

**Task A9.58: Exercise on Manufacturing Accounting**

ATLANTIS Ltd. is a South African manufacturer for truck wheels. One wheel contains a rim, a tyre and a valve. ATLANTIS Ltd. applies a job order costing system and a valuation of inventories following weighted average method.

At the beginning of the Accounting period 20X4, the opening stock value is: 340 rims at 1,200.00 ZAR/u. and 4,000 valves at 50.00 ZAR/u.

ATLANTIS Ltd. discloses the opening balance sheet as below:

Atlantis Ltd.			
STATEMENT of FINANCIAL POSITION			
as at 31.12.20X3			
A			C, L
<i>Non-current assets</i>	[ZAR]	<i>Equity</i>	[ZAR]
P, P, E	700,000.00	Share capital	5,000,000.00
Intangibles		Reserves	
Financial assets		Retained earnings	70,000.00
<i>Current assets</i>		<i>Liabilities (liab.)</i>	
Inventory	608,000.00	Long-term liab. IBL	700,000.00
Acc. receivables A/R		Short-term liab. A/P	100,000.00
Prepaid expenses		Provisions	
Cash/Bank	4,592,000.00	Income tax liab.	30,000.00
<b>Total assets</b>	<b>5,900,000.00</b>	<b>Total equity and liab.</b>	<b>5,900,000.00</b>

**Exhibit 1:** Balance sheet

The liabilities result from a bank loan taken in 20X2. Its interest rate is 7.5% and annual pay-off is amounting to 100,000.00 ZAR. The principal of the bank loan is 1,000,000.00 ZAR.

The retained earnings show the profit after taxes for 20X3. The income tax liabilities result from the last year's profit and must be paid in 20X4.

During the Accounting period 20X4, ATLANTIS Ltd. orders material for its job orders JO1 – JO3 which start on 15.01.20X4, 15.04.20X4 and 15.07.20X4. The job orders' lot sizes are 2,500 wheels each. For the sake of simplification, it is assumed that no other job orders take place and that the job orders are completed within 4 weeks.

See below the purchases:

Date	amount	parts	unit price	net value
2.01.20X4	3000	tyres	4,600.00	13,800,000.00
3.01.20X4	4000	rims	1,250.00	5,000,000.00
8.01.20X4	1000	valves	50.00	50,000.00
2.04.20X4	3000	tyres	4,650.00	13,950,000.00
2.04.20X4	1000	rims	1,230.00	1,230,000.00
4.04.20X4	1000	valves	55.00	55,000.00
5.07.20X4	2000	tyres	4,650.00	9,300,000.00
6.07.20X4	4000	rims	1,360.00	5,440,000.00
6.07.20X4	2000	valves	55.00	110,000.00

On 30.08.20X4, ATLANTIS Ltd. returns 300 tyres to its supplier due to quality issues. The tyres were bought in July. The supplier refunds ATLANTIS Ltd. with a voucher on 1.09.20X4. (The voucher is not used during 20X4.) ATLANTIS Ltd. does not send back the tyres but discharges them (free of costs).

Next to the materials, the production process includes direct labour to the extent of 60.00 ZAR/u.

For the production process, ATLANTIS Ltd. runs 2 cost centres: Assembling and Quality assurance (testing station). In both cost centres depreciation and indirect labour applies. In Assembling labour is 200,000.00 ZAR/a and depreciation is amounting to 60,000.00 ZAR/a. The predetermined overhead allocation rate is 25.00 ZAR/u. In the testing station, labour is 160,000.00 ZAR/a and depreciation is 40,000.00 ZAR/a. The predetermined overhead allocation rate is 1,000 ZAR/h. The actual times in the testing station are 55 hours for JO1, 54 hours for JO2 and 51 hours for JO3.

Labour in the administration department is amounting 300,000.00 ZAR/a.

