CIPFA

MANAGEMENT ACCOUNTING

Certificate level stage examination

6 December 2007

From 10.00am to 1.00pm
plus ten minutes reading time from 9.50am to 10.00am

Instructions to candidates

*There are **six** questions on this question paper*

*Answer **five** questions in total*

Three compulsory** questions from **Section A
Two** of the three questions from **Section B

*The questions in Section A carry, in total, **60** marks*
*The questions in Section B each carry a total of **20** marks*

All workings should be shown. Where calculations are required using formulae, calculators may be used but steps in the workings must be shown. Calculations with no evidence of this (for example, using the scientific functions of calculators) will receive no credit. Programmable calculators are not permitted in the examinations room.

Graph paper and cash analysis paper are available from the invigilator, where applicable.

Where a question asks for a specific format or style, such as a letter, report or layout of accounts, marks will be awarded for presentation and written communication.

AT THE HEART OF YOUR CAREER

SECTION A (Compulsory – answer all three questions)

1 Ryder Ltd has produced the following profit and loss account at summary level for the year ended 30th November 2007.

	£000	£000
Sales revenue (75,000 units)		1,500
Direct materials	525	
Direct labour	300	
Variable production overhead	75	
Fixed production overhead	300	
Administration overhead	270	
Selling and distribution overhead	180	1650
Loss		(150)

The Board of Ryder Ltd recently met to discuss these results. They expressed disappointment that the company had made a loss. During the meeting they short-listed a number of alternative strategies that could be taken in the coming year, in order to attempt to improve the company's position.

1. The Sales Director believes that if advertising spending were to be increased by £450,000 per annum, this would have a positive effect on the market for their product. It would make possible an increase in selling price of 20%, resulting in a new profit margin of 10%.

2. An alternative strategy would be to decrease the selling price by 10%. It is estimated that this would increase sales of their product by 30%.

3. By providing a financial incentive to the sales staff, it is thought that the sales volume could increase to the breakeven point. Initial proposals are that salesmen should receive a commission of 10% of sales value. This additional cost is included in the calculation of the breakeven point.

4. Introduction of a productivity/bonus system. This would mean that direct wages would increase to £7 per unit. This would, in turn, increase production and sales by 20%, but would also require additional administration costs of £75,000 to implement.

- **Requirement for question 1**

(a) Present the summarised profit statement for the year ended 30 November 2007 in a marginal costing format. *4*

(b) Evaluate the four alternative strategies as listed above and provide a recommendation as to which strategy the company should pursue in the next financial year. *16*

(20)

2 A Local Authority operates a street cleaning operation. It has recently tendered for, and won, a cleaning contract having competed with a number of private sector companies.

The winning contract price is £12.40 per kilometre of road that is cleaned.

The budgeted and actual results for period 3 are as follows:

Budget data:

	£
12,500 kilometres of cleaning at £12.40	155,000
Direct labour (4,800 hrs at £12.00)	57,600
Direct materials (1,875 kgs at £10.00)	18,750
Variable overheads (4,800 hrs at £9.00)	43,200
Fixed overheads	21,600
Budgeted surplus	13,850

Fixed overheads are absorbed on the basis of direct labour hours.

Actual data:

	£
11,800 kilometres of cleaning at £12.40	146,320
Direct labour (4,450 hrs at £12.60)	56,070
Direct materials (1,795 kgs at £10.00)	17,950
Variable overheads	42,300
Fixed overheads	25,100
Actual surplus	4,900

- **Requirement for question 2**

(a) Calculate the appropriate variances and prepare a statement that reconciles the budgeted surplus with the actual surplus for period 3. *14*

(b) Suggest possible reasons for the variances in period 3. *6*

(20)

3 PQ is a small manufacturing company that makes components for the motor industry. One of the leading car manufacturing plants has offered a contract to PQ for the supply of 3,500 identical component parts. They propose to pay PQ a price of £345 per component. Similar, although not identical components, have typically been marketed to existing customers for a higher price than this.

Each component part has the following:

Direct materials:
5 kg material G1
4 kg material G2
1 Part number X2

The following information is also available:

1. Material G1 is used continuously by PQ. There are 900 kg in stock at a price of £16.20 per kg. The company use a computerised stock pricing system based on average pricing principles. The next batch of G1 due in stock is expected to cost £16.95 per kg.

2. 14,000 kg of G2 are in stock. The material was purchased primarily for the manufacture of a component that was discontinued a year ago and has not been used since. It had originally cost £9.55 per kg, but it has been written down to its scrap value of £5.70 per kg. A possible alternative use for this material could be using it as a substitute for material G3, which is in current use. However, it would need to be processed in order to make it compatible with another material in the relevant process. This would add additional costs of £3.80 per kg. The current cost of G3 is £11.40 per kg.

3. Part X2 can be purchased from an external supplier for £45 each.

Labour cost information:

4. Each component would require 6 hours of skilled labour and 4 hours of semi-skilled labour.

5. The skills required are possessed by some of the current employees. They are paid £13.00 per hour. They are fully engaged on the current workload. If they were to be replaced, agency staff would have to be employed at a cost of £14.00 per hour.

6. The semi-skilled labour is currently not employed in the company and would need to be recruited. It is thought that the cost would be £8.00 per hour.

7. A supervisor would be needed for the project. It is proposed to build this cost into the workload of the current supervisor, who is paid an annual salary of £25,000. It is estimated that they will spend 20% of their time on the component job.

Overhead costs:

8. Overheads are absorbed on the basis of machine hours. The overhead absorption rate is £35 per machine hour. 40% of this cost represents variable overhead and the remainder fixed overhead. If the contract is undertaken the fixed costs will increase by £29,015 for the duration of the contract. There is spare machine capacity available.

