



General Certificate of Education

Accounting ACC7

**Unit 7 Further Aspects of Accounting for
Management and Decision-Making**

Mark Scheme

2007 examination - June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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June 2007**ACC7****MARK SCHEME****INSTRUCTIONS TO EXAMINERS**

You should remember that your marking standards should reflect the levels of performance of Advanced Level candidates, mainly 18 years old, writing under examination conditions.

Positive Marking

You should be positive in your marking, giving credit for what is there rather than being too conscious of what is not. Do not deduct marks for irrelevant or incorrect answers as candidates penalise themselves in terms of the time they have spent.

Mark Range

You should use the whole mark range available in the mark scheme. Where the candidate's response to a question is such that the mark scheme permits full marks to be awarded, full marks **must** be given. A perfect answer is not required. Conversely, if the candidate's answer does not deserve credit, then no marks should be given.

Alternative Answers / Layout

The answers given in the mark scheme are not exhaustive and other answers may be valid. If this occurs, examiners should refer to their Team Leader for guidance. Similarly, candidates may set out their accounts in either a vertical or horizontal format. Both methods are acceptable.

Own Figure Rule

In cases where candidates are required to make calculations, arithmetic errors can be made so that the final or intermediate stages are incorrect. To avoid a candidate being penalised repeatedly for an initial error, candidates can be awarded marks where they have used the correct method with their own (incorrect) figures. Examiners are asked to annotate a script with **OF** where marks have been allocated on this basis. **OF** always makes the assumption that there are no extraneous items. Similarly, **OF** marks can be awarded where candidates make correct conclusions or inferences from their incorrect calculations.

Quality of Written Communication

Once the whole script has been marked the work of the candidate should be assessed for the Quality of Written Communication, using the criteria at the end of the mark scheme. The mark should be shown separately on the candidate's script.

Synoptic Assessment

Synoptic assessment is located in the last question. Candidates will be required to integrate their knowledge, understanding and skills learned in different parts of the A Level course.

1

Total for this question: 21 marks

The directors of Mihail Manufacturing Ltd forecast a profit of £72 100 for the year ended 31 March 2007. The company operates a system of standard costing.

At the year end, it was discovered that the number of units sold and total sales revenue were as expected. Production levels were also as expected. However, the following information is available for materials and labour.

| | Standard | Actual |
|--------------------------|-----------------|---------------|
| Material price per metre | £4 | £3.50 |
| Metres of material | 1200 metres | 1250 metres |
| Labour rate per hour | £12 | £13 |
| Hours of labour | 600 hours | 520 hours |

REQUIRED

- 1(a) Define the term 'variance', used in standard costing.

A variance is the difference between the standard costs/revenues and the actual costs/revenues for a period of time (2) or 0. 2 marks

- 1(b) Calculate **both** the material price variance **and** the material usage variance for the year ended 31 March 2007.

Material price
1250 (4 – 3.50) (1) = £625 (1) FAV (1)

Material usage
4 (1200-1250) (1) = £200 (1) ADV (1) 6 marks

- 1(c) Calculate **both** the labour rate variance **and** the labour efficiency variance for the year ended 31 March 2007.

Labour rate
520 (12-13) (1) = £520 (1) ADV (1)

Labour efficiency
12 (600 – 520) (1) = £960 (1) FAV (1) 6 marks

- 1(d) Prepare a profit reconciliation statement to calculate the actual profit for the year ended 31 March 2007.

Mihail Manufacturing Ltd
Profit reconciliation statement for the year ended 31 March 2007 (1)

| | | £ |
|---|--------------------------|-----------------------------|
| | Budgeted profit | 72 100 (1) |
| Variances must be in correct direction | Material price | 625 (1) OF |
| | Material usage | (200) (1) OF |
| | Labour rate | (520) (1) OF |
| | Labour efficiency | <u>960 (1) OF</u> |
| | Actual profit | <u>72 965 (1) OF</u> |

7 marks

2

Total for this question: 14 marks

Robert intends to purchase a new machine costing £60 000.

The cost of capital is 8%.

The discount factors are:

| | |
|--------|-------|
| Year 1 | 0.926 |
| Year 2 | 0.857 |
| Year 3 | 0.794 |
| Year 4 | 0.735 |

The annual net cash flow is expected to be £26 000 per annum for the next three years.

REQUIRED

2(a) Calculate the payback period for the machine.

**Payback 2 years (1) and 112.3 days
(2 years and 8000 (1) / 26 000 (1) x 365)**

3 marks

2(b) Calculate the net present value for the machine.

