

**UNIVERSITY OF BOLTON**

**BOLTON BUSINESS SCHOOL**

**BA (HONS) ACCOUNTANCY PATHWAY BY  
DISTANCE LEARNING**

**HONG KONG INTAKES 31 & 33**

**SEMESTER 2 EXAMINATIONS 2008/2009**

**MANAGEMENT ACCOUNTING CONTROL SYSTEMS**

**MODULE NO: ACC3004DL**

Date: 6<sup>th</sup> June 2009

Time: 3 hours

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**INSTRUCTIONS TO CANDIDATES:**

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

Answer **FOUR** questions – any **TWO** questions from Section A, and any **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**

Answer any **TWO** questions

### **QA1**

Fitter plc manufactures a strawberry flavoured health drink that it sells in cases of 20 bottles. The selling price is \$30 per case. The variable costs are \$10 per case. The fixed costs are \$120,000 per year.

In order to reduce absenteeism at work, the government are very interested in promoting the health drink. They are considering subsidising the price of the product by offering Fitter plc a subsidy per case to try to promote increased sales.

Fitter uses a cost plus system to set selling prices but a recent study has revealed that the demand for the product is elastic, and a linear relationship exists between price and demand as shown below:

Price per case	\$30.00	\$35.00
Demand in cases	30,000	10,000

**Required:**

- (a) Calculate the optimal selling price and optimal output for the product. **(12 marks)**
- (b) Calculate the level of subsidy necessary to reach a monthly sales target figure of 70,000 cases for the health drink. **(7 marks)**
- (c) Critically evaluate the non-cost factors that influence prices. **(6 marks)**

**TOTAL 25 MARKS**

### **QA2**

Monsoon 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.

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### Question A2 continued

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.

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**Question A2 continued**

*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.

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**Question A2 continued**

**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) Discuss 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**

**QA3**

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:

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**Question A3 continued**

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:**

**(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**

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**SECTION B.**

Answer any **TWO** questions

**QB4.**

(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**

**QB5**

(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**

**QB6**

Capital investment decisions are long-term strategic decisions that usually involve the commitment of substantial resources to a project or an investment. They are often difficult or expensive to reverse, and can have a crucial affect on the future of the organisation if they prove to be unsuccessful, they could even threaten its very existence.

**Discuss the above statement, and critically evaluate the methods of investment appraisal available to the management accountant.**

**TOTAL 25 MARKS**

**END OF QUESTIONS**