



# Management Accounting 2<sup>nd</sup> Year Examination

August 2011

Paper, Solutions & Examiner's Report



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# **Accounting Technicians Ireland**

# 2<sup>nd</sup> Year Examination: Autumn 2011

### **Paper : MANAGEMENT ACCOUNTING**

Thursday 18<sup>th</sup> August - 2.30 p.m. to 5.30 p.m.

#### **INSTRUCTIONS TO CANDIDATES**

In this examination paper the  $\notin/\pounds$  symbol may be understood and used by candidates in Northern Ireland to indicate the UK pound sterling and by candidates in the Republic of Ireland to indicate the Euro.

Answer FIVE questions. Answer <u>all three</u> questions in Section A. Answer <u>any two</u> of the three questions in Section B.

If more than the required number of questions is answered, then only the requisite number, in the order filed, will be corrected.

Candidates should allocate their time carefully.

All figures should be labelled, as appropriate, e.g. €/£'s, units etc.

Answers should be illustrated with examples, where appropriate.

Question 1 begins on Page 2 overleaf.

Note:

Examinees are permitted to use terminology of either International Accounting Standards (I.A.S's) or Financial Reporting Standards (F.R.S's) where appropriate (e.g. Receivables/Debtors) when preparing management accounting statements.

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#### SECTION A **ANSWER ALL THREE QUESTIONS**

#### **QUESTION 1** (Compulsory)

2<sup>1</sup> StudentBounty.com Elichenim Ltd use a standard costing system and has provided the following production and sales information for the month of June 2011:

|                                 | Budget/Standard | Actual           |
|---------------------------------|-----------------|------------------|
| <u>Unit Cost data</u>           |                 |                  |
| Materials                       | 25 kg per unit  | 26kg per unit    |
| Materials price                 | €/£1.00 per kg  | €/£1.10 per kg   |
| Labour hours                    | 5 hrs per unit  | 4.5 hrs per unit |
| Labour rate                     | €/£13.50 per hr | €/£14.75 per hr  |
| Monthly performance information |                 |                  |
| Sales – units                   | 10,000          | 9,000            |
| Sales price                     | €/£100          | €/£104           |
| Materials cost                  | €/£250,000      | €/£257,400       |
| Labour cost                     | € /£675,000     | €/£597,375       |
| Variable overheads              | €/£10,000       | €/£9,250         |
| Fixed overheads                 | €/£25,000       | €/£23,240        |
| Direct labour hours             | 50,000          | 40,500           |

#### **Requirement:-**

(a) Prepare a statement showing the budgeted and actual profit for the month of June. 2 Marks

(b) Calculate a budgeted variable overhead absorption rate per direct labour hour.

2 Marks

- (c) Calculate each of the following variances:
  - (i) Sales price variance.
  - (ii) Sales volume variance.
  - (iii) Materials price variance.
  - (iv) Materials usage variance.
  - (v) Labour rate variance.
  - (vi) Labour efficiency variance.
  - (vii) Variable overhead expenditure variance.
  - (viii) Variable overhead efficiency variance.
  - (ix) Fixed overhead expenditure variance.

12 Marks

(d) Prepare a variance reconciliation of budget and actual profits.

#### **QUESTION 2** (Compulsory)

StudentBounty.com LUD Ltd presently uses a traditional pre-determined overhead absorption rate for allocating production overhead to its products based on direct labour hours. production overhead cost is €/£1,225,000 and it has been determined that four major activities contribute towards this cost as follows:

|                    | €/Ł              |
|--------------------|------------------|
| Set Up             | 428,750          |
| Stores             | 367,500          |
| Production Control | 245,000          |
| Quality Control    | <u>183,750</u>   |
| Total              | <u>1,225,000</u> |

The company is investigating the use of activity based costing and has ascertained the following production information in relation to its range of products:

|   | Product A | Product B         | Product C        | Total             |
|---|-----------|-------------------|------------------|-------------------|
| No. of units produced<br>Direct Labour Hours used | 2,000     | 50,000<br>140,000 | 10,000<br>25.000 | 62,000<br>175,000 |
| No. of Set Ups                                    | 40        | 5                 | 80               | 125               |
| Inspections                                       | 40        | -                 | 35               | 75                |
| Production Orders                                 | 50        | 25                | 50               | 125               |
| Stock requisitions                                | 400       | 30                | 320              | 750               |

#### **Requirement:-**

(a) Prepare a schedule showing the production overhead charged to Products A, B and C per unit using the pre-determined overhead absorption rate used by LUD Ltd, based on traditional costing methods.

#### 5 Marks

(b) Identify cost drivers, calculate activity based overhead absorption rates for LUD Ltd, and show the revised production overhead charged to products A,B and C per unit.

8 Marks

(c) Briefly explain which set of calculations is most accurate.

#### 3 Marks

(d) LUD Ltd has received a special order for a batch of 2,000 modified units of Product C. In addition to normal production overheads, it is anticipated that this job will require materials estimated at €/£2,400 (requiring 3 stock requisitions) and 500 hours of labour at €/£11.75 per hour. Calculate the prime cost per unit of the special order, using the activity based cost information.

