

**UNIVERSITY OF GRONINGEN**  
**Faculty of Economics and Business**  
**Department of Accounting**

**FINAL EXAM FINANCIAL ACCOUNTING**  
**FOR IB / E&BE**

**Semester 1.2 2014/2015**  
**Tuesday January 27, 2015**  
**Time: 09:00 to 11:30**  
**Location: Exam Hall**

### Exercise 1 (30 credits)

Tiny Cars is a trading company specialized in buying and selling miniature car models. The financial year starts on January 1 and ends on December 31. Tiny Cars' beginning balance sheet (in euros) on January 1, 2014, is as follows:

*Balance sheet on January 1, 2014 (in euros)*

Building	1,500,000	Long term debt	800,000
Trucks	120,000	Accounts payable trade	140,000
Trade inventory	360,000	Salaries payable	26,000
Accounts receivable trade (net)	88,000	Interest payable	16,000
Cash	45,000	Common stock	600,000
		Additional paid in capital	300,000
		Retained earnings	306,000
		Treasury stock	(75,000)
Total	<u>2,113,000</u>	Total	<u>2,113,000</u>

In the footnotes, the following information is available:

The interest percentage of the long term debt is 6% per year. The interest will be paid twice a year, on March 1, and September 1. The long term debt will be repaid in 10 years, in equal amounts, on March 1. The first repayment took place on March 1, 2014.

All purchases and sales are on credit.

Accounts receivable trade (net) consists of the following items:

Accounts receivable trade (gross)	100,000
Allowance for uncollectible accounts	<u>(12,000)</u>
Accounts receivable trade (net)	88,000

Tiny Cars uses the percentage of net sales method to estimate the allowance for uncollectible accounts. The percentage used is 2.5%. During 2014, one customer went bankrupt. The value of his bill was € 4,000.

The par value of a share is € 100. On January 1, 2014, there were 600 shares in treasury stock. Half of these treasury shares were sold on July 23, 2014 for € 42,000.

A dividend of 10% of common stock was declared on July 12, 2014. The date of payment is August 1, 2014.

A truck with a purchase price of € 24,000 and a carrying value of € 12,000 was sold with a gain of € 2,000.

Gross sales during 2014 are € 850,000. During the year, total sales discounts are € 50,000. The table below gives an overview of all cash receipts and cash expenditures during 2014 (in euros).

*Schedule of cash receipts and expenditures over 2014 (in euros)*

Receipts		Expenditures	
Payments on accounts receivable	762,000	Payments on accounts payable	450,000
Sale of treasury stock	42,000	Salaries paid	80,000
Disposal of truck	<b>14,000</b>	Interest paid	<b>45,600</b>
		Repayment of long term debt	<b>80,000</b>
		Dividends paid	<b>54,000</b>

On December 31, 2014, the amounts of the following balance sheet items are given:

Building	1,450,000
Trucks	94,000
Trade inventory	320,000
Accounts payable trade	110,000
Accounts receivable trade (gross)	134,000
Salaries payable	5,000

**Question A (5 credits)**

Complete the overview of cash receipts and expenditures during 2014 and determine the amount of cash on December 31, 2014.

Disposal of truck:  $12,000 + 2,000 = \mathbf{14,000}$

Interest paid:  $(6/12 * 6\% * 800,000) + (6/12 * 6\% * 720,000) = \mathbf{45,600}$

Repayment of debt:  $800,000 / 10 = \mathbf{80,000}$

Dividends paid: 6,000 shares issued, 600 in treasury stock on Jan. 1. Treasury shares sold after dividend declared, so  $5,400 * 100 * 10\% = \mathbf{54,000}$

Amount of cash on Dec. 31:  $45,000 \text{ (beginning)} + 818,000 - 709,600 = \mathbf{153,400}$

**Question B (3 credits)**

Calculate the uncollectible accounts expense over the year 2014 and the ending balance for the allowance for uncollectible accounts on December 31, 2014.

Uncollectible accounts expense:  $2,5\% * 800,000 \text{ (net sales)} = \mathbf{20,000}$

Ending balance: beginning balance is 12,000 (credit). Write-off is 4,000. Addition is 20,000, so ending balance is **28,000**.

**Question C1 (2 credits)**

Calculate the purchase of trade inventory over the year 2014.

