ADVANCED GCE

F003

ACCOUNTING

Management Accounting

FRIDAY 18 JANUARY 2008

Afternoon

Time: 1 hour 30 minutes

Additional materials (enclosed): Answer Booklet (8 page)

Additional materials (required):
Calculators may be required

CUP/T53413

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the spaces provided on the Answer Booklet.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Answer **all** the questions.
- You must show the calculations leading to your answers.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **100**.
- The quality of your written communication will be taken into account when marking your answers to the questions labelled with an asterisk (*).
- In these two questions/sub-questions, you will be assessed on the quality of your written communication. In one of these questions, the focus will be on your ability to present numerical information legibly and in an appropriate accounting format. In the other, you will be assessed on the legibility and style of writing, the clarity and coherence of your arguments and the accuracy of your spelling, punctuation and grammar.

This document consists of **4** printed pages.

1 Duke plc had estimated the following factory indirect costs for its financial year ended 30 November 2007.

	£
Indirect wages	2 120 000
Repairs and maintenance	410 000
Rent and rates	53 000
Insurance of machinery	24 000
Insurance of premises	28 000
Electricity – power	48 000
Depreciation of machinery	14 000
Consumables	21 150
	2 718 150

The company calculated a suitable overhead absorption rate for each of its two production departments using the following information.

	Production Departments		*Service Departments*	
	Machining	*Assembly*	*Canteen*	*Maintenance*
Machine cost (£)	617 500	332 500	–	–
Direct machine hours	202 500	22 500	–	–
Direct labour hours	55 500	314 500	–	–
Floor area (square metres)	9 000	8 000	1 000	2 000
Power usage (%)	55	35	5	5
Number of employees	70	104	10	16
Consumables (£)	9 550	9 800	550	1 250

The proportion of work done by each service department was:

	Machining	*Assembly*	*Canteen*	*Maintenance*
Canteen (%)	35	60	–	5
Maintenance (%)	80	20	–	–

The actual results for the year ended 30 November 2007 were as follows:

	Machining	*Assembly*
Factory indirect costs (£)	1 410 000	1 312 000
Direct machine hours	195 000	21 000
Direct labour hours	57 000	318 000

REQUIRED

(a)* Calculate the appropriate overhead absorption rate for each production department, stating and using suitable bases for apportioning the factory indirect costs. [19]

(b) **(i)** Calculate the amount of overhead which would be over or under absorbed by each production department, using the actual results provided. [4]

(ii) Explain the significance of the results calculated in **(b)(i)**. [6]

(c) Discuss the problems associated with using predetermined overhead absorption rates, indicating how an unsatisfactory method of overhead absorption can adversely affect the profits of a business. [9]

Total marks [38]

2 CMW plc currently operates from one United Kingdom airport only, Abton. The business has total fixed costs of £1 800 000 per annum. Its variable costs per flight are:

	£
Landing charges	4 100
Fuel	6 800
Catering	700
Landing charges	1 400

Revenue per flight is £18 000. There are 600 flights each year.

The company is investigating the possibility of extending its operations to one or more other United Kingdom airports. Its fixed costs would then increase by £390 000 per annum for **each** additional airport used.

The estimated variable costs per flight for each additional airport would be as follows:

	Byton	Cosley	Darton
	£	£	£
Labour	4 700	5 200	5 500
Fuel	6 900	7 100	5 700
Catering	900	800	600
Landing charges	1 200	1 800	1 400
Estimated revenue per flight	15 500	14 800	14 000
Estimated number of flights	400	420	550

The estimated revenue per flight would be lower than for current operations until sufficient passenger demand is generated.

REQUIRED

(a) On the basis of operating from the current airport **only**, calculate:

(i) profit for the year, showing the contribution per flight; [4]

(ii) break-even in flight numbers; [2]

(iii) margin of safety in flight numbers. [2]

(b) On the basis of extending its operations to **one or more** of the additional airports, calculate:

(i) the maximum profit CMW plc could achieve in the next full year, showing the contribution per flight; [10]

(ii) the number of flights to be operated per annum to maximise profit. [2]

(c) Taking into consideration both its current operation and the possibility of extending its operations, evaluate the options open to CMW plc. [6]

Total marks [26]

3 West Park plc has recently implemented a system of standard costing. It now has the actual results for the first month of the system's operation to compare with its standard figures.

Standard costs:

Material per unit	7 kg at £8 per kg
Labour per unit	3 hours at £10 per hour
Variable overheads	3 hours at £3 per hour
Fixed overheads	£5 per unit

Standard production and sales quantity per month: 1 700 units

Standard selling price: £125 per unit

Actual results for the month:

Production	1 850 units
Sales	1 750 units at £130 per unit
Materials	£102 000 for 12 000 kg
Labour	£50 400 for 4 800 hours
Variable overheads	£16 000
Fixed overheads	£9 000

REQUIRED

(a) Calculate each of the following variances:

(i) material price variance; [2]

(ii) material usage variance; [2]

(iii) labour rate variance; [2]

(iv) labour efficiency variance; [2]

(v) sales volume variance; [2]

(vi) sales price variance; [2]

(vii) total fixed overhead variance; [2]

(viii) total variable overhead variance. [2]

(b) Discuss possible explanations for the material variances and the labour variances. [6]

(c)* Evaluate the benefits and limitations of a standard costing system to a business such as West Park plc. [14]

Total marks [36]