Task IM-9.47: Inventory valuation

ROSEFIELD (Pty) Ltd. is a dealership for drones. The company is established by a share issue of 35,000 shares at 1.00 EUR each. The issue is par value and takes place on 2.01.20X0.
ROSEFIELD (Pty) Ltd. takes a bank loan on 1.07.20X0 and receives an amount of 20,000.00 EUR in its bank account. The bank loan is an annuity and the payment at the end of each Accounting period equals to 2,000.00 EUR. The annual rate of interest is 2.5 %/a.
ROSEFIELD (Pty) Ltd. pays for labour 60,000.00 EUR/a and for rent 12,000.00 EUR/a.
The company buys the following drones and records the inventory movements by a perpetual inventory system. The drones of the same kind are recorded based on the weighted average cost formula. The cost formula strictly applies strictly for all business activities. The prices displayed are net amounts.

date	item	amount	price/u
5.01.20X0	drone-400	80	120.00
5.01.20X0	drone-500	50	200.00
5.01.20X0	drone-1000	30	300.00
1.04.20X0	drone-400	100	125.00
1.04.20X0	drone-500	100	210.00
1.07.20X0	drone-400	75	125.00
1.07.20X0	drone-500	100	215.00
1.07.20X0	drone-1000	20	290.00
1.10.20X0	drone-400	100	125.00
1.10.20X0	drone-1000	25	310.00

All purchases and sales are on bank transfer basis.
On 8.01.20X0, ROSEFIELD (Pty) Ltd. returns 50 faulty drone-400s and receives a cash refund from the supplier. The supplier of the drone-1000 offers a discount on all purchases of the year if and once 50 drone-1000s are bought. The discount is 5 %.
During the Accounting period 20X0, ROSEFIELD (Pty) Ltd. sells 100 drone-400s in the first half of the year and another 148 drone-400s in the second half of the year, all at a net selling price of 200.00 EUR/u, and during the second half of the year (no sales during the first half of the year): 126 drone-500s at a net selling price of 350.00 EUR/u and 61 drone-1000s at a net selling price of 500.00 EUR/u.
3 customers return their drone-500s (1 each) they bought and receive a voucher in return. Assume the returned drone-500s are sold during the accounting period.
The sales manager estimates the remaining drone-1000s can only be sold at a net selling price of 275.00 EUR/u in the next Accounting period, as a new drone-1001 has been launched already.

Required: Make bookkeeping in T-accounts for inventory movements and use 3 accounts for the drones. Prepare a set of financial statements as at 31.12.20X0 that comprises a balance sheet and an income statement. Consider VAT at a rate of 20%.
You receive marks for the Inventory accounts!

Solution:

(1) Share issue

(2) Taking bank loan

(3) Payment of the annuity. The interest portion equals to 2.5% × 20,000 / 2 = **250.00 EUR**. The pay-off amount equals to: 2,000 – 250 = **1,750.00 EUR**.

```
DR Interest .......................      250.00 EUR
DR Interest Bearing Liabilities .....  1,750.00 EUR
CR Cash/Bank ......................    2,000.00 EUR
```

(4) The next year's pay-off amount equals to: 2,000 – (20,000 – 1,750) × 2.5% = **1,543.75 EUR**.

```
DR Interest Bearing Liabilities .....  1,543.75 EUR
CR Accounts Payables ...............   1,543.75 EUR
```

(5) Payment for labour: 60,000.00 EUR

(6) Payment for rent: 12,000.00 EUR

[..] Purchase of drones. The figure represents the purchase amount

(9a, 9b) Return outwards of 50 drone-400s at 120.00 EUR each.

```
DR Cash/Bank .......................   7,200.00 EUR
CR VAT .............................   1,200.00 EUR
CR Returns Outwards ................   6,000.00 EUR
```

and:

```
DR Returns Outwards ................   6,000.00 EUR
CR Inventory DRONE-400 .............   6,000.00 EUR
```

(10a, 10b) Discount received: (9,000 + 5,800 + 7,750) × 120% × 5% = **1,353.00 EUR**.

```
DR Cash/Bank .......................   1,353.00 EUR
CR Discount Received ...............   1,353.00 EUR

DR Discount Received ...............   1,353.00 EUR
CR VAT .............................     225.50 EUR
CR Inventory DRONE-1000 ............   1,127.50 EUR
```

(11) Sale of 248 drone-400s at 200.00 EUR/u (NSP): 248 × 200 = **49,600.00 EUR**.

