

~ 1 ~

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

HELLENIC OPEN UNIVERSITY

WROCLAW UNIVERSITY OF ECONOMICS

MASTER'S DEGREE PROGRAMME IN BUSINESS ADMINISTRATION

Programme: **Master in Business Administration (MBA)**

Module: **Financial Management and Accounting (MBA51)**

Academic Year: 2021-2022



First Written Assignment (WA1): Solutions

eap-tutors.com

Subject 1

A. The accounting facts that took place in 2020 form the unadjusted trial balance as follows:

ACCOUNTS	Balance 1/1/2020		Entries 1/1-31/12/2020		Unadjusted Balances 31/12/2020	
	Dr balance	Cr balance	Dr	Cr	Dr balance	Cr balance
Equipment			20.000 €		20.000 €	0 €
Accumulated depreciation: equipment					0 €	0 €
Inventory			160.000 €		160.000 €	0 €
Accounts receivable					0 €	0 €
Prepaid rent					0 €	0 €
Cash			280.000 €	196.500 €	83.500 €	0 €
Share capital				50.000 €	0 €	50.000 €
Retained earnings					0 €	0 €
Bank loan				50.000 €	0 €	50.000 €
Suppliers				10.000 €	0 €	10.000 €
Utilities payable				500 €	0 €	500 €
Taxes payable					0 €	0 €
Sales				180.000 €	0 €	180.000 €
Cost of goods sold					0 €	0 €
Salaries and wages expense			15.000 €		15.000 €	0 €
Insurance expenses			1.500 €		1.500 €	0 €
Interest expenses					0 €	0 €
Depreciation expenses					0 €	0 €
Utilities expenses			3.000 €		3.000 €	0 €
Rent expenses			7.500 €		7.500 €	0 €
Income Tax					0 €	0 €
Net Income					0 €	0 €
TOTALS	0 €	0 €	487.000 €	487.000 €	290.500 €	290.500 €

The entries are mostly cash entries, except point g, where we assume that 10.000 euros of inventory was purchased on credit (owed to suppliers). As such inventory is debited by 160.000 euros (150.000 on cash and 10.000 euros on credit).

Information a to d form the adjusting entries, which lead to the adjusted trial balance as follows:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

ACCOUNTS	Unadjusted Balances 31/12/2020		Adjusting entries 31/12/2020		Adjusted Balances 31/12/2020	
	Dr balance	Cr balance	Dr	Cr	Dr balance	Cr balance
Equipment	20.000 €	0 €			20.000 €	0 €
Accumulated depreciation: equipment	0 €	0 €		1.875 €	0 €	1.875 €
Inventory	160.000 €	0 €	50.000 €	160.000 €	50.000 €	0 €
Accounts receivable	0 €	0 €			0 €	0 €
Prepaid rent	0 €	0 €	1.500 €		1.500 €	0 €
Cash	83.500 €	0 €			83.500 €	0 €
Share capital	0 €	50.000 €			0 €	50.000 €
Retained earnings	0 €	0 €			0 €	0 €
Bank loan	0 €	50.000 €		3.000 €	0 €	53.000 €
Suppliers	0 €	10.000 €			0 €	10.000 €
Utilities payable	0 €	500 €			0 €	500 €
Taxes payable	0 €	0 €			0 €	0 €
Sales	0 €	180.000 €			0 €	180.000 €
Cost of goods sold	0 €	0 €	160.000 €	50.000 €	110.000 €	0 €
Salaries and wages expense	15.000 €	0 €			15.000 €	0 €
Insurance expenses	1.500 €	0 €			1.500 €	0 €
Interest expenses	0 €	0 €	3.000 €		3.000 €	0 €
Depreciation expenses	0 €	0 €	1.875 €		1.875 €	0 €
Utilities expenses	3.000 €	0 €			3.000 €	0 €
Rent expenses	7.500 €	0 €		1.500 €	6.000 €	0 €
Income Tax	0 €	0 €			0 €	0 €
Net Income	0 €	0 €			0 €	0 €
TOTALS	290.500 €	290.500 €	216.375 €	216.375 €	295.375 €	295.375 €

On 31.12.2020 the interest expense should be recognized (even though not yet payable). The interest expense is:

$$50.000 \times 8\% \times \frac{9}{12} = 3.000$$

Since the correct balance of inventory at 31.12.2020 is 50.000 euros, we need to credit the unadjusted balance of 160.000 euros and debit cost of goods sold. Then we debit inventory with the correct amount of 50.000 euros and credit cost of goods sold. As such, the balance of inventory amounts to 50.000 euros and the cost of goods sold are calculated at 110.000 euros.

The depreciation of equipment for 2020 is:

$$\frac{(\text{Equipment Cost} - \text{Residual value})}{\text{Useful life}} \times \frac{\text{months used}}{12} = \frac{(20.000 - 0)}{8} \times \frac{9}{12} = 1.875$$

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

As such depreciation expense is debited by the aforementioned amount and accumulated depreciation is credited.

Out of the 7.500 euros that have been paid for rents, 1.500 euros refer to 2021 (3 months * 500 euros). This amount should be credited to rent expense and debited to prepaid rents.

Now that we have the adjusted balances, we can go for the final trial balance. We close out all expense and revenues to a net income account. Closing out all expenses and revenues we get earnings before tax 39.625 euros. The income tax (at 20%) is 3.170 euros (we debit income tax expense and credit taxes payable). Closing out the income tax expense to net income we get a net income of 36.455 euros. Finally we close the account net income (debit 36.455) and transfer the result (credit) to retained earnings.

TRIAL BALANCES						
ACCOUNTS	Adjusted Balances 31/12/2020		Net Income entries 31/12/2020		FINAL BALANCE 31/12/2020	
	Dr balance	Cr balance	Dr	Cr	Dr balance	Cr balance
Equipment	20.000 €	0 €			20.000 €	0 €
Accumulated depreciation: equipment	0 €	1.875 €			0 €	1.875 €
Inventory	50.000 €	0 €			50.000 €	0 €
Accounts receivable	0 €	0 €			0 €	0 €
Prepaid rent	1.500 €	0 €			1.500 €	0 €
Cash	83.500 €	0 €			83.500 €	0 €
Share capital	0 €	50.000 €			0 €	50.000 €
Retained earnings	0 €	0 €		36.455 €	0 €	36.455 €
Bank loan	0 €	53.000 €			0 €	53.000 €
Suppliers	0 €	10.000 €			0 €	10.000 €
Utilities payable	0 €	500 €			0 €	500 €
Taxes payable	0 €	0 €		3.170 €	0 €	3.170 €
Sales	0 €	180.000 €	180.000 €		0 €	0 €
Cost of goods sold	110.000 €	0 €		110.000 €	0 €	0 €
Salaries and wages expense	15.000 €	0 €		15.000 €	0 €	0 €
Insurance expenses	1.500 €	0 €		1.500 €	0 €	0 €
Interest expenses	3.000 €	0 €		3.000 €	0 €	0 €
Depreciation expenses	1.875 €	0 €		1.875 €	0 €	0 €
Utilities expenses	3.000 €	0 €		3.000 €	0 €	0 €
Rent expenses	6.000 €	0 €		6.000 €	0 €	0 €
Income Tax	0 €	0 €	3.170 €	3.170 €	0 €	0 €
Net Income	0 €	0 €	180.000 €	180.000 €	0 €	0 €
TOTALS	295.375 €	295.375 €	363.170 €	363.170 €	155.000 €	155.000 €

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

Now we can prepare the balance sheet:

BALANCE SHEET 31/12/2020			
ABC			
ASSETS		LIABILITIES & EQUITY	
Fixed Assets		Shareholders' Equity	
Equipment	20.000 €	Share capital	50.000 €
Minus: Accumulated depreciation: equipment	-1.875 €	Retained earnings	36.455 €
Total Fixed Assets	18.125 €	Total Shareholders' Equity	86.455 €
		Total Long-term Liabilities	0 €
Current Assets		Current Liabilities	
Inventory	50.000 €	Bank loan	53.000 €
Accounts receivable	0 €	Suppliers	10.000 €
Prepaid rent	1.500 €	Utilities payable	500 €
Cash	83.500 €	Taxes payable	3.170 €
Total Current Assets	135.000 €	Total Current Liabilities	66.670 €
Total Assets	153.125 €	Total Liabilities & Equity	153.125 €



eap-tutors.com

- B. The company has failed to conform with the following accounting principles:
1. The complete disclosure principle. Being sued for 1.000.000 euros is a serious case. If a legal assessment is feasible about the probable amount (if any) of the outcome, a provision should appear in the financial statements. If a probable amount cannot be estimated, then the fact that the company is sued for 1.000.000 euros should be disclosed in the Notes.
 2. The matching principle. The matching principle commands that expenses will be recognized if they helped the formation of the year's revenues. The equipment will contribute to the revenues for many years (its useful life is obviously more than a year). As such the equipment should be depreciated (expensed) over its useful life.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

3. The business entity principle. The company is an entity which should not be confused with its shareholders or managers. The personal expenses of the XT is his/her expenses not the company's expenses.
4. The accrual basis principle. Revenues are recognized when they are earned, i.e. when the product or service has been rendered. An order from a customer does not mean that the revenue has been earned and recording the order amount as a revenue is premature.
5. The equal time intervals principle and the complete disclosure principle. Not having published financial statements for over four years deprives investors and users of financial statements of crucial information needed for decision making.
6. The historical cost principle. When the machinery is purchased it should be recorded at the transaction price.



Subject 2

A. The adjusting entries of 31.12.2020 are as follows:

JOURNAL - ADJUSTING ENTRIES		
	Debit	Credit
-----[a]-----		
Depreciation expense	1.500,00 €	
Accumulated depreciation - Buildings		1.500,00 €
<i>"Account for depreciation of buildings in 2020"</i>		
-----[b]-----		
Depreciation expense	11.250,00 €	
Accumulated depreciation - Equipment		11.250,00 €
<i>"Account for depreciation of equipment in 2020"</i>		
-----[c]-----		
Insurance expense	1.750,00 €	
Prepaid insurance		1.750,00 €
<i>"Expense insurance that has expired in 2020"</i>		
-----[d]-----		
Accounts receivable	590,00 €	
Revenues from renting hotel facilities		590,00 €
<i>"Recognize revenues from renting hotel facilities for November and December (=2 months*2950 euros/10 months)"</i>		
-----[e]-----		
Bad debt expense	159,00 €	
Allowance for doubtful accounts		159,00 €
<i>"Adjust allowance for doubtful accounts so as their balance amount to 10% of accounts receivable [Balance = 10%*(6500+590) = 709; so credit allowance with 709-550=159]"</i>		
-----[f]-----		
Salaries and wages expense	1.800,00 €	
Salaries and wages payable		1.800,00 €
<i>"Recognize wages expense for November & December, which is owed"</i>		
-----[g]-----		
Revenues from accommodation	4.450,00 €	
Unearned revenue		4.450,00 €
<i>"Adjust for unearned revenues"</i>		
TOTALS	21.499,00 €	21.499,00 €

As such, the general ledger will be as follows:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

GENERAL LEDGER - ADJUSTING ENTRIES			
ASSETS' ACCOUNTS			
Land		Buildings	
Unadjusted balance 31.12	175.000,00 €	Unadjusted balance 31.12	60.000,00 €
Adjusted balance 31.12	175.000,00 €	Adjusted balance 31.12	60.000,00 €
Equipment		Accumulated depreciation - Buildings	
Unadjusted balance 31.12	75.000,00 €	19.200,00 €	Unadjusted balance 31.12
Adjusted balance 31.12	75.000,00 €	1.500,00 €	[a]
Accumulated depreciation - Equipment		Prepaid insurance	
	35.000,00 €	Unadjusted balance 31.12	4.500,00 €
	11.250,00 €		1.750,00 €
		Adjusted balance 31.12	2.750,00 €
	46.250,00 €		
		Adjusted balance 31.12	2.750,00 €
Cash		Accounts receivable	
Unadjusted balance 31.12	7.500,00 €	Unadjusted balance 31.12	6.500,00 €
Adjusted balance 31.12	7.500,00 €	[d]	590,00 €
		Adjusted balance 31.12	7.090,00 €
		Allowance for doubtful accounts	
		550,00 €	Unadjusted balance 31.12
		159,00 €	[e]
		709,00 €	Adjusted balance 31.12
LIABILITIES & EQUITY ACCOUNTS			
Share capital		Retained earnings	
	200.000,00 €	Unadjusted balance 31.12	41.000,00 €
		Adjusted balance 31.12	41.000,00 €
	200.000,00 €		
		Adjusted balance 31.12	41.000,00 €
Unearned revenue		Salaries and wages payable	
	0,00 €	Unadjusted balance 31.12	0,00 €
	4.450,00 €		[f]
		Adjusted balance 31.12	1.800,00 €
	4.450,00 €		
		Adjusted balance 31.12	1.800,00 €

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

PROFIT AND LOSS ACCOUNTS			
Revenues from accommodation		Revenues from renting hotel facilities	
[g]	4.450,00 €	100.000,00 €	Unadjusted balance 31.12
			2.950,00 € Unadjusted balance 31.12
			590,00 € [d]
		95.550,00 €	Adjusted balance 31.12
			3.540,00 € Adjusted balance 31.12
Revenues from restaurants		Utilities expense	
		8.800,00 €	Unadjusted balance 31.12
			27.000,00 €
		8.800,00 €	Adjusted balance 31.12
			Adjusted balance 31.12 27.000,00 €
Salaries and wages expense		Maintenance and repairs expense	
Unadjusted balance 31.12	40.000,00 €	Unadjusted balance 31.12	12.000,00 €
[f]	1.800,00 €		
Adjusted balance 31.12	41.800,00 €	Adjusted balance 31.12	12.000,00 €
Depreciation expense		Insurance expense	
Unadjusted balance 31.12	0,00 €	Unadjusted balance 31.12	0,00 €
[a]	1.500,00 €	[c]	1.750,00 €
[b]	11.250,00 €		
Adjusted balance 31.12	12.750,00 €	Adjusted balance 31.12	1.750,00 €
Bad debt expense			
Unadjusted balance 31.12	0,00 €		
[e]	159,00 €		
Adjusted balance 31.12	159,00 €		

Then the adjusted trial balance on 31.12.2020 will be as follows:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

ACCOUNTS	Unadjusted Balances 31/12/2020		Adjusting entries 31/12/2020		Adjusted Balances 31/12/2020	
	Dr balance	Cr balance	Dr	Cr	Dr balance	Cr balance
Cash	7.500 €		0 €	0 €	7.500 €	0 €
Accounts receivable	6.500 €		590 €	0 €	7.090 €	0 €
Allowance for doubtful accounts		550 €	0 €	159 €	0 €	709 €
Prepaid insurance	4.500 €		0 €	1.750 €	2.750 €	0 €
Land	175.000 €		0 €	0 €	175.000 €	0 €
Buildings	60.000 €		0 €	0 €	60.000 €	0 €
Accumulated depreciation - Buildings		19.200 €	0 €	1.500 €	0 €	20.700 €
Equipment	75.000 €		0 €	0 €	75.000 €	0 €
Accumulated depreciation - Equipment		35.000 €	0 €	11.250 €	0 €	46.250 €
Share capital		200.000 €	0 €	0 €	0 €	200.000 €
Retained earnings		41.000 €	0 €	0 €	0 €	41.000 €
Unearned revenue			0 €	4.450 €	0 €	4.450 €
Salaries and wages payable			0 €	1.800 €	0 €	1.800 €
Taxes payable			0 €	0 €	0 €	0 €
Revenues from accommodation		100.000 €	4.450 €	0 €	0 €	95.550 €
Revenues from renting hotel facilities		2.950 €	0 €	590 €	0 €	3.540 €
Revenues from restaurants		8.800 €	0 €	0 €	0 €	8.800 €
Utilities expense	27.000 €		0 €	0 €	27.000 €	0 €
Salaries and wages expense	40.000 €		1.800 €	0 €	41.800 €	0 €
Maintenance and repairs expense	12.000 €		0 €	0 €	12.000 €	0 €
Depreciation expense			12.750 €	0 €	12.750 €	0 €
Insurance expense			1.750 €	0 €	1.750 €	0 €
Bad debt expense			159 €	0 €	159 €	0 €
Income Tax			0 €	0 €	0 €	0 €
Net Income			0 €	0 €	0 €	0 €
TOTALS	407.500 €	407.500 €	21.499 €	21.499 €	422.799 €	422.799 €

