ISCTE Business School
Instituto Universitário de Lisboa

#### MANAGEMENT ACCOUNTING I

#### 1st Mid-Term Test School Year 2013/2014 1st Year MANAGEMENT

12 March, 2014

| Course | Class |    |
|--------|-------|----|
| Name   | I     | No |

#### **Attention!:**

- 1 You must keep the test stapled. You have to delive it with the test sheet.
- 2 The questions are only considered correct if duly justified by the calculations.

### PART I (Based on this test sheet answer the questions 1 to 7 inclusive)

LIGHT company converts the materials M1 and M2 to obtain the product LI that it markets on the national market.

a) In February of the year N the following data on expenses/costs (values in €) were provided:

|                       | FPW    | Production | Distribution | Administ./Financ. |
|-----------------------|--------|------------|--------------|-------------------|
| Supplies and Services | 6 500  | 60 000     | 25 000       | 5 000             |
| Salaries              | 10 000 | 160 000    | 65 000       | 20 000            |
| Depreciations         | 6 000  | 60 000     | 8 500        | 2 000             |
| Financial expenses    | -      | -          | 1            | 14 000            |

Time: 75 minutes

#### b) Variation of Raw Materials:

|    | MU   | Opening Stocks           | Purchases                | Consumptions |
|----|------|--------------------------|--------------------------|--------------|
| M1 | Unit | 1 000 units at 15 € each | 9 000 units at 10 €/unit | 8 000 units  |
| M2 | Unit | 500 units at 25 € each   | 1 000 units at 20 €/unit | 1 200 units  |

c) Variation of secondary materials which are included in the manufacturing function of the company:

| Opening stocks | Purchases | Closing stocks |
|----------------|-----------|----------------|
| 3 000 €        | 9 000 €   | 8 000 €        |

#### d) Variation of the products in the month:

| Description   | Finished product L1      | PiP     |
|---------------|--------------------------|---------|
| Opening Stock | 4 000 Units at 50 €/Unit | 16 500€ |
| Production    | 10 000 Units             | -       |
| Sales         | 9 000 Units at 75€/ unit | 1       |
| Closing Stock | ?                        | 5 000€  |

- e) The Finished Products Warehouse belongs is allocated to the manufacturing function of the company.
- f) The salaries of the manufacturing function concern 75% to DL (direct labour) and 25% to IL (indirect labour).
- g) On the salaries there are theoretical social expenses calculated at the rate of 60%. This rate is used both in P&L Statement per Natures and P&L Statement per Functions.
- e) The company adopts LIFO as valuation criterion for the outputs.

## PART II (Based on this test sheet answer the questions 8 to 15 inclusive)

LIFE company produces and markets the product V. The profit and loss statement per functions, regarding January of the year N, using the absorption costing system (ACS), is presented as follows:

| P&L Stat. per Functions         | Values in € |
|---------------------------------|-------------|
| Sales                           | 350 000     |
| MCPS+ NPMC                      | 290 000     |
| Gross Profit                    | 60 000      |
| Selling (distribution) Expenses |             |
| Variable                        | 20 000      |
| Fixed                           | 10 000      |
| Administ. (fixed) Expenses      | 5 500       |
| Profit before Taxes             | 24 500      |

#### Additional data:

Selling price 35 € / Unit
 Quantities produced 12 000 Units
 Variable manuf. costs 240 000 €

Percentage of the Capacity Use 90 %.

• There were neither opening stocks of finished products nor of products in progress.

| Course | Class |    |  |
|--------|-------|----|--|
|        |       |    |  |
| Name   |       | No |  |

