

Accounting Department

Management Accounting II

EXERCISE BOOK 2

(Paper Sheets)

STANDARD (BUDGETED) COSTING

Exercises 5 to 8

Management 2nd Year

School Year 2015/2016

EXERCISE 5

WAVE company produces and markets the product W from the conversion of the material A in the sections L and J. There is also a supportig section K, whose activity is used and allocated to the main sections.

Regarding the year N, the annual budget which is prepared using the absorption costing system shows the following data:

a) Budget of the conversion cost (values in euros)

	L 28 000 Lh	J 48 000 Mh	K 94 000 Lh
1. Direct Costs	72 000	240 000	188 000
2. Reallocations			
K	68 000	120 000	-
3. Total Cost	140 000	360 000	188 000
Work Unit	5€/ Lh	7.5€/ Mh	2€/Lh

b) Production and annual forecasted sales

	Product W
Production	10 000 tons
Sales	7 500 tons at 80 €/ton

c) Purchases and forecasted consumptions of A

	Material A
Purchases	17 500 tons at 10 €/ton.
Unit consumptions	1.6

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

1. Direct costs and activity of the sections (values in euros)

	L	J	K
1. Direct Costs	7 650	15 200	18 750
2. Activity	2 300 Lh	3 600 Mh	7 500 Lh *

*The consumptions registered in the section K were allocated as follows: 2 500 Lh to the section L, 5 000 Lh to the section J.

2. Production and sales

	Product W
Production	1 000 tons
Sales	600 tons
Selling price	85 €/ton

3. Purchases and unit consumptions:

	Material A
Purchases	2 000 tons at 10.5 €/ton
Unit consumptions	1.5 tons

Knowing that the company uses the standard (budgeted) absorption costing system, and regarding October of the year N, **IT IS REQUIRED:**

1. Ascertain the value of the monthly work unit of the main sections;
2. Prepare the table of the production cost;
3. Ascertain the accounting variances, the NPMC and the MCPS to include in the P&L Statement of the month.

EXERCISE 5 – APPENDICES
WAVE COMPANY
Table of the main conversion (sections) costs

[illegible]

Accounting variances

NPMC

MCPS

EXERCISE 6

TABELA company produces and markets the products X and Y. Its production process is as follows:

- The Material A is converted in Section I, and the intermediate product S is obtained;
- This intermediate product is immediately and without any production change subject to a new production process, in the proportion of 40% for the product X and 60% for the product Y;
- In this second conversion process, under a regime of disjunctive production, the Material B is added, and the conversion occurs in the Section II, which is used and allocated in equal parts to the two final products;
- The Section III is a supporting section of fixed costs which are allocated to the to the Sections I and II according to the respective activity;
- There is also a Raw Material Warehouse, whose costs are allocated to the quantities bought of the materials A and B, and a Finished Products Warehouse whose costs are allocated to the quantities sold of X and Y.

Regarding the annual budget prepared for the year N, the following data are known:

1) Costs and Activity of the Sections

	Section I (Lh)	Section II (Lh)	Section III -	RMW	FPW
Activity/Tons	?	?	-	?	?
Direct Costs	?	?	27 000	7 500	6 750
Reallocations	?	?	-	-	-
Total Cost	45 000	37 500			
Work Unit	4.5	7.5			

2) Purchases and consumptions

	Purchases	Acquisition cost	Consumption
Material A	600 tons	28.5 €/ton	500 tons
Material B	4 400 tons	13.5 €/ton	4 700 tons (1 150 tons for the product X)

3) Production and Sales

Description	Production	Sales
Intermediate product S	10 000 tons	-
Product X	4 000 tons	3 500 tons at 25 €/ton
Product Y	6 000 tons	5 500 tons at 30 €/ton

The accounting data related to May of the year N is the following:

1) Activities and Conversion (Sections) Costs

Description	Direct Costs (€)	Activity
Section I	2 500	1 000 Lh
Section II	2 350	400 Lh
Section III	2 400	-
Raw Materials Warehouse	750	
Finished Products Warehouse	700	

