

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

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

**Semester 1.2 2016/2017**  
**Wednesday February 1, 2017**  
**Time: 14:00 to 16:30**  
**Location: Aletta Jacobs Hall**

### Exercise 1 (31 credits)

Paint is a trading company specialized in buying and selling big paintings. The financial year starts on January 1 and ends on December 31. Paint's beginning balance sheet (in euros) on January 1, 2016, is as follows:

*Balance sheet on January 1, 2016*

Building (net)	1,200,000	Long term debt	500,000
Trucks (net)	120,000	Accounts payable trade	130,000
Trade inventory	260,000	Salaries payable	26,000
Accounts receivable trade (net)	95,000	Interest payable	2,500
Cash	61,000	Common stock	1,000,000
		Additional paid in capital	50,000
		Retained earnings	57,500
		Treasury stock	(30,000)
Total	<u>1,736,000</u>	Total	<u>1,736,000</u>

In the footnotes, the following information is available:

The interest percentage of the long term debt is 3% per year. The interest will be paid in arrear twice a year, on May 1, and November 1. The long term debt will be repaid in 10 years, in equal amounts, on May 1. The first repayment took place on May 1, 2016.

All purchases and sales are on credit.

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

Accounts receivable trade (gross)	120,000
Allowance for uncollectible accounts	<u>(25,000)</u>
Accounts receivable trade (net)	95,000

Paint uses the percentage of net sales method to estimate the allowance for uncollectible accounts. The percentage used is 3%. During 2016, one customer went bankrupt. The value of his bill was € 6,000.

The par value of a share is € 100. On January 1, 2016, there were 1,000 shares in treasury stock. Half of these treasury shares (500) were sold on July 23, 2016 for € 12,000. The remaining shares (500) were sold on August 5, 2016 for € 16,000.

A cash dividend of 5% of common stock was declared on July 29, 2016. The date of payment was August 1, 2016.

A truck with a purchase price of € 30,000 and accumulated depreciation of € 20,000 was sold with a loss of € 9,000. A new truck was purchased for € 40,000 on July 1, 2016

The table below gives an overview of all cash receipts and cash expenditures during 2016.

*Schedule of cash receipts and expenditures over 2016*

<b>Receipts</b>		<b>Expenditures</b>	
Payments on accounts receivable	760,000	Payments on accounts payable	550,000
Sale of treasury stock	28,000	Salaries paid	90,000
Sale of truck	<b>1,000</b>	Purchase new truck	40,000
		Interest paid	<b>14,250</b>
		Repayment of long term debt	<b>50,000</b>
		Dividends paid	<b>47,500</b>

On December 31, 2016, the amounts of the following balance sheet items are given:

Building	1,160,000
Trucks	94,000
Trade inventory	420,000
Accounts payable trade	150,000
Accounts receivable trade (gross)	144,000
Salaries payable	2,000

**Question A (5 credits)**

Complete the overview of cash receipts and expenditures during 2016 and determine the amount of cash on December 31, 2016. Show below the calculations for the sale of the truck (1), interest paid (2), repayment of long term debt (3), dividend paid (4) and cash (5).

(1) Sale of truck: Book value = 30.000-20.000 =10.000. Cash Truck =10.000 – 9.000 (loss) = **1,000**

(2) Interest paid:  $(6/12 * 3\% * 500,000) + (6/12 * 3\% * 450,000) = 7,500 + 6,750 = 14,250$

(3) Repayment of debt:  $500,000 / 10 = 50,000$

(4) Dividends paid: 10,000 shares issued, 500 in treasury stock on July 29. So  $9,500 * 100 * 5\% = 47,500$

(5) Amount of cash on 31/12: 61,000 (beginning) + 760,000 + 28,000 + 1,000 – 550,000 – 90,000 – 40,000 – 14,250 – 50,000 – 47,500 = 58,250

**Question B1 (3 credits)**

Calculate the amount of sales in 2016.

Sales = payments in AR + AR gross 31/12 - AR gross 1/1 + write-off AR = 760,000 + 144,000 - 120,000 + 6,000 = **790,000**

**Question B2 (2 credits)**

Calculate the uncollectible accounts expense in 2016 and the balance of the allowance for uncollectible accounts on December 31, 2016.

