**GROUP ASSIGNMENT MEMO**

**CONVENTIONAL versus ABC COSTING ANALYSIS**

**TOTAL MARKS 65**

**Question 1** **(22)**

**Conventional versus activity-based costing analyses; relevant costs: manufacturer**

1.1 Costs that will be avoided if Cowes's offer is accepted:

| | |
|---|---|
| Direct materials | R244 000 ✓ |
| Direct labour | 135 000 ✓ |
| Variable overhead | 90 000 ✓ |
| Fixed overhead: | |
| supervisory salaries | 60 000 ✓ |
| machinery depreciation | 21 000 ✓ |
| Total avoidable costs | R550 000 |

(5)

1.2 Costs that will be avoided using the ABC data:

| | |
|---|---|
| Activity costs: | |
| Product level | |
| Product development (R75 × 1) | R75 ✓ |
| Supervision (R30 × 10) | 300 ✓ |
| Batch level | |
| Material handling (R15 × 2 000) | 30 000 ✓ |
| Inspection (R24 × 2 000) | 48 000 ✓ |
| Set-up metal press (R75 × 2 000) | 150 000 ✓ |
| Unit level | |
| Metal pressing (R0.10 × 760 000) | 76 000 ✓ |
| Canister printing (R0.05 × 760 000) | 380 000 ✓ |
| Total activity costs | R684 375 ✓ |
| Direct materials | 244 000 ✓ |
| Total avoidable costs | R928 375 ✓ |

(10)

1.3 Total avoidable costs: R928 375

| | |
|---|---|
| Total avoidable costs: | R928 375 |
| Cost of purchasing (760 000 × R0.75) | 570 000 |
| Additional costs of purchasing | R 358 375 |

The company will save R385 375 if the canisters are purchased, rather than manufactured. Based on the financial data, the company should purchase the canisters.

(5)

1.4 The analysis of costs using conventional and ABC costs yield different conclusion.

This is because the ABC analysis recognises more accurately the extent to which non-volume related costs will be avoided by purchasing, rather than manufacturing. (2)

**Question 2** **(43)**

**Drop a product line: manufacturer**

1. Memorandum

   Date: Today

   To: Maria Levitt, President, Levitt Corporation

   From: I.M. Student

   Subject: Suggested revision of product-line income statement

(a) The product-line income statement presented is not suitable for analysis and decision making. The statement does not **distinguish between variable and fixed costs**, which hinders any analysis on the impact of volume changes on profit. In addition, the statement does not distinguish between costs that are **directly related (traceable)** to a product line from those that are shared among all products.

(3)

(b) An alternative income statement format that would be more suitable for analysis and decision making would incorporate the **contribution approach.** Expenses would be classified in terms of **variability and controllability,** such as: variable manufacturing, variable selling, administrative, direct fixed controllable by segment, direct fixed controllable by others, and common fixed. The **common fixed** costs would not be assigned to the product lines because such an allocation would be arbitrary. The contribution approach is more suitable for analysis and decision making because there is a meaningful **assignment of costs to product lines**.

(4)

The suggested discontinuance of the S-pumps would be cost effective, but the suggestions relating to F-pumps and R-pumps would not be cost effective. These conclusions are based on the following quarterly analysis.

**2(a)** **(22)**

| | F-Pump | | R-Pump | | S-Pump | |
|---|---|---|---|---|---|---|
| Unit selling price .................... | | R270 | | R600 | | R540 |
| Unit variable costs | | | | | | |
| Raw material ...................... | R51 | | R 93 | | R150 | |
| Direct labour ....................... | 60 | | 120 | | 180 | |
| Variable manufacturing overhead .......................... | 90 | | 135 | | 180 | |
| Shipping expenses ............. | 12 | | 30 | | 30 | |
| Total ................................ | | 213 | | 378 | | 540 |
| Unit contribution margin .......... | | R 57 | | R222 | | R 0 |
| Increase (decrease) in units* | | | | | | |
| F-pump: 10 000 × 50% ..... | | × (5 000) | | | | |
| R-pump: 8000 × 15% ....... | | | | × 1 200 | | |
| S-pump: 5000 × 100% ...... | | | | | | × (5 000) |
| Increase (decrease) in total contribution margin ............... | | R(285 000) | | R266 400 | | R 0 |
| Decrease (increase) in fixed costs | | 240 000 † | | (300 000) | | 120 000 |
| Increase (decrease) in segment contribution ........................... | | R (45 000) | | R (33 600) | | R120 000 |
| | | (8) | | (7) | | (7) |

* Unit sales = sales dollars ÷ unit sales price

† $300 000 – $60 000

2(b) **<u>Yes</u>**, the president was correct in eliminating the S-pumps. The S-pump sales price covers only its variable cost and does not contribute anything to manufacturing overhead or promotion costs. Thus, the S-pump has a zero contribution margin. (3)

2(c) **<u>Yes</u>**, the president was correct in promoting the R-pump line rather than the F-pump line, because the unit contribution margin and contribution per labour dollar is greater for the R-pump line as follows:

| | F-Pump | R-Pump |
|---|---|---|
| Unit contribution ...................................... | R57,00 | R222,00 |
| Contribution per direct-labour rand .......... | ,95 | 1,85 |

However, the president's decisions regarding promotion expense do not seem well conceived. The decreased promotion on the F-pump line and the increased promotion on the R-pump line do not produce sufficient contribution to offset the promotional costs.

(5)

2(d) **<u>No.</u>** The proposed course of action does not make effective use of capacity. The 15 per cent increase in production volume on the R pump line will not require all of the capacity that has been released by discontinuing the S-pump line or reducing the F-pump line by 50 per cent. (3)

3 **<u>Yes.</u>** The qualitative factors that management should consider before it decides whether to drop the S-pump line include:

- *Customer relations.* The sale of F-pumps and R-pumps may be related to the sale of S-pumps.
- *Labour relations.* Reducing employment may create labour problems.

(3)