2) Purchases and Consumptions

Description	Purchases	Aquisition Cost	Consumptions
Material A	50 tons	27 €/ton	40 tons
Material B	350 tons	15 €/ton	420 tons (100 tons for the product X)

3) Production and Sales

Description	Production	Sales
Intermediate product S	1 000 tons	-
Product X	400 tons	300 tons at 24 euros/ton
Product Y	600 tons	500 tons at 30 euros/ton

Accounting variances

The following variances are known:

- Manufacturing variance of the product X = 600 €(F)
- Manufacturing variance of the product Y = 900 € (F)

Knowing that the company uses the STANDARD (BUDGETED) ABSORPTION COSTING SYSTEM, it is required:

1. Complete the Budget of the Sections Costs;
2. Prepare the Table of the Conversion (Sections) Costs;
3. Prepare the Table of the Production Costs;
4. Ascertain the company's Gross Profit for May of the year N.

EXERCISE 6 – APPENDICES

1. Complete the budget of the conversion (sections) costs

Desc.	Unit cost	S1- 10 000		SII – 5 000		SIII – 15 000		RMW-5 000		FPW – 9 000	
		Q	€	Q	€	Q	€	Q	€	Q	€
1. DC							27 000		7 500		6 750
2. Reallocations											
SIII							-		-		-
3. Conv. Cost.			45 000		37 500						
WU			4.5		7.5						
AU											
CU							-				

Table of the conversion (sections) cost

Description	Unit	S1		SII		SIII –		RMW-		FPW –	
	Cost	Q	e	Q	€	Q	€	Q	€	Q	€
							-				

Supporting Calculations:

Table of the production costs

Description	Unit cost	S –		X –		Y –	
		Q	€	Q	€	Q	€

Supporting Calculations:

Profit & Loss Statement

Description			

Supporting Calculations:

EXERCISE 7

LIVING company produces and markets the product V and the by-product V2.

The company's productive process is as follows:

- The raw material M1 is converted in the section S1, where the intermediate product V1 is obtained. At a second stage, this intermediate product is converted in the section S2, and so the finished product V and the by-product V2 are simultaneously obtained.

A. Data regarding the annual budget of the year N.

1) Production and Sales

A uniform production was forecasted over the course of the year. The production of the product V corresponds to the respective annual forecasted sales with an increase of 25%. The annual forecast of sales was the following one:

Description	MU	Quantity	Selling price
Product V	ton	10 000	800 €/ton
By-product V2	ton	1 000	100 €/ton

60% of the sales of V are in the 1st semester. The sales of V2 accompany the respective production.

2) Budget of the production costs (per ton produced):

Description	MU	Unit Cost (€)	Consumption	
			Intermediate product V1	Product V
1. Direct materials				
M 1	ton	25	3	-
Intermediate product V1	ton	?	-	2.5
2. Conversion costs				
S 1	Mh	40	2	-
S 2	Mh	55	-	1.5
3. By-product V2	ton			0.1

- There are two supporting sections: the section S3 whose forecasted work unit is 10€/Lh and the section S4 which includes only fixed costs.
- The finished products warehouse (FPW) is under the responsibility of the production manager.

B. Accounting data of January of the year N**1) Raw material M1**

Description	Quantity	Unit cost
Purchases	9 000 tons	22 €/ton
Consumptions	8 360 tons	-

2) Activities and conversion (sections) costs (values in euros)

Description	S1	S2	S3	S4	FPW
Direct costs					
Variable	250 250	87 100	9 500	-	-
Fixed	50 000	30 000	-	55 000	7 500
Reallocations					
S3	600 Lh	250 Lh	-	-	150 Lh
Activity	6 250 Mh	1 600 Mh	1 000 Lh	-	-

3) Production and sales

Description	Intermediate product V1	Product V	By-product V2
Production	3 000 tons	1 000 tons	110 tons
Sales	-	900 tons at 750 €/ton	100 tons at 105 €/ton
Consumptions	2 600 tons	-	-

The variable selling (distribution) expenses registered in the month were 70 €/ton for the product V.

