Centre Number					Candidate Number					For Exam	iner's Use
Surname											
Other Names										Examine	r's Initials
Candidate Signature											
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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:

• a calculator

#### Time allowed

2 hours

#### Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- All workings must be shown and clearly labelled; otherwise marks for method may be lost.
- Do all rough work in this 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.



1

2

3

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TOTAL



#### Answer **all** questions in the spaces provided.

#### 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:

	£
Assembly department repairs	101 250
Cutting department repairs	36 000
Factory rent	1 470 000
Factory staff costs	1 200 000
Machine depreciation	840 000
Machine insurance	540 000
Total factory overheads	4 187 250

The following information is available for the departments for period 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%	



		Machi	ne hours	Labour	' hours	Material
		Cutting	Assembly	Cutting	Assembly	
Plain rug		70 mins	30 mins	40 mins	50 mins	3 metres
Patterned r	rug	70 mins	30 mins	40 mins	80 mins	3.3 metres
<b>(a)</b> Ca sta	alculate ating th	the Overhea e bases used	d Absorption Rat I and why.	e (OAR) for ea	ch production d	epartment, [16 ma
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	Plain £	Patterned £
Workings		



1	(c)	Explain two benefits to Peishan Ltd of using Activity Based Costing to calcu selling price.	ılate [4 marks]
		Benefit 1	
		Benefit 2	
		Evtra anaga	



6

# Total for this task: 27 marks

Peishan Ltd operates over 13 periods a year.

Task 2

The inventory of raw materials at the start of period 1 was 15 600 metres of material and 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:

	Machin	e hours	Labour	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  $\pounds$ 7 per labour hour. Budgeted factory overheads are  $\pounds$ 4 187 250 for periods 1-3.

# 2 (a) Prepare a budgeted manufacturing account for Peishan Ltd for periods 1-3. (Separate figures for each period are **not** required.)

[8 marks]

### [includes 1 mark for quality of presentation]





he newly appoint xed for each peri	ted finance manage od but that a produc	er, Gawain Ho, think ction budget should	ks that production s I be used, to increa	should not be ase efficiency.
ollows:	both types of rugs f	or the first 4 period	s of the year are ex	spected to be as
	Period 1	Period 2	Period 3	Period 4
Sales (rugs)	12 000	14 000	13 000	15 000
ach period consi he inventory of fi s company policy	sts of four weeks w nished goods at the to maintain the clos	ith five working day e start of period 1 w sing inventory of fin	rs in each week. as 5200 plain and ished goods at a le	patterned rugs. evel sufficient to



**2 (b)** 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]

**2** (c) 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]



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### 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.

Calculate the sales price and sales volume sub-variances for each type of rug. 3 (a) [8 marks]



Task 3

3	(b)	Explain what Gawain can learn from these variances.	[6 marks]
		Extra space	



# 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 them 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	£20 per metre
Labour costs	2 hours	£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.

**4 (a)** 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]

Workings



	Alternativ cost of £1 process i	rely the rugs can be purchased from China at a cost of £165 per rug plus a delivery 15 per rug. The rugs will take 2 weeks to be delivered. In China the production involves the use of chemicals which are rumoured to cause the pollution of local
	rivers.	
L		
4	(b)	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.
		[includes 2 marks for guality of written communication]
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