#### **QUESTION 3** (Compulsory)

| Management Accounting                                   | Augu                         | ıst 2011         |                | 2ª Stude         | ALB   |
|---|------------------------------|------------------|----------------|------------------|-------|
| QUESTION 3 (Compulsory)                                 |                              |                  |                |                  | CHI.  |
| Arcot Ltd has been approach would require the following | ned by a custom<br>materials | ner wishing to o | commission a s | special job that | 3.com |
|   | Stock 101                    | Stock 201        | Stock 301      | Stock<br>401     | 12    |
| Ka required   | 200                          | 1,000            | 1,000          | 1,000            |       |
| Kg in stock   | 200                          | 600              | 750            | -                |       |
| Carrying stock value (per kg)                           | €/£40.00                     | €/£20.00         | €/£30.00       | -                |       |
| Realisable value (per kg)                               | €/£25.00                     | -                | €/£25.00       | -                |       |
| Current market price (per kg)                           | €/£60.00                     | €/£50.00         | €/£40.00       | €/£60.00         |       |

The stores manager has provided the following additional information:

- Stock 101 is no longer used in normal production, but an opportunity has recently been identified where this material could be used in another job as a substitute for Stock 51(which currently costs the company €/£40.00 per kg).
- Stock 201 is used on other production lines and any stock allocated to this job will have to be replaced to meet demand.
- Stock 301 is now obsolete and no alterative use is envisaged.

It is estimated that 1,200 hours of direct labour will be required for the job (costing  $\notin f$ ) 12.50 per hour) and production overhead is normally charged at 50% of direct labour. A mark-up of 50% on cost is normally applied in preparing sales prices.

#### **Requirement:-**

(a) Calculate the relevant costs of materials for this special commission order, providing supporting explanation.

#### 10 Marks

(b) Using the relevant materials cost, calculate the total job cost and normal sales price for this job.

#### 6 Marks

(c) The customer is offering a price of  $\ell/225,000$  - advise Arcot Ltd on whether or not they should accept, briefly outlining any other factors for consideration.

#### SECTION B **ANSWER TWO OUT OF THE FOLLOWING THREE QUESTIONS**

#### **QUESTION 4**

StudentBounty.com Countdown Ltd manufactures and sells IT peripheral devices and projects the following information in relation to the first four months of the next financial year:

|          | Sales   | Administration | Premises    |
|----------|---------|----------------|-------------|
|          | (Units) | expenses       | expenditure |
|          |         | €/£            | €/£         |
| January  | 8,000   | 8,500          | 20,000      |
| February | 10,000  | 10,500         | 20,000      |
| March    | 12,000  | 12,000         | 25,000      |
| April    | 12,000  | 8,500          | 20,000      |
| May      | 15,000  |                |             |

- The projected sales price is normally  $\xi/220$  per unit, but it is proposed to offer a • discount of 10% in January.
- The cost of direct materials is estimated to be €/£5 per unit. ٠
- The cost of direct labour is estimated to be €/£8 per unit.
- Variable production overhead is absorbed at a rate of 25% of direct labour costs.
- Sales and Marketing expenditure is projected at €/£1.80 per sales unit.
- Stock of 50% of the following months sales requirement is held at the end of the month.

€/£

- Depreciation is at a rate of 20% straight line per annum.
- Debtors are projected to be 20% of the months sales value.
- Trade creditors at the end of April are projected to be €/£25,000. ٠

| Equipment  | 210,000          |
|--|------------------|
| Current Assets:<br>Stock (4000 units)<br>Debtors | 50,000<br>80,000 |
| Bank Overdraft                                   | (82,000)         |
| Creditors  | (40,000)         |
| Net Assets                                       | 218,000          |
| Profit and loss account reserves                 | <u>218,000</u>   |

Opening Balance Sheet @ 1 January 2012

#### **Requirement:-**

(a) Prepare budgeted profit and loss accounts for **each** of the first four months: January, February, March and April, of the company's year.

12 Marks

(b) Prepare a projected balance sheet at the end of April 2012.

6 Marks

(c) The bank has asked Countdown Ltd to prepare a continuous or rolling budget briefly explain this term.

#### **QUESTION 5**

2<sup>n</sup> StudentBounty.com The owner of your company has recently attended a training course that introduced him to some management accounting terminology. As a follow up, he has asked you to prepare a note explaining and giving examples of the following terms, which he feels are relevant:

- Equivalent units.
- By products.
- Incentive schemes.
- Step costs.
- Project planning.