Knowing that the company uses the **variable standard (budgeted) absorption costing system**, and regarding January of the year N, **IT IS REQUIRED** :

1. Ascertain the conversion (sections) costs and calculate the respective variances;
2. Ascertain the production costs and calculate the manufacturing variances;
3. Ascertain the value of MCPS and of NPMC to register in the Profit & Loss Statement of January of the year N;

EXERCISE 7 – APPENDICES

LIVING COMPANY

Table of the conversion (sections) costs

Description	MU	Unit Cost n						
			Q	€	Q	€	Q	€
1 DC								
Subtotal (1)								
2 Reallocations								
Subtotal (1)								
Total Cost								
WU actual*								

The Sections Variances:

Table of the Production Costs

Description	MU	Unit Cost	Intermediate product V1		Product V	
			Q	€	Q	€
1. Materials						
Material M						
Intermediate product V1						
Subtotal (1)						
2. Conversion Costs						
Section S1						
Section S2						
Subtotal (2)						
3. By-product V2						
4. MCFP						
Unit MCFP						

Manufacturing variances:

4.

MCPS

NPMC

Accounting variances

Purchases variances:

Sections variances:

Manufacturing variances:

EXERCISE 8

Regarding **FRESH** company, the annual budget for the year N shows the following data:

a) Budget of the conversion (sections) cost (values in euros)

	S1	S2	S3	FPW
1. Direct Costs				
Variable	36 000	120 000	-	-
Fixed	62 400	189 600	72 000	40 000
2. Reallocations				
S3	21 600	50 400	-	-
3.Total Cost	120 000	360 000	72 000	40 000
Activity of the Sections	24 000 Lh	48 000 Mh	(*)	(**)

(*) 30% of the costs of the Section 3 are allocated to S1 and 70% to S2.

(**) The costs of the FPW are allocated according to the quantities produced of the products X and Y.

b) Production and annual forecasted sales

	Product X	Product Y	By-product S
Production	8 000 tons	12 000 tons	800 tons
Sales	7 500 tons at 42 €/ton	10 000 tons at 60 €/ton	700 tons at 10 €/ton

It is forecasted that the sales of X and Y are uniform in each semester - 60% in the 1st semester. It is forecasted that the sales of S are uniform over the course of the year.

c) Forecasted purchases of M1 and M2

	Material M1	Material M2
Purchases	15 000 tons at 10 €/ton	17 000 tons at 12 €/ton

d) Other data:

- The by-product S results from the production of the product X and it is marketed without any additional costs;
- The material M1 is consumed for product X. A unit consumption of 1.4 tons is forecasted;
- The material M2 is consumed for product Y. A unit consumption of 1.5 tons is forecasted;
- The section1 produces the product X and the section S2 produces the product Y.

e) Unit forecasted manufacturing cost of production

	Product X	Product Y
Unit MCFP	30 €	50 €

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

1. Direct costs (values in euros) and activity of the sections

	S1	S2	S3	FPW
1. Direct Costs				
Variable	3 696	7 520	-	-
Fixed	7 209	10 680	6 500	3 225
2. Activity	2 310 Lh	3 200 Mh	-	-

2. Production and sales

- Product X: 700 tons
- Product Y: 800 tons
- By-product S: 105 tons

Note: The production is equal to the sales

The selling prices were: 40 €/ton for the product X, 65 €/ton for the product Y and 12 €/ton for the by-product S.

3. Purchases and unit consumptions:

	Material M1	Material M2
Purchases	1 200 tons at 10.5 €/ton	1 400 tons at 11.5 €/ton.
Unit consumptions	1.5 tons	1.35 tons

Considering that the company adopts the **standard (budgeted) absorption costing system** and regarding May of the year N, IT IS REQUIRED:

- Ascertain the unit cost (work unit) of each one of the main sections;
- Prepare the table of the production costs;
- Prepare the monthly profit & loss statement, showing the ascertainment of the accounting variances.

EXERCISE 8

APPENDICES

Table of the main sections costs

[illegible]

Table of the production costs

Description	MU	Unit Cost				
			Q	€	Q	€

Profit & Loss Statement per functions

Description			Total

Supporting calculations: