FINANCIAL ACCOUNTING 700 **Seminar RS 8 – Inventories** ***PH Ferreira***	**DEPARTMENT OF ACCOUNTING** **UP**

Prescribed works:

1. IAS 2 – IASB
2. GAAP Handbook Volume 1 - Chapter 3 – Pretorius, **et al**
3. Circular 9/2006 – SAICA

Class example:

Question A Treatment and disclosure

Questions:		**Time**
Question 1	Conceptual question	± 10 min
Question 2	Accounting treatment	± 20 min
Question 3	Accounting policy and valuation of inventories	± 25 min
Question 4	Inventory valuation and disclosure	± 55 min
Question 5	Inventory – advice	± 15 min
Question 6	Inventories – consistent application	± 25 min

CLASS EXAMPLE A

TNT Ltd is a company involved in the manufacturing of fireworks. Two kilograms of raw materials and 30 minutes of labour are required to manufacture one unit of the company's main product, Explozif. No spillages occur during the production process. 20 000 Units of Explozif were in stock at 31 December 20X1 (31/12/20X0: nil units).

On 20 December 20X1 TNT Ltd's main competitor introduced a product similar to Explozif to the market, with the result that the selling price of Explozif decreased from R15 per unit to R10 per unit with immediate effect. From 20 December 20X1 to 31 December 20X1 5 000 units of Explozif were sold.

On 1 January 20X1 10 000 kg of raw materials were on hand at a cost of R2 per kg. During 20X1 100 000 kg of raw materials were purchased at R2,5 per kg, of which 1 000 kg were on hand at 31 December 20X1. The net realisable value of the raw materials is R2,6 per kg on 31 December 20X1.

Direct labour costs amount to R4,4 per hour. Fixed production overheads amount to R180 000 per annum, while normal capacity is estimated at 60 000 units per annum. Selling expenses amount to 2% of selling prices.

TNT Ltd values all inventories on a first-in-first-out basis. No work-in-progress were on hand at year-end.

REQUIRED:

a. Calculate the sales and cost of sales of TNT Ltd for the year ended 31 December 20X1.

b. Prepare the following notes to the financial statements of TNT Ltd for the year ended 31 December 20X1:

- profit before tax; and
- inventory.

NOTE:
- Comparative amounts are not required.
- Assume that all amounts are material.

QUESTIONS

QUESTION 1

Conceptually justify the following statements by referring to The Conceptual Framework:

1. Inventory is an asset held for sale in the ordinary course of business.
2. Inventory should be disclosed at the lowest of cost and net realisable value.
3. The cost of inventory should be recognised as an expense when the inventory is sold.

QUESTION 2

Doepa Limited is a manufacturing company in the pharmaceutical industry. The following items which relate to the production process, was included in Work-in-progress under "Inventories" on the statement of financial position at year end, 30 June 20X5.

1. The inventory item Sonpyn was valued as follows at R426 000 :

	R
Raw material @ cost	200 000
Other direct costs	144 000
Portion of factory overheads	38 000
Portion of sales and administrative overheads	44 000
	426 000

Sonpyn is a tablet with stable sales and which generates a reasonable return.

2. 1 300 kg of a chemical ingredient named Seerstil which is kept in mass quantities. It was valued as follows:

	R
Raw materials @ cost	340 000
Other direct costs	260 000
Portion of factory overheads	47 000
Portion of future selling expenses	59 000
	706 000

A competitor of Doepa Ltd recently brought a similar product onto the market which is sold in nifty 100 g packets for R35 each. Doepa Ltd will also have to package Seerstil in 100 g containers in order to compete with its competitor. The cost of repackaging the current inventories will amount to approximately R20 000 and an additional R30 000 will have to be spent on advertising in order to sell it.

REQUIRED:

Discuss, giving reasons, how the above items should be treated in the annual financial statements of DOEPA LTD. Your answer should be in accordance with the latest International Financial Reporting Standards.

QUESTION 3

A company manufactures and sells a specific product. Purchases of raw materials are done regularly on every Monday and these amount to 1 000 tons per week. The supplier's price was R100 per ton during the first semester of 20X7, but was increased to R150 per ton on 1 July 20X7 and remained constant until 1 February 20X8 when it was reduced to R130 per ton. Additional customs duties of R10 per ton and transport costs of R20 per ton were also paid. Assume that these raw materials could be sold for R160 per ton at 31 December 20X7.

