



General Certificate of Education  
Advanced Level Examination  
January 2011

## Accounting

## ACCN4

### Unit 4 Further Aspects of Management Accounting

Monday 31 January 2011 9.00 am to 11.00 am

**For this paper you must have:**

- an AQA 12-page answer book
- a calculator.

**Time allowed**

- 2 hours

**Instructions**

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is ACCN4.
- Answer **all** questions.
- All workings must be shown and clearly labelled; otherwise marks for method may be lost.
- Make and state any necessary assumptions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.

**Information**

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90.  
Four of these marks will be awarded for:
  - using good English
  - organising information clearly
  - using specialist vocabulary where appropriate.

Answer **all** questions.

**Task 1****Total for this task: 21 marks**

Jade Chemicals plc produces a range of chemical products, some of which are dangerous. The company has several factories throughout the country.

The following balances relate to the factory in the Midlands for the year ended 31 December 2010.

	£
Building insurance	49 000
Canteen costs	4 000
Factory safety costs	42 000
Inventories (Stock) at 1 January 2010:	
raw materials	47 000
work in progress	32 000
finished goods	39 000
Manufacturing wages	99 000
Office expenses	127 000
Office salaries	55 000
Purchases of raw materials	176 000
Revenue (Sales)	436 000
Selling expenses	53 000

**Additional information**

- (1) Building insurance of £5000 is due but unpaid at 31 December 2010.
- (2) Factory safety costs are to be treated as revenue expenditure. At 31 December 2010, £1000 is prepaid.
- (3) The following expenses are apportioned as follows:

	Manufacturing	Office	Selling
Building insurance	75%	10%	15%
Canteen costs	60%	30%	10%

- (4) Closing inventories (stock) at cost at 31 December 2010 were:

	£
Raw materials	42 000
Work in progress	37 000
Finished goods	45 000

- 0 1** Prepare the manufacturing account for Jade Chemicals plc for the year ended 31 December 2010. (11 marks)  
*(for quality of presentation: plus 2 marks)*

Nursultan, the production supervisor at the Midlands factory, is concerned with the rise in chemical injuries sustained by the employees involved in the production process. He has advised the management to introduce more safety measures at a cost of £63 000 but does not believe that they will agree. In an attempt to improve profits, the management has reduced many factory costs during the past year.

- 0 2** Advise the management whether they should follow Nursultan's advice. Consider the benefits and limitations of introducing more safety measures. (8 marks)

**Turn over for the next task**

**Turn over ►**

**Task 2****Total for this task: 34 marks**

Amir owns a factory that produces jam. The factory is operational for 13 periods a year with 20 working days per period. Demand has increased to 22 000 jars of jam per period but the current jam-making machine can produce only 800 jars of jam per day.

It is currently period 8. Amir is considering purchasing a new jam-making machine. There is currently only one model available, which costs £54 478 and is available at the start of period 10. Amir expects sales to be 18 000 jars of jam in period 10 as production will be limited owing to staff training. The machine will be fully operational in period 11 when it is expected to satisfy demand for 22 000 jars of jam per period. Production will then be maintained at this level.

Amir always maintains stock of jars of jam at 8% of the next period's sales. There are currently 1280 jars of jam in stock.

Local supermarkets account for 95% of total sales at £1.20 per jar of jam. Remaining sales are to local stores at £1.50 per jar of jam. Each jar of jam costs 85p to produce.

It is assumed that all revenues are received and costs are paid at the end of each period and that the business has already passed the break-even point for the current year.

If he buys the machine, Amir does not wish to borrow money to finance the purchase but instead intends to reduce other expenses, including overtime costs.

- 0 3** Prepare the sales budget in sales units and sales value for periods 8–11, assuming that the new machine is purchased in period 10. *(9 marks)*
- 0 4** Prepare the production budget for each of the periods 8–11 based on the sales budget from **0 3**. *(11 marks)*
- 0 5** Calculate the payback of the new machine in periods of production time if it is purchased at the start of period 10. *(7 marks)*
- 0 6** Advise Amir whether he should purchase the new machine. *(6 marks)*  
*(for quality of written communication: plus 1 mark)*

**Task 3****Total for this task: 6 marks**

“The idea behind this method of costing is that it is the **cause** of a cost which is important, not whether it is fixed or variable.”

- 0 7** Identify the costing method described in the quotation. *(1 mark)*
- 0 8** Explain the advantages of a costing method that is focused on the cause of a cost. *(4 marks)*  
*(for quality of written communication: plus 1 mark)*

**Turn over for the next task**

**Turn over ►**

**Task 4****Total for this task: 29 marks**

Xui Li has traded successfully over the past five years, producing a variety of products. Each year, the business has been profitable but he is concerned that this current year's profit will not be as good due to a rising labour rate per hour.

During the four months ended 30 June 2010, Xui expected to produce and sell 2700 units of Product A and 2700 units of Product B.

For this period he produced the following budget statement.

	<b>Product A</b>	<b>Product B</b>
	£	£
Revenue	148 500	229 500
Raw materials at £18 per metre	60 750	170 100
Labour at £12 per hour	72 900	48 600
Contribution	14 850	10 800

Levels of production and sales were as expected for the four months ended 30 June 2010.

Xui calculated the sub-variances for Product A as:

Material price	£1 860 ADV
Material usage	£4 950 FAV
Labour rate	£18 000 ADV
Labour efficiency	£900 FAV

Actual contribution per unit of Product A was £0.31.

The actual results for Product B for the four months ended 30 June 2010 were as follows:

<b>Product B</b>	
Raw materials	9315 metres costing £173 259
Labour	3780 hours costing £56 700

- 0 | 9** Calculate the change between actual contribution per unit of Product B and budgeted contribution per unit, assuming that there has been no change in the selling price per unit. (6 marks)
- 1 | 0** Define the term 'variance'. (2 marks)

- |   |   |
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| 1 | 1 |
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 Calculate the material price and material usage sub-variances for Product B. (6 marks)
- |   |   |
|---|---|
| 1 | 2 |
|---|---|

 Calculate the labour rate and labour efficiency sub-variances for Product B. (6 marks)
- |   |   |
|---|---|
| 1 | 3 |
|---|---|

 Explain whether Xui was correct to be concerned that profit will not be as good as in previous years due solely to an increase in labour costs. Advise him whether production of both products should continue. (9 marks)

**END OF QUESTIONS**

**There are no questions printed on this page**