ISCTE Business School
Instituto Universitário de Lisboa

MANAGEMENT ACCOUNTING I

2nd Mid Term Test
School Year 2014/2015
Undergraduation in Management

May 13 th, 2015 **Time: 75 minutes**

Course _____ Class _____

Name_____No. _____

Attention!

1 – You must keep the test stapled. You have to deliver it with the test.

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 5 inclusive)

PLACA company produces, under the regime of joint production, two main products and one by-product in a production process with the following characteristics:

- A material M1 is converted in a section A1 and as a consequence the intermediate products P1 and Q1' and the by-product S are simultaneously obtained. The by-product S is marketed after an additional manufacturing improviement whose monthly cost was 4 000 €;
- Then the intermediate product P1 is converted in a section A2 and as a consequence the final product P is obtained;
- The intermediate product Q1' is added to the material M2 and converted in a section A3, where the finished product Q is obtained.

Regarding April of the year N the following data are known:

1. Production and Sales:

	Product P	**Product Q**	**By-product S**
Production	5 000 units	8 000 units	2 000 units
Sales	3 000 units	5 000 units	1 500 units
Sales price	60 €/unit	100 €/unit	10 €/unit

2. Consumptions of materials :

   M1: 300 000 €

M2: 280 000 €

3. Conversion Costs:

   A1: 310 000 €

   A2: 25 000 €

   A3: 50 000 €

4. Variable selling (distribution) expenses:

   Product P: 5% on the sales value

   Product Q: 10 €/unit

   By-product S: 2 € /unit

PART II

(Based on this test sheet answer the questions 6 to 13 inclusive)

Regarding the accounting of **FOCUS** company which uses the **absorption costing system and LIFO** as valuation criterion concerning the stocks outputs, the following data are known:

- Manufacturing sections
  - S1 work unit: MH
  - S2 work unit: Lh
  - S3 work unit: Lh

- Warehouse sections

  Raw materials warehouse (RMW):
  - Allocation unit: to the quantities of materials A and B consumed
  - Costing unit : day

  Finished products warehouse:
  - Allocation unit: to the quantities of X and Y produced
  - Costing unit: day

Regarding May of the year N, the following data are known:

a) Purchases and consumptions of materials:

Description	A	B
Opening stock	800 tons at 30€/ton	200 tons at 50 €/ton
Purchases	? at 25€/ton	2 000 tons at 60 €/ton
Consumptions	3 000 tons	?
Closing stock	200 tons	300 tons

Note: The material A is used in the production of X and the material B in the production of Y

b) Costs and activities of the sections

Sections	Activity	Reallocations (S3)	Variable Direct Costs(€)	Fixed Direct Costs (€)
S1	2 000 Mh	400 Lh	10 000	20 000
S2	2 500 Lh	500 Lh	40 000	30 000
S3	?	-	7 200	4 800
RMW	-	200 Lh	0	10 250
FPW	-	100 Lh	0	12 500

Note: The activity of the section S1 was used in the production of X (1 500 Mh) and in the production of Y (500 Mh). The section S2 is totally used in the production of Y.

c)Production and sales

Description	X	Y
Opening stock	1 000 units at 90€./unit	800 units at 190 €./unit
Production	1 250 units	1000 units
Sales	2 000 units at 150 €/unit	1 500 units at 250 €/unit

Course _____ Class _____

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PART I

(Based on this test sheet answer the questions 1 to 5 inclusive)

Each correct answer is worth 1.25 marks

Questions	Solution
1. The joint costs to allocate to the main products are: a) 600 000 € b) 610 000 € c) **598 000 €** d) None of the previous ones	Total joint costs= M1 + A1 = 300 000 + 310 000 € = 610 000 € Joint costs of the by-product S (criterion of the profit nil) = Potential sales value – specific costs =2 000 units x 10 € – 4 000 – 2 000 units x 2 € = **12 000 €** Joint costs to allocate to the main products: 610 000 – 12 000 € = **598 000 €**
2. Assuming that the joint costs to allocate to the by-product S are 12 000 €, the unit MCFP of the by-product S is: a) **8 €/unit** b) 10 €/unit c) 6 €/unit d) None of the previous ones	MCFP = Manuf. Joint Costs + Specific Manuf. Costs = 12 000 + 4 000 = 16 000 € Unit MCFP = 16 000 € / 2 000 = **8 €/unit**
3. The Sales Value at the Split-Off Point of the Product P is: a) 275 000 € b) 146 000 € c) **260 000 €** d) None of the previous ones	SV at SOP (Product P) = Potential Sales Value (PSV) – Specific Manuf. Cost – Specific Non-Manuf. Cost = 5 000 units x 60 € – 25 000 – 0.05 x 300 000 = 300 000 – 25 000 – 15 000 = 260 000 €

