

## YLIOPISTOTENTTI - UNIVERSITY EXAM

<b>Opiskelijan nimi / Student name:</b>	<b>Opiskelijanumero / Student number:</b>
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Opettaja täyttää / Lecturer fills in:

<b>Opintojakson koodi and nimi / The code and the name of the course:</b> <b>Koodi / Code 721134A</b> <b>Tentin nimi / Exam name Cost Management Systems</b>	
<b>Tiedekunta / Faculty: OyKKK</b>	
<b>Tentin pvm / Date of exam: 27.2.2019</b>	<b>Tentin kesto tunteina / Exam in hours: 3 h</b>
<b>Tentaattori(t) / Examiner(s): Hannele Kantola, Erkki Lassila</b>	<b>Opintopistemäärä / Credit units: 6</b>
	<b>Sisäinen postios. / Internal address:</b> 6 OyKKK
<b>Sallitut apuvälineet / The devices allowed in the exam:</b> <input checked="" type="checkbox"/> Funktiolaskin / Scientific calculator <input type="checkbox"/> Ohjelmoitava laskin / Programmable calculator <input type="checkbox"/> Muu materiaali, tarkennettu alla / Other material, specified below:	
<b>Tenttiin vastaaminen / Please answer the questions:</b> <input checked="" type="checkbox"/> Suomeksi / in Finnish <input checked="" type="checkbox"/> Englanniksi / in English <p>Suomenkielisessä tutkinto-ohjelmassa olevalla opiskelijalla on oikeus käyttää arvioitavassa opintosuorituksessa suomen kieltä, vaikka opintojakson opetuskieli olisi englanti. Tämä ei koske vieraan kielen opintoja. (Kts. <u>Koulutuksen johtosääntö</u> 18 §)</p> <p>In a Finnish degree programme a student has a right to use Finnish language for their study attainment, even though the language of instruction is English, (excluding language studies) even when the language of instruction is other than Finnish. (See <u>the Education Regulations</u> 18 §)</p>	
<b>Kysymyspaperi on palautettava / Paper with exam questions must be returned:</b> <input checked="" type="checkbox"/> Kyllä / Yes <input type="checkbox"/> Ei / No	

This test has three questions and a maximum of 90 points. Please use complete sentences when answering the essay questions (no bullets, lists etc.)! Do not write on this exam paper, but provide your answers in the answer sheet.

- 1) Explain the concept of Target costing and strengths of it. (Kaplan and Atkinson) (30 p.)
- 2) Explain the Cost of quality (COQ) model in management accounting. Also, comment on the potential usability of COQ –reporting for cost management purposes. (Brown and Tiez) (30 p.)
- 3) Break-even chart with increases in fixed costs

A local authority operates a holiday home which is let (rented) to visiting parties of children in care. The holiday home operates for 30 weeks each year. The children, who come to the holiday home, are accompanied by their own house mothers who supervise them throughout their holiday. From *eight to fourteen* guests are accepted on terms of £100 per person per week. No differential charges exist for adults and children.

Weekly costs incurred by the authority are:	£ per guest
Food	25
Electricity for heating and cooking	3
Domestic (laundry, cleaning etc.) expenses	5
Use of minibus	10

Seasonal staff supervise and carry out the necessary duties at the home at a cost of £11 000 for the 30-week period. This provides staffing sufficient for eight to ten guests per week but if eleven or more guests are to be accommodated, additional staff at a total cost of £200 per week are engaged for the whole of the 30-week period.

Rent, including rates for the property, is £4000 per annum and the garden of the home is maintained by the council's recreation department which charges a nominal fee of £1000 per annum.

**You are required to:**

- a) Formulate the equations for the:
  - i. income per annum = ...
  - ii. variable costs per annum = ...
  - iii. total costs per annum at 14 guests = ...

**NOTE! Equations (i) and (ii) you can use,  $x$  = the number of guests (5p)**

- b) Calculate and fill in the table below the appropriate figures and give a short comment on the break-even point(s) (15p)

***Holiday resort cost and income statement***

Guests in residence	Income p.a. (£)	Variable costs (£)	Contribution (£)	Fixed costs (£)	Surplus (deficit) (£)
8					
9					
10					
:					
etc.					

- c) Draw a break-even chart to illustrate your answer to (b) above and clearly identify (e.g. pointing by an arrow) the break-even point(s) and profit areas. (10p)

***NOTE! You need total costs for break-even chart. Use x-axis to indicate the number of guests.***

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