

Written Exam for the B.Sc. or M.Sc. in Economics summer 2014

Managerial Accounting

Final Exam/ Elective Course

23 June 2014

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by “eksamen på dansk” in brackets, you must write your exam paper in Danish.

This exam question consists of 5 pages in total including this page.

Exercise 1

In the Exhibit below please supply the missing data in each of the cases.

In DKK	Case			
	1	2	3	4
Direct materials	9,000	6,000	7,000	4,000
Direct labour	?	4,000	7,000	6,000
Manufacturing overhead	5,000	5,000	?	10,000
Total manufacturing costs	20,000	?	21,000	?
Beginning work in progress stock	3,000	?	3,000	?
Ending work in progress stock	?	3,000	4,000	4,000
Cost of goods manufactured	19,000	14,000	?	?
Sales	35,000	25,000	39,000	38,000
Beginning finished goods stock	2,000	2,500	?	3,000
Cost of goods manufactured	?	?	?	17,500
Goods available for sale	?	?	?	?
Ending finished goods stock	?	3,500	4,000	3,500
Cost of goods sold	20,000	?	18,500	?
Gross margin	15,000	?	20,500	?
Operating expenses	?	3,500	?	?
Profit	6,000	?	8,000	£7,000

Exercise 2

Special products Inc. is a newly started company that only manufactures and sells a single product. The summarized data below relate to its first two years of operation.

Questions

- 1 Explain what is meant by:
 - (a) Marginal (variable) costing; and
 - (b) Full (absorption) costing.

In USD	Year ended 31 December 2012	Year ended 31 December 2013
Sales (units)	7,500	7,400
Production (units)	9,200	6,000
Selling price (per unit)	\$70.00	\$75.00
Costs:		
Variable manufacturing	\$184,000	\$120,000
Fixed manufacturing	\$66,976	\$46,440
Variable marketing and administration	\$32,400	\$35,900
Fixed marketing and administration	\$38,152	\$43,544

- 2 Calculate, for each of the two years, the operating profit and the closing stock value using:
 - (a) Marginal (variable) costing; and
 - (b) Full (absorption) costing.
- 3 Prepare, for each of the two years, a reconciliation which explains the difference in the operating profits resulting from the use of the two costing methods.
- 4 Explain why the operating profits resulting from the use of the two costing methods will usually differ. Under what circumstances will the operating profit under marginal (variable) costing be identical to that under full (absorption) costing.

Exercise 3

Start Up A/S a new publishing company has three books that it offers for sale – an accounting book, an economics book and a marketing book. Each book sells for DKK 200. The publishing company's most recent monthly profit and loss account is shown below:

In DKK	Total company		Product line		
			Accounting book	Economics book	Marketing book
Sales	<u>6,000,000</u>	<u>100%</u>	<u>1,800,000</u>	<u>3,000,000</u>	<u>1,200,000</u>
Less expenses:					
Printing costs	2,040,000	34%	540,000	1,260,000	240,000
Advertising	720,000	12%	270,000	390,000	60,000
General sales	360,000	6%	108,000	180,000	72,000
Salaries	660,000	11%	360,000	180,000	120,000

Equipment depreciation	180,000	3%	60,000	60,000	60,000
Sales commissions	600,000	10%	180,000	300,000	120,000
General administration	840,000	14%	280,000	280,000	280,000
Warehouse rent	240,000	4%	72,000	120,000	48,000
Depreciation – office facilities	<u>60,000</u>	<u>1%</u>	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>
Total expenses	<u>5,700,000</u>	<u>95%</u>	<u>1,890,000</u>	<u>2,790,000</u>	<u>1,020,000</u>
Operating profit (loss)	<u>300,000</u>	<u>5%</u>	<u>(90,000)</u>	<u>210,000</u>	<u>180,000</u>

The following additional information is available about the company:

- 1 Only printing costs and sales commissions are variable; all other costs are fixed. The printing costs (which include materials and direct labour) are traceable to the three product lines as shown in the statement above.
- 2 The same equipment is used to produce all three books, so the equipment depreciation cost has been allocated equally among the three product lines. An analysis of the company's activities indicates that the equipment is used 30% of the time to produce accounting books, 50% of the time to produce economics books, and 20% of the time to produce marketing books.
- 3 The warehouse is used to store finished units of product, so the rental cost has been allocated to the product lines on the basis of sales. The warehouse rental cost is 60 DKK per square metre per year. The warehouse contains 48,000 square metres of space, of which 7,200 square metres is used by the accounting books, 24,000 square metres by the economics books, and 16,800 square metres by the marketing books.
- 4 The general sales costs are not traceable to any specific product line. These costs has been allocated to the product lines on the basis of sales amount in DKK.
- 5 The general administration cost and depreciation of office facilities both relate to overall administration of the company as a whole. These costs have been allocated equally to the three product lines.
- 6 All other costs are traceable to the three product lines in the amounts shown on the statement above.

Questions

- 1 Prepare a revised segmented profit and loss account for the month using the contribution approach. Show both an amount column and a percentage column for the company as a whole and for each product line.
- 2 After seeing the profit and loss account in the main body of the problem, management has decided to eliminate the accounting book, since they don't think it is returning a profit. Instead they want to focus all available resources on promoting the economics book.
 - (a) Based on the statement you have prepared, do you agree with the decision to eliminate the accounting book? Please explain why or why not.
 - (b) Based on the statement you have prepared, do you agree with the decision to focus all available resources on promoting the marketing book? Please explain why or why not.

3 Mention additional points that you think may help the company to improve profits?

Exercise 4

- 1 Explain the concept and purposes of a Strategy Map and a Balanced Scorecard. In addition you should explain how those two concepts are connected in a company's planning procedure.
- 2 Please give examples of measures that seem to be important in each of the four perspectives in a Balanced Scorecard.
- 3 Why it is seen important to report measures that are balanced between:
 - Financial and non-financial measures.
 - Lead indicators and lag indicators.