(12a, 12b) Inventory movement: Calculation of the average costs for the first half of the year: (30 × 120 + 100 × 125)/130 = **123.85 EUR/d**. Inventory movement for the first half of the year: 100 × 123.85 = **12,384.62 EUR**. The second half year's average drone-costs are: (30 × 123.85 + 175 × 125)/205 = **124.83 EUR/d**. Inventory movement for the second half year equals to: 148 × 124.83 = **18,475.01 EUR**.

```
DR Cost of Sales ..................    12,384.62 EUR
CR Inventory DRONE-400 ............    12,384.62 EUR

DR Cost of Sales ..................    18,475.01 EUR
CR Inventory DRONE-400 ............    18,475.01 EUR
```

(13) Sale of 126 drone-500 at 350.00 EUR (NSP). The net amount equals to 126 × 350 = **44,100.00 EUR**.
(14) Inventory movement: 126 × (50 × 200 + 100 × 210 + 100 × 215)/250 = **26,460.00 EUR**.

```
DR Cost of Sales ..................    26,460.00 EUR
CR Inventory DRONE-500 ............    26,460.00 EUR
```

(15) Sale of 61 drone-1000s at 500.00 EUR (NSP): The net amount equals to 61 × 500 = **30,500.00 EUR**.
(16) Inventory movement: 61 × (30 × 300 + 20 × 290 + 25 × 310) × 95%/75 = **17,423.63 EUR**.

```
DR Cost of Sales ..................    17,423.63 EUR
CR Inventory DRONE-1000 ...........    17,423.63 EUR
```

(17) Return of 3 drone-500s. The voucher equals to: 3 × 350 × 120% = **1,260.00 EUR**.

```
DR Returns Inwards ................     1,050.00 EUR
DR VAT ............................       210.00 EUR
CR Accounts Payables ..............     1,260.00 EUR
```

(18) Putting 3 drone-500s on stock: 3 × (50 × 200 + 100 × 210 + 100 × 215)/250 = 3 × 210 = **630.00 EUR**.

```
DR Inventory DRONE-500  ...........       630.00 EUR
CR Cost of Sales ..................       630.00 EUR
```

(19) As the inventory is to be valued at the lower of cost and net realisable value, the drone-1000s are recogised at 14 × 275 = 3,850.00 EUR. There is a loss due to inventory valuation of 3,998.87 – 3,850 = **148.87 EUR**.

DR Loss on Inventory Valuation	148.87 EUR	
CR Inventory DRONE-1000		148.87 EUR

Observe the accounts below:

Cash/Bank

D			C		
(1)	35,000.00	(3)	2,000.00		
(2)	20,000.00	(5)	60,000.00		
(9a)	7,200.00	(6)	12,000.00		
(10a)	1,353.00	[80]	11,520.00		
(11)	59,520.00	[50]	12,000.00		
(13)	52,920.00	[30]	10,800.00		
(15)	36,600.00	[100]	15,000.00		
		[100]	25,200.00		
		[75]	11,250.00		
		[100]	25,800.00		
		[20]	6,960.00		
		[100]	15,000.00		
c/d	4,237.00	[25]	9,300.00		
	216,830.00		216,830.00		
		b/d	4,237.00		

Issued capital

D			C		
c/d	35,000.00	(1)	35,000.00		
	35,000.00		35,000.00		
		b/d	35,000.00		

Interest bearing liabilities IBL

D			C		
(3)	1,750.00	(2)	20,000.00		
(4)	1,543.75				
c/d	16,706.25				
	20,000.00		20,000.00		
		b/d	16,706.25		

Interest

D			C		
(3)	250.00	P&L	250.00		
	250.00		250.00		

Accounts payables A/P

D			C		
		(4)	1,543.75		
c/d	2,803.75	(17)	1,260.00		
	2,803.75		2,803.75		
		b/d	2,803.75		

Labour

D			C		
(5)	60,000.00	c/d	60,000.00		
	60,000.00		60,000.00		
b/d	60,000.00	P&L	60,000.00		