# PART I (Based on this test sheet answer the questions 1 to 7 inclusive) Each correct answer is 1.2 marks value

| Questions   | Solution  |
|---|---|
|   | Doluton   |
| 1. The monthly value of the consumptions of raw materials is:   | Consumption of M1 = $8\ 000\ x\ 10 = 80\ 000\ \in$<br>Consumption of M2 = $1\ 000\ x\ 20 + 200\ x\ 25 = 25\ 000\ \in$ |
| a) 85 000 €   | Consumption of 1412 = 1 000 x 20 + 200 x 25 = 25 000 C  |
| b) 80 000 €   | Consumption of M1+ M2 = $80\ 000\ +25\ 000 = 105\ 000\ $ €  |
| c) 105 000 €  | 00 000 1 <b>2</b> 0 000 120 000 000 000 000 000 000 000 00  |
| d) None of the previous ones  |   |
| 2. Assuming that the monthly value of the consumptions of raw materials is 105 000, the monthly cost prime is:  | Prime Cost = RM consumed + DL   |
| a) <b>309 000 €</b><br>b) 377 000 €<br>c) 232 500 €   | DL = (10 000 + 160 000) x 0.75 x 1.6 = <b>204 000 €</b>   |
| d) None of the previous ones  | Prime Cost = 105 000 + 204 000 = <b>309 000 €</b>   |
| 3. Assuming that the monthly value of the consumptions of raw materials is 105 000 €, the value of the cost of materials consumed in P&L Stat per Natures is: | Cost of the materials consumed = 105 000 + (3 000 + 9 000 − 8 000) = <b>109 000</b> €                                 |
| <ul> <li>a) 108 000 €</li> <li>b) 109 000 €</li> <li>c) 105 000 €</li> <li>d) None of the previous ones</li> </ul>  |   |
| 4. Considering that the monthly MCMP is 513 500 €, the unit MCFP of the product LI is:  | MCFP = Opening Stock PiP + MCMP − Closing Stock<br>PiP = 16 500 + 513 500 − 5 000 = 525 000 €                         |
| <ul> <li>a) 52.5 €/Unit</li> <li>b) 50.2 €/Unit</li> <li>c) 50 €/Unit</li> <li>d) None of the previous ones</li> </ul>  | Unit MCFP = 525 000 /10 000 units = <b>52.5 €/Unit</b>  |

| Questions   | Solution   |
|---|--|
| 5. Assuming that MCFP of L1 is 55 €/unit, and that unit the company adopts FIFO, the MCPS of LI would be:   | MCPS = 4 000 x 50 + 5 000 x 55 = 200 000 + 275 000 = 475 000 €   |
| <ul> <li>a) 475 000 €</li> <li>b) 495 000 €</li> <li>c) 400 000 €</li> <li>d) None of the previous ones</li> </ul>  |  |
| 6. Assuming that unit MCFP of L1 is 55 €/unit, and that the company adopts LIFO, the stocks variation in the production to present in P&L Stat. per Natures is:  a) 55 000 € b) 11 500 € c) 43 500 € d) None of the previous ones | Closing stock – Opening stock (L1) = $(1\ 000\ x\ 55 + 4\ 000\ x\ 50) - 4\ 000\ x\ 50 = 255\ 000 - 200\ 000 = +55\ 000\ \in$ Closing stock – Opening stock (PiP) = $5\ 000 - 16\ 500 = -11\ 500\ \in$ Stocks Variation = $+55\ 000 + (-11\ 500) = +43\ 500\ \in$ |
| 7. Assuming that the monthly Gross Profit is 200 000 €, the monthly Profit before Taxes is:  a) 23 500€ b) 9 500€ c) 76 000 € d) None of the previous ones  | PBT = GP – DEx – AEx – FEx = 200 000 – 137 500 – 39 000 – 14 000 = <b>9 500</b> €  DEx= 25 000 + 65 000 x 1.6 + 8 500 = 137 500 €  AEx = 5 000+ 20 000 x 1.6 + 2 000 = 39 000 €  FEx = 14 000 €  |