Total 20 marks

#### **QUESTION 6**

Resol Ltd commenced trading on 1 April 2011 making the product Resol. The standard cost sheet for Resol is as follows: -

|                              | €     |
|------------------------------|-------|
|                              | /£    |
| Direct Materials             | 8.00  |
| Direct Labour                | 5.00  |
| Variable Production Overhead | 2.00  |
| Fixed Production Overhead    | 5.00  |
| Total Standard Cost          | 20.00 |
| Sales price                  | 35.00 |

The fixed production overhead figure has been calculated on the basis of a budgeted normal output of 24,000 units per annum. Fixed Sales and Administration costs are estimated at €/£24,000 per annum. You may assume that all budgeted fixed expenses are incurred evenly over the year.

The sales price is  $\xi/\pm 35.00$  and the actual number of units produced and sold was as follows: -

|                    | April | May   |
|--------------------|-------|-------|
| Production – units | 2,000 | 2,500 |
| Sales – units      | 1,500 | 3,000 |

#### **Requirement:-**

- a) Prepare a profit statement for each of the months April and May using:
  - (i) marginal costing.
  - (ii) absorption costing.

12 Marks

b) Outline the advantages and disadvantages of a standard costing system.

August 2011

# 2<sup>n</sup>StudentBounty.com 2<sup>nd</sup> Year Examination: August 2011

# **Management Accounting**

# **Suggested Solutions**

Students please note: These are suggested solutions only; alternative answers may also be deemed to be correct and will be marked on their own merits.

#### Suggested Solution 1 Elichenim Ltd (a) Statement of Profit

| (a) Statement of Front |         |           |         |         |  |
|------------------------|---------|-----------|---------|---------|--|
|                        | Bud     | get       | Actual  |         |  |
|                        | £/€     | £/€       | £/€     | £/€     |  |
| Sales                  |         | 1,000,000 |         | 936,000 |  |
| Materials              | 250,000 |           | 257,400 |         |  |
| Labour                 | 675,000 |           | 597,375 |         |  |
| Variable Overhead      | 10,000  | 935,000   | 9,250   | 864.025 |  |
| Gross Profit           |         | 65,000    |         | 71.975  |  |
| Fixed Overhead         |         | 25,000    |         | 23,240  |  |
| Net Profit             |         | 40,000    |         | 48,735  |  |
|                        |         |           |         |         |  |

Standard contribution/profit per unit  $65,000/10,000 = \pounds 6.5$ 

#### (b) Variable overhead absorption rate

| Budgeted standard labour h<br>Variable overhead | ours (5 x 100    | 00)<br>€                | 50,000<br>/£10,000 |               |
|---|------------------|-------------------------|--------------------|---------------|
| Standard variable overhe                        | ad rate per      | hour                    | C/£0.20            |               |
| Standard variable overhead                      | rate per unit    |                         | €/£1.00            |               |
| (c)   |                  |                         |                    |               |
| (i) Sales Price Variance                        |                  |                         |                    |               |
| Actual Sales Quantity x Act                     | tual Price) – (/ | Actual Sales Quar       | ntity x Stan       | dard Price)   |
| $(9.000 \times 104.00)$                         | -                | $(9.000 \times 100.00)$ | )                  | ,             |
| 936,000   | -                | 900,000                 |                    | £/€36,000 fav |
| (ii) Sales Volume Variand                       | e                | ,                       |                    | , ,           |
| (Actual Sales Ouantity x St                     | andard profit    | per unit) – (Stand      | dard Sales         | Ouantity x    |
| Standard profit per unit)                       |                  |                         |                    | <b>L</b>      |
| $(9.000 \times 6.50)$                           | _                | $(10.000 \times 6.50)$  |                    |               |
| 58.500  | _                | 65.000                  | =                  | £/€6.500 adv  |
|   |                  | ,                       |                    | _, _, _,      |
|   |                  |                         |                    |               |
| (iii) Material price variand                    | ce               |                         |                    |               |
|   |                  |                         |                    |               |

| (Actual quantity of inputs x Actual p | orice) – | • (Actual quantity of I | inputs | x Standard Price) |
|---------------------------------------|----------|-------------------------|--------|-------------------|
| (9000 x 26 x 1.10)                    | _        | (9000 x 26 x 1.00)      |        |                   |
| 257,400                               | -        | 234,000                 | =      | £/€23,400 adv     |

| Management Accounting Suggested Solution 1 (Cont'd | August 2011                    | •                     | 2" Studentsou        |
|--|--------------------------------|-----------------------|----------------------|
| (iv) Materials usage variance                      |                                |                       | 201                  |
| (Actual quantity of inputs x Star                  | ndard price) – (Flexed qu      | antity x Sta          | ndard price)         |
| (9000 X 26 X 1.00) -                               | (9000 X 25 X .<br>225 000      | 1.00) _               | £/£9000 adv          |
| (v) Labour rate variance                           | 225,000                        | _                     |                      |
| (Actual Hours of input x Actual                    | Rate) – (Actual Hours of i     | nput x Stan           | dard rate)           |
| (4.5 x 9000 x 14.75) -                             | (4.5 x 9,000 x 13.50)          | )                     | ,                    |
| 597,375 -  | 546,750                        | =                     | £/€50,625 adv        |
| (vi) Labour efficiency varian                      | се                             |                       |                      |
| (Actual Hours of input x Standa                    | rd rate) – (Standard hour      | rs required f         | or actual output x   |
| Standard rate) $(4.5 \times 0.000 \times 13.50)$   | $(0000 \times 5 \times 12 50)$ |                       |                      |
| (4.3 x 9000 x 13.30) -<br>546 750 -                | (9000 x 5 x 15.50)<br>607 500  | _                     | £/€60 750 fav        |
| (vii) Variable overhead expe                       | nditure                        |                       | 2/ 000// 50 100      |
| (Actual variable overhead expe                     | nditure) – (Actual hours x     | Variable ov           | erhead absorption    |
| rate)  |                                |                       |                      |
| 9,250 -  | (4.5 x 9,000 x 0.20)           | =                     | £ <b>/€1,150</b> adv |
| (viii) Variable overhead effic                     | ciency variance                |                       |                      |
| (Actual Hours of input x variable                  | e overhead absorption rat      | te) – (Stand          | ard hours required   |
| for actual output $x$ variable                     | overnead absorption rate       | ?)                    |                      |
| (4.5 x 9000 x 0.20) -<br>8 100 -                   | (9000 x 5 x 0.20)<br>9 000     | = <b>f</b> / <b>f</b> | 900 fav              |
| (ix) Fixed overhead expendi                        | ture                           | - 2/0                 |                      |
| Actual fixed overhead expenditu                    | ire – Budgeted fixed over      | head expen            | diture               |
| 25,000 -   | 23,240                         | = £/€                 | 1,760 fav            |

#### (d) Statement of Variance Reconciliation of Budget and Actual profit

|                               | Adverse | Favourable |        |
|-------------------------------|---------|------------|--------|
|                               | €/£     | €/£        | €/£    |
| Budgeted Profit               |         |            | 40,000 |
| Sales Price Variance          |         | 36000      |        |
| Sales Volume Variance         | 6500    |            |        |
| Material price variance       | 23400   |            |        |
| Materials usage variance      | 9000    |            |        |
| Labour rate variance          | 50625   |            |        |
| Labour efficiency variance    |         | 60750      |        |
| Variable overhead expenditure | 1150    |            |        |
| Variable overhead efficiency  |         | 900        |        |
| variance                      |         |            |        |
| Fixed overhead expenditure    |         | 1760       |        |
|                               | 90,675  | 99,410     | +8735  |
| Actual Profit                 |         |            | 48,735 |

#### Suggested Solution 2

| Management Accountin<br>Suggested Solution<br>(a)   | ng Augus<br><b>2</b> | st 2011    | 2" Student | Bount |
|---|----------------------|------------|------------|-------|
|   | Product A            | Product B  | Product C  |       |
| No of Direct labour<br>Hours                        | 10,000               | 140,000    | 25,000     | ·013  |
| Production<br>Overhead allocated<br>( $x \in /£7$ ) | €/£70,000            | €/£980,000 | €/£175,000 |       |
| No of units<br>produced                             | 2,000                | 50,000     | 10,000     |       |
| Overhead cost per<br>unit                           | €/£35.00             | €/£19.60   | €/£17.50   |       |

Pre-determined overhead absorption rate - based on direct labour hours = €/£7 per direct labour hour 1,225,000 175,000

| (b)                             |            |                       |                 |            |
|---------------------------------|------------|-----------------------|-----------------|------------|
| COST CENTRES                    | Set Up     | Production<br>Control | Quality Control | Stores     |
| Production<br>Overhead          | €/£428,750 | €/£245,000            | €/£183,750      | €/£367,500 |
| Cost Driver                     | 125        | 125                   | 75              | 750        |
| Activity Based<br>Overhead rate | €/£3430    | €/£1960               | €/£2450         | €/£490     |

|                           | Product A<br>€/£ | Product B<br>€/£ | Product C<br>€/£ |
|---------------------------|------------------|------------------|------------------|
| Set Up                    | 137,200          | 17150            | 274,400          |
| Production Control        | 98,000           | 49,000           | 98,000           |
| Quality Control           | 98,000           | -                | 85,750           |
| Stores                    | 196,000          | 14,700           | 156,800          |
| TOTAL                     | 529,200          | 80850            | 614,950          |
| No of units produced      | 2,000            | 50,000           | 10,000           |
| Overhead cost per<br>unit | 264.60           | 1.617            | 61.50            |

(c) Activity based costing, which is represented by the second set of figures calculated at part (b), is generally regarded as being more accurate. The traditional pre-determined overhead rate based on direct labour is a general calculation which does not consider the activities which actually drive costs. The further information provided allows a more detailed calculation of actual costs attributable which provides better information for decision making.

This is clearly illustrated by the overhead costs allocated to product B. High volumes of Product B are produced in large batches - hence it requires less support in terms of set up, quality control and stores. Under traditional overhead costing – it is apportioned a significant overhead cost of  $\ell$ /£980,000 or  $\ell$ /£19.60 per unit - which does not reflect the true value of costs is uses. Activity based costing allocates €/£80,850 overheads representing €/£1.617 per unit – which more accurately reflects costs incurred in producing Product B. Products A and C appear to be more specialised and require significantly more support which incurs overhead cost. This is only recognised by activity based costing and this information will better inform pricing decisions in the future.

. .

#### Suggested Solution 2 (Cont'd)

(d) Special Order Costing

|                             | €/£           |
|-----------------------------|---------------|
| Direct Materials            | 2,400         |
| Direct Labour (500 x 11.75) | 5,875         |
| Production Overhead         |               |
| Set Up                      | 3,430         |
| Production Control          | 1,960         |
| Quality Control             | 2,450         |
| Stores (3 x 490)            | <u>1,470</u>  |
| Prime Cost                  | <u>17,585</u> |
|                             |               |



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#### Suggested Solution 3

| Total | relev                               | ant cost |                   | 146,750 |
|-------|-------------------------------------|----------|-------------------|---------|
| Stock | 401                                 | Note 4   | 1000ka @ €/£60.00 | 60,000  |
|       |                                     |          | 250kg @ €/£40.00  | 10,000  |
| Stock | 301                                 | Note 3   | 750kg @ €/£25.00  | 18,750  |
| Stock | 201                                 | Note 2   | 1000kg @ €/£50.00 | 50,000  |
| Stock | 101                                 | Note 1   | 200kg @ €/£40.00  | 8, 000  |
| (a)   | Summary of Relevant Materials Costs |          | €/£               |         |

#### Note 1 Stock 101

Exactly 200kg of material is held and would not be replaced if used. There are two options for use – either to sell the existing stock at  $\pounds/\pounds$  25.00 per kg or to use as a substitute for Stock 51 (normally costing  $\notin/\pounds40.00$  per kg). Since substitution is the most beneficial for the company, the relevant cost for this exercise is the opportunity cost to the company of not using this material as a substitute material on the other contract - €/£40.00 per unit

#### Note 2 Stock 201

There are 600kg of this material in stock and it is used regularly by the company and this would have to be replaced. In addition 400kg will have to be purchased to meet this contract requirement. The relevant costs for the entire requirement is the current market price - €/£50.00 per unit

#### Note 3 Stock 301

750kg of this stock is held and it is no longer required and will not be replaced. If used in the contract then they cannot be sold at the realisable value of  $\ell/225.00$  per kg – this represents the opportunity cost of sales revenue foregone. An additional 250kg will be required to fulfil this order and these must be purchased at  $\xi/\pm 40.00$  per kg.

Note 4 Stock 401

There is no stock held and therefore this material will have to be purchased at the current market price  $- \notin \pounds = 0.00$ .

| (b)  | €/£     |
|--|---------|
| Direct materials – relevant costs (as above) | 146,750 |
| Direct Labour 1200 x 12.50                   | 15,000  |
| Production Overhead - 50% of direct labour   | 7,500   |
| Production cost                              | 169,250 |
| Mark Up – 50%                                | 84,625  |
| Normal Sales price                           | 253875  |
|  |         |

#### Suggested Solution 3 (Cont'd)

#### (c)

StudentBounty.com At a price of £225,000, Arcot Ltd will make a contribution on production costs of £55,750, which represents a margin of almost 25%. This is £28,875 lower than the normal sales price and has a similar impact on profitability. The primary factor influencing the decision on whether to accept this special order is the capacity of the business, both in terms of production and labour. It would not be

advantageous to accept the order if this meant that other business priced at normal rates would be affected. However if there is adequate spare capacity existing, then the contribution is sufficient to justify accepting the order.

Other factors which will impact on the decision will include

- other customer and competitor considerations -
- production quality, efficiency and control management issues \_
- credit experience and reliability of customer

Scope for repeat business

| Management Account<br>Suggested Solution | ing<br>4 COUNTDOW | August 2011<br>/N LTD |          | 2 <sup>h</sup> Stille | TentBou |
|--|-------------------|-----------------------|----------|-----------------------|---------|
|  | Jan 2012          | Feb 2012              | Mar 2012 | Apr 2012              | 28      |
|  | €/£               | €/£                   | €/£      | €/£                   | 12      |
| Sales                                    | 144,000           | 200,000               | 240,000  | 240,000               |         |
| Opening Stock                            | 50,000            | 75,000                | 90,000   | 90,000                |         |
| Direct Materials                         | 45,000            | 55,000                | 60,000   | 67,500                |         |
| Direct Labour                            | 72,000            | 88,000                | 96,000   | 108,000               |         |
| Variable Production                      | 18,000            | 22,000                | 24,000   | 27,000                |         |
| Overhead                                 |                   |                       |          |                       |         |
| Closing Stock                            | (75,000)          | (90,000)              | (90,000) | (112,500)             |         |
| Cost of Goods Sold                       | 110,000           | 150,000               | 180,000  | 180,000               |         |
| Gross Profit                             | 34,000            | 50,000                | 60,000   | 60,000                |         |
| Sales & marketing                        | 14,400            | 18,000                | 21,600   | 21,600                |         |
| Administration                           | 8,500             | 10,500                | 12,000   | 8,500                 |         |
| Premises                                 | 20,000            | 20,000                | 25,000   | 20,000                |         |
| Depreciation                             | 3,500             | 3,500                 | 3,500    | 3,500                 |         |
| Total Costs                              | 46,400            | 52,000                | 62,100   | 53,600                |         |
| Net profit/(loss)                        | (12,400)          | (2,000)               | (2,100)  | 6,400                 |         |

#### Suggested Solution 4 COUNTDOWN LTD (a) Projected Profit & Loss Accounts

#### (b) Countdown Ltd Projected Balance Sheet as at 30 April 2011

| Fixed Assets – Equipment  | £/€                          | £/€<br>196,000           |
|---|------------------------------|--------------------------|
| Stock<br>Debtors  | 112,500<br>48,000<br>160,500 |                          |
| Bank Overdraft<br>Trade Creditors<br>Net current assets<br>Net Assets | (123,600)<br><u>(25,000)</u> | 11,900<br><b>207,900</b> |
| Reserves  |                              | 207900                   |

#### (c) Continuous/Rolling Budget

A continuous or rolling budget is constantly updated to reflect the current operating circumstances and revised projected position, as new information becomes available. As each month or quarter end, a new period is added and projections are updated to reflect the most recent trading position. This approach ensures that budgeting and planning are very focused on the current position and maintained up to date.

#### Suggested Solution 4 (Cont'd)

#### Workings

| Management Accour               | nting         | August 2011 |          | 2 <sup>n</sup> 57117 | Tento |
|---------------------------------|---------------|-------------|----------|----------------------|-------|
| Suggested Solution              | on 4 (Cont'd) |             |          |                      | 2     |
| Workings                        |               |             |          |                      | ETT.  |
| Stock & Production              | Calculation   |             |          |                      | 6     |
|                                 | Jan 2012      | Feb 2012    | Mar 2012 | Apr 2012             | 3     |
| Next months                     | 10000         | 12000       | 12,000   | 15000                |       |
| Sales quantity                  |               |             |          |                      |       |
| Closing Stock                   |               |             |          |                      |       |
| (a) – 50%                       | 5000          | 6000        | 6000     | 7500                 |       |
| Sales quantity                  | 8000          | 10000       | 12000    | 12000                |       |
|                                 | 13000         | 16000       | 18000    | 19500                |       |
| Opening Stock                   | (4000)        | (5000)      | (6000)   | (6000)               |       |
| Production<br>requirements      | 9000          | 11000       | 12000    | 13500                |       |
|                                 | €/£           | €/£         | €/£      | €/£                  |       |
| Direct Materials                | 45,000        | 55,000      | 60,000   | 67,500               |       |
| Direct Labour                   | 72,000        | 88,000      | 96,000   | 108,000              |       |
| Variable Prod'n                 | 18,000        | 22,000      | 24,000   | 27,000               |       |
| Overhead                        |               |             |          |                      |       |
| Closing Stock<br>(a) x €/£15.00 | 75,000        | 90,000      | 90,000   | 112,500              |       |

Depreciation Calculation €/£210,000 x 20% = €

= €/£42,000 per annum

= €/£3500 per month

| Reserves @ 1 Janua | ry              | 218,000 |
|--------------------|-----------------|---------|
| Projected Loss     | -January 2012   | (12400) |
|                    | -February 2012  | (2000)  |
|                    | -March 2012     | (2100)  |
| Projected Surplus  | -April 2012     | 6400    |
| Projected Reserves | @ 30 April 2012 | 207,900 |

Bank overdraft – calculated in Balance Sheet as balancing figure Proof of calculation

| Opening Bank balance    |        | 82,000  |
|-------------------------|--------|---------|
| Projected deficit       | -10100 |         |
| Increase in stock       | -62500 |         |
| Decrease in debtors     | +32000 |         |
| Decrease in creditors   | -15000 |         |
| Depreciation (Non Cash) | +14000 | 41,600  |
|                         |        | 123,600 |

#### Suggested Solution 5

#### **MEMORANDUM**

To: Mr Smith

From: A Technician

Re: Management Accounting Terminology

Date: x/x/xx

StudentBounts.com As requested please find attached further information with relevant supporting examples on the following subjects

- Equivalent units
- By products
- Incentive scheme
- Step costs
- Project planning

#### Equivalent Units

This is a term used in process costing which can also be relevant to the valuation of manufactured stock. At the end of any given period of accounting, there are likely to be partly completed units in process. Clearly, some of the costs, including direct materials, direct labour and overhead which have been incurred during the period are attributable to these units as well as those which are fully complete. In order to spread cost equitably, the number of equivalent units is calculated on a mathematical basis - this is the equivalent number of fully complete units which the partly complete units represent. The formulae for Equivalent units is

Number of Partially completed units X percentage of completion Example:

Production of fully complete units during period 2000 units Work in progress 500 units – 50% complete

2000 + (500\*50%) =2250 units Total equivalent production Cost would be spread over the total equivalent production of 2250 units **By- Products** 

By-product is the term used for one or more products, which are produced simultaneously and incidental to the main product and have a relatively small sales value relative to the main product of processing, Some by products may need further processing after separation from the main product. A simple approach to costing of byproducts is normally adopted - this may involve deduction of any proceeds from total cost or treatment as incidental income in the profit and loss account.

