YLIOPISTOTENTTI - UNIVERSITY EXAM

Opiskelijan nimi / Student name:	**Opiskelijanumero / Student number:**

Opettaja täyttää / Lecturer fills in:

Opintojakson koodi and nimi / The code and the name of the course: **Koodi / Code** 721194S **Tentin nimi / Name** Advanced Cost Accounting	
Tiedekunta / Faculty:	
Tentin pvm / Date of exam: 25.4.2016	**Tentin kesto tunteina / Exam in hours:**
Tentin nro / No. of the exam: 1.	**Opintopistemäärä / Credit units:** 4
Tentaattori(t) / Examiner(s): Janne Järvinen	**Sisäinen postios. / Internal address:** 6OyKKK
Sallitut apuvälineet / The devices allowed in the exam: ☒ Nelilaskin / Standard calculator ☒ Funktiolaskin / Scientific calculator ☐ Ohjelmoitava laskin / Programmable calculator ☐ Muu materiaali, tarkennettu alla / Other material, specified below:	
Tenttiin vastaaminen / Please answer the questions: ☒ Suomeksi / in Finnish ☒ Englanniksi / in English	
Kysymyspaperi on palautettava / Paper with exam questions must be returned: ☐ Kyllä / Yes ☒ Ei / No	

The test has four questions and a maximum of 24 points. Please use complete sentences in answering the essay questions (i.e. no bullets, lists etc.).

Kysymyksiin saa vastata suomeksi mutta ammattisanastoa tulee tällöin käyttää tarkasti.

1)

a. Relating to cost allocation theory, explain the following briefly and concisely.

i. How do cost allocations act as a tax system? (1 point)

ii. Describe how a noninsulating allocation promotes cooperation among managers and encourages mutual monitoring. (1 point)

iii. What are joint costs? How do they differ from common costs? (1 point)

b. Consider a chicken processor which buy chickens, slaughters them and process them in three product lines: Fillets, Drumsticks and Wings. Sales and production cost figures are as follows:

	Total	**Fillets**	**Drumsticks**	**Wings**
Sales	3,50	2,40	0,80	0,30
Costs beyond split-off point	-1,00	-0,80	-0,04	-0,16
Joint production costs	-2,00			
Profit (loss) per chicken	0,50			

i. Calculate the profit/loss for each product line using the Net Realisable Value method. (1 point)

ii. Suppose that Wings are no longer processed and sold. Analyse the profitability of the two remaining product lines (Fillets and Drumsticks) using the Net Realisable Value method. (1 point)

iii. Is this allocation scheme insulating or non-insulating? Please explain why. (1 point)

2) Activity-based costing (ABC) is a costing system that was developed in the 1980s as a result of an increasing awareness in businesses of the deficiencies of traditional approaches to production overhead absorption.

a) Describe the main deficiencies in the traditional product costing system which ABC seeks to correct.

b) Identify and comment upon a significant advantage and a significant disadvantage associated with the typical implementation of an ABC system

c) A tree nursery is considering a change of product mix in its inventory. The manager wants to estimate the product cost of different types of trees. There are no activities that lead to

direct costs. Indirect costs are identified and estimated for the following activities: watering, repotting and administration. Total estimated annual costs for each activity, the cost driver for each activity and the expected annual usage of each cost driver are as follows:

Activity /Estimated costs /Cost driver /Estimated usage of cost driver

Watering /50.000 /Number of trees /500.000
Repotting /100.000 /Number of repots /200.000
Administration /75.000 Number of different types of trees/ 500

What are the estimated costs of 100 royal oaks, each of which requires one repotting each year?

3) Relating to absorption costing systems

a) A company uses a flexible budget to forecast annual plant-wide overhead, which is then allocated to jobs, based on machine hours. The annual overhead budget is forecasted to be €6.000.000 of fixed costs plus €120 per machine hour. The expected number of machine hours for the year is 20.000. The estimated application rate includes both fixed and variable overhead costs. At the end of the year, 21.000 machine hours were used and actual overhead incurred was €9.140.000

i. Calculate the application rate set at the beginning of the year.
ii. Calculate the amount of over- or underabsorbed overhead for the year.
iii. The company policy is to write off any over- or underabsorbed overhead to the cost of goods sold account. Will net profit rise or fall this year when the over- or underabsorbed overhead is written off to cost of goods sold? Please explain why.

b) Explain the following briefly and concisely

i. Expected volume and normal volume
ii. Why are prospective overhead rates used to assign overhead costs to jobs?
iii. Why are input measures used in calculating prospective overhead rates?

4) How does the concept of death spiral relate to cost accounting according to Zimmerman? Discuss the different situations in which the phenomenon of death spiral can occur. What is the source of death spiral? What kind of solutions are there to the death spiral?