



# General Certificate of Education

## Accounting 5121

*ACC4 Introduction to Accounting for Management  
and Decision-Making*

## Mark Scheme

*2006 examination - January 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. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

January 2006

ACC4

## MARK SCHEME

### INSTRUCTIONS TO EXAMINERS

You should remember that your marking standards should reflect the levels of performance of candidates, mainly 17 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.

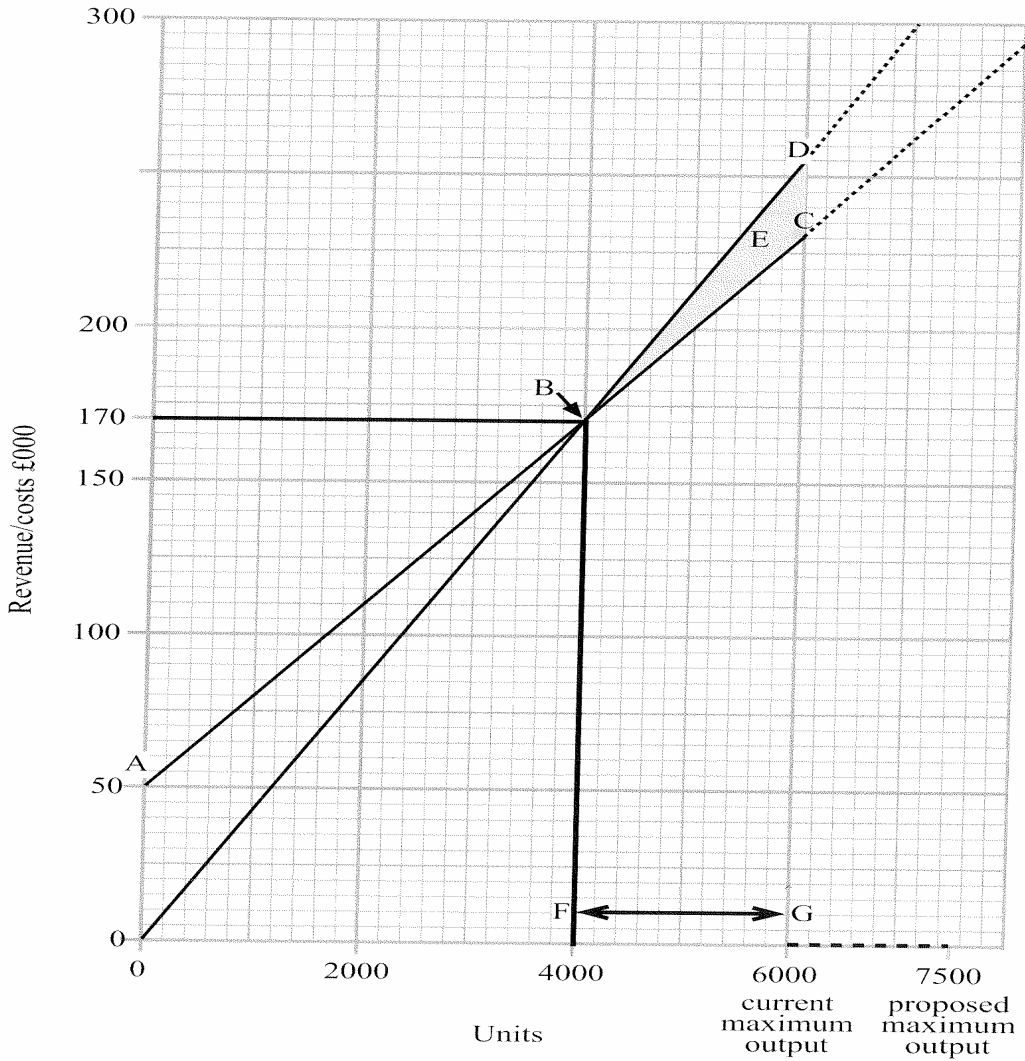
#### Quality of Written Communication

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.

1

Total for this question: 30 marks

Eddie Kain is the chairman of EDE Electricals Ltd, the main employer in a rural town. He has produced the following break-even graph.



In order to increase maximum output by 25%, Eddie is proposing to automate the factory. This will increase the fixed costs by 50%.

**(1)**

**REQUIRED**

(a) Identify the following from the graph.