The following production information is available for the year ended 31 December 20X7:

Normal capacity <u>per week</u>	1 500 ton
Variable processing cost	R25 per ton
Fixed production cost based on normal capacity	R30 000 per week

There is no loss of tonnages during the production process.

The final product was marketed at R240 per ton. Sales costs amounted to R3 000 for every 1 000 tons of the final product sold and delivery costs amounted to R7,50 per ton.

There were no opening inventories at the beginning of the year, but on 31 December 20X7 there were 5 000 tons of raw materials and 2 000 tons of the final product on hand. It is expected that the above-mentioned selling prices and costs will also apply to 20X8.

The FIFO method of valuation is used.

REQUIRED:

1. Prepare the accounting policy note in respect of inventories as it will appear in the company's annual financial statements as at 31 December 20X7. (1)
2. Calculate the value of the finished goods inventories as at 31 December 20X7 in accordance with the requirements of IAS 2. (5)
3. Calculate the value of the raw materials on hand as at 31 December 20X7 in accordance with the requirements of IAS 2. Assume that the net realisable value of the raw material is R160 per ton on 31 December 20X7. (Explain in each case why you chose a specific inventory valuation method.) (4)
4. Indicate how it would influence your answer in 3. if the selling price of the final product declined to R230 per ton as a result of a decline in the raw material cost. (6)

QUESTION 4

You are the auditor of Topline Limited, a medium size listed company. The company imports raw materials from the USA and processes and sells it in the RSA. Two products are manufactured, namely Cattex and Fumex. Both products are manufactured from the same raw material.

During the year the company imported 100 000 kg of raw materials from the USA of which the details were the following:

Invoiced cost :		$1 000 000
Dockage fees	:	R22 500
Transport costs	:	R15 000
Clearing services	:	R1 500
Customs duties	:	R150 000
VAT at 14% :		R504 000

The exchange rate on 1 February 20X5 was $1 = R3,60 and on that date the raw materials were shipped FOB from the USA. The ruling exchange rate was $1 = R3,62 when the customs officials cleared it and $1 = R3,65 on 1 May 20X5 on arrival at the factory premises.

The debt of $1 000 000 is payable on 1 February 20X6 (assume that the time value of money is not material). On 31 August when the spot rate was $1 = R3,70, it was decided to take out a foreign exchange contract for the full debt of $1 000 000. The forward rate amounted to $1 = R3,73. The FEC expires on 1 February 20X6.

The following information is available for the period 1 May 20X5 to 31 December 20X5:

	Cattex	**Fumex**
Raw materials issued	30 000 kg	40 000 kg
Direct labour (R8 per hour)		
Productive time	152 000 hrs	164 000 hrs
Idle time	24 000 hrs	20 000 hrs
Direct factory overheads (fully productive)	R160 000	R170 000
Fixed factory overheads	R1 120 000	R1 200 000

Additional information for the period from 1 May 20X5 to 31 December 20X5:

1. Normal capacity (productive and normal idle time) is as follows:

Cattex section	22 000 hours per month
Fumex section	20 000 hours per month.

2. During August 20X5, the employees in the Cattex section striked for higher wages. The section lost 6 000 hours as a result of the strike. These idle hours were included in the total idle time of 24 000 hours. The rest of the idle hours were normal. The idle hours in the Fumex section were normal. Actual capacity in the Fumex section deviated from normal capacity as a result of a large order that had to be delivered to a customer during the period.

3. One unit of the Cattex finished product weighs 1 kg, while a unit of the Fumex finished product weighs 2 kg.

4. Normal raw material spillages for both products amount to 10%, and takes place at the beginning of the production process.

5. There were no unfinished inventory at year end and no additional raw materials were purchased during the year.

6. Finished products manufactured during the period from 1 May 20X5 to 31 December 20X5 were as follows:

Cattex:	26 000 products
Fumex:	18 000 products

   In both cases twenty five percent of the finished products were still on hand at 31 December 20X5.