The next step is to record the closing entries, i.e. close out all revenues and expenses accounts, calculate income tax, calculate the net income and finally transfer the net income to the retained earnings.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

JOURNAL - CLOSING ENTRIES		
	Debit	Credit
-----[1]-----		
Revenues from accommodation	95.550,00 €	
Revenues from renting hotel facilities	3.540,00 €	
Revenues from restaurants	8.800,00 €	
Net Income		107.890,00 €
<i>"Close out revenues to net income account"</i>		
-----[2]-----		
Net Income	95.459,00 €	
Utilities expense		27.000,00 €
Salaries and wages expense		41.800,00 €
Maintenance and repairs expense		12.000,00 €
Depreciation expense		12.750,00 €
Insurance expense		1.750,00 €
Bad debt expense		159,00 €
<i>"Close out expenses to net income account"</i>		
-----[3]-----		
Income Tax	2.486,20 €	
Taxes payable		2.486,20 €
<i>"Calculate and account for income tax @20%"</i>		
-----[4]-----		
Net Income	2.486,20 €	
Income Tax		2.486,20 €
<i>"Close out income tax expense to net income account"</i>		
-----[5]-----		
Net Income	9.944,80 €	
Retained earnings		9.944,80 €
<i>"Close out net income account to retained earnings"</i>		
TOTALS	218.266,20 €	218.266,20 €

As such, the general ledger will be as follows:

GENERAL LEDGER - CLOSING ENTRIES			
ASSETS' ACCOUNTS			
Land		Buildings	
Adjusted balance 31.12	175.000,00 €	Adjusted balance 31.12	60.000,00 €
Final balance 31.12	175.000,00 €	Final balance 31.12	60.000,00 €
Equipment		Accumulated depreciation - Buildings	
Adjusted balance 31.12	75.000,00 €		20.700,00 € Adjusted balance 31.12
Final balance 31.12	75.000,00 €		20.700,00 € Final balance 31.12
Accumulated depreciation - Equipment		Prepaid insurance	
	46.250,00 € Adjusted balance 31.12	Adjusted balance 31.12	2.750,00 €
	46.250,00 € Final balance 31.12	Final balance 31.12	2.750,00 €
Cash		Accounts receivable	
Adjusted balance 31.12	7.500,00 €	Adjusted balance 31.12	7.090,00 €
Final balance 31.12	7.500,00 €	Final balance 31.12	7.090,00 €
		Allowance for doubtful accounts	
			709,00 € Adjusted balance 31.12
			709,00 € Final balance 31.12
LIABILITIES & EQUITY ACCOUNTS			
Share capital		Retained earnings	
	200.000,00 € Adjusted balance 31.12		41.000,00 € Adjusted balance 31.12
	200.000,00 € Final balance 31.12		9.944,80 € [5]
			50.944,80 € Final balance 31.12
Unearned revenue		Salaries and wages payable	
	4.450,00 € Adjusted balance 31.12		1.800,00 € Adjusted balance 31.12
	4.450,00 € Final balance 31.12		1.800,00 € Final balance 31.12
Taxes payable			
	0,00 € Adjusted balance 31.12		
	2.486,20 € [3]		
	2.486,20 € Final balance 31.12		

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

PROFIT AND LOSS ACCOUNTS			
Revenues from accommodation		Revenues from renting hotel facilities	
[1]	95.550,00 €	95.550,00 €	Adjusted balance 31.12
		0,00 €	Final balance 31.12
		3.540,00 €	Adjusted balance 31.12
		0,00 €	Final balance 31.12
Revenues from restaurants		Utilities expense	
[1]	8.800,00 €	8.800,00 €	Adjusted balance 31.12
		27.000,00 €	[2]
		0,00 €	Final balance 31.12
		27.000,00 €	[2]
		0,00 €	Final balance 31.12
Salaries and wages expense		Maintenance and repairs expense	
Adjusted balance 31.12	41.800,00 €	41.800,00 €	[2]
		12.000,00 €	[2]
		0,00 €	Final balance 31.12
		12.000,00 €	[2]
		0,00 €	Final balance 31.12
Depreciation expense		Insurance expense	
Adjusted balance 31.12	12.750,00 €	12.750,00 €	[2]
		1.750,00 €	[2]
		0,00 €	Final balance 31.12
		1.750,00 €	[2]
		0,00 €	Final balance 31.12
Bad debt expense		Income Tax	
Adjusted balance 31.12	159,00 €	159,00 €	[2]
		0,00 €	Adjusted balance 31.12
		2.486,20 €	[3]
		0,00 €	Final balance 31.12
		2.486,20 €	[4]
		0,00 €	Final balance 31.12
Net Income			
		0,00 €	Adjusted balance 31.12
		107.890,00 €	[1]
[2]	95.459,00 €		
[4]	2.486,20 €		
[5]	9.944,80 €	9.944,80 €	Final balance 31.12