Example: sawdust and small off cuts are regarded as by products of timber processing processes.

#### Suggested Solution 5 (Cont'd)

#### Incentive scheme

StudentBounty.com Incentive schemes are a means of remuneration which relate payment to output. The aim of such schemes are to benefit the employee by providing an opportunity to increase earnings, while encouraging performance and providing for increased productivity, which may reduce overhead cost per unit. Schemes can be based upon individual performance or aimed at incentivising groups of employees. Incentive schemes should be based on efficient working methods following comprehensive work studies and may be financial or non-financial in nature.

Example: Piecework Incentive scheme

Charlie works a standard 40 hour week and is paid a flat hourly rate of  $\mathcal{E}/\mathcal{E}$  8.50 /hour. The company is offering a piecework incentive scheme based on the following parameters:

Product A – time allowance 1.5 minutes per unit Piecework rate – €/£0.15 per production minute

Charlie estimates that he produces between 1500 and 1700 units of Product A in a standard week.

Impact of incentive scheme

Normal weekly wage - €/£340 *Production at 1500 units - €/£337.50* Production at 1700 units - €/£382.50

(40 x €/£8.50)  $(1500 \times 1.5 = 2250 \times 0.15)$  $(1700*1.5 = 2550 \times 0.15)$ 

#### Step costs

Step costs are generally overheads which remain constant for a range of activity and then increase by a notable amount when the activity increases to a higher level. The correlation between steps may not be based on an algebraic calculation and may be ad hoc based on other factors.

Example:

Production up to 10,000 units can be accommodated at existing factory incurring a premises overhead of £150,000;

Production in the range 10,000- 15,000 units can be facilitated at an adjoining facility incurring additional premises overheads of £60,000

Production in excess of 15,000 units will require new factory premises at an estimated premises overhead cost of £150,000

#### Project Planning

Planning is the process of setting goals and objectives, developing strategies and outlining tasks and schedules to accomplish the goals. This process will involve resource considerations and this is how management accounting can support the business function.

Project planning is normally concerned with specific issues in a set timeframe. The goal is usually clear, the timeframe is normally short term and immediate action is required. Project planning is likely to involve clear schedules of tasks, details of key roles and responsibilities, defined stages and budget allocations.

Example

A company wishes to upgrade their management information system.

A project plan is developed which outlines the task, key activities, budgeted costs (including staff time) and milestones. This plan acts as a control document – firstly to ensure approval and commitment of resources are in place and then at various project stages to monitor progress and any variance against the plan.

| Management Accounting   | August 2011 | 2ª Studen |    |  |
|---|-------------|-----------|----|--|
| Suggested Solution 6<br>(a) (i) Marginal Costing Profit Statement |             |           |    |  |
|   | April 2011  | May 2011  | 12 |  |
|   | €/£         | €/£       | 6  |  |
|   | €/£         | €/£       | 3  |  |
| Sales   | 52,50       | 0 105,000 |    |  |
| Cost of Sales   |             |           |    |  |
| Opening Stock   | 0           | 7,500     |    |  |
| Variable production cost  | 30,000      | 37,500    |    |  |
| Closing Stock   | (7,500)     | 0         |    |  |
|   | 22,500      | 45,000    |    |  |
| Contribution  | 30,00       | 0 60,000  |    |  |
| Fixed production Overheads  | 10,000      | 10,000    |    |  |
| Sales & Administration  | 2,000       | 2,000     |    |  |
| Overheads   | 12,000      | 12,000    |    |  |
| Profit for period   | 18,00       | 48,000    | ]  |  |

#### (ii) Absorption Costing Profit Statement

|                         | April 2011 | May 2011 |
|-------------------------|------------|----------|
|                         | €/£        | €/£      |
|                         | €/£        | €/£      |
| Sales                   | 52,500     | 105,000  |
| Cost of Sales           |            |          |
| Opening Stock           | 0          | 10,000   |
| Production cost (total) | 40,000     | 50,000   |
| Closing Stock           | (10,000)   | 0        |
|                         | 30,000     | 60,000   |
| Gross Profit            | 22,500     | 45,000   |
| Sales & Administration  | 2,000      | 2,000    |
| Overheads               |            |          |
| Over-absorbed fixed     | 0          | (2,500)  |
| production overhead     |            |          |
| Profit for period       | 20,500     | 45,500   |



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month
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(b) Advantages and Disadvantages of Standard Costing

