

C.M's Copy



Initial Test of Competence Professional Paper 4

JUNE 2014

**TOTAL MARKS – 100
READING TIME – 30 minutes
WRITING TIME – 150 minutes**

INSTRUCTIONS TO CANDIDATES

- 1 Enter your examination number on the front of the answer book. Your name must not appear anywhere.
- 2 You are reminded that answers may **NOT** be written in pencil.
- 3 The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and the required depth of the answer.
 - **Even if it is not explicitly required, you should show workings and cross-reference them to your answer.**
 - Marks are awarded for appropriate arrangement and layout, clarity of explanation, logical argument and clear and concise language.
- 4 Working papers must be handed in with scripts.

Disclaimer clause: All names of persons, places and business entities mentioned in this examination paper are fictitious and any resemblance to real persons, living or dead, places and business entities are purely coincidental.

NOTE: The questions in this paper are not intended to reflect the reality of the Zimbabwean economy. Hence reference to exchange rates, interest rates, return on capital, etc., are to be taken at face value and there is an assumption that financial instruments such as foreign exchange contracts will be freely available. Where necessary, an effective tax rate of 25,75% should be used

MR HARVEY.

QUESTION 1

47 marks

Part I: Mr B Gallant and Partman (Pvt) Ltd

Mr Gallant is the sole shareholder of Partman (Pvt) Ltd ('Partman'), a company registered in Zimbabwe. Partman is registered for VAT under category C and has a 31 December year end. Partman was incorporated in 2005 and has been manufacturing components and parts for the motor industry in a factory in Mutare since incorporation.

The following information has been extracted from the books and records of the company at 31 December 2013:

	Notes	\$
Sales	5	(885 000)
Unrealised foreign exchange gain		(2 000)
Profit on disposal of asset	6	(11 517)
Cost of sales	1	457 778
Insurance	2	555
Bad and doubtful debts	3	2 600
Cost of preparing tenders for anticipated sales to South Africa		120
Interest – Zimbabwe Revenue Authority		15 000
Legal expenses – advice on indigenisation		105
Depreciation	7	13 667
Other tax deductible expenditure		46 100
Salaries and wages	4	325 811
Travelling expenses to attend a trade fare in South Africa		2 100
Valuation fee for insurance purposes	6	270
Profit before tax		34 411

NOTES

- 1 In December 2013 Mr Gallant took consumable stores with an opening stock value of \$1 500 for private use.
- 2 Insurance premium on Mr Gallant's own life amounted to \$555.
- 3 Bad and doubtful debts:

	\$
Specific debts considered to be bad	1 600
Specific provision for doubtful debts	750
Loan to a former employee considered to be irrecoverable	250
	2 600

- 4 Included in salaries and wages is an amount of \$75 000 representing a specific provision for bonuses (\$50 000 for Mr Gallant and \$25 000 for the other employees). The bonus was voted in December 2013 but due to cash flow problems will only be paid in January 2014.
- 5 On 20 December 2013 the company received an advance payment of \$4 000 for goods to be delivered in January 2014. Believing that this would not be taxable until 2014, the amount was not included in the sales total of \$885 000.
- 6 On 2 April 2013 Partman acquired a second-hand machine for its manufacturing operations for \$50 000.

Partman bought a new machine on the same date for \$22 800 (inclusive of VAT).

Both machines were brought into use by Partman immediately after they were acquired.

On 1 June 2013 a fire in the factory destroyed the second-hand machine and some of the company's trading stock. Partman was insured against this event in terms of its comprehensive insurance policy.

The insurance company settled the claim on 15 June 2013 for an amount of \$99 750 as follows:

	\$
Second hand machine	59 850
Trading stock (original cost \$40 000)	39 900
	99 750

- 7 The accountant had written off depreciation of \$1 667 on the destroyed second-hand machine with regard to the two months it had been used before the fire and recorded the insurance payment as follows:

	\$	\$
Bank	99 750	
Provision for accumulated depreciation	1 667	
Second-hand machine		50 000
Purchases		39 900
Profit on machine		11 517
	101 417	101 417

The company decided not to claim any capital allowance, as the machine had been bought and destroyed in the same year.

The destroyed machine was not replaced by a new machine as the market conditions were poor and sales were declining.

Depreciation comprises the following:

	\$
Second-hand machine	1 667
New machine	8 000
Other assets all already written off for tax purposes (the value of these other assets was \$40 000)	4 000
	13 667

Part II: Partnership business

Mr X and Mr R formed a business on 1 March 2007. The business had at first been profitable but in the 2010 year of assessment the business operations were negatively impacted by imports of cheap clothing from abroad and local competition.

