



General Certificate of Education
Advanced Level Examination
June 2013

Accounting

ACCN4

Unit 4 Further Aspects of Management Accounting

Monday 10 June 2013 1.30 pm to 3.30 pm

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.
- 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: 32 marks**

Peishan Ltd owns a large factory and manufactures two types of rug: plain and patterned. The factory has two production departments, cutting and assembly, and two service departments, canteen and maintenance. The rugs are produced in batches.

Peishan Ltd operates over 13 periods a year.

The budgeted overheads for the factory for periods 1–3 were as follows.

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Assembly department repairs	101 250
Cutting department repairs	36 000
Factory rent	1 470 000
Factory staff costs	1 200 000
Machine depreciation	1 380 000
Total factory overheads	4 187 250

The following information is available for the departments for periods 1–3.

	Cutting	Assembly	Canteen	Maintenance
Direct machine hours	47 250	20 250	–	–
Direct labour hours	27 000	44 250	–	–
Net book value of machinery	£300 000	£800 000	£20 000	£80 000
Number of employees	50	150	10	30
Floor area (sq m)	18 000	63 000	3 000	6 000

The service departments' overheads are apportioned to the production departments on the following basis.

	Cutting	Assembly	Canteen
Maintenance	50%	40%	10%
Canteen	25%	75%	–

- 0 1** Calculate the Overhead Absorption Rate (OAR) for each production department, stating the bases used and why. (16 marks)

Budget information is as follows.

	Machine hours		Labour hours		Material
	Cutting	Assembly	Cutting	Assembly	
Plain rug	70 mins	30 mins	40 mins	50 mins	3 metres
Patterned rug	70 mins	30 mins	40 mins	80 mins	3.3 metres

Additional information

- The workforce in both departments will be paid £7 per labour hour.
- The material will cost £20 per metre.
- The selling price for each rug is based on its full production cost plus 40%.

- 0 2** Calculate the budgeted selling price of each type of rug. (12 marks)

- 0 3** Explain **two** benefits to *Peishan Ltd* of using Activity Based Costing to calculate the selling price. (4 marks)

Turn over for the next task

Turn over ►

Task 2

Total for this task: 27 marks

Peishan Ltd operates over 13 periods a year.

The inventory of raw materials at the start of period 1 was 15 600 metres of material. At the end of period 3, this is expected to increase to 16 500 metres. Material costs £20 per metre. There is no work in progress.

All material is purchased at a level sufficient to cover budgeted production for each period. Budgeted production is fixed at 13 500 rugs per period (6500 plain rugs and 7000 patterned rugs).

Budgeted information is as follows.

	Machine hours		Labour hours		Material
	Cutting	Assembly	Cutting	Assembly	
Plain rug	70 mins	30 mins	40 mins	50 mins	3 metres
Patterned rug	70 mins	30 mins	40 mins	80 mins	3.3 metres

The workforce in both departments is expected to be paid £7 per labour hour. Budgeted factory overheads are £4 187 250 for periods 1–3.

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Prepare a budgeted manufacturing account for *Peishan Ltd* for periods 1–3.
 (Separate figures for each period are **not** required.) (12 marks)
(includes 1 mark for quality of presentation)

The newly appointed finance manager, Gawain Ho, thinks that to increase efficiency, production should not be fixed for each period but that a production budget should be used to set production levels.

The total sales of both types of rug for the first 4 periods of the year are expected to be as follows.

	Period 1	Period 2	Period 3	Period 4
Sales (rugs)	12 000	14 000	13 000	15 000

Each period consists of four weeks, with five working days in each week.

The inventory of finished goods at the start of period 1 was 5200 plain and patterned rugs. It is company policy to maintain the closing inventory of finished goods at a level sufficient to cover 8 days of sales for the next period. However, storage constraints restrict inventory to a maximum of 5500 rugs.

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Prepare the production budget for each of the periods 1–3, assuming that sales accrue evenly throughout the period. (9 marks)
(includes 1 mark for quality of presentation)

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Explain whether Gawain is correct that efficiency will increase by using a production budget to set production levels instead of using a fixed rate of production. (6 marks)

Turn over for the next task

Turn over ►

Task 3**Total for this task: 14 marks**

There is a very competitive market for the production and sale of rugs. Gawain Ho, the finance manager of *Peishan Ltd*, sets the budgeted selling price at £200 for each plain rug and £260 for each patterned rug.

Budgeted sales are expected to be 19 500 plain rugs and 21 000 patterned rugs, over periods 1–3 inclusive.

However, at the end of period 3, it is discovered that 41 000 rugs had been sold.

- 17 000 plain rugs sold for £3 740 000.
- 24 000 patterned rugs sold for £6 000 000.

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Calculate the sales price and sales volume sub-variances for each type of rug.

*(8 marks)***0 | 8**

Explain what Gawain can learn from these sales variances.

(6 marks)

Task 4**Total for this task: 17 marks**

Rupert, the production manager of *Peishan Ltd*, believes that the sales of rugs will increase. Rupert wants to increase the production of patterned rugs by 300 rugs per period. In order to do this, the company must either buy a new machine to produce the extra rugs, or buy the rugs in.

The new machine can be bought for £600 000 and is expected to last for 4 years.

Additional information for each rug

Selling price	£250
Material costs	3.3 metres at £20 per metre
Labour costs	2 hours at £7 per hour
Overhead costs	£120

There are no expected changes in either the selling price or the costs for the foreseeable future.

There are 13 periods per year.

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Calculate the payback period for the new machine. Assume that all production is sold and that cash flows accrue evenly throughout the year. (5 marks)

Alternatively, the rugs can be purchased from China at a cost of £165 per rug, plus a delivery cost of £15 per rug. The rugs will take 2 weeks to be delivered. In China, the production process involves the use of chemicals which are rumoured to cause the pollution of local rivers.

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Recommend to Rupert whether he should buy the new machine or buy the rugs in from China. Support your recommendation by considering both the financial and non-financial effects, from the viewpoint of the shareholders of *Peishan Ltd*. (12 marks)
(includes 2 marks for quality of written communication)

END OF QUESTIONS

There are no questions printed on this page