Faculdade de Ciências da Universidade do Porto
Financial Analysis

1.

Consider the inventory of a small business for December 31st (this is of course a very simplified situation for illustration purposes). Assume that all values given are net values.

i) From the indicated values, separate the assets and liabilities accounts, ordering them by order of availability and demandability.
ii) Which of these amounts represent rights and which represent obligations?
iii) Calculate the earnings for the year.
iv) Calculate the value of the Working Fund and explain what it means.

	INVENTORY AT DECEMBER 31st	VALUES (euros)
A	Petty cash	350
B	Back deposit	700
C	Loan to employee A. Santos (6 months)	500
D	Merchandising	10 200
E	Raw materials	5 300
F	Shares from company VÉNUS, Lda.	12 000
G	Building	50 000
H	Cars	18 000
I	Debt from Shareholder DELTA (3 months)	430
J	Debt from company MARTE (our customer)	520
K	Debt to supplier ALFA	350
L	Debt to Social Security	250
M	Office furniture	3 000
N	Loan from Banco de Fomento (5 years)	25 000
O	Instalation costs	5 000

	ADDITIONAL DATA	VALUES (euros)
P	Share capital	48 000
Q	Year Earnings	*To be determinede*

2.

Consider the assets of a small company as of December 31st (this is a very simplified situation, for illustrative purposes only). Assume that all values given are net values. From the indicated values, separate the assets and liabilities accounts, ordering them by order of availability and demandability.

i) Which of these amounts represent rights and which represent obligations?
ii) Calculate the earnings for the year.
iii) Calculate the value of the Working Fund and explain what it means.

	INVENTORY AT DECEMBER 31st	VALUES (euros)
A	Bank deposit	2 000
B	Loan to employee Toneca (3 months)	1 000
C	Merchandising	20 000
D	Building	50 000
E	Cars	17 000
F	Debt from company GAMA (our customer)	4 000
G	Computers and office furniture	10 000
H	Petty cash	1 000
I	Raw materials	15 000
J	Debt to BETA (our supplier)	6 000
K	Loan from Banco de Fomento (5 years)	25 000
L	Debt to partner F. Leite (6 months)	9 000
M	Patent	3 000

	ADDITIONAL DATA	VALUES (euros)
N	Share capital	68 000
O	Year earnings	*To be determined*

3.

During this year, a company had the following expenditures and income:

1. Sales worth € 500,000.
2. Costs of raw materials consumed of 66,000 €.
3. Insurance, communications, water and electricity costs of € 52,000.
4. Personnel costs of 70,000 €.
5. € 15,000 profit on the sale of an old production line.
6. Dividends of € 10,000 related to a shareholding in another company.
7. Depreciation of non-current assets of € 112,000.
8. Interest on bank loans totaling € 5,000.

Assuming a 25% tax rate, organize the profit and loss statement from the amounts indicated.

4.

For the coming year, a small commercial enterprise expects to have the following costs and income:

1. Sales of goods worth € 150,000.
2. Costs of purchase of goods sold of 75,000 €.
3. Insurance, communications, water and electricity costs of € 7,500.
4. Personnel costs of 33,000 €.
5. Loss of € 5,000 on the sale of a commercial vehicle.
6. Amortization of current assets in the amount of € 10,000.
7. Interest on bank loans totaling € 3,500.

i) Assuming a 25% tax rate, organize the estimated profit and loss statement from the amounts indicated.

ii) Considering that the ratio between the value of sales and spending on goods remains constant, calculate the minimum value of sales that ensures a non-negative net result.

5.

State the *immediate* effects of the *transactions* listed in the following table on assets, liabilities and net earnings. Use (+) to indicate an increase, (-) to indicate a decrease, and (0) to indicate no effect or an undetermined effect. Assume and explain the assumptions you deem necessary.

Transaction	**Assets**	**Liabilities**	**Net earnings**
Sale of goods in cash			
Customer payment for previous credit sale			
Credit purchase of goods			
Payment to vendor/provider for previous credit purchase			
Payment of staff remuneration			
Acquisition of tangible non-current assets, resorting to a bank loan			
Sale of tangible non-current assets for less than their net value			
Payment of income tax due for previous year			

6.