Rent

D			C		
(6)	12,000.00	c/d	12,000.00		
	12,000.00		12,000.00		
b/d	12,000.00	P&L	12,000.00		

Inventory DRONE-400

D			C		
[80]	9,600.00	(9b)	6,000.00		
[100]	12,500.00	(12a)	12,384.62		
[75]	9,375.00	(12b)	18,475.01		
[100]	12,500.00	c/d	7,115.37		
	43,975.00		43,975.00		
b/d	7,115.37				

D	Inventory DRONE-500		C
[50]	10,000.00	(14)	26,460.00
[100]	21,000.00		
[100]	21,500.00		
(18)	630.00	c/d	26,670.00
	53,130.00		53,130.00
b/d	26,670.00		

D	Inventory DRONE-1000		C
[30]	9,000.00	(10b)	1,127.50
[20]	5,800.00	(16)	17,423.63
[25]	7,750.00	c/d	3,998.87
	22,550.00		22,550.00
b/d	3,998.87	(19)	148.87
		c/d	3,850.00
	3,998.87		3,998.87
b/d	3,850.00		

D	VAT		C
[80]	1,920.00	(9a)	1,200.00
[50]	2,000.00	(10b)	225.50
[30]	1,800.00	(11)	9,920.00
[100]	2,500.00	(13)	8,820.00
[100]	4,200.00	(15)	6,100.00
[75]	1,875.00		
[100]	4,300.00		
[20]	1,160.00		
[100]	2,500.00		
[25]	1,550.00		
(17)	210.00		
c/d	2,250.50		
	26,265.50		26,265.50
		b/d	2,250.50

D	Returns outwards R.O.		C
(9b)	6,000.00	(9a)	6,000.00
	6,000.00		6,000.00

D	Discount received		C
(10b)	1,353.00	(10a)	1,353.00
	1,353.00		1,353.00

D	Sales		C
P&L	124,200.00	(11)	49,600.00
		(13)	44,100.00
		(15)	30,500.00
	124,200.00		124,200.00

D	Cost of sales COS		C	D	Returns inwards R.I.		C
(12a)	12,384.62	(18)	630.00	(17)	1,050.00	P&L	1,050.00
(12b)	18,475.01						
(14)	26,460.00						
(16)	17,423.63	P&L	74,113.26				
	74,743.26		74,743.26				

D	Loss on inventory valuation LOI		C
(19)	148.87	P&L	148.87
	148.87		148.87

D	Profit and Loss P&L		C
COS	74,113.26	Rev	124,200.00
R.I.	1,050.00		
GP	49,036.74		
	124,200.00		124,200.00
LOI	148.87	b/d	49,036.74
Rnt	12,000.00		
Lab	60,000.00		
Int	250.00	NL	23,362.13
	320,798.87		320,798.87
b/d	23,362.13	R/E	23,362.13

D	Retained earnings R/E		C
c/d	23,362.13	P&L	23,362.13
		b/d	23,362.13

Exhibit 1: Accounts

Below, see the financial statements:

Rosefield (Pty) Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X0

	[EUR]
Revenue	124,200.00
less R.I.	(1,050.00)
	123,150.00
COS	(74,113.26)
Labour	(60,000.00)
Depreciation	
Other expenses	(12,148.87)
Earnings before int. & taxes (EBIT)	(23,112.13)
Interest	(250.00)
Earnings before taxes (EBT)	(23,362.13)
Income tax expenses	0.00
Deferred taxes	
Earnings after taxes (EAT)	(23,362.13)

Exhibit 2: Income statement

Rosefield (Pty) Ltd.'s
STATEMENT of FINANCIAL POSITION
as at 31.12.20X0

A			C, L
Non-current assets	[EUR]	*Equity*	[EUR]
P, P, E		Share capital	35,000.00
Intangibles		Reserves	
Financial assets		Retained earnings	(23,362.13)
Current assets		*Liabilities*	
Inventory	37,635.37	Interest bear liab	16,706.25
Accounts receivables		Accounts payables	9,291.25
Prepaid expenses		Provisions	
Cash/Bank	0.00	Tax liabilities	
Total assets	37,635.37	***Total equity and liab.***	37,635.37

Exhibit 3: Balance sheet