

Written Exam at the Department of Economics summer 2018

**Managerial Accounting**

Final Exam

15. June 2018

(3-hour closed book exam)

Answers only in English.

**This exam question consists of 4 pages in total**

*NB: If you fall ill during an examination at Peter Bangsvej, you must contact an invigilator in order to be registered as having fallen ill. In this connection, you must complete a form. Then you submit a blank exam paper and leave the examination. When you arrive home, you must contact your GP and submit a medical report to the Faculty of Social Sciences no later than seven (7) days from the date of the exam.*

**Be careful not to cheat at exams!**

- You cheat at an exam, if during the exam, you:
- Make use of exam aids that are not allowed
- Communicate with or otherwise receive help from other people
- Copy other people's texts without making use of quotation marks and source referencing, so that it may appear to be your own text
- Use the ideas or thoughts of others without making use of source referencing, so it may appear to be your own idea or your thoughts
- Or if you otherwise violate the rules that apply to the exam

### Exercise 1

The German company Netzer has below shown selected account balances for the year ended 31 December:

Selling and administrative salaries	EUR 330,000
Insurance, factory	24,000
Utilities, factory	135,000
Purchases of raw materials	870,000
Indirect labour	180,000
Direct labour	?
Advertising expense	240,000
Cleaning supplies, factory	21,000
Sales commissions	150,000
Rent, factory building	360,000
Maintenance, factory	90,000

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At the beginning and end of the year the inventory balances were as follows:

	Beginning of the year	End of the year
Raw materials	EUR120,000	EUR30,000
Work in progress	?	105,000
Finished goods	150,000	?

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The total manufacturing costs for the year were EUR 2,049,000; the goods available for sale was in total EUR 2,220,000; and the cost of goods sold was in total EUR 1,980,000.

### Questions

1. Prepare a schedule of cost of goods manufactured and the cost of goods sold section of the company's statement of profit or loss for the year.
2. Assume that the EUR amounts given above are for 40,000 units produced during the year. Compute the unit cost for direct materials used and the unit cost for rent on the factory building.
3. Assume that in the following year the company expects to produce 50,000 units. What per unit and total cost would you expect to be incurred for direct materials? For rent on the factory building?
4. As you are the manager in charge of production costs please explain the reasons for any difference in unit costs between Question 2 and Question 3 above.

## Exercise 2

Swedish Running Shoes operates a number of sport shoe shops around in Sweden. The shops carry different styles of shoes that are all sold at the same prices. Sales personnel in the shops are paid a commission on each pair of shoes sold in addition to a basic salary. The idea is to encourage the employees to be more aggressive in their sales efforts.

The following cost and revenue data relate to a large Gothenburg shop and are as follows:

	Per pair of shoes
Sales price (SEK)	1,500.00
Variable expenses:	
Invoice cost	675.00
Sales commission	<u>225.00</u>
Total variable expenses	<u>900.00</u>
	Annual
Fixed expenses:	
Advertising	1,500,000
Rent	1,000,000
Salaries	<u>5,000,000</u>
Total fixed expenses	<u>7,500,000</u>

## Questions

1. Calculate the annual break-even point in unit sales and in revenue (SEK) for the Gothenburg shop.
2. If 12,000 pairs of shoes are sold in a year, what would be the Gothenburg shops profit or loss?
3. The company is considering paying the store manager an incentive commission of 37.50 SEK per pair of shoes in addition to the salesperson's commission. If this change is made, what will be the new break-even point in pound sales and in unit sales?
4. Refer to the original data. As an alternative to question 3 above, the company is considering paying the store manager 25 SEK commission on each pair of shoes sold in excess of the break-even point. If this change is made, what will be the shop's profit or loss if 15,000 pairs of shoes are sold?
5. Refer to the original data. The company is considering eliminating sales commissions entirely and increasing fixed salaries by 1,575,000 SEK annually. If this change is made, what will be the new break-even point in unit sales and in revenue (SEK) for the Gothenburg shop?

### Exercise 3

New Design is a Danish company that manufactures a single line of jackets that is produced in lots, with each lot representing an order from a customer. New Design operates a standard cost system and has established the following standards for a dozen jackets:

In (DKK)	Standard quantity or hours	Standard price or rate (DKK)	Standard cost
Direct materials	32 metres	24.00 per metre	76,800
Direct labour	6 hours	75.00 per hour	45,000

New Design was in January working on three orders for jackets. The company's job cost records for the month shows the following:

Lot	Units in lot (dozens)	Materials used (metres)	Hours worked
1	1,500	48,300	8,900
2	950	30,140	6,130
3	2,100	67,250	10,270

The following additional information is available:

- 1 New Design purchased 180,000 metres of material during January at a cost of DKK 4,248,000.
- 2 Direct labour cost incurred during the month for production of jackets was DKK 1,922,800.
- 3 There were no work in progress inventories on 1 January. During January, lots 1 and 2 were completed, and lot 3 was 100% complete as to materials and 80% complete as to labour.

### Questions

1. Calculate the materials price variance for the materials purchased during January.
2. Determine the materials quantity variance for January in both metres and in amounts (DKK):
  - (a) For each lot worked on during the month.
  - (b) For the company as a whole.
3. Calculate the labour rate variance for January.
4. Determine the labour efficiency variance for the month in both hours and amounts (DKK):
  - (a) For each lot worked on during the month.
  - (b) For the company as a whole.