

**UNIVERSITY OF BOLTON**  
**INSTITUTE OF MANAGEMENT**  
**ACCOUNTANCY PROGRAMME**  
**SEMESTER 1 EXAMINATION 2019/20**  
**STRATEGIC MANAGEMENT ACCOUNTING**  
**MODULE NO: ACC 6005**

Date: Friday 17 January 2020

Time: 10.00 – 1.00

---

**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 is a closed book examination and only the use on silent non-programmable calculators is permitted.

You **MUST** hand in the question paper with your answer booklet

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

Institute of Management  
 BA (Hons) Accountancy  
 Semester 1 Examination 2019/2020  
 Strategic Management Accounting  
 Module No. ACC 6005

## **SECTION A**

### **Question A1**

Bolton Bakery makes three types of cake: brownies, muffins and cupcakes. The costs, revenues and demand for each of the three cakes are as follows:

	<b>Brownies</b>	<b>Muffins</b>	<b>Cupcakes</b>
Batch Size (units)	40	30	20
Selling price (£ per unit)	1.50	1.40	2.00
Material Cost (£ per unit)	0.25	0.15	0.25
Labour Cost (£ per unit)	0.40	0.45	0.50
Overheads (£ per unit)	0.15	0.20	0.30
Minimum daily demand (units)	30	20	10
Maximum daily demand (units)	140	90	100

The minimum daily demand is required for a long-term contract with a local café and must be met.

The cakes are made in batches using three sequential processes: weighing, mixing and baking. The products must be produced in their batch sizes but are sold as Individual units.

Each batch of cakes requires the following amount of time for each process:

	<b>Brownies</b>	<b>Muffins</b>	<b>Cupcakes</b>
Weighing (minutes)	15	15	20
Mixing (minutes)	20	16	12
Baking (minutes)	120	110	120

The baking stage of the process is done in three ovens, which can each be used for eight hours a day, 1,440 available minutes. Ovens have a capacity of one batch per bake, regardless of product type.

Bolton Bakery uses throughput accounting and considers all costs, other than material, to be “factory costs” which do not vary with production.

**Question A1 continued over the page**

Institute of Management  
BA (Hons) Accountancy  
Semester 1 Examination 2019/2020  
Strategic Management Accounting  
Module No. ACC 6005

**Question A1 Continued**

**Required:**

(a) On Monday, in addition to the baking ovens, Bolton Bakery has the following process resources available:

<b>Process</b>	<b>Minutes Available</b>
Weighing	240
Mixing	180

Which of the three processes, if any, is a bottleneck activity?

- A Weighing
- B Mixing
- C Baking
- D There is no bottleneck

Clearly set out your workings to support your answer.

(5 marks)

(b) On Wednesday, the mixing process is identified as the bottleneck process. On this day, only 120 minutes in the mixing process are available. Assuming that Bolton Bakery wants to maximise profit, what is the optimal production plan for Wednesday ?

- A 80 Brownies, 30 Muffins and 100 Cupcakes
- B 0 Brownies, 90 Muffins and 100 Cupcakes
- C 120 Brownies, 0 Muffins and 100 Cupcakes
- D 40 Brownies, 60 Muffins and 100 Cupcakes

Clearly set out your workings to support your answer.

(5 marks)

**Question A1 continued over the page**

Institute of Management  
BA (Hons) Accountancy  
Semester 1 Examination 2019/2020  
Strategic Management Accounting  
Module No. ACC 6005

**Question A1 Continued**

(c) Bolton Bakery has done a detailed review of its products, costs and processes and has identified the following information:

- (1) The café customer wants to negotiate a loyalty discount.
- (2) A bulk discount on flour and sugar is available from suppliers
- (3) There is additional demand for the cupcakes in the market
- (4) The rent of the premises has been reduced for the next year.

Which of the above statements will improve the throughput accounting ratio?

- A (1) and (2)
- B (2) and (3)
- C (1) and (3)
- D (2) and (4)

Clearly set out your workings to support your answer

(5 marks)

(d) On Friday, due to the Bolton Food Festival, Bolton Bakery is considering increasing its production of cupcakes. These cupcakes can be sold at the festival at the existing selling price.

The company has unlimited capacity of weighing and mixing on a Friday but its existing three ovens are already fully utilised. Therefore, in order to supply cupcakes to the festival, Bolton Bakery will need to hire another identical oven at a cost of £45 for the day.

How much will profit increase by if the company hires the new oven and produces as many cupcakes as possible?

- A £55.00
- B £140.00
- C £95.00
- D £31.00

Clearly set out your workings to support your answer

(5 marks)

**Question A1 continued over the page**

Institute of Management  
BA (Hons) Accountancy  
Semester 1 Examination 2019/2020  
Strategic Management Accounting  
Module No. ACC 6005

**Question A1 Continued**

( e)

In a previous week, the weighing process was the bottleneck and the resulting throughput accounting ratio (TPAR) was 1.45.

Which of the following statements about the TPAR for the previous week is/are true ?

- (1) The bakery's operating costs exceeded the total throughput contribution generated from its three products.
- (2) Less idle time in the mixing department would have improved the TPAR.
- (3) Improved efficiency during the weighing process would have improved the TPAR.

