Examination: Management I (Financial Accounting) 5077 **Sommersemester 2006**
Examiner: Luhmer
The following aids can be used: calculator, English language dictionary
The exam consists of 4 questions, all of which are to be answered.

Examination questions:

1. Income Statement.

The owner of Petshrink Company, a clinic offering therapy for domestic animals with behavioural problems, comes to you in distress in 2006:

> 'The tax inspector claims the company owes a further 4,000 in taxes with respect to last year's income. I can't understand why we owe more. We paid 21,000 of taxes in 2005 and we didn't make much money that year. Our cash balance only increased by 1,000. Can you take a look at these balance sheets which she prepared and tell me what's happening?'

He gives you the following end-year balance sheets ..... *(In €000)*

	2005	*2004*		*2005*	*2004*
Fixed assets			*Shareholders' equity*		
Equipment	32	24	Share capital	25	25
Less: Accumulated depreciation	–14	–8	Retained profits	20	10
Equipment, at net book value	18	16		45	35
Current assets			*Current liabilities*		
Supplies	9	7	Unearned revenues	2	1
Prepaid rent	4	3	Taxes payable	4	5
Accounts receivable	22	20	Accounts payable, office supplies	6	8
Cash	4	3			
	39	33		12	14
Total assets	57	49	Total equities	57	49

... and a summary of receipts and payments in 2005 taken from the company's cash book:

		€000
Receipts:	Collections from customers (all credit sales)	140
	Advances from customers	24
		164
Payments for:	Office supplies	28
	Rent	16
	Equipment	8
	Salaries	70
	Taxes	21
	Dividends	20
		163

Further information: No equipment was disposed of in 2005. All office supplies are purchased on credit. The corporate income tax rate is 40%.

Required

Construct Petshrink's income statement for 2005. Explain to the owner why his firm owes 4,000 of income taxes.

2. Inventory valuation and profits.

Paolo banged his fist on the table in frustration. 'If there's one thing I've learnt about inventory valuation, it's that LIFO profits are lower than FIFO profits when prices are rising. But my numbers tell the opposite story!'

KLIK is a distributor of self-assembly office furniture in Italy. Paolo is in charge of the Venezia region. Recently, competitive pressures have increased and the company is trying to cut costs by reducing working capital. Paolo's boss is pleased that inventory levels are down in 2004 but is less happy when Bianca, the company's accountant, points out to him that profits – and taxes – would have been lower under FIFO that year. (The company assumes a LIFO flow of costs in determining the costs of inventory and of furniture sold.)
Set out below are purchase and sale data in 2004 for one line of furniture that Paolo's division handles.

Inventory, 1/1/2004:		100 units @ 25
Purchases:	May	40 units @ 55
	November	50 units @ 60
Sales:	March	70 units @ 100
September		60 units @ 100

Bianca tells Paolo that the unit FIFO cost of the 100 units in inventory at the start of 2004 is 50. The unit LIFO cost of beginning inventory is so much lower (25) because it's based on purchase prices of ten years earlier, she says.

Required

(a) Calculate LIFO and FIFO gross profit in 2004 for the above line of office furniture in Paolo's division. Assume that the company calculates the cost of goods sold at year-end only (the periodic system).

(b) Has Paolo got his sums right? Is LIFO gross profit higher than FIFO gross profit in 2004? If so, why?

(c) What is the effect on your computations of LIFO and FIFO gross profit if KLIK calculates the cost of goods sold at the time of each sale (the perpetual system)?

3. Equipment Depreciation and Amortization of Debt

At the start of 2005, Merlin Company buys telecommunications equipment for 216,000. The equipment has an expected useful life of four years and zero salvage value. It depreciates the equipment by the declining-balance method at an annual rate of 40%, switching to the straight-line method at the start of the third year.

Merlin arranges to finance 75% of the cost of the equipment with debt and the balance from its own cash resources. The lender requires the company to make equal annual payments of 50,000 at the end of each of the following four years (end-years 2005 – 2008). The interest rate implicit in these loan terms (i.e. the yield to maturity) is 9% on an annual basis.

Required

(a) How does the company record the purchase of the telecommunications equipment and the loan at the start of 2005? Use journal entries or the balance sheet equation.

(b) What is the life-time cost of the loan to the company?

(c) What are the annual depreciation and interest charges the company records each year from 2005 through 2008? Assume the company uses the interest method to determine annual interest expense.

4. Bad debt

Delphine designs and produces fashion accessories. The market for her products is small but the prices she charges – and the business's gross margins – are high. However, she faces a continuing problem of bad debts. All her sales are on credit. There is a high rate of bankruptcy among the small retail outlets she supplies.

Extracts from the accounts of Delphine's fashion business for the four years 2002 – 2005 are given below. Sales rose during the economic upturn of 2003 and 2004, fell back sharply during the recession of 2004 and remained depressed in 2005.

(amounts in €000)	*Year*			
	2002	*2003*	*2004*	*2005*
Income statement				
Sales	535	575	475	500
less: Cost of sales	–214	–230	–190	–200
Gross profit	321	345	285	300
Bad debt expense	–20	–15	–45	–25
Other operating expenses	–230	–240	–220	–220
Operating profit	71	90	20	55
Balance sheet, end-year				
:				
Accounts receivable	180	280	200	160
:				

At present, Delphine uses the direct method to recognise the cost of bad debts – that is, she recognises a bad debt expense only when a receivable is written off. She is considering changing to the allowance method and wants to know what the effect on her accounts would have been if she had used this method in 2003 – 2005. Using her sales ledger computer software, you carry out an ageing analysis of receivables at the end of each of years 2002 to 2005. You estimate that the required balance, as a percentage of end-year receivables, should be as follows (amounts are in 000):

	End-year			
	2002	*2003*	*2004*	*2005*
Allowance for bad debts, required balance (% of accounts receivable)	10	20	12	10

Required

(a) How much cash did Delphine collect from customers in each of years 2003, 2004 and 2005?

(b) Compute bad debt expense and end-year accounts receivable under the allowance method for years 2003, 2004 and 2005. Assume the new method is introduced at the start of 2003 and the end-2002 receivables figure (i.e. 180,000) is used to determine the initial required balance in the allowance account.

(c) What is the effect on Delphine's operating profits in years 2003 to 2005 from a switch to the allowance method? By how much are net assets higher or lower by the end of 2005? (Ignore taxes.)