Accounts payable beginning + purchases – payments = accounts payable ending

$$140,000 + \text{purchases} - 450,000 = 110,000$$

Purchases = **420,000**

**Question C2 (2 credits)**

Calculate the cost of goods sold over the year 2014.

Trade inventory beginning + purchases – cost of goods sold = trade inventory ending

$$360,000 + 420,000 - 460,000 = 320,000$$

Cost of goods sold = **460,000**

**Question D (4 credits)**

Complete the income statement for 2014.

*Income statement, 2014 (in euros)*

Cost of goods sold (question C2)	460,000	Gross sales	850,000
Salaries expense	<b>59,000</b>	Sales discounts	(50,000)
Depreciation expense building	<b>50,000</b>	Gain on disposed truck	2,000
Depreciation expense trucks	<b>14,000</b>		
Interest expense	<b>44,000</b>		
Uncollectible accounts expense	20,000		
Net income	<u>155,000</u>		

Calculations question D:

Salaries expense: salaries paid + change in salaries payable: payable has gone down, so part of previous period has been paid:  $80,000 - (26,000 - 5,000) = \mathbf{59,000}$

Depreciation building: difference between old (1,500,000) and new (1,450,000) balance sheet account: **50,000**

Depreciation truck: difference between old (120,000) and new (94,000) balance sheet account, minus carrying value of sold truck:  $26,000 - 12,000 = \mathbf{14,000}$

Interest expense:  $(2/12 * 800,000 * 6\%) + (10/12 * 720,000 * 6\%) = 8,000 + 36,000 = \mathbf{44,000}$ .

**Question E (6 credits)**

Complete the balance sheet on December 31, 2014.

*Balance sheet on December 31, 2014 (in euros)*

Building	1,450,000	Long term debt	<b>720,000</b>
Trucks	94,000	Accounts payable trade	110,000
Trade inventory	320,000	Salaries payable	5,000
Accounts receivable trade (net)	<b>106,000</b>	Interest payable	<b>14,400</b>
Cash (question A)	153,400	Common stock	600,000
		Additional paid in capital	300,000
		Retained earnings	<b>407,000</b>
		Treasury stock	<b>(37,500)</b>
		Paid in capital, treasury stock	<b>4,500</b>
Total	<b><u>2,123,400</u></b>	Total	<b><u>2,123,400</u></b>

Calculations question E:

Accounts receivable trade (net):  $134,000 - 28,000 = \mathbf{106,000}$

Long term debt:  $800,000 - 80,000 = \mathbf{720,000}$

Interest payable:  $4/12 * 6\% * 720,000 = \mathbf{14,400}$

Retained earnings: beginning + net income – dividends =  $306,000 + 155,000 - 54,000 = \mathbf{407,000}$

Treasury stock:  $0,5 * 75,000 = \mathbf{37,500}$

Paid in capital, treasury stock:  $42,000 - 37,500 = \mathbf{4,500}$

**Question F (8 credits)**

Prepare the schedule of cash flows from operating activities according to the indirect method.

*Schedule of cash flows from operating activities, 2014*

Net income		155,000
Depreciation expense building	50,000	
Depreciation expense truck	14,000	
Gain disposal truck	<u>(2,000)</u>	62,000
<i>Changes in working capital</i>		
Decrease inventory	40,000	
Increase accounts receivable	(18,000)	
Decrease accounts payable	(30,000)	
Decrease salaries payable	(21,000)	
Decrease interest payable	<u>(1,600)</u>	(30,600)
Net cash flow from operations		<b><u>186,400</u></b>

## Exercise 2 (30 credits)

The chart of accounts is added as a separate appendix at the end of the exam. **Use only these accounts in your answers.** Please skip a line between the different journal entries.

The Board of Kirchner Corporation, Dresden (BRD), decided to a bond issue. On April 1, 2007 Kirchner Corporation issued eight-year term, unsecured, convertible bonds with a face value of €30,000,000. In total 60,000 bonds of €500 were issued. The face interest rate is 5 per cent per year. Interest is payable semi-annually on March 31 and September 30. The bonds were issued for €32,029,500 implying a market interest rate of 4 per cent.

The effective interest method is used to amortize the premium at which the bonds were issued. Kirchner's accounting year ends on December 31. Please round off your answers to whole Euros.