Questions	Solution
4.Assuming that the joint costs to allocate to the main products are 600 000 € and that the Sales Value at Split-Off Point of P is 260 000 €, the MCFP of the product P, according to the Net Realizable Value Method is: a) 260 000 € b) **265 000 €** c) 240 000 € d) None of the previous ones	Net Realizable Value (NRV) (Prod Q) = Potential Sales Value (PSV) – Specific Manuf. Cost – Specific Non-manuf. Cost = 800 000 – (280 000 + 50 000) – 10 € x 8 000 units = 390 000€ Joint Costs to allocate to the Co-product P = [260 000 / (260 000 + 390 000)] x 600 000 = 0.4 x 600 000 = 240 000 € MCFP (P) = Manuf. Joint Costs + Specific Manuf. Costs = 240 000 + 25 000 = 265 000 €
5. Assuming that the joint costs to allocate to the main products are 600 000€ and that the selling price of the product P would be 80 €/unit, the Unit MCFP of the product P, according to the Potential Sales Value Method, would be: a) 40 €/unit b) **45 €/unit** c) 48 €/unit d) None of the previous ones	Potential Sales Value of P = 400 000 € (5 000 units x 80€) Potential Sales Value of Q = 800 000 € (8 000 units x 100 €) Joint Costs to allocate to P = 400 000/(400 000+800 000) x 600 000 = 200 000 € MCFP (P) = 200 000 + 25 000= 225 000 € Unit MCFP of P = 225 000/5 000 units =**45 €/unit**

PART II

(Based on this test sheet answer the questions 6 to13 inclusive)

Each correct question is worth 1,25 marks

Questions	Solution
6. The work unit of S2 is: a) **30 €/Mh** b) 28 €/Mh c) 18 €/Mh d) None of the previous ones	Total costs of (S2) = (40 000 + 30 000) + 500 Lh x WU of S3 = 30 000 + 500 Lh x 10 € = 75 000 € WU (S2) 75 000 €/2 500 Mh = **30 €/Mh** AU (S3) = 12 000 / 1 200 Lh = 10 €/Lh
7. Assuming that the Work Unit of S3 is 10 €/Lh, the RMW costs to allocate to the product Y amount to: a) 3 800 € b) 5 000 € c) **4 750 €** d) None of the previous ones	Consumptions of B = 200 + 2 000 – 300 = 1 900 tons RMW= 10 250 + 200 Lh x 10 € = 12 250 € AU RMW = 12 250/ (3 000 + 1 900) = 2.5 €/ton Costs of the RMW to Y = 2.5 € x 1 900 tons = **4 750 €**
8. Assuming the previous paragraph and also assuming that the WU of S1 is 17 €/Lh, that the AU of the RMW is 2.5 €/ton, the Conversion Costs to allocate to the product X are: a) **40 500 €** b) 33 000 € c) 25 500 € d) None of the previous ones	Conversion Costs to X: S1 + RMW + FPW = 1 500 Mh x 17€ + 3 000 tons x 2.5€ + 1 250 units x 6 € = 25 500 + 7 500 + 7 500 = **40 500 €** AU (FPW) = (12 500 + 100 Lh x 10€)/2 250 units = 13 500/ 2 250 = 6 €/unit
9. Also assuming that the WU of S2 is 30€/Lh and that the AU of FPW is 6 €/unit, the value of the MCFP of the product Y is: a) 197 500 € b) **208 250 €** c) 203 500 € d) None of the previous ones	RM consumed (€) = 1 900 tons x 60 € = 114 000 € Conv. Costs (Y) = S1 + S2 + RMW + FPW = 17 € x 500 Mh + 30 € x 2 500 Lh + 2.5 € x 1 900 + 6 x 1 000 = 8 500 + 75 000 + 4 750 + 6 000 = 94 250 € MCFP = RM consumed + Conv. Costs = 114 000 + 94 250 = **208 250 €**

