Guiding solution

To

Managerial Accounting

Final Exam/ Elective Course

June 2014

(3-hour closed book exam)

Exercise 1

Missing data is marked with red.

	Case			
In DKK	1	2	3	4
Direct materials	9,000	6,000	7,000	4,000
Direct labour	6,000	4,000	7,000	6,000
Manufacturing overhead	5,000	5,000	7,000	10,000
Total manufacturing costs	20,000	15,000	21,000	20,000
Beginning work in progress stock	3,000	2,000	3,000	1500
Ending work in progress stock	4,000	3,000	4,000	4,000
Cost of goods manufactured	19,000	14,000	20,000	17,500
Sales	35,000	25,000	39,000	38,000
Beginning finished goods stock	2,000	2,500	2,500	3,000
Cost of goods manufactured	19,000	14,000	20,000	17,500
Goods available for sale	21,000	16,500	22,500	20,500
Ending finished goods stock	1,000	3,500	4,000	3,500
Cost of goods sold	20,000	13,000	18,500	17,000
Gross margin	15,000	12,000	20,500	21,000
Operating expenses	9,000	3,500	12,500	14,000
Profit	6,000	8,500	8,000	7,000

Exercise 2

1 (a) Marginal (variable) costing system is a costing system in which all variable (but no fixed) manufacturing costs are included when determining the cost of production.

(b) Full (absorption) costing – a method of costing in which all variable and all fixed manufacturing costs are included when determining the cost of production.

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	Year ended 31 Dec. 2012 Marginal		Year ended 31 Dec. 2013 Marginal
Sales	525,000		555,000
Beginning stock	–	–	34,000
Variable Manufacturing costs	184,000		120,000
Ending stock	(34,000)		(6,000)
Variable cost of goods sold	150,000		148,000
Variable marketing and admin.	(32,400)		35,900
Contribution margin	342,600		371,100
Fixed manufacturing costs	(66,976)		(46,440)
Fixed Marketing and admin.	(38,152)		(43,544)
Operating profit	237,472		281,116

	Year ended 31 Dec. 2012 Absorption	Year ended 31 Dec. 2013 Absorption
Sales	525,000	555,000
Opening stock	–	46,376
Manufacturing costs	250,976	166,440
Closing stock	(46,376)	(8,322)
Cost of goods sold	204,600	204,494
Gross profit	320,400	350,506
Marketing and admin costs	(70,552)	(79,444)
Operating profit	249,848	271,062

3

2012:

Operating profit (marginal)	237,472
Fixed manufacturing costs in opening stock	–
Fixed manufacturing costs in closing stock	12,376
Change	12,376
Operating profit (absorption)	249,848

2013:

Operating profit (marginal)	281,116
Fixed manufacturing costs in opening stock	12,376
Fixed manufacturing costs in closing stock	2,322
Change	(10,054)
Operating profit (absorption)	271,062

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Under a full costing system, both opening and closing stock include an element of fixed manufacturing costs. The difference between the operating profit under a marginal costing system and that under a full costing system simply reflects the change in this element over the period. Profits according to the two methods will be identical if this change is zero, which will occur if production = sales and there is no change in the fixed overhead absorption rate.

Exercise 3

1

	Total Company		Accounting book		Economics book		Marketing book	
Sales	6,000,000	100 %	1,800,000	100%	3,000,000	100%	1.200,000	100 %
Less variable expenses:								
Printing cost	2,040,000	34	540,000	30	1,260,000	42	240,000	20
Sales commissions	600,000	10	180,000	10	300,000	10	120,000	10
Total	2,640,000	44	720,000	40	1,560,000	52	360,000	30
Contribution margin	3,360,000	56	1,080,000	60	1.440,000	48	840,000	70
Less traceable fixed expenses:								
Advertising	720,000	12	270,000	15	390,000	13	60,000	5
Salaries	660,000	11	360,000	20	180,000	6	120,000	10
Equipment depreciation	180,000	3	54,000	3	90,000	3	36,000	3
Warehouse rent	240,000	4	36,000	2	120,000	4	84,000	7
Total	1,800,000	30	720,000	40	780,000	26	300,000	25
Product line segment margin	1,560,000	26 %	360,000	20 %	660,000	22 %	540,000	45 %
Less common fixed expenses not traceable to products:								
General sales	360,000	6						
General administration	840,000	14						
Depreciation—office facilities	60,000	1						
Total	1,260,000	21						
Operating profit	300,000	5 %						

2

a

No, the accounting book should not be eliminated. It covers all of its own costs and is generating a 360,000 segment margin that helps to cover common costs to generate profits.

b

Here the general economic reasoning should be used.

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Some of the additional points that could be brought to the attention of management are as follows:

- The salaries are very high for the accounting book line, as compared to the other two lines. This should be investigated to find the reason for the wide difference in cost.
- The company pays a commission of 10 percent on the selling price of any book. Consideration should be given to revising the commission structure to base it on contribution margin, rather than on sales.
- Management should consider JIT deliveries to reduce warehouse costs.
- Other additional arguments that are related to the profit or loss statement

Exercise 4

This exercise gives the student freedom to argue within the concept of BSC.