Standard costing is a detailed process involving the estimation of product costs and related sales revenues. The standard costs are pre-determined costs that would be incurred under normal efficient operating circumstances. Standard costing is used as a control system in organisations - actual results are compared with the standard and the arising variances are analysed to inform management on issues which may lead to more effective and efficient operations. Standard costing is useful for decision making, for budget preparation, for target setting and also in some instances for profit measurement and stick valuation. These uses provides the context for the advantages and disadvantages of standard costing systems

| <u>ADVANTAGES</u>                           | DISADVANTAGES                               |  |
|---|---|--|
| Useful for management by Exception –        | Reports and information is prepared after   |  |
| variances outside a range can be focussed   | the event on a historical basis             |  |
| upon for attention                          |   |  |
| Motivational aspects - reasonable           | Standards used inappropriately, with a      |  |
| standards can be used to establish          | focus on negative impacts, can have a       |  |
| production targets/benchmarks               | demotivational impact                       |  |
| Easy to administer and facilitates          | Calculation of efficiency variances assume  |  |
| accounting particularly in a high volume or | labour is always variable and that normally |  |
| complex manufacturing process               | production is a factor of labour            |  |
| Provides useful information for total cost  | Favourable and adverse variance can be      |  |
| build up which can inform pricing decisions | difficult to understand.                    |  |
| Variance analysis may prompt investigation  | No consideration of qualitative factors     |  |
| of positive as well as negative variances - |   |  |
| highlighting areas of good practice         |   |  |

August 2011

# StudentBounty.com 2<sup>nd</sup> Year Examination: August 2011

### Management Accounting

# **Examiner's Report**

A relatively small number of candidates presented for this re-sit paper. The performance at this session was disappointing and it was evident that many candidates were not adequately prepared for this examination. Arithmetic and calculation errors were a feature, together with a clear lack of functional knowledge and competency in some core subject elements. This resulted in an overall average mark of 41.13% (2010 2<sup>nd</sup> session - 43.5%) and a pass rate of just 28.37% (2010 - 35%)

Question Question Question Question Question Question 6 2 5 1 3 4 208 199 155 168 46 195 No attempting Ave. % 45% 37.5% 34.4% 45.75% 53.8% 53.7%

The performance per individual question was as follows:

The questions were designed assess the module objective and key learning outcome the students knowledge and technical competency in management accounting to support business functions, activities and decision making, and covered all areas of the syllabus.

#### **Question 1**

This question assessed the subject area of variance analysis – a key element of the standard costing, budgetary planning and control section of the syllabus. The question was designed with parts (a) and (b) providing marks for basic calculations - which were not achieved in a number of cases due to incomplete information or calculation errors. Part (c) required nine standard variance and part (d), a variance reconciliation. The standard varied from those who were not able to present the variance formulae and struggled with the question, to those who produced the formulae without fully applying it and the minority who were able to attempt the relevant calculations. The majority of candidates did not attempt part (d) which showed a lack of overall knowledge of this subject matter.

#### **Question 2**

This question examined overhead costing in a practical scenario using tradition absorption methodology and activity based costing. It was on of the poorest answers in terms of marks awarded on the paper, despite being one of the compulsory questions. The calculations required were quite simple, but required an understanding of how the theory should be applied. Some candidates incorrectly used activity based cost drivers in Part (a). Part (d) was a job costing exercise which was not attempted by most candidates.

#### Question 3

StudentBounty.com This was the second consecutive session which saw the question related to decision making cause candidates some considerable difficulty. This question related to a special pricing decision focussed on the area of stock. This question attracted the lowest overall mark on the paper, as in many instances the information was incomplete apart from being incorrect. Marks were allocated for an explanation of the costs used, but this was not often provided. The standard of answers to part (c) was very poor with only a small number discussing factors outside of the stock costs.

#### **Question 4**

This question required the practical application of budgetary planning techniques to produce a projected profit & loss and balance sheet. Typical errors included application of discount to all sales, no adjustment for stock, incorrect depreciation calculations and presentation in the form of a cashflow statement. Recent performance in this subject area has been good, however the standard was not maintained at a satisfactory level at this session. The rolling budget explanation was in some instances incorrect and in most others extremely brief.

#### **Question 5**

It is difficult to understand why so few candidates attempted this straightforward theory based question, unless this is an indication of the level of preparation. The overall average mark was marginally the highest on the paper but, even among those who did attempt this question, the standard of answers was often poor demonstrating a lack of knowledge of terminology which is clearly covered in the manual. In order to attract good marks, the five terms required a brief, but relevant definition and practical example as stated in the question.

#### **Question 6**

This was a popular question in the optional section and was one of only two questions which had an overall average in excess of 50%. Most candidates did attempt to present calculations for marginal and absorption costing with varying degrees of accuracy. The main errors related to stock calculations, while a minority did not demonstrate an appreciation of the differences between the two methods. Only some candidates made an effort to calculate the over-absorbed overheads for the May absorption costing statement. Answers to part (b) were satisfactory but were in some cases not well presented.