Questions	Solution
10. Assuming the same as the previous paragraphs and considering that the FPW was allocated according to sales, the unit MCFP of the product X would be: a) **117.6 €/unit** b) 111.6 €/unit c) 123.6 €/unit d) None of the previous ones	MCFP (X) = RM + Conv. Costs = 78 000 + 17 € x 1 500 Mh + 2.5 € x 3 000 = 114 000 +25 500 + 7 500 = 147 000 € Unit MCFP = 147 000/1 250 units = **117.6 €/unit** Value of the RM consumed (A) = 2 400 x 25 + 600 x 30 = 60 000 + 18 000 = 78 000 €
11. Assuming that the MCMP of X was 120 000 € and that the stocks variation of PiP concerning this product was + 5 000 €, the value of the MCPS of X would be a) 192 500 € b) 184 000 € c) **182 500 €** d) None of the previous ones	MCFP = MCMP + Opening Stock – Closing Stock = 120 000 – 5 000 = 115 000 € Unit MCFP = 115 000/1 250 units = 92 €/unit MCPS = 1 250 x 92 + 750 x 90 = 115 000 + 67 500 = 182 500 €
12. Assumindo that the unit MCFP of X is 95 € and that the Unit MCFP of Y is 200 €, if the company adopts FIFO, the Gross Profit of the month would be: a) 185 000 € b) **198 000 €** c) 171 250 € d) None of the previous ones	Sales = 2 000 x 150 + 1 500 x 250 = 300 000 + 375 000 = 675 000 € MCPS (X) = 1 000 x 90 + 1 000 x 95 = 185 000 € MCPS (Y) = 800 x 190 + 700 x 200 = 152 000 + 140 000 = 292 000 € Gross Profit = 675 000 – 185 000 – 292 000 = **198 000 €**
13. Assuming the same as the previous paragraph and considering that there were no closing stocks of PiP and that the opening stocks of PiP only concerned the product X, amounting to 10 000 €, the stocks variation to register in the P&L Statement per Natures of the month would be: a)-158 250 € b)-**168 250 €** c)-148 250 € d)None of the previous ones	Stocks variation in the P&L Statement per Natures = (Closing Stock – Opening Stock of PiP) + (Closing Stock + Opening Stock of Finished Products) = - 10 000 + (23 750 – 90 000) + (60 000 – 152 000) = - 10 000 – 66 250 – 92 000 = **- 168 250 €** Closing Stock of X = 250 units x 95 = 23 750 € Opening Stock of X = 1 000 units x 90 = 90 000 € Closing Stock of Y = 300 x 200 = 60 000 € Opening Stock of Y = 800 x 190 = 152 000 €

PART III

Now answer the following theoretical questions. Each CORRECT answer IS WORTH 1.25 MARKS. Attention! If you make a MISTAKE, 0.25 MARKS per question will be DISCOUNTED.

Questions
14. In the indirect method: a) **The production is uniform;** b) There are no products in progress; c) The production cost is only ascertained when production is finished; d) None of the previous ones.
15. If the materials warehouse is allocated to the quantities consumed: a) The cost of the materials consumed includes the cost of the warehouse; **b) The cost of the material in warehouse corresponds to its cost of acquisition;** c) The closing stocks are valued at the cost of purchase (external c. + internal c.); d) None of the previous ones.
16. In the variable costing system, the costs with the Finished Products Warehouse allocated to the production are reflected in the P&L Statement per Functions as: a) A sales cost; b) A non-manufacturing cost; c) **A non-incorporated manufacturing cost** d) None of the previous ones

Optional supporting tables
(The data of these tables have no influence on the questions classification)

Table of the joint production

Products	Potential Sales Value	Specific costs		Sales Value at split-off point		Joint Costs
		Manuf.	Non-manuf.	€	%	

Products	Joint Costs	Manuf. Specif. Costs	MCFP	Unit MCFP
	(1)	(2)	(3) = (1) + (2)	(4) = (3) /Qtes Prod.

Table of the Conversion Costs

Table of the Production Costs