### Question A (13 credits)

Prepare the journal entries to record:

1. The issue of the bond on April 1, 2007.
2. The first payment of the interest and the amortization of the premium on September 30, 2007.
3. The accrual of interest and the amortization of the premium on December 31, 2007.
4. The second payment of the interest and the amortization of the premium on March 31, 2008..

<b>Kirchner Corporation</b>			
<b>Journal</b>			
<b>Date</b>	<b>Account</b>	<b>Debit</b>	<b>Credit</b>
01/04/2007	Cash	32,029,500	
	@ Unamortized Bond Premium		2,029,500
	@ Convertible Bonds Payable		30,000,000
30/09/2007	Interest Expense ( $32,029,500 * 0.04 * \frac{1}{2}$ )	€640,590	
	Unamortized Bond Premium	€109,410	
	@ Cash ( $30,000,000 * 0.05 * \frac{1}{2}$ )		750,000
31/12/2007	Interest Expense ( $31,920,090 * 0.04 * \frac{3}{12}$ )	€319,200	
	Unamortized Bond Premium	55,800	
	@ Interest Payable ( $30,000,000 * 0.05 * \frac{3}{12}$ )		375,000
31/03/2008	Interest Expense ( $31,920,090 * 0.04 * \frac{3}{12}$ )	€319,200	
	Unamortized Bond Premium	55,800	
	Interest Payable ( $30,000,000 * 0.05 * \frac{3}{12}$ )	375,000	
	@ Cash ( $30,000,000 * 0.05 * \frac{1}{2}$ )		750,000

**Question B (2 credits)**

Calculate the carrying amount or book value at which the bonds are reported in Kirchner's balance sheet on March 31, 2015.

€30,000,000 (or €0)

**Question C (2 credits)**

Calculate the total amount that is reported as interest expense (with respect to these bonds) in Kirchner's Income Statement for the year ending December 31, 2007.

€640,590 + €319,200 = €959,790

**Question D (2 credits)**

Calculate the carrying amount or book value at which the bonds are reported in Kirchner's balance sheet on December 31, 2007.

$(30,000,000 + 2,029,500) - (\text{€}109,410 + 55,800) = \text{€}31,864,290$

**Question E (1 credit)**

Calculate the interest expense over the first quarter of the year 2008.

$\text{€}31,920,090 * 0.04 * 3/12 = \text{€}319,200$

**Question F (2 credits)**

Calculate the carrying amount or book value of the bonds on March 31, 2008.

$(30,000,000 + 2,029,500) - (\text{€}109,410 + 55,800 + 55,800) = \text{€}31,808,490$

On April 1, 2008 the bondholders present all the bonds for conversion into common shares. The common shares have a par value of €100 each. Each set of ten bonds, each with a face value of € 500, can be converted into 7 shares.

**Question G (4 credits)**

Prepare the journal entry to record the conversion of the bonds into common shares. Please use only the accounts as presented on the charts of accounts at the end of the exam.

<b>Kirchner Corporation Journal</b>			
<b>Date</b>	<b>Account</b>	<b>Debit</b>	<b>Credit</b>
01/04/2008	Convertible Bonds Payable	30,000,000	
	Unamortized Bond Premium	€1,808,490	
	@ Common Stock (60,000 bonds / 10 bonds) * 7 shares of €100)		4,200,000
	@ Additional Paid-In Capital, Common Stock		€27,608,490

**Question H (4 credits)**

What are the main advantages of issuing common stock over issuing long term debt (i.e. bonds)? Please mention **two** advantages.

# 1 No repayment of the principal amount; with a favourable influence on liquidity.  
# 2 Without the obligation to pay a fixed amount of interest; with a favourable influence on liquidity as well as on profitability).  
Cash payments of interest don't depend on profitability; you always need to pay interest.  
Cash payments of dividend will depend on profitability.



**Chart of accounts exercise 2 (partial, accounts in alphabetical order)**

(This sheet can be torn out of the exam)

Accounts Payable
Accounts Receivable
Additional Paid-In Capital, Common Stock
Additional Paid-In Capital, Treasury Stock
Bonds Payable
Cash
Common Stock
Convertible Bonds Payable
Dividends
Dividends Payable
Dividends Receivable
Income Summary
Income Tax
Interest Expense
Interest Payable
Interest Receivable
Interest Revenues
Retained Earnings
Treasury Stock
Unamortized Bond Discount
Unamortized Bond Premium