Then the final trial balance on 31.12.2020 will be as follows:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

ACCOUNTS	Adjusted Balances 31/12/2020		Closing entries 31/12/2020		Final Balances 31/12/2020	
	Dr balance	Cr balance	Dr	Cr	Dr balance	Cr balance
Cash	7.500 €	0 €	0 €	0 €	7.500 €	0 €
Accounts receivable	7.090 €	0 €	0 €	0 €	7.090 €	0 €
Allowance for doubtful accounts	0 €	709 €	0 €	0 €	0 €	709 €
Prepaid insurance	2.750 €	0 €	0 €	0 €	2.750 €	0 €
Land	175.000 €	0 €	0 €	0 €	175.000 €	0 €
Buildings	60.000 €	0 €	0 €	0 €	60.000 €	0 €
Accumulated depreciation - Buildings	0 €	20.700 €	0 €	0 €	0 €	20.700 €
Equipment	75.000 €	0 €	0 €	0 €	75.000 €	0 €
Accumulated depreciation - Equipment	0 €	46.250 €	0 €	0 €	0 €	46.250 €
Share capital	0 €	200.000 €	0 €	0 €	0 €	200.000 €
Retained earnings	0 €	41.000 €	0 €	9.945 €	0 €	50.945 €
Unearned revenue	0 €	4.450 €	0 €	0 €	0 €	4.450 €
Salaries and wages payable	0 €	1.800 €	0 €	0 €	0 €	1.800 €
Taxes payable	0 €	0 €	0 €	2.486 €	0 €	2.486 €
Revenues from accommodation	0 €	95.550 €	95.550 €	0 €	0 €	0 €
Revenues from renting hotel facilities	0 €	3.540 €	3.540 €	0 €	0 €	0 €
Revenues from restaurants	0 €	8.800 €	8.800 €	0 €	0 €	0 €
Utilities expense	27.000 €	0 €	0 €	27.000 €	0 €	0 €
Salaries and wages expense	41.800 €	0 €	0 €	41.800 €	0 €	0 €
Maintenance and repairs expense	12.000 €	0 €	0 €	12.000 €	0 €	0 €
Depreciation expense	12.750 €	0 €	0 €	12.750 €	0 €	0 €
Insurance expense	1.750 €	0 €	0 €	1.750 €	0 €	0 €
Bad debt expense	159 €	0 €	0 €	159 €	0 €	0 €
Income Tax	0 €	0 €	2.486 €	2.486 €	0 €	0 €
Net Income	0 €	0 €	107.890 €	107.890 €	0 €	0 €
TOTALS	422.799 €	422.799 €	218.266 €	218.266 €	327.340 €	327.340 €

B. Under the matching principle, the firm should recognize in a given fiscal period only the expenses that helped the firm generate the revenues that have been recognized (under the revenue recognition principle).

The depreciation in its very essence is a way of matching properly and fairly expenses to the revenues. When a company purchases a tangible asset for instance, will not (and should not) expense it all in once, since this asset will help the company to generate revenue for years to come.

But will it help the same all through the asset's useful life? Or will it be of more help in the early years? These questions lead us to the depreciation methods.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

The matching principle is the one that commands our resolution upon whether an expense is to be capitalized (recorded as an asset) or not.

Accruals-basis accounting depicts the implications of a transaction at the very point that this transaction takes place, regardless whether the transaction involves an immediate cash flow (inflow or outflow) or not.

On the other hand, cash-basis accounting considers the transactions that are arranged in cash.

For instance, let us consider a company that sold a car to a customer, at the price of 10,000 euros. The car is recorded as merchandise (not an expense) in the company's accounting books at a cost of 4,000 euros. The agreement is for the company to be paid after 5 months.

Under the accrual accounting the revenue and the associated cost of goods sold will be recognized at the time of the sale (the asset will be expensed) and will have a positive effect on the company's wealth by 6,000 euros (revenue – cost of goods sold). Although the company has not collected yet the cash, it is entitled to the 6,000 euros profit, and expects to receive the cash (10,000 euros) after a while. That is, although that the revenue of 10.000€ is not yet cashed in, it is still an accrued revenue.

Accrual accounting will depict all this information by:

- Recognizing the revenue and the appropriate cost at the time of the sale.
- Until the sale the cost is not realized, however it is recorded as an asset in our balance sheet (merchandise account)
- That is there is a matching of revenues to the expenses used to create these revenues
- The amount of the sale yet to be collected is recorded as a claim in our balance sheet (Accounts receivable).

~ 16 ~

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

On the other hand, there are also the deferred items. Suppose that on November 1st 2020 we pay 12.000€ for rent for the next 12 months. At this point the rent is not yet an expense, but rather a claim (asset). As such we debit a claim in assets called “Prepaid expenses (rents)” and we credit the cash account.