Uncollectible accounts expense: 3% \* 790,000 (net sales, see B1) = **23,700**

Balance allowance 31/12: balance 1/1 is 25,000 (credit). Write-off is 6,000. Addition is 23,700, so balance 31/12 is 25,000 - 6,000 + 23,700 = **42,700**.

**Question C1 (1 credit)**

Calculate the purchase of trade inventory in 2016.

Accounts payable 1/1 + purchases - payments AP = accounts payable 31/12

130,000 + purchases - 550,000 = 150,000

Purchases = accounts payable 31/12 - Accounts payable 1/1 + payments AP =

Purchase = 150,000 - 130,000 + 550,000 = **570,000**

**Question C2 (1 credit)**

Calculate the cost of goods sold in 2016.

Trade inventory 1/1 + purchases - cost of goods sold = trade inventory 31/12

Cost of goods sold = trade inventory 1/1 - trade inventory 31/12 + purchases

Cost of goods sold = 260,000 - 420,000 + 570,000

Cost of goods sold = **410,000**

**Question D (4 credits)**

Complete the income statement for 2016. Show all calculations below.

*Income statement, 2016*

Cost of goods sold (question C2)	410,000	Sales (question B1)	790,000
Salaries expense	<b>66,000</b>		
Depreciation expense building	<b>40,000</b>		
Depreciation expense trucks	<b>56,000</b>		
Interest expense	<b>14,000</b>		
Uncollectible accounts expense (question B2)	23,700		
Loss on disposed truck	9,000		
Net income	<u>171,300</u>		

Calculations question D:

Salaries expense: salaries paid + change in salaries payable: payable has gone down, so part of previous period has been paid:  $90,000 - (26,000 - 2,000) = \mathbf{66,000}$

Depreciation building: difference between 1/1 (1,200,000) and 31/12 (1,160,000) balance sheet account: **40,000**

Depreciation truck: difference between 1/1 (120,000) and 31/12 (94,000) balance sheet account, minus carrying value of sold truck + purchase price new truck:  $120,000 - 94,000 - 10,000 + 40,000 = \mathbf{56,000}$

Interest expense: interest expense 1/1 until 1/5 and 1/5 until 31/12  
 $(4/12 * 500,000 * 3\%) + (8/12 * 450,000 * 3\%) = 5,000 + 9,000 = \mathbf{14,000}$ .

**Question E (6 credits)**

Complete the balance sheet on December 31, 2016. Show all calculations below.

*Balance sheet on December 31, 2016*

Buildings	1,160,000	Long term debt	<b>450,000</b>
Trucks	94,000	Accounts payable trade	150,000
Trade inventory	420,000	Salaries payable	2,000
Accounts receivable trade (net)	<b>101,300</b>	Interest payable	<b>2,250</b>
Cash (question A)	<b>58,250</b>	Common stock	1,000,000
		Additional paid in capital	50,000
		Retained earnings	<b>178,300</b>
		Treasury stock	<b>0</b>
		Paid in capital, treasury stock	<b>1,000</b>
Total	<u><b>1,833,550</b></u>	Total	<u><b>1,833,550</b></u>

Calculations question E:

Accounts receivable trade (net): = acc rec. trade gross – allowance for uncollectible accounts (B2)  
 $144,000 - 39,700 \text{ (B2)} = 104,300$

Long term debt:  $500,000 - 50,000 = 450,000$

Interest payable:  $2/12 * 3\% * 450,000 = 2,250$

Retained earnings: beginning + net income – loss on treasury stock – dividends =  $57,500 + 171,300 - 3,000 - 47,500 \text{ (A)} = 178,300$

Treasury stock: **0 (all sold)**

Paid in capital, treasury stock:  $16,000 \text{ (sales price)} - 15,000 \text{ (half beginning balance)} = 1,000$

**Question F (9 credits)**

Prepare the schedule of cash flows from operating activities in 2016 according to the indirect method.

