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## Quality & Qualifications Ireland (QQI)

BA (Honours) Accounting and Finance

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### SUMMER 2018 EXAMINATIONS

*Module Code:* **B7AF104**

*Module Description:* **Cost Management**

*Examiner:* **Majella Malone**

*Internal Moderator:* **Tom Cunningham**

*External Examiner:* **Dr. Ciaran Mac an Bhaird**

*Date:* 30<sup>TH</sup> April 2018

*Time:* 1530 - 1830

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### INSTRUCTIONS TO CANDIDATES

Time allowed is (3) hours

Answer (4) out of (5) questions

All questions carry equal marks

## QUESTION 1

**East Ltd.** operates activity based costing and activity based budgeting systems.

The following information has been provided in respect of three separate production departments based on the traditional overhead absorption rate based on machine hours:

	Dept 1	Dept 2	Dept 3
Production cost (per unit)	€	€	€
Direct Materials	47.50	55.45	82.80
Direct Labour	22.00	42.50	72.50
Other information			
Budgeted production units	50,000	30,000	25,000
No. of production runs	2,000 $\times 0.04$	3,000 $\times 0.1$	1,000 $\times 0.04$
No. of orders placed	25,000 $\times 0.5$	40,000 $\times 1.33$	50,000 $\times 0.8$
Machine hours	50,000	30,000	20,000

Production overheads by cost pools

	€
Setup	135,000
Material handling	546,250
Inspection	840,000
Machining	1,720,000

### REQUIREMENT:

- Calculate the total cost per unit using the traditional costing system  
(5 marks)
  - Using Activity Based Costing to calculate the total cost per unit  
(15 marks)
  - Calculate the selling price for each department based on
    - 20% mark-up
    - 30% margin
 (3 marks)
  - Comment on the different cost per unit for each department based on the traditional costing (a) and activity based costing (c) above.  
(2 marks)
- (Total: 25 marks)

**QUESTION 2**

**Solus Ltd**, is a manufacturer of light fittings is preparing budgets and has provided the following draft figures for the first five months of 2018:

<u>Sales Forecast</u>	<u>Units</u>
January	6,000
February	7,500
March	8,500
April	7,000
May	6,500

The standard selling price per unit is €50.

Each light fitting uses 2kg of steel at a cost of €15 per kg and it is company policy to have inventory of steel at the end of each month to cover 50% of next month's production requirements. It is expected that at the start of January there will be 5,800kg of steel in inventory.

At the start of January it is expected that there will be 750 units of light fittings in inventory and it is policy to have inventory at the end of each month to cover 10% of the following month's sales.

10% of sales are for cash with the balance on credit of one month. All purchases are paid for in the month following purchase.

The Trial Balance on 1st January contained the following figures:

	<b>DR</b>	<b>CR</b>
Bank	€10,000	
Receivables	€250,000	
Payables		€210,000

**REQUIREMENT:**

- Prepare a production budget (in units) for the first four months of the year.  
(6 marks)
- Prepare raw material (steel) usage and purchases budgets for the first three months of the year.  
(7 marks)
- Prepare a cash budget showing the receipts and payments for the first three months of the year.  
(9 marks)
- Zero Based Budgeting (ZBB) provides an alternative to traditional incremental budgeting. Explain this statement, and provide an example of an area where ZBB may be appropriate.  
(3 marks)

**(Total: 25 marks)**

### QUESTION 3

**West Ltd**, manufactures a single multi-purpose tool used extensively by those involved in the construction industry. Given the current economic climate for this industry the company are examining its projections and plans for the next financial period: the year ending 31<sup>st</sup> August 2018.

The Directors are concerned about ensuring profitability and survival and have a number of questions and proposals about which they require advice.

The following information has been provided for the year ending 31<sup>st</sup> August 2018:

- i) 36,000 units of the product are expected to be sold at a uniform selling price of €15 per unit.
- ii) Production costs are budgeted at €345,000 of which €30,000 are regarded as fixed costs.
- iii) Selling and distribution costs are budgeted at €114,000 of which €39,000 are regarded as variable costs.
- iv) Administration costs are budgeted at €36,000 fixed cost plus € 6,000 variable giving a total of €42,000.

#### REQUIREMENT:

- a) Calculate the following:
    - i. Break-even units
    - ii. Breakeven sales revenue and
    - iii. Margin of safety based on the original budgeted data noted above.

(6 marks)
  - b) Draw a Breakeven chart (using graph paper).
- (6 marks)
- c) Calculate the expected impact on profitability of a reduction in sales demand of 25%.
 

(3 marks)
  - d) Activity Ltd. is considering a new marketing campaign to introduce the tool to the home DIY market and reduce reliance on the construction industry in general. The relevant cost of the new campaign is estimated at €30,000. Calculate the revised breakeven point and the number of additional unit sales required to cover the additional outlay.
 

(3 marks)
  - e) Alternatively the company is considering two options which may allow it to concentrate solely on the construction industry:
 

**Option A:** Offering a sales commission of €1 per unit to staff.

**Option B:** Reduce the current selling price by €1 per unit.

Option A is expected to increase sales by 20% whereas Option B will achieve an increase of 30%. However, Option B will also require an additional fixed cost for advertising of €5,000. Advise the company which option would provide the higher profit and support your answer with appropriate calculations.

(7 marks)

(Total: 25 marks)

### QUESTION 4

**Plaster Ltd**, is involved in the production and sale of "Quickdry", a product used in the building industry. The company operates a standard marginal costing system. Details of the budgeted results and actual results for Plaster Ltd for the month of March 2018 are as follows:

#### Budget details

Sales/production in units	6,000 @ €100	
Materials	4 kgs @ €10 per kg	= £ 240 000
Labour hours	3 hours @ €12 per hour	= £ 216 000
Fixed production overheads	€100,000	

#### Actual details for March 2018

Sales 5500 units €660,000  
 Materials 24,750 kgs costing €222,750  
 Labour 15,125 hours costing €211,750  
 Fixed production overheads €110,000

#### REQUIREMENT:

- Calculate the standard contribution per unit of "Quickdry".  
(2 marks)
  - Prepare an operating statement reconciling the budget contribution to the actual profit for the month of March 2018  
(18 marks)
  - Plaster Ltd currently uses **attainable standards** but is investigating using **ideal standards**.  
Explain each of the terms in bold above.  
(2 marks)
  - State three advantages of operating a system of standard costing.  
(3 marks)
- (Total: 25 marks)

**QUESTION 5**

The management accountant of Dale Ltd has asked for your help in formulating a production plan which will maximise profits. The following information is available:

Product	A	B	C	D
	€	€	€	€
Selling price per unit	30	36	52	64
Labour €5 per hour	15 <sub>(3)</sub>	10 <sub>(2)</sub>	35 <sub>(7)</sub>	25 <sub>(5)</sub>
Materials €1 per Kg	7	19	12	14
Demand in units	5,000	5,000	5,000	5,000

**Note:** Labour hours are limited to 50,000 hours in a period.

**REQUIREMENT;**

Based on the above data, calculate the maximised profit that is available if a limiting factor exists.

**(Total: 25 Marks)**