Subject 3

A. The journal entries for the 3 independent situations are as follows:

#	Entries	Dr	Cr
[1a]	Depreciation expense Accumulated depreciation of machine <i>"Account for 2021 depreciation (=4.800*5/12) i.e. for 5 months"</i>	2.000 €	2.000 €
[1b]	Insurance receivable Accumulated depreciation of machine Loss from machine damage Machine <i>"Machine destroyed on June 1, 2021"</i>	30.000 € 15.600 € 4.400 €	50.000 €
[2a]	Depreciation expense Accumulated depreciation of machine <i>"Account for 2022 depreciation (=4.800*10/12) i.e. for 10 months"</i>	4.000 €	4.000 €
[2b]	Cash Accumulated depreciation of machine Gain on sale of machine Machine <i>"Sale of machine on November 1, 2022 for 32.000€ cash"</i>	32.000 € 22.400 €	4.400 € 50.000 €
[3a]	Depreciation expense Accumulated depreciation of machine <i>"Account for 2020 depreciation (=4.800*6/12) i.e. for 6 months"</i>	2.400 €	2.400 €
[3b]	New equipment Accumulated depreciation of machine Machine <i>"Exchange of machine with new equipment with no additional cash"</i>	38.800 € 11.200 €	50.000 €

The annual depreciation of the machine is calculated as follows (under the straight-line method):

$$\text{Annual Depreciation} = \frac{\text{Cost} - \text{Residual value}}{\text{Useful life}} = \frac{50.000 - 2.000}{10} = 4.800$$

[1]

$$\text{Depreciation}_{2018} = 4.800 \times \frac{10}{12} = 4.000$$

$$\text{Depreciation}_{2019} = \text{Depreciation}_{2020} = 4.800$$

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

$$\text{Depreciation}_{2021} = 4.800 \times \frac{5}{12} = 2.000$$

$$\text{Accumulated Depreciation}_{30.5.2021} = 4.000 + 4.800 + 4.800 + 2.000 = 15.600$$

[2]

$$\text{Depreciation}_{2018} = 4.800 \times \frac{10}{12} = 4.000$$

$$\text{Depreciation}_{2019} = \text{Depreciation}_{2020} = \text{Depreciation}_{2021} = 4.800$$

$$\text{Depreciation}_{2022} = 4.800 \times \frac{10}{12} = 4.000$$

$$\begin{aligned} \text{Accumulated Depreciation}_{31.10.2022} &= 4.000 + 4.800 + 4.800 + 4.800 + 4.000 \\ &= 22.400 \end{aligned}$$

[3]

$$\text{Depreciation}_{2018} = 4.800 \times \frac{10}{12} = 4.000$$

$$\text{Depreciation}_{2019} = 4.800$$

$$\text{Depreciation}_{2020} = 4.800 \times \frac{6}{12} = 2.400$$

$$\text{Accumulated Depreciation}_{31.10.2022} = 4.000 + 4.800 + 2.400 = 11.200$$

B. The fully depreciated asset should be disclosed in the balance sheet at book value of 0,01 euros (cost minus accumulated depreciation). A non-disclosure on the balance sheet violates the complete disclosure principle. Although the book value maybe immaterial, the cost and accumulated depreciation is not. Also, not presenting the item on the balance sheet is as if the asset has been deleted from the accounts, which obviously is erroneous since the asset has not been sold or destroyed.

Subject 4

A. First, we assume that the net realizable value is higher than the cost of inventory (keep in mind that the selling price is well above the cost).

The calculation of the ending inventory according to the weighted average cost method (periodic inventory system) at 31/12/2020, as well as the calculation of cost of goods sold for 2020 is shown in the following figure:

PERIODIC INVENTORY SYSTEM - WEIGHTED AVERAGE METHOD - DECEMBER 2020							
	Units	Unit cost	Value	Sold units	COGS	Ending Inventory (units)	Ending Inventory (method valuation)
Initial Inventory	200	€10,00	€2.000,00				
Purchase #1	150	€12,00	€1.800,00				
Purchase #2	120	€15,00	€1.800,00				
Purchase #4	170	€16,00	€2.720,00				
	640	€13,00	€8.320,00	300	€3.900,00	340	€4.420,00
Net realizable value @ 31/12		€16,00					€5.440,00
Avg sale price		€20,00					
Ending Inventory value							€4.420,00

The initial inventory plus the purchases during 2020 amount to 640 units with a total cost of 8.320€. This means that the average cost per unit is:

$$\text{Avg unit cost} = \frac{8.320\text{€}}{640 \text{ units}} = 13,00\text{€ per unit}$$

Since 300 units have been sold during 2020, the ending inventory consists of 640 – 300 = 340 units, valued at:

$$\text{Ending inventory value} = 340 \text{ units} \times 13,00\text{€ per unit} = 4.420\text{€}$$

And the cost of goods sold for 2020 is:

$$\begin{aligned} \text{COGS} &= \text{Cost of initial Inventory plus Purchases} - \text{Ending inventory value} \\ &= 8.320\text{€} - 4.420\text{€} = 3.900\text{€} \end{aligned}$$

So, the Income Statement for 2020 will be restated as follows:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

Income Statement 1/12 - 31/12/2020	
Sales	€6.000,00
COGS	-€3.900,00
Gross Profit	€2.100,00
Other expenses	-€1.500,00
EBT	€600,00
Tax @ 20%	-€120,00
Net Income	€480,00

The calculation of the ending inventory according to the F.I.F.O. cost method (periodic inventory system) at 31/12/2020, as well as the calculation of cost of goods sold for 2020 is shown in the following figure:

PERIODIC INVENTORY SYSTEM - F.I.F.O. METHOD - DECEMBER 2020							
	Units	Unit cost	Value	Sold units	COGS	Ending Inventory (units)	Ending Inventory (method valuation)
Initial Inventory	200	€10,00	€2.000,00	200		0	€0,00
Purchase #1	150	€12,00	€1.800,00	100		50	€600,00
Purchase #2	120	€15,00	€1.800,00	0		120	€1.800,00
Purchase #3	170	€16,00	€2.720,00	0		170	€2.720,00
	640		€8.320,00	300	€3.200,00	340	€5.120,00
Net realizable value @ 31/12		€16,00					€5.440,00
Avg sale price		€20,00					
Ending Inventory value							€5.120,00

The initial inventory plus the purchases during 2020 amount to 640 units with a total cost of 8.320€.