On 1.07.20X4, ATLANTIS Ltd. sells 4,000 wheels at 9,000.00 ZAR/u. On 28.12.20X4, the firm sells another 2,600 wheels at 9,200.00 ZAR/u. Both prices are net of VAT.

ATLANTIS Ltd. declares a dividend of 10.00 ZAR/s. One ordinary share's nominal value is 5.00 ZAR/s. There are no other shares than ordinary shares.

**Required: Prepare a balance sheet and an income statement for ATLANTIS Ltd. Disclose the value of inventories based on the materials and for finished goods as well. Prepare the income statement following the cost of sales format. Consider VAT at a VAT rate of 20 %. Assume all payment transactions are on cash.**

Solution:

Check the accounts:

Inventories rims INR					C	Inventories valves INV					C	Property, plant, equipment PPE					C
340	OV	408,000.00	W1P	3,115,207.37	2500	4000	OV	200,000.00	W1P	125,000.00	2500	OV	700,000.00	c/d	700,000.00		
4000	(3)	5,000,000.00	c/d	2,292,792.63	1840	1000	(4)	50,000.00	c/d	125,000.00	2500	b/d	700,000.00				
		5,408,000.00		5,408,000.00				250,000.00		250,000.00							
1840	b/d	2,292,792.63	W2P	3,101,049.85	2500	2500	b/d	125,000.00	W2P	128,571.43	2500						
1000	(11)	1,230,000.00	c/d	421,742.78	340	1000	(12)	55,000.00	c/d	51,428.57	1000						
		3,522,792.63		3,522,792.63				180,000.00		180,000.00							
340	b/d	421,742.78	W3P	3,376,579.94	2500	1000	b/d	51,428.57	W3P	134,523.81	2500						
4000	(16)	5,440,000.00	c/d	2,485,162.84	1840	2000	(17)	110,000.00	c/d	26,904.76	500						
		5,861,742.78		5,861,742.78				161,428.57		161,428.57							
1840	b/d	2,485,162.84	W4P	0.00	0	500	b/d	26,904.76	W4P	0.00	0						
0	(19)	0.00	c/d	2,485,162.84	1840	0	(20)	0.00	c/d	26,904.76	500						
		2,485,162.84		2,485,162.84				26,904.76		26,904.76							
1840	b/d	2,485,162.84				500	b/d	26,904.76									
Inventories tyre INT					C	FG Inventories wheels FGI					C	Accumulated depreciation ACC					C
3000	(2)	13,800,000.00	W1P	11,500,000.00	2500	2500	W1P	15,007,707.37	COS	24,088,777.21	4000	(6)	60,000.00				
			c/d	2,300,000.00	500	2500	W2P	15,103,264.13	c/d	6,022,194.30	1000	(8)	40,000.00				
		13,800,000.00		13,800,000.00				30,110,971.51		30,110,971.51			100,000.00				
500	b/d	2,300,000.00	W2P	11,607,142.86	2500	1000	b/d	6,022,194.30	COS	15,908,913.93	2600	b/d	100,000.00				
3000	(10)	13,950,000.00	c/d	4,642,857.14	1000	2500	W3P	15,393,651.37	c/d	5,506,931.74	900						
		16,250,000.00		16,250,000.00		0	W4P	0.00									
1000	b/d	4,642,857.14	W3P	11,619,047.62	2500			21,415,845.67		21,415,845.67							
2000	(14)	9,300,000.00	c/d	2,323,809.52	500	900	b/d	5,506,931.74									
		13,942,857.14		13,942,857.14													
500	b/d	2,323,809.52	(15)	1,395,000.00	300												
			c/d	928,809.52	200												
		2,323,809.52		2,323,809.52													
200	b/d	928,809.52	W4P	0.00	0												
0	(18)	0.00	c/d	928,809.52	200												
		928,809.52		928,809.52													
200	b/d	928,809.52															
6003.082949						6041.305653											
Work-in-Process W1P					C	Work-in-Process W2P					C	Labour-20X4					C
2500	INR	3,115,207.37	INW	15,007,707.37		2500	INR	3,101,049.85	INW	15,103,264.13	(5)	200,000.00	MOA	200,000.00			
2500	INV	125,000.00				2500	INV	128,571.43			(7)	160,000.00	MOQ	160,000.00			
2500	INT	11,500,000.00				2500	INT	11,607,142.86			(9)	300,000.00	ADM	300,000.00			
	LAB	150,000.00					LAB	150,000.00			(21)	450,000.00	W1P	150,000.00			
	MOA	62,500.00					MOA	62,500.00					W2P	150,000.00			
	MOQ	55,000.00					MOQ	54,000.00					W3P	150,000.00			
		15,007,707.37		15,007,707.37				15,103,264.13		15,103,264.13			W4P	0.00			
														1,110,000.00			
6157.460548						0											
Work-in-Process W3P					C	Work-in-Process W4P					C	Depreciation-20X4					C
2500	INR	3,376,579.94	FGI	15,393,651.37		2500	INR	0.00	FGI	0.00	(6)	60,000.00	MOA	60,000.00			
2500	INV	134,523.81				2500	INV	0.00			(8)	40,000.00	MOQ	40,000.00			
2500	INT	11,619,047.62				2500	INT	0.00				100,000.00		100,000.00			
	LAB	150,000.00					LAB	0.00									
	MOA	62,500.00					MOA	0.00									
	MOQ	51,000.00					MOQ	0.00									
		15,393,651.37		15,393,651.37				0.00		0.00							