The partnership has a 31 December year end and the profits and losses of the partnership are shared equally. Neither Mr X nor Mr R carried out any other business operations. The partnership's assessed losses for the last three years of assessment were as follows:

Year of assessment	\$
2010	15 000
2011	13 000
2012	13 000
	41 000

Although the partnership had taxable income of \$10 000 for the 2013 year, both Mr X and Mr R realised that the partnership could no longer survive in the tough economic conditions and they ceased trading on 27 December 2013 and deregistered as a VAT vendor on the same day.

The following assets were on hand on 27 December 2013:

	Cost	Open market value
	\$	\$
Delivery truck	40 000	15 000
Trading stock	27 500	14 000
Ten sewing machines, which all had the same value	20 000	7 000
	87 500	36 000

During the 2014 year of assessment Mr R purchased and let property and Mr X became employed.

QUESTION 2

53 marks

Crushtide Ltd ('Crushtide') is a producer and exporter of phosphoric acid, which is a commodity used locally, regionally and internationally to make catalysts, rustproofing materials, chemical reagents, latex, dental cements, tooth whiteners, toothpaste, disinfectants, food supplements, carbonated beverages, polishes and animal feeds.

Crushtide is a highly successful company which maintained profitability even during the global financial crisis. The company has been in operation for 30 years and operates an opencast mine in Gweru and a processing plant in Kwekwe. The chief operations officer of the company, Mr Alan de Villiers, attributes the success of the company to the risk management strategy which requires the hedging of –

- the phosphoric acid selling prices which are dependent on economic outlook;
- currency risk, as the company exports phosphoric acid quoted in US dollar (USD); and
- currency risk, as the company imports sulphuric acid quoted in Canadian dollar (CAD).

Mining of phosphate rock

The production of phosphoric acid by Crushtide begins with the mining of phosphate rock from the company's opencast mine in Gweru, Midlands Province. The mine produces between 1 200 000 and 1 500 000 tonnes of phosphate rock concentrate annually, depending on expected market demand. Budgeted production of phosphate rock concentrate for the financial year ending 31 December 2014 is 1 400 000 tonnes.

Production of the phosphate rock concentrate at the mine entails the following key steps:

- Drilling and blasting;
- Crushing and milling of the ore;
- Adding of reagents (substances used to cause a chemical reaction) to the crushed ore slurry; and
- Filtration and drying to drain water from the phosphate rock concentrate.

The mining operations are heavily reliant on labour and machinery. Crushtide budgeted \$5 238 000 for its miners for the 2014 financial year ('FY2014') based on paying its labour force of 485 miners at an average hourly rate of \$6,00 per miner. The mining machinery and labour are used in the drilling, blasting, crushing, filtration and drying processes. The mining machinery was replaced five years ago at a cost of \$68 600 000. The machinery that was in use at the time was fully depreciated and broke down often. When the replacement machinery was purchased it was estimated to have a useful life of 20 years and Crushtide elected to depreciate it on the straight-line method.

A pre-determined production overhead recovery rate of \$3,25 per direct labour hour is budgeted for mining production overheads (indirect labour, water, electricity, repairs, etc.).

Reagents added to the ore slurry are sourced from local suppliers on a just-in-time basis. Crushtide does not carry any opening or closing inventory of the reagents. The budgeted cost of reagents for FY2014 was based on the estimated production cost and market prices and has been calculated at \$450 000. Apart from labour, depreciation of mining equipment, production overheads and the cost of reagents, there are no other expenses associated with the production of the phosphate rock concentrate.

Processing of phosphate rock concentrate

Once crushed, milled, filtrated and dried, the phosphate rock concentrate is railed to the processing plant in Kwekwe, 40 km away. Crushtide is budgeting to incur a cost of \$1,60 per tonne in FY2014 for transporting the phosphate rock concentrate via freight rail to Kwekwe. Crushtide elected to locate its processing plant in Kwekwe due to available labour and reliable supplies of water and electricity.

The processing of phosphate rock concentrate at the Kwekwe plant generally results in the production of one tonne of phosphoric acid (finished product) for every four tonnes of phosphate rock concentrate processed. Crushtide is budgeting to produce 350 000 tonnes of phosphoric acid in FY2014, which represents normal capacity. Crushtide currently exports 60% of its phosphoric acid to Europe and sells 40% locally. Selling prices are identical for exports and local sales and Crushtide is budgeting to sell phosphoric acid at USD78,40 per tonne in FY2014.

