

**Midterm**

**October 30, 2023**

**Length: 90 minutes + 30 minutes extra time**

Name: \_\_\_\_\_

Number: \_\_\_\_\_ Class: \_\_\_\_\_

The exam is composed of **6** parts.

All parts but part **III** are open questions.

Questions must be answered in the **designated boxes**.

**Unclear** answers will **not be marked**.

You are required to **show the supporting calculations** to numerical questions, otherwise, they will **not be marked**.

In intermediate calculations, round up to **2** decimals if needed.

Answer sheets should be **kept stapled**.

The exam is close-book and only basic or scientific calculators are allowed.

Good luck!

**PART I - (3 Marks)**

**IKAE**, a furniture manufacture, which uses FIFO, has shown the following data regarding year N:

<b>(Amounts in €)</b>	<b>Opening inventory</b>	<b>Closing inventory</b>
Of finished goods	240 000€	?
Of work in progress goods	50 000€	80 000€
<b>Total</b>	<b>290 000€</b>	<b>?</b>

<b>Manufacturing Costs</b>	<b>Selling Costs</b>	<b>General and Administrative Costs</b>	<b>Financial Costs</b>
780 000€	50 000€	42 500€	22 000€

<b>Movements in the finished goods</b>	<b>Units</b>
Opening Stock	20 000
Production	75 000
Sales	80 000

**Assignment:**

**1.1)** Calculate the Changes in Inventories account in the Financial Accounting profit and loss statement.

**PART II - (4 Marks)**

**Company Y** sells two goods, since 1999: Product A and B. The company is currently studying the benefits of adopting ABC and for that purpose, the information bellow was collected:

	<b>Product A</b>	<b>Product B</b>	<b>Total</b>
Sales (€)	105 000€	70 000€	175 000€
Prime Cost (€)	30 000€	20 000€	50 000€
Maintenance (hours)	100	50	150
Orders (number)	600	400	1 000
Recycling (kilos)	10	90	100

<b>Activity</b>	<b>Description</b>	<b>Cost Driver</b>	<b>Total Cost</b>
Maintenance	To keep machines up and running	Maintenance hours	45 000€
Orders	To order direct materials	Orders made	30 000€
Recycling	To sustainably dispose trash	Kilos of recycling	20 000€

*Note: Prime Cost = Direct Materials + Direct Labor*

**Assignment:**

**2.1)** Calculate the operating profit for product A, knowing that Company Y uses sales revenues as the single allocation base to allocate manufacturing overheads.

**2.2)** Calculate the operating profit for Product B under ABC.

**2.3)** Based on the concept of cost-benefit, discuss the advantages and disadvantages of both systems and provide a justified recommendation to which system Company Y should adopt.

**PART III - (2 Marks)**

**3.1)** With the traditional costing systems, goods manufactured in relatively small batches and small annual quantities could be:

- A) Undervalued
- B) Overvalued
- C) Correctly valued
- D) Ignored
- E) Both c) and d) are correct
- F) None of the above

**3.2)** In a factory that manufactures several products and uses total full costing, the wage of the general manufacturing manager can be classified as:

- A) Direct cost
- B) Period cost
- C) Variable cost
- D) Product cost
- E) None of the above

Question	Answer
3.1)	
3.2)	

**PART IV - (4 Marks)**

**Adike** is a company that manufactures soccer outfits per order.

For accounting purposes, the company's factory is organized in the following homogeneous cost pools (or cost centers):

- ☐ **Cut** (labor hours as the unit of work), in which the materials are cut.
- ☐ **Sew** (machine hours as the unit of work), in which the materials are tailored.
- ☐ **Cleaning** (labor hours as the unit of work) – cleans the factory.
- ☐ **Maintenance** (labor hours as the unit of work) - ensures the maintenance and repair of the manufacturing and cleaning equipment.
- ☐ **General Manufacturing Overheads** – These costs are allocated every month to all the other cost pools proportionately to their direct costs.