**Line A-C - total costs (1)**

**Point B - the break-even point (1)**

**Line O-D - total revenue (1)**

**Area E - (area of) profit (1)**

**Line F-G - margin of safety (from break-even point to maximum capacity) (1)**

**5 marks**

(b) Calculate the selling price if the variable cost is £30 per unit.

$$\frac{50\,000\ (1)}{X - 30\ (1)} = 4\,000\ \text{units}\ (1)$$

**Therefore X = £42.50 per unit (1) OF**

**4 marks**

(c) Calculate the profit if the maximum output is produced and sold:

(i) with the original fixed costs;

<b>contribution</b>	<b>(42.50 - 30) x 6000 units =</b>	<b>£75 000 (1) OF</b>
	$\underbrace{\hspace{10em}}$ <b>(1) OF</b>	
<b>fixed costs</b>		<b>£50 000 (1)</b>
<b>profit</b>		<b>£25 000 (1) OF</b>

**4 marks**

(ii) with the increased fixed costs.

<b>contribution</b>	<b>(12.50 (1) OF x 7500 units ) (1) =</b>	<b>£93 750 (1) OF</b>
<b>fixed costs</b>		<b>£75 000 (1)</b>
<b>profit</b>		<b>£18 750 (1) OF</b>

**5 marks**

**(1)**

Eddie Kain is concerned about the proposed drop in profitability. The automated factory requires a smaller workforce and he proposes to make all manual staff over the age of 55 redundant. The remaining staff will need to be retrained.

**REQUIRED**

(d) Discuss the effects of Eddie's proposal on:

(i) the labour force;

**1 mark per effect (max 3), plus a further mark for developing each effect (max 3):**  
**staff may become demotivated (1) + (1) development**  
**may seek alternative employment (1) + (1) development**  
**may seek trade union support (1) + (1) development**  
**may resist retraining (1) + (1) development**  
**plus any other valid comments**

**max 6 marks**

(ii) the company's competitors.

**1 mark per effect (max 3), plus a further mark for developing each effect (max 3):**  
**may have fear of automation increasing output to gain a greater share of the market (1) + (1) development**  
**may be viewed by customers as out of date (1) + (1) development**  
**may be able to gain cheap experienced staff from EDE Electricals Ltd (1) + (1) development**  
**Plus any other valid comments**

**max 6 marks**

2

Total for this question: 21 marks

Mark Maxmus Ltd is the sole manufacturer of the MxMs.

The company currently produces 400 units a month.

The direct costs per unit are:

	£
Materials (2 metres @ £3 per metre)	6
Labour (2 hours @ £8 per hour)	16

The total indirect fixed costs for each month are £2840.

The selling price is always set at 120% of the total cost per unit.

If production exceeds 500 units in any one month, overtime will be paid at a rate of £10 per hour for each extra hour.

The company has received an order from a new customer. This order will increase total production for each of the following months to 560 units.

**REQUIRED**

- (a) Distinguish between direct costs and indirect costs.

**A direct cost can be directly identified or associated with a cost unit (1).**

**An indirect cost cannot be directly identified or associated with a cost unit (1).**

**2 marks**

- (b) Calculate the total cost **per unit** if the order is accepted and 560 units are produced.

<b>500 units</b>	<b>direct costs =</b>	<b>(22 x 500)</b>	<b>=</b>	<b>11 000</b>	<b>(2)</b>
	<b>indirect costs</b>		<b>=</b>	<b>2 840</b>	<b>(1)</b>
<b>extra 60 units</b>	<b>hours =</b>	<b>(2 x 60) x £10</b>	<b>=</b>	<b>1 200</b>	<b>(3)</b>
	<b>mats =</b>	<b>6 x 60</b>	<b>=</b>	<b>360</b>	<b>(1)</b>
	<b>total cost</b>		<b>=</b>	<b><u>15 400</u></b>	

$$\text{Total cost per unit } \frac{15\,400}{560} \text{ (1) OF } = \text{£27.50 (1) OF}$$

**10 marks****Alternative marking scheme for 2(b)**

$$560 \times 22 = 12320 \text{ (3)}$$

$$60 \times 20 = 1200 \text{ (3)}$$

$$\underline{2840 \text{ (1)}}$$

$$\underline{\underline{16\,360 \text{ (1)}}} \div 560 \text{ (1)} = \text{£29.21 (1) OF}$$

**or 10 marks**

(2)

(c) Calculate the change between the new selling price and the original selling price.

$$\text{Original selling price} = \frac{(22 \times 400 + 2\,840)}{400} (1) \times 1.20 (1) = \text{£}34.92 (1) \text{ OF}$$

$$\text{New selling price} = (27.50 (1) \text{ OF} \times 1.20) = \text{£}33 (1) \text{ OF}$$

$$\text{Reduction in selling price} = \text{£}1.92 (1) \text{ OF}$$

7 marks

Alternative mark scheme for 2(c)

Original selling price = (as above) (4)

New selling price = £29.21(1) OF x 1.20 = £35.05(1) OF

Difference = an increase of 13p (1) OF

or 7 marks

(d) Explain **one** effect of this change in selling price on the company's present customers.