Since 300 units have been sold during 2020, the ending inventory consists of 640 – 300 = 340 units, of which 50 units are from the 1st purchase with a cost of 600 euros, 120 units are from the 2nd purchase with a cost of 1.800 euros and 170 units come from the 3rd purchase with a cost of 2.720 euros, thus total cost of ending inventory 5.120 euros.

So, the cost of goods sold for 2020 is:

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

$$\begin{aligned} \text{COGS} &= \text{Cost of initial Inventory plus Purchases} - \text{Ending inventory value} \\ &= 8.320\text{€} - 5.120\text{€} = 3.200\text{€} \end{aligned}$$

So, the Income Statement for 2020 will be restated as follows:

Income Statement 1/12 - 31/12/2020	
Sales	€6.000,00
COGS	-€3.200,00
Gross Profit	€2.800,00
Other expenses	-€1.500,00
EBT	€1.300,00
Tax @ 20%	-€260,00
Net Income	€1.040,00

The calculation of the ending inventory according to the L.I.F.O. cost method (periodic inventory system) at 31/12/2020, as well as the calculation of cost of goods sold for 2020 is shown in the following figure:

PERIODIC INVENTORY SYSTEM - L.I.F.O. METHOD - DECEMBER 2020							
	Units	Unit cost	Value	Sold units	COGS	Ending Inventory (units)	Ending Inventory (method valuation)
Initial Inventory	200	€10,00	€2.000,00	0		200	€2.000,00
Purchase #1	150	€12,00	€1.800,00	10		140	€1.680,00
Purchase #2	120	€15,00	€1.800,00	120		0	€0,00
Purchase #4	170	€16,00	€2.720,00	170		0	€0,00
	640		€8.320,00	300	€4.640,00	340	€3.680,00
Net realizable value @ 31/12		€16,00					€5.440,00
Avg sale price		€20,00					
Ending Inventory value							€3.680,00

The initial inventory plus the purchases during 2020 amount to 640 units with a total cost of 8.320€.

Since 300 units have been sold during 2020, the ending inventory consists of 640 – 300 = 340 units, of which 200 units are from the initial inventory with a cost of 2.000 euros and 140 units are from the 1st purchase with a cost of 1.680 euros, thus total cost of ending inventory 3.680 euros.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

So, the cost of goods sold for 2020 is:

$$\begin{aligned} \text{COGS} &= \text{Cost of initial Inventory plus Purchases} - \text{Ending inventory value} \\ &= 8.320\text{€} - 3.680\text{€} = 4.640\text{€} \end{aligned}$$

So, the Income Statement for 2020 will be restated as follows:

Income Statement 1/12 - 31/12/2020	
Sales	€6.000,00
COGS	-€4.640,00
Gross Profit	€1.360,00
Other expenses	-€1.500,00
EBT	-€140,00
Tax @ 20%	€28,00
Net Income	-€112,00

The calculation of the ending inventory according to the Specific Identification cost method (periodic inventory system) at 31/12/2020, as well as the calculation of cost of goods sold for 2020 is shown in the following figure:

PERIODIC INVENTORY SYSTEM - SPECIFIC IDENTIFICATION - DECEMBER 2020							
	Units	Unit cost	Value	Sold units	COGS	Ending Inventory (units)	Ending Inventory (method valuation)
Initial Inventory	200	€10,00	€2.000,00	180		20	€200,00
Purchase #1	150	€12,00	€1.800,00	0		150	€1.800,00
Purchase #2	120	€15,00	€1.800,00	0		120	€1.800,00
Purchase #4	170	€16,00	€2.720,00	120		50	€800,00
	640		€8.320,00	300	€3.720,00	340	€4.600,00
Net realizable value @ 31/12		€16,00					€5.440,00
Avg sale price		€20,00					
Ending Inventory value							€4.600,00

The initial inventory plus the purchases during 2020 amount to 640 units with a total cost of 8.320€.

Since 300 units have been sold during 2020, the ending inventory consists of 640 – 300 = 340 units, of which 20 units are from the initial inventory (since the sale of 180 items is out of the initial inventory) with a cost of 200 euros, 150 units are from the

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

1st purchase with a cost of 1.800 euros, 120 units are from the 2nd purchase with a cost of 1.800 euros and 50 units are from the 4th purchase (since the sale of 120 items is out of the last purchase) with a cost of 800 euros, thus total cost of ending inventory 4.600 euros.

So, the cost of goods sold for 2020 is:

$$\begin{aligned} \text{COGS} &= \text{Cost of initial Inventory plus Purchases} - \text{Ending inventory value} \\ &= 8.320\text{€} - 4.600\text{€} = 3.720\text{€} \end{aligned}$$

So, the Income Statement for 2020 will be restated as follows:

Income Statement	
1/12 - 31/12/2020	
Sales	€6.000,00
COGS	-€3.720,00
Gross Profit	€2.280,00
Other expenses	-€1.500,00
EBT	€780,00
Tax @ 20%	-€156,00
Net Income	€624,00

Due to increasing unit costs, the F.I.F.O. method renders the highest ending inventory cost, the second highest comes from the specific identification method, then comes the weighted average method and the lowest ending inventory cost is rendered by the L.I.F.O. method.