7. The replacement cost of raw materials at 31 December 20X5 is higher than on 1 May 20X5.

8. The selling prices of finished products on 31 December 20X5 were as follows:

Cattex:	R150 per unit (excluding VAT)
Fumex:	R300 per unit (excluding VAT)

9. Delivery costs per product amounts to R2, while sales commission amounts to 5%.

For purposes of the financial statements, the financial manager of Topline Limited valued inventories on hand at 31 December 20X5 as follows:

Raw material	**R**
Invoiced costs ($1 000 000 x R3,65)	3 650 000
Exchange differences ($1 000 000 x (R3,73 - R3,65))	80 000
Dockage fees	22 500
Transport costs	15 000
Clearing services	1 500
Customs duties	150 000
VAT	504 000
Total: 100 000 kg	4 423 000
Closing inventory: 30 000 kg @ R44,23	1 326 900

Finished products	Cattex	Fumex
Raw material (R44,23 per kg)	1 326 900	1 769 200
Direct labour (R8 per hour)	1 408 000	1 472 000
Direct factory overheads	160 000	170 000
Fixed factory overheads	1 120 000	1 200 000
Total manufacturing costs	4 014 900	4 611 200
Cost per unit	154,42	256,18
Closing inventory	1 003 725	1 152 800

REQUIRED:

1. Calculate the amounts at which the different inventory items should be shown in the financial statements at 31 December 20X5. (17)

2. Prepare a report for the financial manager in which you, with full reference to International Financial Reporting Standards, justify why your valuation will differ from his. (10)

3. Show how all aspects relating to inventories, excluding accounting policy, will be disclosed in the financial statements for the year ended 31 December 20X5. (9)

The principles of IAS 2 should be applied throughout your answer.

(SOURCE: Univ. of Stellenbosch - 1995)

QUESTION 5 **(10 marks)**

A company has a factory which manufactures a product, Product Y, locally. The following criteria were used in the allocation of the production overheads to inventories:

A - The monthly production volume (units manufactured) is determined.

B - Monthly production overheads are calculated.

The following items, amongst others, are included in production overheads:

- lease finance charges on capitalised leased assets
- recruitment and advertising costs, etc. for production personnel
- research costs for improving Product Y
- cost of factory administration

C - B ÷ A = production overhead tariff per unit for the month

D - Monthly production volume is used as the company only manufactures on order and orders fluctuate materially depending on the season.

REQUIRED:

Evaluate the above allocation of production overheads to ensure that International Financial Reporting Standards are complied with at all times.

QUESTION 6

Wiesenhof is a company that owns a number of coffee shops. Coffee is served to customers at various coffee shops across the country. Pre-selected coffee is also sold in special packed containers at the shops. These sales only take place twice a month on specific days. This gives customers the opportunity to take the Wiesenhof experience home. This pre-selected coffee is purchased by the respective shops directly from selected providers, as authorised by head office.

From March the managers of the coffee shops will receive commission based on the profit made out of these coffee sales. For this purpose managers are required to prepare a monthly statement of profit or loss and other comprehensive income for coffee sales. These statements will also be used to draw up the annual financial statements.

The financial director, after reviewing the March statement of profit or loss and other comprehensive income of two of the coffee shops, is not sure about the measurement of inventory. The Pretoria-branch measured their inventory according to the first-in-first-out basis, while the Cape Town branch used the weighted average method.

The following information is supplied in order to obtain your advice:

	Pretoria Branch	**Cape Town Branch**
Number of units sold	700	700
Selling price (approved by head office)	R100	R100

The Pretoria branch inventory purchases and sales are as follows:

Date	**Buy/Sell**	**Units**	**Price R**
3 March	Buy	1 000	40
14 March	Buy	500	55
18 March	Sell	200	100
22 March	Buy	2 000	55
27 March	Sell	500	100

The Cape Town branch inventory purchases and sales are as follows:

Date	**Buy/Sell**	**Units**	**Price R**
6 March	Buy	1 000	40
13 March	Buy	500	55
17 March	Sell	200	100
24 March	Buy	2 000	30#
29 March	Sell	500	100

\# The manager of the Cape Town branch bargained a lower price with one of the approved suppliers.

REQUIRED

a. Prepare the statement of profit or loss and other comprehensive income for coffee sales (separately for each branch) for March according to both the first-in-first-out and weighted average method.

b. Advise the financial director on the acceptability of different cost formulas being used by the two branches. Refer in your answer to The Conceptual Framework and other relevant International Financial Reporting Standards.

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