**Robert
Net Present Value for machine**

| Year | NCF £ | DF | PV £ | |
|------|----------|-------|------------------|-------------------|
| 0 | (60 000) | 1 | (60 000) | (1) |
| 1 | 26 000 | 0.926 | 24 076 | (1) |
| 2 | 26 000 | 0.857 | 22 282 | (1) |
| 3 | 26 000 | 0.794 | <u>20 644</u> | (1) |
| | | | NPV <u>7 002</u> | (1) OF with label |

6 marks

2(c) Assess the usefulness of the net present value method of capital investment appraisal.

**Net present value involves time value of money (1) and patterns of net cash flow (1). However, more complex to calculate (1).
The method relies on estimated future information, which could be wrong (1).
Consideration of all cash flows (1) and the future value of money (1).
Estimates in the long term may be inaccurate (1).**

max 5 marks

3**Total for this question: 15 marks**

Dario Uno produces a single product.

The following information is available for the year ending 31 October 2007.

(1) The expected costs per unit are:

materials: 40 metres at £2.50 per metre

labour: 3 hours at £16 per hour

(2) The expected production is 26 000 units per year.

(3) The fixed overheads of £39 000 are absorbed using labour hours.

(4) The selling price is based on full cost plus 20%.

REQUIRED

3(a) Calculate the overhead absorption rate per hour.

$$\text{OAR } \frac{\text{£39 000}}{(3 \times 26\ 000)} = \frac{\text{£39 000 (1)}}{\text{£78 000 (1)}} = 50\text{p per labour hour (1) OF}$$

3 marks

3(b) Calculate the selling price per unit.

$$\text{Selling price } \text{£149.50 (4)W1} \times 1.2 \text{ (1)} = \text{£179.40 (1) OF}$$

| W1 | £ |
|-----------------------|----------------------|
| materials (40 x 2.50) | 100.00 (1) |
| labour (3 x 16) | 48.00 (1) |
| overhead (3 x 50p) | <u>1.50 (1) OF</u> |
| cost per unit | <u>149.50 (1) OF</u> |

6 marks

3(c) Compare the advantages of using absorption costing with the advantages of using marginal costing to set a selling price.

Absorption costing consists of marginal costs plus fixed overheads (1): however, OAR is based on either labour or material hours, which, although subjective and often not accurate, is a reasonable estimate (1). The method promotes full cost recovery (1). The mark-up percentage is therefore smaller than would be used in marginal costing (1) to achieve the same selling price.

max 3 marks

The marginal costing method ignores overheads in the calculations (fixed) (1), so mark-up has to be larger when fixing a selling price (1). It is easier to calculate and understand (1). Uses contribution (1) for decision making (1) e.g make or buy decisions/special orders (1)

max 3 marks**max 6 marks**

4

Total for this question: 50 marks

Nora manufactures hair bands.

She employs six people who each work six hours per day, five days per week. Each hair band takes 12 minutes to make. At this rate of production, each employee would be paid £240 per week.

The materials for each hair band cost £1.20.

The selling price for each hair band is £3.10.

Total fixed costs are £225 per week.

Nora expects to manufacture and sell 900 hair bands in week 1.

REQUIRED

4(a) Calculate the number of hair bands made per hour.

$$\frac{60 \text{ mins}}{12 \text{ mins}} = 5 \text{ hair bands per hour (2)} \times 6 = 30$$

2 marks

4(b) Calculate the contribution per hair band.

$$\begin{aligned} \text{Contribution} & \quad \text{sp-vc} = \text{c} \\ & \quad \text{vc} = \text{materials} + \text{labour} \\ & \quad = 1.20 + \frac{240}{30} \\ & \quad = 1.20 + 8.00 \\ & \quad = 9.20 \end{aligned}$$

Therefore contribution is £3.10 (1) - £2.80 (1) OF = 30p (1) OF

8 marks

4(c) Calculate break-even in units for week 1.

$$\text{Break-even} = \frac{£225}{30\text{p}} = 750 \text{ units}$$

3 marks

4(d) Calculate the profit for week 1 using the expected production and sales of 900 hair bands.

$$\begin{aligned} \text{Profit} & = 150 (900 - 750) \text{ profitable units} \\ & = 150 \text{ (1) OF} \times 30\text{p (2) OF} = £45 (2) \text{ OF} \end{aligned}$$

or alternatively $900 \times 30\text{p} - 225 = £45$

7 marks

In week 2, there was an order for an extra 150 hair bands. The extra labour hours were covered for that week by paying overtime at £12 per hour.

In week 3, one of the employees was off sick. Nora asked the remaining staff to complete the work so that production levels remain at 900 hair bands per week. Extra hours were paid at £12 per hour.

