further divided into current and non-current; Liabilities, which of all are current, and Stockholders' Equity.

Balance Sheet: May 31, 2015

Assets			Liabilities		
Cash	$ 13.000,00		Accounts Payable	$ 300,00	
Accounts Receivables	$ 400,00		*Total Liabilities*		$ 300,00
Supplies	$ 100,00		Stockholders' Equity		
Total Current Assets		$ 13.500,00	Capital Stock	$ 12.000,00	
Lighting Equipment	$ 300,00		Retained Earnings	$ 3.900,00	
Tent	$ 2.400,00		Total St. Equity		$ 15.900,00
Total PPE	$ 2.700,00				
Total Non-Current Assets		$ 2.700,00			
Total Assets:		$ 16.200,00	**Total Liabilities and St. Equity**		$ 16.200,00

It is noted that the balance sheet balances as it should, following the accounting equation:

$$Assets = Liabilities + Stockholders' \ Equity$$

Problem 4: Case Question

All numbers used are from the IFRS columns

Case Company: DONG ENERGY

The following Case answer will be based on DONG's Financial Statement.

Layout of the Case Answer:

To comment on the profitability and long-term assets of DONG energy the following plan will be executed:

1. Profitability
    a. Gross Profit Ratio
    b. Vertical analysis of the following totals on the income statement:
        - EBITDA
        - EBIT
        - Profit (loss) before tax
        - Profit (loss) for the year
    - For the vertical analysis I have chosen to set Net Sales Equal to 100% instead of the usual "revenue". This is done so the results equal the; EBIDTA-margin ratio, EBIT-margin ratio, return on sales ratio and the Profit margin ratio, respectively.
2. Long-term assets
    a. Horizontal analysis of PP&E on the Balance Sheet
    b. Ratios
        - Return on assets
        - Asset turnover ratio
        - Profit margin ratio
3. Overall comment

1 Profitability

Calculations

Gross Profit Ratio

DKK Million		2014	2013
Net Sales:	(Revenue-Cost of sales)	kr. 28.766	kr. 25.076
Gross Profit Ratio:	(Net sales/Revenue)	40%	35%

Vertical Analysis

DKK Million		2014			2013	
Net Sales	kr.	28.766	100%	kr.	25.076	100%
EBITDA	kr.	20.333	71%	kr.	14.199	57%
EBIT	kr.	2.767	10%	kr.	1.236	5%
Profit before taxes	kr.	1.826	6%	kr.	-576	-2%
Profit for the year	kr.	-2.319	-8%	kr.	-1.591	-6%

Comment

At a first glance at the income statement of DONG, it is seen that the *Profit (loss) for the year* is in fact a loss of 2.310, however as the above analysis show, some adjustments made to the profit margin ratio will explain the loss further.

When moving upwards from the bottom of the vertical analysis two important adjustments are made:

1. The return on sales ratio is adjusted for taxes. In 2014 this means the profit as well as the ratio is now positive. When comparing to 2013 the ratio has gone up by 14 percentage points as compared to 4. When looking at the *nominal* taxes, the tax reported for 2014 was DKK million 4.136 compared to DKK million 1.015. An increase of DKK million 3.121.
   Due to the note not being included (as well as the scope of this class) the reason for the tax is will not be commented on.
2. The EBITDA-Margin Ratio is then adjusted for depreciation amortization and impairment losses. It is here seen that the ratio increases to 71%. In 2013 this ratio was 57%. This extreme difference from the EBIT-ratio to the EBITDA ratio, is due to the large depreciation , amortization and impairment losses, these will now be commented further on.

Impairment Losses

When looking into note 3.1 "Intangible Assets and PP&E", the losses on PP&E are especially interesting. Depreciation and amortization for the year was DDK Million 8.968 resulting in accumulated depreciation and amortization of 50,466. However especially the Impairment losses of DKK Million 8.108 stand out as they almost doubled the accumulated impairment loss to DKK Million 16.106.

The reason for these impairments was among other things due to a drop in oil prices.

Before finally commenting on the profitability a comment on the long term assets of DONG will be made.

2 Long Term assets

Calculations

Horizontal analysis

DKK Million		2014	2013	Horizontal Analysis	
Production Assets	kr.	65.517,00	kr. 67.758,00	kr.	-0,03
Exploration assets	kr.	388,00	kr. 1.192,00	kr.	-0,67
PP&E Under Construction	kr.	18.054,00	kr. 20.297,00	kr.	-0,11
Total PP&E	kr.	85.906,00	kr. 91.522,00	kr.	-0,06
Other non-current Assets	kr.	3.720,00	kr. 3.615,00	kr.	0,03
Total Non-current Assets	kr.	90.995,00	kr. 97.304,00	kr.	-0,06

Ratios

DKK Million		2014	2013
Return on Assets	EBIT/Average total asset	1,304573314	-0,20919015
Asset Turnover ratio		13,56247053	-0,340864856
Profit margin ratio		0,096189946	0,04929016

$$REturn\ on\ asstes = Asset\ turnover\ ratio * Profitmargin$$

Comment

From the above horizontal analysis it is seen that the total non-current assets have decreased in value with 6% however the part of the long-term assets which is not PP&E has actually increased with 3%. Therefore, when looking at the PP&E a decrease of 6% is found, mainly due to a decrease in exploration assets. What is important to note here it that this is not due to selling, i.e. it is not a capital generating activity. This decrease is directly linked to the above discussed impairment loss, of oil drilling and exploring assets, due to the drop in oil prices. Though unknown it is not impossible to think the major impairments, at this time, are tied to the fact that DONG two years later in 2016 will go public. At last it is seen from the above ratios that 1) the company has a higher return on assets however mainly due to a lower asset turnover ratio – which corresponds to the rest of this comment in regards to the impairment losses.

Overall comment

From the above it is seen how, though at a first glance the company might not seem very profitable, the large taxes and impairments on PP&E, are the major factors. From operations alone, which could have been explained in debt if I had been given the Cash Flow Statement, the company is in fact profitable. This is also seen in the profit margin ratio increasing. This is among others due to the business strategy of DONG focusing more and more on renewable energy instead of OIL and GAS.