Accordingly, the F.I.F.O. method produces the lowest COGS figure, which, in turn, leads to the highest earnings and highest tax expense. On the other extreme, the L.I.F.O. method produces the highest COGS figure, which, in turn, leads to the lowest earnings and lowest tax expense.

All methods differentiate in the cash proceeds through the income tax they result in. Since L.I.F.O. leads to the lowest tax expense, it also leads to the highest cash flows.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

Now, if the net realizable value is 8 euros per unit, then the ending inventory is valued at 340 units

$$340 \text{ units} \times 8\text{€} = 2.720\text{€}$$

Since the value of the ending inventory is the lowest between the method we follow and the net realizable value, and since the net realizable value is the lowest compared to all methods applied, then in any case the value of the ending inventory will be 2.720 euros. COGS will be in any case:

$$\begin{aligned} \text{COGS} &= \text{Cost of initial Inventory plus Purchases} - \text{Ending inventory value} \\ &= 8.320\text{€} - 2.720\text{€} = 5.600\text{€} \end{aligned}$$

And no matter which method we follow, the income statement will be as follows:

Income Statement 1/12 - 31/12/2020	
Sales	€6.000,00
COGS	-€5.600,00
Gross Profit	€400,00
Other expenses	-€1.500,00
EBT	-€1.100,00
Tax @ 20%	€220,00
Net Income	-€880,00

B. The specific identification cost method implies that a detailed physical count of the inventory is carried forward, in a manner that allows the firm to detect exactly which items were sold and which have remained in the ending inventory. So, knowing the exact items sold, allows us to find the most precise ending inventory value and, accordingly, the most precise COGS. As such, this method is, in theory, the best (i.e. the most exact) method.

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

However, this method is prone to manipulation by the management, since the latter can easily claim either that the cheaper units were sold first (thus blowing up ending inventory, downplaying COGS and boosting Net Income), or that the pricier units were sold first (thus bringing down the value of ending inventory, boosting COGS and lowering Net Income and Taxes).

Furthermore, it is easy to understand that this method is extremely difficult to apply, especially for mass production goods.

The Last-In, First-Out (LIFO)¹ inventory valuation method assigns the most recent costs to the cost of goods sold, thus assigning the earlier costs to the value of the inventory on hand. The possible consequences of such a treatment are as follows:

- Assigning recent costs to cost of goods sold leads to higher cost of goods sold and lower net income during periods of rising prices and/or constant or growing inventories. As such:
 - The cost of goods sold under LIFO approximates the replacement cost of the goods sold
 - LIFO's income-statement orientation provides a better economic interpretation of operating results in inflationary periods
 - On the other hand, inventory levels under LIFO reflect old costs of acquisition and do not reflect current values. This leads to deferring the holding gain (i.e. the inventory profit). Specifically:
 - While under FIFO holding gains on inventory items are recognized in income each period ...
 - ... under LIFO holding gains are more often deferred since inventory is valued at older acquisition costs.
- Reduces income tax in periods of rising prices and/or constant or growing inventories

¹ Horngren T. Charles, Sundem L. Gary, Elliott A. John, Philbrick R. Dona, "Introduction to Financial Accounting", 11e, Pearson, 2014

Απαντήσεις προτεινόμενες – ενδεικτικές. Υπάρχει μόνο ένας καλός τρόπος... ο Δικός σας!

- Management can influence reported income by timing the purchases of inventory items.
- The above consequences are reversed when we are dealing in periods of falling prices and/or constant or shrinking inventories

On the other hand, since it assigns cost of earliest acquired units to cost of goods sold, the First-In, first-Out (FIFO) inventory valuation method stands, the choice of which may lead to:

- Valuations that closely approximate the actual value of the inventory at the balance sheet date
- Higher net income in period of rising prices which in turn may lead to:
 - Favorable investor attitude
 - Higher salaries for management
 - But also leads to higher tax payments
- However, the cost of goods sold under FIFO may be far from the replacement cost of the goods sold, thus leading to serious misstatement of the operating results.

The Weighted Average method stands in between FIFO and LIFO.

LITERATURE

1. Βασιλείου Δ., Ηρειώτης Ν., (2013) “Αρχές Χρηματοοικονομικής Λογιστικής”, 2η έκδοση, Εκδόσεις Rosili
2. Βασιλείου Δ., Ηρειώτης Ν., (2016) “Προχωρημένη Χρηματοοικονομική Λογιστική”, Εκδόσεις Rosili
3. Καραγιώργος Θ., Πετρίδης Α., (2017) “Διεθνή Λογιστικά Πρότυπα: Θεωρία & Πράξη”, Εκδόσεις Αφοι Θ. Καραγιώργου Ο.Ε.
4. Anthony N. R., Hawkins F. D., Merchant A. K., (2013), Accounting: Text and Cases, 13e, McGraw-Hill
5. Harrison W., Horngren Ch., Thomas C., (2015), “Financial Accounting”, 10e, Pearson Education Inc.
6. Horngren T. Charles, Sundem L. Gary, Elliott A. John, Philbrick R. Dona, (2014), “Introduction to Financial Accounting”, 11e, Pearson.
7. Needles B., Powers M., Crosson S., (2014), “Principles of Accounting”, 12e, South-Western, Cengage Learning.
8. Pratt Jamie, (2011), “Financial Accounting in an Economic Context”, 8e, Wiley.