

UNIVERSITY OF BOLTON
BOLTON BUSINESS SCHOOL
BA HONS ACCOUNTANCY – OFF CAMPUS
MOSCOW INATKE 3
SEMESTER 1 EXAMINATIONS 2008/2009
MANAGEMENT ACCOUNTING CONTROL SYSTEMS
MODULE NO: ACC3004DL

Date: 10/02/2009

Time: 3 Hours

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.

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.

Active plc manufactures a fruit flavoured health drink that it sells in cases of 25 bottles. The selling price is \$60 per case. The variable costs are \$20 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 Active plc a subsidy per case to try to promote increased sales.

Active 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	\$40.00
Demand in cases	20,000	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 20,000 cases for the health drink. **(7 marks)**
- (c)** Critically evaluate the use of cost-plus pricing as a basis for setting selling prices. **(6 marks)**

Total 25 marks

Question A2.

Sure-fire Ltd has two divisions, Foundry division and Assembly division.

Foundry division produces three types of barrel; the C20; the C50 and the C80. The products are sold to overseas specialist producers as well as to Assembly division at the same prices. Assembly division uses the three types of barrel as follows:

The C20 is used to make the A20.

The C50 is used to make the A50.

The C80 is used to make the A80.

Recently Assembly division has been forced to work below capacity because of difficulties in obtaining sufficient barrels. Consequently Foundry division has been instructed by the board of directors to sell all its produce to Assembly division.

**Question A2 continued over
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Question A2 continued

The price and cost data is as follows:

Foundry Division Product	C20	C50	C80
	\$	\$	\$
Transfer Price	100	100	150
Variable manufacturing cost per unit	35	60	50
Fixed costs	250,000	500,000	375,000

The Foundry division has a maximum monthly capacity of 50,000 units. The processing constraints are such that capacity production can only be maintained by producing 10,000 units of each product. The remaining capacity can be used to produce 20,000 units of any combination of the three products.

The Assembly division has sufficient capacity to produce 50,000 units, in any combination, and is able to sell all the products that it can produce at the final selling prices.

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Question A2 continued

Required:

- (a) From the viewpoint of the Foundry division, determine the production mix that would maximise its divisional profits and calculate the total company profit, given that all of Foundry's production is transferred internally. **(4 marks)**
- (b) From the viewpoint of the Assembly division, determine the products and quantities purchased from the Foundry division that would maximise its divisional profits and indicate the effect on total company profits. **(4 marks)**
- (c) Determine the product mix that would maximise the total company profits assuming all transfers were internal. **(4 marks)**
- (d) If there were no transaction costs involved for either division in buying or selling C20; C50; or C80 outside the company, what if anything, is lost by the policy of internal transfers only? **(4 marks)**
- (e) Evaluate the effectiveness or otherwise of the transfer pricing system currently used at Sure-Fire Ltd. **(9 marks)**

Total 25 marks

Question A3.

Harvard, a printing company, uses traditional absorption costing to report its monthly profits.

It is seeking to increase its business by winning work from new customers. It now has the opportunity to prepare a quotation for a large organisation that currently requires a new catalogue of its services.

A technical report on the resource requirements for the catalogues has been completed at a cost of \$1,000 and its details are summarised below:

Production period

It is expected that the total time required to print and despatch the catalogue will be one week.

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Question A3 continued

Material A

10,000 sheets of special printing paper will be required. This is a paper that is not in regular use by Harvard. There are 3,400 sheets in inventory. These originally cost \$1.40 per sheet but the current market price is \$1.50 per sheet. The resale price of the sheets held in inventory is \$1.20 per sheet. If not used in the contract the paper could be used elsewhere substituting another material that costs \$1.30 per sheet.

Material B

This is a special ink that Harvard will need to purchase at a cost of \$8 per litre. 200 litres will be required for this catalogue but the supplier has a minimum order size of 250 litres. H does not foresee any other use for this ink, but will hold the surplus in inventory. H's inventory policy is to review slow moving items regularly. The cost of any inventory item that has not been used for more than 6 months is accounted for as an expense of the period in which that review occurs.

Direct labour

Sufficient people are already employed by Harvard to print the catalogue, but some of the printing will require overtime working due to the availability of a particular machine that is used on other work. The employees are normally paid \$8 per hour, the order will require 150 hours of work and 50 of these hours will be in excess of the employees' normal working week. A rate of \$10 per hour is paid for these overtime hours. Employees are paid using an hourly rate with a guaranteed minimum wage for their normal working week.

Supervision

An existing supervisor will take responsibility for the catalogue in addition to her existing duties. She is not currently fully employed and receives a salary of \$500 per week.

Machinery

Two different types of machine will be required:

Machine A will print the catalogues. This is expected to take 20 hours of machine time. The running cost of machine A is \$5 per hour. There is currently 30 hours of unused time on machine A per week that is in demand from other printers for \$12 per hour.

Machine B will be used to cut and bind the catalogues. This machine is being used to full capacity in the normal working week and this is why there is a need to work overtime. The catalogue will require 25 machine hours and these have a running cost of \$4 per hour.

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Question A3 continued

Despatch

There will be a delivery cost of \$400 to transport the catalogues to the customer.

Fixed overhead costs

Harvard uses a traditional absorption costing system to attribute fixed overhead costs to its work. The absorption rate that it uses is \$20 per direct labour hour.

Profit mark-up

Harvard applies a 30% mark-up to its costs to determine its selling prices.

Required:

(a) In order to assist the management of Harvard in preparing its quotation, prepare a schedule showing the relevant costs for the production of the catalogues. State clearly your reason for including or excluding each value that has been provided in the above scenario. **(15 marks)**

(b) Explain how the use of relevant costs as the basis of setting a selling price may be appropriate for short-term pricing decisions but may be inappropriate for long-term pricing decisions. Your answer should also discuss the conflict between reporting profitability within a traditional absorption costing system and the use of relevant cost based pricing. **(10 marks)**

Total 25 marks

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SECTION B.

Question B4.

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. **(25 marks)**

QUESTION B5.

Critically evaluate the use of “Activity Based Costing” as opposed to the traditional approach of overhead absorption. Illustrate your answer with appropriate examples of its use in industry **(25 marks)**

QUESTION B6.

Critically evaluate the decision of companies to decentralise their management decision-making from the centre to operating divisions. **(25 marks)**

END OF QUESTIONS