Consider the following movements. Which accounts (or classes of accounts) do these movements reflect on? How (indicate in which classes the value is added or subtracted)? Which of these movements represent costs and income (thus changing the “earnings”)?

A. Cash purchase of a computer (1,200 €).

B. Employee A paid € 500 to repay part of a (recent) debt.

C. Sale, for € 600, of a computer that had been bought 2 years ago for € 1,000, and amortized at 25% per annum (60-day payment).

D. Purchase of € 1,000 raw materials from ZYX (30-day payment).

E. Payment to a supplier of 700 € of the outstanding amount.

F. Sale of stock for € 4,000 (valued at € 3,600) - paid in cash.

G. Purchase of a computer worth € 1,000 from company Rosa (€ 400 in cash and € 600 in 30 days).

H. Company receives € 2,000 from customer Yellow

7.

A trading company plans to start business in January 2019, with a registered capital (owners' shares) of 50,000 €.

In the last quarter of 2018, the partners have been conducting some market surveys and studying various operating scenarios, and expect to perform the following global operations in 2019:

1. Acquisition of a small space with office and warehouse for 40.000 €.
2. Acquisition of equipment worth € 9,000 through bank financing, repayable at 3 years, with annual interest of 15% paid at the beginning of each year.
3. Purchases of goods for sale, worth 80,000 €, and is expected to close the year with 10,000 € in stock. Payments will be made within 60 days.
4. Sales totaling € 120,000, with 30-day customer receipt.
5. Personnel costs of 30,000 €.
6. Estimated insurance, communications, water and electricity costs of € 5,000.
7. Depreciation of non-current assets at an annual rate of 20%.
8. Tax payment at 30% rate the following year.

Build the provisional balance sheet and the income statement for the next year.

8.1.

One company produces looms for the textile industry, which sells for a unit price of 100,000 €. The company's fixed costs are 2,000,000 € and the variable unit costs 50,000 €. Last year, the company sold 50 units. The following elements about the company's activity in this year are also known:

Amortization of non-current assets	250,000 €
Income on capital (equity) investments	45,000 €
Extraordinary income	25,000 €
Taxes	96,000 €

Based on the elements provided, construct the income statement and calculate operating, financial, current, extraordinary, pre-tax and net income.

8.2.

The balance sheet at the end of last year was as follows:

Assets		**Equity**	
Non-current		Owner's shares	2.500.000,00 €
Intangibles and tangible	2.500.000,00 €	Net earnings	224.000,00 €
Financial	450.000,00 €	**Total equity**	**2.724.000,00 €**
	2.950.000,00 €		
Amortizations	1.000.000,00 €	**Liabilities**	
Total net non-current assets	**1.950.000,00 €**	Accounts payable	
Current		Suppliers	200.000,00 €
Stocks	300.000,00 €	Others	96.000,00 €
Short term accounts receivable (Customers)	100.000,00 €	**Total liabilities**	**296.000,00 €**
Bank	670.000,00 €		
Total current assets	**1.070.000,00 €**		
Total net assets	**3.020.000,00 €**	**Total equity and liabilities**	**3.020.000,00 €**

For the following year, the company forecasts:

1. A 20% increase in the number of units sold.
2. An increase in production capacity, for which it will make investments in space and equipment amounting to € 500,000. This increase will be fully financed by a bank loan, repayable at 5 years, with 10% annual interest on the amount outstanding at the beginning of the year.
3. A 5% increase in expenses.
4. Increase in prices of units sold, also around 5%
5. Maintenance of payment and receipt deadlines.
6. Implementation of a production management improvement plan to maintain end-of-year stocks despite the expected increase in activity.
7. No changes in capital gains and extraordinary results.
8. Maintenance of the amortization rate of non-current assets at an annual rate of 10%.
9. Maintenance of the tax rate at 30%, with the tax to be settled the following year.

Build the balance sheet and the income statement for the coming year.