9. Each component takes 3 hours of machine time.

- **Requirement for question 3**

(a) State whether or not the contract should be accepted and support your conclusion with appropriate figures that can be presented to the management of PQ. *10*

(b) Identify the non-financial factors that the management of PQ should consider before they reach a final decision. *5*

(c) Identify any potential problems that may occur when using relevant costing. *5*

(20)

SECTION B (Answer two from three questions)

4 A large health spa leisure complex is in the process of reorganising its key activities. Prior to the re-organisation, the complex charged customers in a haphazard and disorganised manner. Because of this, there was a large amount of cross subsidisation that took place between activities within the complex and the cost basis for the price was unclear.

The spa is organised into 4 cost centres:

- Accommodation
- Catering
- Leisure
- Treatments

The proposal is to standardise the services on offer and sell a standard spa package to its customers. This will include accommodation, meals, use of the leisure facilities and a number of treatments.

Labour and material costs can be identified and are allocated to each of the cost centres in the proposed budget; however, other overhead costs will need to be apportioned between appropriate cost centres.

	Accommodation	Catering	Leisure	Treatments	Total
Labour	165,000	150,750	52,500	57,750	426,000
Materials	28,500	54,000	24,000	19,500	126,000
Power					126,000
Rent and rates					108,000
Depreciation					90,000
Advertising					114,000
Office expenses					360,000

You are also given the following information:

	Accommodation	Catering	Leisure	Treatment
Floor area (sq metres)	1,800	600	900	300
Number of employees	48	24	36	12
Machinery value (£)	15,000	30,000	90,000	45,000
Kilowatt hours	7,500	3,750	18,750	1,500
Expected customer usage (days)	22,500	18,000	12,000	4,500

The assumptions upon which the proposed budget was based assume that customers will have the standard accommodation and catering package. The leisure facilities and the treatments will be optional. The spa operates a profit margin of 25% on selling price.

- **Requirement for question 4**

(a) Prepare a statement of cost for the four cost centres that shows the budgeted total cost and the budgeted cost per customer day for each cost centre. *4*

(b) Calculate the price that would be charged for a customer to stay at the hotel for one week. They will require accommodation and catering for seven days, the use of leisure facilities for four days, and will require treatments on three of the days. *4*

(c) The actual results were as follows:

Cost centre	Total cost £	Customer days
Accommodation	480,000	22,875
Catering	412,500	19,500
Leisure	300,000	10,200
Treatments	187,500	4,800

Calculate the under or over absorption of costs per cost centre. *2*

(d) Outline 3 different methods that may be used to calculate overhead absorption rates. Provide an example for each of the circumstances that would make their use appropriate. *6*

(e) Briefly discuss the impact of an incorrect fixed overhead absorption rate on:
- Fixed overhead variances.
- Fixed overhead cost recovery. *4*

(20)

5 You work in a medium sized Local Authority in the Management Accounting section. You have recently been approached by your manager about a promotion that is soon to be advertised in the Capital Budgeting section of the Finance Department. This position is a newly created post of Capital Accountant. The successful applicant will take on responsibility for the management of the Capital Budgeting function. Your manager recognises that as a CIPFA student, you may be interested in applying for the post.

The interview for the post requires the candidate to present to the interview panel an overview of the capital budgeting process within public sector organisations.

- **Requirement for question 5**

You are to prepare your notes in preparation for the presentation you will give at interview for the post of Capital Accountant. They should include the following:

(a) The procedure that should be adhered to when setting a capital budget. *4*

(b) The likely contents of a capital budget. *4*

(c) The factors that could possibly limit capital budgets. *3*

(d) The available sources of funds that could be used to finance capital projects. *3*

(e) The monitoring of the capital budget. *4*

(f) How the revenue effects of the capital budget are considered. *2*

(20)

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6 Tristar PLC is preparing its budget for the forthcoming year. It makes three products, the M1, M2 and M3. Following an intensive market research exercise, the Sales Director forecasts that the sales quantities and values for the coming year will be as follows:

		Selling price
		£
M1	16,000 units	120
M2	24,000 units	220
M3	20,000 units	180

The Production Director has given you the following data in relation to the three products:

		M1	M2	M3
Material X1 (litres)		4.00	6.00	5.00
Material X2 (kg)		6.00	8.00	3.00
Labour hours	– dept 1	1.5	2.5	4.0
	- dept 2	3.0	4.0	5.0
Machine hours	– dept 1	2.0	3.0	5.0
	- dept 2	4.0	4.0	6.0

Material X1 currently costs £6 per litre and material X2 costs £4 per kilo.

The labour in department 1 is paid £8 per hour, and in department 2 £6 per hour.

The production overheads are £830,000 in department 1 (absorbed on a labour hour basis) and £1,134,400 in department 2 (absorbed on a machine hour basis).

Administration overheads for the company are £701,900 and are absorbed on the basis of labour cost.

It is budgeted to have the following stock levels:

	M1	M2	M3
	Units	Units	Units
Opening stock	2,000	2,400	3,000
Closing stock	2,400	2,000	3,600

Raw materials:

	X1	X2
	Litres	kg
Opening stock	10,000	15,000
Closing stock	16,000	20,000

- **Requirement for question 6**

Prepare the following budgets:

(a) Sales budget in revenue. *1*

(b) Production budget in units for M1, M2 and M3. *3*

(c) Materials purchase budget. *4*

(d) Labour cost budget. *3*

(e) Budgeted overhead absorption rates for departments 1 and 2. *3*

(f) Standard product cost and standard profit for each product. *6*

(20)