

UNIVERSITY OF BOLTON
BUSINESS & CREATIVE TECHNOLOGIES
ACCOUNTANCY PATHWAY BY DISTANCE
LEARNING
SEMESTER ONE EXAMINATION 2009/2010
MALAYSIA – I-SYSTEMS (INTAKE 4)
AND SEGI (INTAKE 18)
MANAGEMENT ACCOUNTING AND CONTROL
SYSTEMS
MODULE NO: ACC3004

Date: Saturday 5th December 2009

Time: 3 Hours Afternoon

INSTRUCTIONS TO CANDIDATES:

Answer FOUR questions.

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

All questions carry equal marks.

This examination accounts for 70% of marks for the module.

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

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SECTION A - Answer any TWO questions

Question A1

Carmen Products produces two main products, Expo and Zippo, which have unit costs of \$12 and \$24 respectively. The company uses a mark-up of 33⅓% in establishing its selling prices and the current prices are thus \$16 and \$32. With these prices, in the year that is just ending, the company expects to make a profit of \$300,000 from having produced and sold 15,000 units of Expo, and 30,000 units of Zippo. This programme will have used all the available processing time in the finishing department. Each unit of Expo requires one hour of processing time in this department and every unit of Zippo requires half an hour.

Fixed overhead was \$360,000 for the year and this has been charged to the products on the basis of total processing hours used. All other costs may be assumed variable in relation to processing hours. In the current year, it is estimated that \$60,000 of the fixed overhead will be absorbed by Expo, and \$300,000 by Zippo. With the existing selling prices it is considered that the potential annual demand for Expo is 20,000 units, and that for Zippo, 40,000 units.

- (a) You are required to comment critically on the product mix adopted by Carmen Products. Calculate what would have been the optimal plan given that there was no intention of changing the selling price. **(6 marks)**

For the forthcoming year increased capacity has been installed in the finishing department so that there will no longer be a constraint for any feasible sales programme. Annual fixed costs will increase to \$400,000 as a consequence, but the variable costs per unit are unchanged.

A study commissioned by the Sales Director estimates the effect that changes to the selling prices would have on demand as follows:

	Expo		Zippo	
Price	\$13.50	\$18.50	\$29.00	\$35.00
Demand in '000's	30	10	60	20

Assume that the Price/Demand relationship is linear.

- (b) Assuming that the company is now willing to abandon its cost plus pricing practices, if these can be shown to be deficient, you are required to calculate the optimal selling price for each product and the optimal output level at the price calculated. **(14 marks)**

- (c) Critically evaluate the use of cost-plus pricing as a basis for setting selling prices.

(5 marks)

Total 25 marks

Section A continued over...

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Section A cont'd...

Question A2.

Hart Ltd, a small engineering company, operates a job order costing system. It has been invited to tender for a comparatively large job that is outside the range of its normal activities and, as there is surplus capacity, the management are keen to quote as low a price as possible.

The estimating department has spent 100 hours on work in connection with the quotation and they have incurred travelling expense of \$550 in connection with the visit to the prospective customer's factory overseas. The following cost estimate has been prepared on the basis of their study:

Cost Estimate

<i>Direct Material and Components</i>	\$
2,000 units of X at \$25 per unit	50,000
200 units of Y at \$10 per unit	2,000
Other material & components to be bought in	<u>12,500</u>
	64,500
<i>Direct Labour</i>	
700 hours of skilled labour at \$7.00 per hour	4,900
1,500 hours of unskilled labour at \$4.00 per hour	6,000
<i>Overhead</i>	
Department P – 200 hours at \$25 per hour	5,000
Department Q – 400 hours at \$20 per hour	8,000
<i>Estimating Department</i>	
100 hours at \$5 per hour	500
Travelling expenses	550
<i>Planning Department</i>	
300 hours at \$5 per hour	<u>1,500</u>
	<u>90,950</u>

The following information is also supplied:

Material X This is a regular inventory item. The inventory holding is more than sufficient for this job. The material currently held has an average cost of \$25 per unit but the current replacement cost is \$20 per unit.