*Schedule of cash flows from operating activities 2016*

Net income		171,300
Depreciation expense building	40,000	
Depreciation expense truck	56,000	
Loss sale truck	<u>9,000</u>	
		105,000
<i>Changes in working capital</i>		
Increase inventory	(160,000)	
Increase (net) accounts receivable	(6,300)	
Increase accounts payable	20,000	
Decrease salaries payable	(24,000)	
Decrease interest payable	<u>(250)</u>	
		<u>(170,550)</u>
Net cash flow from operations		<u>105,750</u>

**Exercise 2 (29 credits)**

The chart of accounts is added on a separate sheet. **Use only these accounts in your answers.** Please skip a line between the different journal entries.

The Board of Walt Disney Company decided to issue bonds, as they need funds for opening a new Scrooge McDuck money-pool. The company issued €3,000,000, 9.5 percent, 25-year bonds, dated March 1, 2011. Interest is payable semi-annually on February 28 and August 31. The company's fiscal year-end is December 31. Walt Disney Company uses the effective interest method to amortize bond premiums or discounts. Please round off your answers to whole Euros.

**Question A (13 credits)**

Assume the bonds are issued at 105 on March 1, 2011, to yield an effective interest rate of 9 percent.

Prepare the journal entries to record:

- The issue of the bond on March 1, 2011.
- The first payment of the interest and the bond amortization on August 31, 2011.
- The accrual of interest and the bond amortization on December 31, 2011.
- The second payment of the interest and the bond amortization on February 28, 2012.

Date	Account	Debit	Credit
01/03/2011	Cash	3,150,000	
	@ Unamortized Bond Premium		150,000
	@ Bonds Payable		3,000,000
31/08/2011	Interest Expense ( $3,150,000 * 0.09 * \frac{1}{2}$ )	141,750	
	Unamortized Bond Premium	750	
	@ Cash ( $3,000,000 * 0.095 * \frac{1}{2}$ )		142,500
31/12/2011	Interest Expense ( $3,149,250 * 0.09 * \frac{4}{12}$ )	94,478	
	Unamortized Bond Premium	522	
	@ Interest Payable ( $3,000,000 * 0.095 * \frac{4}{12}$ )		95,000
28/02/2012	Interest Expense ( $3,149,250 * 0.09 * \frac{2}{12}$ )	47,239	
	Unamortized Bond Premium	261	
	Interest Payable ( $3,000,000 * 0.095 * \frac{2}{12}$ )	95,000	
	@ Cash ( $3,000,000 * 0.095 * \frac{1}{2}$ )		142,500

**Question B (13 credits)**

Assume the bonds are issued at 97 on March 1, 2011, to yield an effective interest rate of 10 percent.

Prepare the journal entries to record:

- The issue of the bond on March 1, 2011.
- The first payment of the interest and the bond amortization on August 31, 2011.
- The accrual of interest and the bond amortization on December 31, 2011.
- The second payment of the interest and the bond amortization on February 28, 2012

Date	Account	Debit	Credit
01/03/2011	Cash	2,910,000	
	Unamortized Bond Discount	90,000	
	@ Bonds Payable		3,000,000
31/08/2011	Interest Expense ( $2,910,000 * 0.1 * \frac{1}{2}$ )	145,500	
	@Unamortized Bond Discount		3000
	@ Cash ( $3,000,000 * 0.095 * \frac{1}{2}$ )		142,500
31/12/2011	Interest Expense ( $2,913,000 * 0.1 * \frac{4}{12}$ )	97,100	
	@Unamortized Bond Discount		2,100
	@ Interest Payable ( $3,000,000 * 0.095 * \frac{4}{12}$ )		95,000
28/02/2012	Interest Expense ( $2,913,000 * 0.1 * \frac{2}{12}$ )	48,550	
	Interest payable	95,000	
	@Unamortized Bond Discount		1,050
	@ Cash ( $3,000,000 * 0.095 * \frac{1}{2}$ )		142,500

### Question C (3 credits)

Describe 3 advantages of issuing long-term debt over issuing common stock.

Retaining stockholder control

Tax advantages of deductible interest expenses

Financial leverage advantage if return on assets is higher than interest on debt