



# General Certificate of Education

## Accounting 5121

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

# Mark Scheme

## *2006 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. 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

**June 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: 19 marks

Susie Ng owns a small manufacturing business. Information for the years ended 31 December 2004 and 31 December 2005 is as follows.

	2004 £	2005 £
Sales	320 000	280 000
Cost of sales	160 000	160 000
Overheads	140 000	90 000
Current assets	420 000	360 000
Current liabilities	140 000	180 000

**REQUIRED**

- (a) Calculate a relevant ratio to show the liquidity of the business for **each** of the two years. State the formula used.

**Formula**

**Current ratio = current assets: current liabilities (1)**

**Ratio calculations**

2004	2005
420 000 : 140 000	360 000 : 180 000
(1)	(1)
3 : 1 (1)	2 : 1 (1)

5 marks

- (b) Calculate **two** relevant ratios to show the profitability of the business for **each** of the two years. State the formula used in each case.

**Formula**

**Gross profit percentage =  $\frac{\text{Gross profit} \times 100}{\text{Sales}}$  (1)**

**Ratio calculations**

2004	2005
$\frac{160\,000(1)}{320\,000(1)} \times 100$	$\frac{120\,000(1)}{280\,000(1)} \times 100$
= 50% (1) OF	= 42.86% (1) OF

Accept alternative ratios eg mark-up

7 marks

**Or**

**Formula**

$$\frac{\text{Net profit percentage}}{\frac{\text{Net profit} \times 100}{\text{Sales}}} \quad (1)$$

**Ratio calculations**

	<b>2004</b>		<b>2005</b>
$\frac{20\,000}{320\,000}$	(1) x 100	$\frac{30\,000}{280\,000}$	(1) x 100
	(1)		(1)
	= 6.25% (1) OF		= 10.71% (1) OF

**7 marks**

- (c) Write a report to Susie explaining the significance of the ratios calculated.

**Report**

**To: Susie**

**From: Student**

**Date: 7 June 2006**

**Subject: Analysis of profitability and liquidity ratios**

**Report headings: 1 mark**

**Current ratio has deteriorated (1) - previously £3 of current assets to £1 of short term debt, now only £2 to £1 of current liability (1) OF. Liquidity has declined (1); if trend continues, there will be future liquidity problems (1). (max 3 marks)**

**Gross profit percentage has also deteriorated (1) - previously 50% of each £1 of sale was gross profit, now 43% (1). Profitability has declined (1) perhaps due to higher purchase prices from suppliers (1). C.O.S has remained the same but turnover has declined (1). This may be due to a lower selling price (1). (max 3 marks)**

**Or**

**Net profit percentage has improved (1) - previously 6.25% whereby out of £1 of sale 6.25p was net profit, now 10.71p (1). Net profitability has improved (1), perhaps due to better overhead control (1). (max 3 marks)**

**Overall max 6 marks**

2

**Total for this question: 29 marks**

Ian hopes to start a new business on 1 March selling surfboards. His balance at bank on that day will be £3200.

He intends to sell each surfboard for £160. On 1 June, the price will increase to £190 per board.

The variable cost per board is expected to be £85.

Ian intends to build up his stock to a level of 60 boards by 1 June, in preparation for the summer season. Thereafter, he will only produce enough to satisfy demand.

**Note:** Assume each month consists of 4 weeks.

Ian hopes to employ his brother, Malcolm, to help out in the workshop for 3 months from 1 March. Malcolm will be paid £40 per day for 5 days a week.

With Malcolm's help, Ian hopes to make up to a maximum of 10 boards a week, whereas he can only make up to 6 boards alone.

Expected sales are:

<b>1 March to 30 April</b>	<b>May</b>	<b>1 June onwards</b>
4 boards a week	7 boards a week	10 boards a week

The stock on 31 July is expected to be 28 surfboards.

His fixed overheads, excluding depreciation, are expected to be £500 per month.

Any bank surplus over £1000 at the end of each month will be taken as Ian's personal drawings.

All transactions will be on a cash basis.

**REQUIRED**

- (a) Prepare a production budget for each of the 5 months ending 31 July, assuming Malcolm is employed.

	Production budget (units)									
	March		April		May		June		July	
Opening stock	-	(1)	(24)	(1)	(48)	(1)	(60)	(1)	(44)	(1)
Sales	16	(1)	16	(1)	28	(1)	40	(1)	40	(1)
Closing stock	24		48		60		44		28	(1)
Production	40	(1)	40	(1)	40	(1)	24	(1)	24	(1)
										<b>16 marks</b>

(2)

- (b) Prepare a cash budget for each of the 5 months ending 31 July. Include the maximum amount that Ian can withdraw for personal use.