The following information was collected regarding the month of May:

**1 – Direct costs (in Euros) of the homogeneous cost pools:**

<b>Costs</b>	<b>Cut</b>	<b>Sew</b>	<b>Cleaning</b>	<b>Maintenance</b>	<b>GMO</b>
Miscellaneous costs	300 €	600 €	400 €	250 €	500 €
Wages	2 150 €	950 €	500 €	900 €	-
Depreciation	50 €	750 €	100 €	100 €	-
Other costs	300 €	100 €	80 €	50 €	400 €
<b>Total</b>	<b>2 800 €</b>	<b>2 400 €</b>	<b>1 080 €</b>	<b>1 300 €</b>	<b>900 €</b>

**2 – The activities of the homogeneous cost pools:**

Suppliers Users	<b>Cut</b>	<b>Sew</b>	<b>Cleaning</b>	<b>Maintenance</b>
<b>Cut</b>	-	-	250	100
<b>Sew</b>	-	-	100	200
<b>Cleaning</b>	-	-	-	100
<b>Maintenance</b>	-	-	100	-
<b>Total</b>	700 Lh	750 Mh	450 Lh	400 Lh

**Assignment:**

**4.1)** Calculate the total cost of the Cut department, if Adike uses the sequential allocation method.

**4.2)** Calculate the cost of the Cleaning Department, if Adike uses the simultaneous equation method.



**PART V - (3 Marks)**

***FruSyrup is a Sweeteners Producer Company*** that produces a sugar syrup. To produce the syrup, sugar is heated up in the Heating Department to get the final product.

For every two units of sugar (direct material) that enter the process, one unit of the syrup is produced. However, under efficient conditions, 15% of the production is lost.

The following information was collected regarding the month of January:

	<b>Heating</b>
Materials (€)	40 000€
Labor (€)	30 000€
Overheads (€)	20 000€
<b>Total</b>	<b>90 000€</b>

Inputs – Direct Materials (units)	10 000
Outputs – Finishing Goods (units)	4 000
Unit selling price of wastage (€)	1€

- ☐ There was no opening or closing stocks of finished goods and work-in-progress.
- ☐ All the losses can be sold.

**Assignment:**

**5.1)** Knowing that the selling price is 31€, calculate the operating profit of FruSyrup.

**PART VI - (4 Marks)**

**Early Company** is a clock manufacturer that produces a single alarm clock model. The CEO of **Early Company** hired you to replace the prior CFO, after finding out that he **changed the costing system** on the 1<sup>st</sup> of January 2021 without prior consent.

After a quick chat with you, the CEO delivered to you the P&L's of September 2020 and 2021, and some additional information relating to the two months in question. Additionally, it is known that **Early Company** uses **LIFO** as the inventory valuation method.

<b>P&amp;L</b>	<b>September 2020</b>	<b>September 2021</b>
Sales	32 000€	28 000€
Cost of sales + Under-recovery of overheads	(29 600€)	(24 520€)
Gross profit	2 400€	3 480€
Non-manufacturing costs	(5 000€)	(2 150€)
<b>Profit before taxes</b>	<b>0€</b>	<b>1 330€</b>

	<b>September 2020</b>	<b>September 2021</b>
Sales (units)	800	700
Actual Production (units)	1 000	1 000
Practical capacity of production (units)	1 250	1 250
Unit variable manufacturing cost	22€	22€
Manufacturing fixed costs	12 000€	12 000€
Non-Manufacturing fixed costs	400€	400€
Unit Non-Manufacturing variable costs	2,5€	2,5€
Unit selling price	40€	40€

**Assignment:**

**6.1)** Identify the costing systems used in 2020 and in 2021. Justify your answer.

**6.2)** The CEO rumbled to you, “I knew something changed when I saw declining sales, and increase in profits”. Explain to the CEO the source of the recorded profit and provide him with the profit that would be obtained under the previous costing system.