Material Y An inventory of 4,000 units of Y is currently held in the stores. This material is slow moving and the inventory is the residue of a batch bought seven years ago at a cost of \$10 per unit. Y currently costs \$24 per unit but the resale value is only \$18 per unit. However, Y could be used as a substitute for another type of regularly used raw material, which costs \$20 per unit.

**Question 2 continued over...
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Question 2 cont'd...

Direct Labour The workforce is paid on a time basis. The company has adopted a “no redundancy” policy and this means that skilled workers are frequently moved to jobs that only require unskilled labour. The labour included in the cost estimate is for an ideal labour mix for this job. However, if the job is obtained, it is possible that the majority of the work will be done by skilled workers earning \$7.00 per hour.

Overhead – Department P Department P is the only department currently working at full capacity. The department is treated as a profit centre and it uses a transfer price of \$25 per hour for charging out its processing time to other departments. The charge is calculated as follows:

	\$
Estimated Variable Cost per machine hour	10
Fixed Department Overhead	8
Departmental Profit	<u>7</u>
	<u>25</u>

Department P’s facilities are frequently hired out to other firms and a charge of \$30 per hour is made. There is a constant demand from outside customers for the use of these facilities.

Overhead – Department Q Department Q uses a transfer price of \$20 for charging out machine processing time to other departments. This charge is calculated as follows:

	\$
Estimated Variable cost per machine hour	8
Fixed Departmental Overhead	9
Departmental Profit	<u>3</u>
	<u>20</u>

Estimating Department The estimating department charges out its time to specific jobs using a rate of \$10 per hour. The average wage rate within the department is \$5 per hour but the higher rate is necessary to cover overheads and the work carried out on unsuccessful quotations.

Planning Department This department also uses a charging out rate, which is intended to cover all departmental costs.

Required:

- (a) You are required to restate the cost estimate by using an opportunity cost approach. Make any assumptions that you think are necessary, and briefly justify each of the figures that you give. **(15 marks)**

- (b) Evaluate the relevance of the opportunity cost approach to the situation described in the question and consider the problems which are likely to be encountered if it is used in practice. **(4 marks)**

- (c) Evaluate the use of opportunity cost in business decision-making where a choice exists amongst alternative courses of action. **(6 marks)**

Total 25 marks
Section A continued over...
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Section A cont'd

Question A3.

Laundry 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	12,500 transport runs	10
Laundry	400,000 kg dry weight	30
Drying	500,000 kg wet weight	20
Pressing	50,000 cost units	20

Data for two sample contracts	St Mary's Hospital	The Royal Hotel
Number of cost units processed	10,000	5,000
Number of transport runs	1,000	400
Transport km	6,000	8,000
Average dry weight per cost unit	4kg	3kg
Average wet weight	5.3kg	3.3kg

Required:

- Using the traditional absorption costing information, calculate the overhead absorption rate (OAR) for each of the two cost centres. **(2 marks)**
- Calculate the OAR for each activity using the additional ABC information **(5 marks)**
- 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)**
- Critically evaluate how the ABC approach to overhead absorption will assist management in decision-making. **(10 marks)**

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SECTION B – Answer any TWO questions

Question B4.

- (a) Discuss the main reasons for the adoption of a transfer pricing system. **(12 marks)**
- (b) Critically evaluate the use of the following:
- (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) 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

Question B6.

TQM aims to change the management culture in an organisation to that of a 'quality culture', focusing on improving customer care, the relationship with suppliers and team-centred management. All business functions in the organisation are involved in continuous quality improvement.

- (a) Discuss the above statement and how the traditional approach to quality differs from the TQM approach. **(10 marks)**
- (b) Critically evaluate the effect that TQM will have on the role of MACS and the information needs of management. **(15 marks)**

Total 25 marks

END OF QUESTIONS