	<b>Cash budget</b>					
	<b>March</b>		<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>
	<b>£</b>		<b>£</b>	<b>£</b>	<b>£</b>	<b>£</b>
<b>Opening balance</b>	3 200	(1)	1 000	(1 140)	(1 360)	1 000
<b>Sales</b>	<u>2 560</u>		<u>2 560</u>	<u>4 480</u>	<u>7 600</u>	<u>7 600</u> (3) row*
	5 760		3 560	3 340	6 240	8 600
<b>Production</b>	(3 400)		(3 400)	(3 400)	(2 040)	(2 040) (2) row**
<b>Overheads</b>	(500)		(500)	(500)	(500)	(500) (1) row
<b>Wages</b>	(800)		(800)	(800)	-	- (2) row
<b>Drawings</b>	<u>(60)</u>		<u>-</u>	<u>-</u>	<u>(2 700)</u>	<u>(5 060)</u> (3) row*
<b>Closing balance</b>	<u>1000</u>		<u>(1 140)</u>	<u>(1 360)</u>	<u>1 000</u>	<u>1 000</u>

**Presentation 1mark**

\* If 3 correct, 2 marks.  
If 1 correct, 1 mark.

\*\* If 3 correct, 1 mark.

**13 marks**

3

Total for this question: 28 marks

Drew Armstrong manufactures and sells two products, an ink pen and a novelty ruler.

	Selling price per unit	Direct costs per unit	Expected demand for the next 3 months
Ink pen	£8.00	£6.20	4200
Novelty ruler	£2.50	£0.60	8400

Drew is working at full capacity but, due to staff long-term sickness, he can only produce 3000 ink pens and 6000 novelty rulers over this period.

He is worried that he will lose customers during these three months. A rival supplier proposes that Drew buy the deficit stock from him; the ink pen for £3.10 and the novelty ruler for £0.40. However, these goods will only be partly completed. The ink pen will require extra costs of £4.00 per pen and the novelty ruler will require extra costs of £1.10 per ruler.

**REQUIRED**

- (a) (i) Define the term 'contribution'.

**Contribution is revenue used first to cover fixed costs (1) and thereafter to create profit (1). It is used as a management tool with marginal costing (1).** **max 2 marks**

- (ii) State the formula used to calculate contribution per unit.

**(sp – vc) p.u. (1)**

**1 mark**

- (b) Calculate the **total** contribution to satisfy expected demand:

- (i) if Drew manufactures both products himself and there is no staff sickness;

<b>Ink pen</b>	<b>(£8 – £6.20)</b>	<b>= £1.80 (1)</b>	<b>x 4 200</b>	<b>= £7 560</b>	<b>(1) OF</b>
<b>Novelty ruler</b>	<b>(£2.50 – 60p)</b>	<b>= £1.90 (1)</b>	<b>x 8 400</b>	<b>= <u>£15 960</u></b>	<b>(1) OF</b>
				<b><u>23 520</u></b>	<b>(1) OF</b>

**5 marks**

- (ii) if there is staff sickness and he buys in the deficit stock.

<b>Ink pen</b>	<b>£8 – (£3.10 + £4)</b>	<b>= 90p (1) x 1200</b>	<b>= £1 080</b>	<b>(1) OF if units correct</b>
		<b>= £1.80 x 3000</b>	<b>= £5 400</b>	<b>(1) OF if contribution from (b)(i)</b>
<b>Novelty ruler</b>	<b>£2.50 – (40p + £1.10)</b>	<b>= £1(1) x 2400</b>	<b>= £2 400</b>	<b>(1) OF if units correct</b>
		<b>= £1.90 x 6000</b>	<b>= <u>£11 400</u></b>	<b>(1) OF if contribution from (b)(i)</b>
			<b><u>£20 280</u></b>	<b>(1) OF</b>

**7 marks**

(3)

- (c) Explain whether Drew Armstrong should buy in the deficit stock for the next three months.

**If break-even has already been achieved and fixed costs already covered (1), this is extra contribution in the short term (1).**

**Still positive contribution (1) - pen 90p and ruler £1 (1) OF**

**Satisfies demand (1), not likely to lose customers (1)**

**However, cannot guarantee quality (1) of bought-in-stock, may be problems with timing of deliveries (1) and reliability of supplier (1)**

**1 for decision, + 5 marks**

**max 6 marks**

At the end of the three months, Drew finds out that the staff on long-term sickness leave cannot return in the immediate future. It will be expensive to appoint and train replacement staff. Alternatively, he can purchase a new machine that will significantly increase production. The purchase of the new machine will be financed by a long-term loan. Drew believes that, after installation, he can make 5% of the workforce redundant and retrain some of the remaining staff.

**REQUIRED**

- (d) Explain the possible effects of the purchase of the new machine on the current staff.

**May resist being retrained on new machinery (1);**

**Fearful of future redundancies (1) so may start to look for new jobs now (1); demotivation (1)**

**Worried that loan repayments and interest will reduce available cash (1) for bonuses and future pay rises (1)**

**But may consider increased production leading to increased profitability which may aid their job security (1)**

**There is the potential to acquire new transferable skills (1) which may mean they can demand higher wages (1)**

**Union action due to resistance to change (1).**

**7 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.