## Exhibit 2: Accounts

**Exhibit 2: Accounts (continued)**

**Atlantis Ltd.**  
**STATEMENT of FINANCIAL POSITION**  
**as at 31.12.20X4**

as at 31.12.20X4				C, L
A				
Non-current assets		[ZAR]	Equity	[ZAR]
P, P, E	600,000.00		Share capital	5,000,000.00
Intangibles			Reserves	
Financial assets			Retained earnings	3,684,866.21
Current assets			Liabilities (liab.)	
Inventory	8,947,808.87		Long-term liab. IBL	600,000.00
Acc. receivables A/R	1,674,000.00		Short-term liab. A/P	12,576,000.00
Prepaid expenses			Provisions	
Cash/Bank	16,474,000.00		Income tax liab.	5,834,942.66
Total assets	27,695,808.87		Total equity and liab.	27,695,808.87

Exhibit 3: Balance Sheet

**Atlantis Ltd.**  
**STATEMENT of PROFIT & LOSS**  
**and OTHER COMPREHENSIVE INCOME**  
**for the year ended 31.12.20X4**

	[ZAR]
Revenue	59,920,000.00
	59,920,000.00
COS	(39,997,691.13)
Over-/underapplied overheads	(112,500.00)
Other expenses	(300,000.00)
<b>Earnings before int. &amp; taxes (EBIT)</b>	<b>19,509,808.87</b>
Interest	(60,000.00)
<b>Earnings before taxes (EBT)</b>	<b>19,449,808.87</b>
Income tax expenses	(5,834,942.66)
Deferred taxes	
<b>Earnings after taxes (EAT)</b>	<b>13,614,866.21</b>

Exhibit 4: Income Statement

0.075 rate of interest

**Atlantis Ltd.'s INTEREST and PAY-OFF PLAN**

Year	Opening amount [ZAR]	Interest [ZAR]	Pay-off [ZAR]	Annuity [ZAR]	Rest [ZAR]
20X1		0.00	0.00		0.00
20X2	1,000,000.00	75,000.00	100,000.00		900,000.00
20X3	900,000.00	67,500.00	100,000.00		800,000.00
20X4	800,000.00	60,000.00	100,000.00		700,000.00
20X5	700,000.00	52,500.00	100,000.00		600,000.00
20X6	600,000.00	45,000.00	100,000.00		500,000.00
20X7	500,000.00	37,500.00	100,000.00		400,000.00

**Exhibit 5:** Interest and pay-off schedule