In order to produce phosphoric acid, a reaction is initiated between phosphate rock concentrate and sulphuric acid to form weak phosphoric acid in slurry form. The reaction process requires one tonne of sulphuric acid for every ten tonne mix of phosphate rock concentrate processed. Crushtide imports sulphuric acid from Canada at the fixed price (hedged) of CAD8,00 per tonne.

The resultant slurry is then filtered to remove gypsum particles as a waste product in order to convert the weak phosphoric acid into the finished product (high grade phosphoric acid). Crushtide deems the 'split-off point' to be at the end of this filtration process. Crushtide is budgeting to produce 50 000 tonnes of gypsum particles in FY2014, based on the budgeted production of phosphoric acid. Gypsum particles are disposed of in an environmentally friendly manner. The process of producing phosphoric acid and discharging the gypsum particles is highly automated and relies on the use of the sophisticated and intensive plant built at the Kwekwe plant.

The following data have been extracted from the records of Crushtide with respect to the production costs incurred by the company on the Kwekwe plant for the current year with regard to the production of the phosphoric acid:

Financial year	Production costs (\$)	Total number of employees	Total plant operating hours
2013	2 265 600	43	1 180 000

Plant operating hours noted above represent the number of hours the Kwekwe plant is in operation for processing phosphate rock concentrate into the phosphoric acid. Operating hours at the Kwekwe plant are expected to reach 1 350 000 hours operated by 45 employees, in FY2014. These operating hours have been calculated based on the number of machines operated at the plant during the operating hours in a year. The average production costs per plant operating hour are expected to increase by 7% in FY2014 from the prior year.

Crushtide does not have opening or closing inventories of phosphate rock concentrate, phosphoric acid, sulphuric acid or gypsum particles.

Crushtide spent \$1 262 178 on plant and machinery at the beginning of FY2012 to discharge gypsum particles in a manner that is not harmful to the environment. This plant and machinery have a ten-year useful life and are depreciated on a straight-line basis. In addition to the infrastructure used to dispose of the gypsum particles, an average cost of 42 cents per

tonne of gypsum particles is incurred during the disposal. After the filtration process to remove gypsum particles, concentrated, high-grade phosphoric acid is produced by boiling off excess water. This process has an estimated cost of \$182 492 for FY2014.

New revenue streams

Crushtide researched various opportunities to generate new revenue streams that could easily be incorporated into the company's existing business model. The opportunity to sell gypsum particles rather than dispose of these as a waste product was identified as the most lucrative new business opportunity. Gypsum particles are used as a major raw material in the production of gypsum boards, which are used for the construction of internal walls and ceilings.

On 31 December 2013, Crushtide acquired 100% of the equity of Gypsum Mauritius (Pvt) Ltd ('Gypsum Mauritius'), a company based in Mauritius that manufactures gypsum boards. Gypsum Mauritius is incorporated in Mauritius, has been in operation for the past eight years and has retail outlets throughout Mauritius for the distribution of the gypsum boards. The strategic rationale for the acquisition was for Crushtide to acquire the skills to manufacture gypsum boards, with the intention of eventually opening a similar manufacturing facility in Zimbabwe. Crushtide will transport the gypsum particles produced at its Kwekwe plant to Gypsum Mauritius at an estimated transportation cost of \$1,50 per tonne.

The investment in Gypsum Mauritius is strategic, as any dividends declared by the company to Crushtide will not be subject to a dividend tax because Mauritius has a tax-free dividend policy. The corporate income tax rate in Mauritius is also lower than in Zimbabwe, with companies domiciled there being taxed at a rate of 15% of taxable income. Crushtide and Gypsum Mauritius have commenced negotiations on the purchase price that Gypsum Mauritius will pay for gypsum particles purchased from Crushtide. Gypsum Mauritius uses 75 000 tonnes of gypsum particles annually. The two companies are considering the following two options:

- Cost-based transfer price; or
- Market-based transfer price (using either the fair value or cost plus mark up).

Gypsum Mauritius currently sources gypsum particles from suppliers based in Mauritius, India and the United States. Gypsum Mauritius paid an average of \$7,20 per tonne for gypsum particles during FY2013. Crushtide is reluctant to base the gypsum particle price on ruling market prices and would instead like to apply its average mark up of 55% to the estimated cost of producing gypsum particles. However, the management of Crushtide is struggling to allocate production costs to the gypsum particles as they have not done so before.

Estimated average exchange rates for FY2014

The estimated average exchange rates for FY2014 for USD to ZAR, CAD and Euro are as follows:

USD1 : ZAR 10,50
USD1 : CAD 0,95
USD1 : Euro 0,74