- A (3) only
- B (2) only
- C (1) and (2)
- D (1) and (3)

Clearly set out your workings to support your answer

(5 marks)

**(Total 25 marks)**

**PLEASE TURN OVER PAGE....**

Institute of Management  
 BA (Hons) Accountancy  
 Semester 1 Examination 2019/2020  
 Strategic Management Accounting  
 Module No. ACC 6005

**Question A2.**

Bury Builders (BB) is a building business that provides a range of building services to the public. Recently they have been asked to quote for garage conversions (GC) and Extensions to properties (EX) and have found that they are winning fewer GC contracts than expected.

BB has a policy to price all jobs at budgeted cost plus 50%. Overheads are currently absorbed on a labour hour basis. BB thinks that a switch to activity-based costing (ABC) to absorb overheads would reduce the cost associated to GC and hence make them more competitive.

You are provided with the following data:

<b>Overhead Category</b>	<b>Annual Overheads £</b>	<b>Activity Driver £</b>	<b>Total Number of Activities Per Year</b>
Supervisors	90,000	Site Visits	500
Planners	70,000	Planning documents	250
Property related	<u>240,000</u>	Labour Hours	40,000
Total	<u>400,000</u>		

A typical GC costs £3,500 in materials and takes 300 labour hours to complete.

A GC requires only one site visit by a supervisor and needs only one planning document to be raised. The typical EX costs £8,000 in materials and takes 500 hours to complete. An EX requires six site visits and five planning documents. In all cases labour is £15 per hour.

**Required:**

- (a) Calculate the cost and quoted price of a GC and of an EX using labour hours to absorb the overheads. (8 marks)
- (b) Calculate the cost and the quoted price of a GC and of an EX using ABC to absorb the overheads. (7 marks)
- (c) Assuming that the cost of a GC falls by nearly 7 % and the price of an EX rises by about 2 % as a result of the change to ABC, suggest possible pricing strategies for the two products that BB sells and suggest two reasons other than high prices for the current poor sales of the GC. (6 marks)
- (d) One manager has suggested that only marginal cost should be included in budget cost calculations as this would avoid the need for arbitrary overhead allocations to products. Briefly discuss this point of view and comment on the implication for the amount of mark-up that would be applied to budget costs when producing quotes for jobs. (4 marks)

**(Total 25 marks)**

**PLEASE TURN OVER PAGE....**

Institute of Management  
 BA (Hons) Accountancy  
 Semester 1 Examination 2019/2020  
 Strategic Management Accounting  
 Module No. ACC 6005

### **Question A3**

During the current year Wigan Ltd planned to produce 150,000 units of its main product, a cordless hand drill. Nearing the end of the current year, activity has corresponded to budget and it is anticipated that average costs (for 150,000 units activity level) for the year will be as shown below.

	Average cost per unit
	£
Direct Material	18
Direct Labour	10
Variable Overhead	10
Fixed Overhead	<u>10</u>
	<u>48</u>

The budget for next year is being developed and the following cost changes have been forecast.

Direct material	Price Increase of 33.33 %
Direct Labour	Rate Increase of 10%
Variable Overhead	Increase of 5%
Fixed overhead	Increase of 15 %

The substantial price increase for materials is causing concern and alternative sources are being considered. One source quotes a material cost per unit of £20 but tests on samples show that the cheaper materials would increase labour costs by an additional 50p per unit and would lead to a reject rate of 5%. It would be necessary to install a test and inspection department at the end of manufacturing to identify the faulty items. This would increase fixed costs by an additional £200,000 per year.

Selling prices are also considered when the budget is being developed. Normally, selling prices are determined on a cost-plus basis, the mark up being 50% on unit costs, but there is concern that this is too inflexible, as it would lead to a substantial Price rise for the next year. The sales director estimates that demand varies with price as follows.

Price / Unit (£)	64	68	72	76	80	84	88
Demand (000units)	190	170	150	140	125	110	95

**Question A3 continued over the page**

Institute of Management  
BA (Hons) Accountancy  
Semester 1 Examination 2019/2020  
Strategic Management Accounting  
Module No. ACC 6005

**Question A3 Continued**

**Required:**

- (a) Calculate which type of material –regular or cheaper – would maximise profit. (9 marks)
- (b) On the basis of your answer to (a), calculate what selling price would maximise profit for next year. (7 marks)
- (c) It has been realised that, through better organisation, it would be possible to reduce the extra fixed costs of £200,000 originally estimated in connection with the cheaper material.

Calculate, using the price/demand you have recommended in part (b), the level of fixed costs at which the company would be indifferent as to its choice of materials.

- (4 marks)
- (d) Comment on any other factors which should be considered before the final decisions are made. (5 marks)

**(Total 25 Marks)**

**PLEASE TURN OVER PAGE....**



Institute of Management  
BA (Hons) Accountancy  
Semester 1 Examination 2019/2020  
Strategic Management Accounting  
Module No. ACC 6005

**SECTION B.**

**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 based transfer prices, and
- (ii) Cost based transfer prices.

(13 marks)

**(Total 25 Marks)**

**QUESTION B5**

(a) Critically evaluate the role of Management Accounting Control Systems in the modern business environment.

(13 marks)

(b) Identify and explain two to three factors that have had a significant impact on the requirements of the modern business environment resulting in improvements to management accounting techniques.

(12 marks)

**(Total 25 Marks)**

**QUESTION B6**

(a) Evaluate the significance of performance management in modern day business giving examples to illustrate your answer.

(13 marks)

(b) How important is it for a business to examine its internal and external position, identifying and evaluating processes that could support business endeavour.

(12 marks)

**(Total 25 Marks)**

**END OF PAPER**