**1 mark for identifying the effect and a further mark for development.**

**May be pleased with reduction in price as saving money on their direct cost (1).**

**May be concerned that there will be a reduction in quality (1).**

**May be concerned that staff will refuse the overtime and therefore orders will not be fulfilled (1).**

**Plus any other valid comment.**

2 marks

3

Total for this question: 25 marks

Robert Adams owns a business manufacturing footballs. At the start of the current year, he introduced a system of budgetary control.

The business operates over 13 four-week periods with five working days in each week.

The sales for the first three periods of the current year were as follows:

	<b>Period 1</b>	<b>Period 2</b>	<b>Period 3</b>
Footballs (units)	13 600	12 400	12 000

Sales for period 4 are expected to be 10 800 footballs at a selling price of £1 per football.

The stock at the start of period 1 was 3400 footballs. It is the policy of the business to maintain closing stock of footballs at a level which is sufficient to cover five days of the next period's sales.

**REQUIRED**

- (a) Prepare the production budget for each of the periods 1-3.

**Production budget for Robert Adams for periods 1-3**

	<b>Period 1</b>		<b>Period 2</b>		<b>Period 3</b>	
	<b>units</b>		<b>units</b>		<b>units</b>	
<b>Sales</b>	<b>13 600</b>	<b>(1)</b>	<b>12 400</b>	<b>(1)</b>	<b>12 000</b>	<b>(1)</b>
<b>Opening stock</b>	<b>(3 400)</b>	<b>(1)</b>	<b>(3 100)</b>		<b>(3 000)</b>	
<b>Closing stock</b>	<b>3 100</b>	<b>(1)</b>	<b>3000</b>	<b>(1)</b>	<b>2700</b>	<b>(1)</b>
<b>Production</b>	<b>13 300</b>	<b>(1) OF</b>	<b>12 300</b>	<b>(1) OF</b>	<b>11 700</b>	<b>(1) OF</b>

**10 marks**

- (b) Calculate the number of footballs lost during periods 1-3 if, by the end of period 3, there are only 2500 footballs in stock.

<b>should be</b>	<b>2700 units (1) OF</b>
<b>actual</b>	<b>2500 units (1)</b>
<b>lost stock</b>	<b>200 units (1) OF</b>

**3 marks**



(3)

(c) Explain **two** limitations of introducing a system of budgetary control.

**May be based on inaccurate figures, which may distort the budget.**

**May not be achievable, which can demotivate the workforce.**

**May create departmental rivalry.**

**May be too easily achieved therefore giving a false sense of security.**

**May restrict activities.**

**2 marks per limitation**  
**max 4 marks**

For periods 1-3, debtors as a percentage of sales was 14%. In an attempt to increase sales, the debtors' collection period is to be increased to 55 days from period 4 onwards.

**REQUIRED**

(d) Calculate the debtors' collection period for periods 1-3. State the formula used.

Formula

$$\frac{\text{Debtors}}{\text{Credit sales}} \times 365 \text{ days (1)}$$

**1 mark**

Calculation

**Total sales                    £38 000    (1) OF**

**Therefore 14% is            £5 320    (1) OF**

$$\text{Therefore } \frac{5\,320}{38\,000} \times 365 \text{ days} = 51.1 \text{ days (1) OF}$$

**3 marks**

(e) Explain how the debtors' collection period could be increased and what effect the proposed increase could have on the cash or bank balances.

**A longer credit period may be offered to customers (1), which delays payment (1).**

**The amount of cash discounts for cash sales may be reduced (1), therefore encouraging credit sales (1).** **max 3 marks**

**The cash balance may be reduced as money is taking longer to be received (1).**

**This may lead to debt/an overdraft (1).** **max 3 marks**

**Plus any other valid comment.** **overall max 4 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** 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.
- 4** 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)?