

**UNIVERSITY OF BOLTON**

**BOLTON BUSINESS SCHOOL**

**BA (HONS) ACCOUNTANCY DL**

**INTAKES: KL16**

**SEMESTER 1 EXAMINATIONS 2008/2009**

**MANAGEMENT ACCOUNTING CONTROL SYSTEMS**

**MODULE NO: ACC3004DL**

Date: 06/12/08

Time: 3 Hours

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**INSTRUCTIONS TO CANDIDATES:**

There are **SIX** questions on this paper.

Answer **TWO** questions from Section A and **TWO** questions from Section B.

All questions carry equal marks.

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression.

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## SECTION A

### Question A1

A Go-Cart manufacturing company sells the following range of 4 vehicles:

Alpha: the basic model; Demand is about 20,000 per year

Beta: a basic model with additional modifications; Demand is about 15,000 per year

Delta: a racing model; Demand is about 10,000 per year

Gamma: an off-road model: Demand is about 5,000 per year

The company financial structure is as follows:

Company financed by equity	\$50,000,000	ROI 20% per year after tax of 20%
Loans & other borrowings	\$40,000,000	Interest 10% per year

Costs:

Fixed costs \$23,500,000 per year

Variable Materials 15% of sales

Variable Labour \$500 per vehicle + 5% of sales

### Required:

- Based on the above information calculate the average selling price for a vehicle. **(5 marks)**
- Calculate the selling price for each model where the Beta is priced at \$100 above the Alpha. The Delta is priced at \$200 above the Alpha, and the Gamma at \$500 above the Alpha. **(8 marks)**
- Skilled labour is in short supply there are only 1,500,000 hours available for the next year. Advise on the most profitable sales mix where one Alpha vehicle requires 30 hours of skilled labour, Beta 42 hours, Delta 55 hours and Gamma 60 hours. **(6 marks)**
- Discuss the other factors, apart from cost, that influence selling prices. **(6 marks)**

**Total 25 Marks**

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**Question A2**

Starbright Ltd is a commercial laundry service. The company uses a traditional method of overhead absorption. It has two cost centres, Laundry operations and Transport. The management is unhappy with the profitability of some of its operations. The CEO wants to discontinue the unprofitable business, but the COO feels that this will let competition increase market share. The COO is convinced that an activity based costing system (ABC), of dealing with overheads, will provide management with the information they need to make the correct decisions. The management accountant has been asked to investigate.

The estimated data for next year using the existing absorption method is as follows:

Total number of cost units to be processed	50,000 (One cost unit = 100 items)
Total transport km for collection/delivery	200,000km
Total overhead	\$500,000
Overhead absorption rate:	70% Laundry operations 30% Transportation

Additional data resulting from the ABC investigation:

Main Activities	Cost Driver	Cost Pool (% of total overheads)
Collection & Delivery of Laundry	200,000km	20
Loading & Unloading		10
Laundry		30
Drying		20
Pressing		20

Data for two sample contracts	St Mary's Hospital	The Royal Hotel
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Number of cost units processed  
 Number of transport runs  
 Transport km  
 Average dry weight per cost unit  
 Average wet weight

**Question A2 continued over  
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### Question A2 continued

#### Required:

- a) Using the traditional absorption costing information, calculate the overhead absorption rate (OAR) for each of the two cost centres. **(2 marks)**
- b) Calculate the OAR for each activity using the additional ABC information **(5 marks)**
- c) Compare the overhead absorbed by both St Mary's Hospital and the Royal Hotel using both the traditional system and the ABC approach. **(8 marks)**
- d) Critically evaluate how the ABC approach to overhead absorption will assist management in decision-making. **(10 marks)**

**Total 25 Marks**

### Question A3.

Product Omega has a standard selling price of \$2,000 per unit and contains two components with the following specification per unit for production:

Components	Standard Quantity	Standard Price
Apollo	10	\$40
Zeus	12	\$30

The standard direct labour hours to produce the product at the standard wage rate of \$10 per hour has been established at 20 hours per unit.

The annual fixed production overhead budget is divided into calendar months with equal production per month. The budgeted annual fixed overheads are \$60,000 for the budgeted output of 3000 units of Product Omega per annum.

Actual results for the month of June were as follows:

	\$	\$
Sales (200 units of Product Omega)		400,000
Cost of Sales:		
Direct Materials	157,000	
Direct Labour	<u>41,220</u>	
	198,520	
Fixed production overheads	<u>5,400</u>	<u>203,920</u>
Gross Profit		196,080
Administration expenses		18,340
Selling & distribution expenses		<u>21,980</u>
Net Profit		<u>155,760</u>

**Question A3 continued over  
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**Question A3 continued**

Net Profit

Stocks for June were as follows:	1 <sup>st</sup> June	30 <sup>th</sup> June
Component Apollo	400	450
Component Zeus	600	500

The actual hours worked were 4,580. Purchases were as follows:

Component Apollo: 2,000 units for \$84,000. Component Zeus: 2,500 units @ \$29 each

**Required:**

- (a) Calculate the standard product cost of product Omega **(4 marks)**
- (b) Produce a flexible budget to identify actual and budgeted profit **(2 marks)**
- (c) Calculate:  
(i) The sales volume variance.  
(ii) The direct material variances for both price and usage for each component used in the month of June assuming that prices were stable throughout the relevant period.  
(iii) The direct labour efficiency and wage rate variances for the month of June.  
(iv) The fixed production overhead expenditure and volume variances. **(10 marks)**
- (d) Produce a detailed reconciliation statement of the standard profit with the actual profit for the month of June. **(4 marks)**
- (e) Write a report to the board of directors critically evaluating the performance of the company. **(5 marks)**

**Total 25 Marks**

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**SECTION B.**

**Question B4.**

- (a) Outline and discuss the main objectives of a transfer pricing system. **(12 marks)**
- (b) Consider the advantages and disadvantages of:  
(i) market price based transfer prices; and  
(ii) cost based transfer prices.  
Outline the main types that exist under each heading. **(13 marks)**

**Total 25 Marks**

**QUESTION B5.**

- (a) Differentiate between strategic and operational planning. **(5 marks)**
- (b) Identify the information needs of strategic management. **(12 marks)**
- (c) Evaluate the importance of linking strategic to operational planning. **(8 marks)**

**Total 25 Marks**

**QUESTION B6.**

- (a) Critically evaluate the use of the “Balanced Score Card” and give examples of its use in the business environment. **(13 marks)**
- (b) Using a business of your choice as an example, identify one corporate goal for each of the 4 perspectives and give examples of one performance indicator for each performance goal. Give reasons justifying your selection of each performance indicator. **(12 marks)**

**Total 25 Marks**

**END OF QUESTIONS**