REQUIRED

4(e) Calculate for **each** of the three weeks:

(i) the number of labour hours required to meet the production targets;

| | | |
|--|---|----------------|
| Week 1 | Week 2 | Week 3 |
| hours $(5 \times 6 \times 6) = 180$ (1) | $(5 \times 6 \times 6 (1) + 150 / 5 (1)) = 210$ | 180 (1) |

4 marks

(ii) the total labour costs.

| | | |
|--|--|---|
| Week 1 | Week 2 | Week 3 |
| costs $(240 \times 6 (1)) = \text{£}1440$ (1) | $(240 \times 6 (1) + 30 \times 12 (1)) = \text{£}1800$ (1) | $(240 \times 5 (1) + 30 \times 12 (1)) = \text{£}1560$ (1) OF |

8 marks

After the staff member returned from sick leave, a new regular order was received. This would increase production levels to 1050 hair bands per week.

To fulfil the regular extra production levels, Nora has decided not to pay overtime. Instead, she is considering whether to:

- increase the working week for the current staff to six days, or
- employ part-time staff at £5.50 per hour.

REQUIRED

- 4(f) Analyse the financial and non-financial effects that each of Nora's proposals would have on the current workforce and on her profitability.

Increase in working week

| | | | | | |
|---|---|-------------|--------|--|--------------------|
| - staff may refuse to work extra day (1) without any financial incentive (1), reduced motivation (1) | | | | | |
| - may lose skilled employees (1) | | | | | <u>max 3 marks</u> |
| - extra income 150×3.10 | = | £465 | (1) | | |
| extra labour cost $240/5 \times 6$ | = | (£288) | (1) | | |
| extra material cost 150×1.20 | = | (£180) | (1) | | |
| | | <u>(£3)</u> | (1) OF | | <u>max 3 marks</u> |

Employment of part-time staff

| | | | | | |
|---|---|-------------|--------|--|--------------------|
| - less skilled than full-time staff (1) | | | | | |
| - may need training (1) (hidden extra costs, eg returned goods (1)) | | | | | |
| - less motivation for full-time staff (1) | | | | | <u>max 3 marks</u> |
| - extra income | = | £465 | (1) | | |
| extra labour cost (5.50×30) | = | (£165) | (1) | | |
| extra material cost (150×1.20) | = | (£180) | (1) | | |
| | | <u>£120</u> | (1) OF | | <u>max 3 marks</u> |

Other relevant comments accepted

Conclusion (1)

Overall max 12 marks

Nora could purchase the extra hair bands at £2.95 each.

REQUIRED

- 4(g) Assess, showing calculations, whether Nora should purchase the hair bands for the extra order, instead of increasing the working week for current staff or employing part-time staff.

Contribution on new order/supplier **3.10 – 2.95 = 15p each (1)**
Contribution = 150 (1) x 15p
= £22.50 (1) OF

3 marks

**Accept (1) as positive contribution (1) however, not as much contribution as employing part-time staff, therefore may not be the best option (1). Also consider quality of supplier products (1), reliability of supply etc (1).
Must include decision. **max 3 marks****

QUALITY OF WRITTEN COMMUNICATION

After the candidate's script has been marked, the work should be assessed for the Quality of Written Communication, using the following criteria.

Marks

- 0** Accounts and financial statements are unclear and poorly presented.
There is little or no attempt to show workings or calculations.
Descriptions and explanations lack clarity and structure.
There is very limited use of specialist vocabulary.
Answers may be legible but only with difficulty.
Errors in spelling, punctuation and grammar are such that meaning is unclear.
- 1-2** There is some attempt to present accounts and financial statements in an appropriate format.
Workings are missing or are not clearly linked to the answers.
Descriptions and explanations are understandable but they lack a logical structure.
There is some use of specialist vocabulary but this is not always applied appropriately.
In most cases answers are legible, but errors in spelling, punctuation and grammar are such that meaning may be unclear.
- 3-4** Accounts and financial statements are generally well presented but there are a few errors.
Workings are shown and there is some attempt to link them to the relevant account(s).
Descriptions and explanations are usually clearly expressed but there are some weaknesses in the logical structure. There is a good range of specialist vocabulary which is used with facility.
Answers are legible. Spelling is generally accurate and the standard conventions of punctuation and grammar are usually followed.
- 5** Accounts and financial statements are well organised and clearly presented.
Workings are clearly shown and easy to follow. Descriptions and explanations are clearly expressed.
Arguments are logically structured. There is wide use of specialist vocabulary which is used relevantly and precisely.
Answers are clearly written and legible. Spelling is accurate and the standard conventions of punctuation and grammar are followed so that meaning is clear.

To help them to make judgements, examiners should focus on the following issues.

Are there clear presentations of formats and prose answers?

Are there clear and logical workings, where appropriate?

Is the whole script legible and understandable (including spelling, punctuation and grammar)?

Is there a grasp of accounting terminology (eg avoiding slang, avoiding text language, avoiding abbreviations in prose answers)?

Are arguments logically argued?