# PART II (Based on this test sheet answer the questions 8 to 15 inclusive) Each correct answer is 1.2 marks value

| Questions   | Solution   |
|---|--|
| 8. The fixed manufacturing costs of the monthly production are:  a) 90 000€ b) 108 000€ c) 60 000€ d) None of the previous ones   | Quantity sold = 350 000/35€ = 10 000 units  MCPS + NPMC using ACS = 290 000 €  Fixed manufacturing costs of the month = MCFP - Variable manufacturing costs of the mont  MCFP = 290 000/10 000 x 12 000 = 348 000 €  Fixed manufacturing costs of the monthly production = 348 000 - 240 000 = 108 000 € |
| 9. Assuming that the fixed manufacturing costs of the month are 108 000 €, using the rational costing system (RCS) the sales cost (MCPS) is:  a) 281 000 € b) 227 200 € c) 200 000 € d) None of the previous ones | RCS ⇒ MCFP = 240 000 + 108 000 x 0.9 = 337 200€  MCPS = 337 200 /12 000 x 10 000 = <b>281 000</b> €  |
| 10. Assuming the same, using the variable costing system (VCS) the manufacturing costs to consider in P&L Stat. per Functions are:  a) 200 000€ b) 108 000 € c) 308 000 € d) None of the previous ones            | VSC ⇒ MCPS = 240 000/12 000 x 10 000 = 200 000 €  NPMC = 108 000 €  In P&L Stat. per Functions: MCPS + NPMC = 200 000 + 108 000 = <b>308 000</b> €   |
| 11. Assuming the same, using the rational costing system (RCS) the fixed manufacturing costs in P&L Stat. per Functions are:  a) 91 800 € b) 97 200 € c) 81 000€ d) None of the previous ones                     | Fixed manufacturing costs in P&L Stat.F.: fixed costs in MCPS + NPMC  Fixed costs in P&L Stat. = 108 000 x 0.9/12 000 x 10 000 = 81 000 €  NPMC = 108 000 x 0.1 = 10 800 €  Fixed manufacturing Costs in P&L Stat. = 81 000 + 10 800 = <b>91 800</b> €   |

| Questions   | Solution  |
|---|---|
| 12. The unit variable cost of the company (manuf. and non-manuf.) is:   | Quantity sold = 350 000/35€ = 10 000 units  |
| <ul> <li>a) 26 €</li> <li>b) 20 €</li> <li>c) 22 €</li> <li>d) None of the previous ones</li> </ul>   | Unit variable manuf. cost = 240 000/12 000 units = 20 €/unit  Unit variable non-manuf. cost = 20 000/10 000 = 2 €/unit  Total unit variable cost = 22 €/ton |
| 13. Assuming that the fixed manuf. Costs of the month are 108 000 € and that the contribution margin of the product V is 13 €, the company's break-even point corresponds to:   | FC = $108\ 000 + 10\ 000 + 5\ 500 = 123\ 500$ €  Q'= $123\ 500\ /\ 13 = 9\ 500$ units   |
| <ul><li>a) 9 000 Units</li><li>b) 9 500 Units</li><li>c) 8 190 Units</li><li>d) None of the previous ones</li></ul>   |   |
| 14. Assuming that the break-even point of the company is 9 500 units, the margin of safety for sales of 10 450 units is:  | MS = (10 450 – 9 500) /9 500 x 100 = <b>+ 10</b> %  |
| a) +10%<br>b) +9%<br>c) -10%<br>d) None of the previous ones  |   |
| 15. Assuming what was already and previously mentioned, the calculated profit that the company can make, within the Relevant Range if there is a sales increase of 25% will be: | Profit = $(10\ 000\ x\ 1.25 - 9\ 500)\ x\ 13 = 39\ 000\ €$<br>or<br>Profit = $13\ x\ 12\ 500 - 123\ 500 = 39\ 000\ €$                                       |
| <ul> <li>a) 32 500 €</li> <li>b) 12 350 €</li> <li>c) 39 000 €</li> <li>d) None of the previous ones</li> </ul>   |   |

### Now, answer the following theoretical questions. Each CORRECT answer is 1 mark value. Attention! In case of MISTAKE, 0.25 MARKS per answer will be discounted.

#### **Questions**

#### 16. Profit and loss statement per functions:

- a) It is different from the profit and loss statement per natures, because it implies monthly larger profits, in general;
- b) Unlike the profit and loss statemente per natures, first of all it aims to calculate the global profits of the organisation, using the calculation of theoretical expenses;
- c) At the end of the year and after some adjustments are made, it obtains the same results as the ones got in profit and loss statement per natures;
- d) None of the previous ones.

#### 17. The absorption costing system (ACS):

- a) It is different from the rational costing system, because it always considers more fixed manufacturing costs in Profit and Loss Statement of the month;
- b) It is much better than the variable costing system regarding data to support decision-making;
- c) It implies results equal to the ones of the variable costing system, if the production is equal to sales and if the valuation criterion of the stocks output is LIFO;
- d) None of the previous ones.