MANAGEMENT ACCOUNTING

Professional 1 examination
12 June 2002

From 2.00 pm to 5.00 pm
plus ten minutes reading time from 1.50 pm to 2.00 pm

Instructions to candidates

*Answer **five** questions: **Two** questions from **Section A** and **all three** questions in **Section B.** All questions carry equal 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 examination room.

Formula sheets, statistical tables, graph paper and cash analysis paper are available from the invigilator, where applicable.

CIPFA

SECTION A (Answer TWO questions)

1

The Leisure and Recreation department of Munchester City Council is approaching the annual budget preparation for the department. You are the trainee accountant responsible for preparing the annual budget of the playing fields for the financial year 2003/2004. The original budget estimates at November 2001 prices are as follows:

Expenditure	**£000**
Employee related expenses	300
Premises related expenses	254
Transport related expenses	75
Supplies and services	125
Transfer payments	112
Central departmental and technical support services	95
Capital charges	250
Total expenditure	1,211
Income	
Fees and charges	153
Special events	124
Total income	277
Deficit for year	**934**

In addition, the following information is available:

1 Employees:

	Number W.T.E	Cost £
Administration	5	60,000
Groundsmen	20	240,000

(Assume that within each category of employees each person is paid the same salary).

2 Pay awards and inflation for the period November 2001 to November 2002:

Administration staff have received a comparability award of 5% announced in July 2002, back-dated to 1 April 2002, and a pay award of 3% from 1 July 2002.

The Groundsmen receive a 3% pay award from 1 November 2002.

3 Price inflation for the period November 2001 to November 2002:

Premises	3.5%
Transport	2.5%
Supplies and services	1.5%
Transfer payments	3.5%
Central departmental and technical support	No change (due to efficiency savings)
Capital charges	-1% due to reduction in assets held
Fees and charges	3.5%
Special events	2% plus £225,000 (after 2% inflation increase) due to two new events

4 Other information:

As a result of the two new events, a need has been identified for a new Groundsman to alleviate the workload of the existing Groundsmen. An additional Groundsman will be employed to assist with the setting up of the events and the restoration of the playing fields back to their original condition. The new Groundsman will take up employment from 1 May 2003 to help with the setting up of the first of these new events. The new Groundsman will be appointed on the same salary as the existing Groundsmen.

5 Future pay awards and price inflation:

There are no further pay awards for the budget year 2002/2003. The expected increases in 2003/2004 will include a 3% pay award for administration staff from 1 July 2003 and a 3.3% award for Groundsmen on 1 November 2003.

Expected inflation for the period November 2002 to the end of the 2003/2004 budget period will cause an increase in the estimates of:

Premises	3%
Transport	3.5%
Supplies and services	2.5%
Transfer payments	3%
Central departmental and technical support Capital charges	No change No change
Fees and charges	4.5%
Special events	4%

- **Requirement for question 1**

(a) Produce the original estimates, at November 2002 prices, for the 2003/2004 budget. (Round to the nearest £). *5*

(b) Calculate the budget at outturn for the financial year 2003/2004. (Round to the nearest £). *8*

(c) State the contingency for pay awards and inflation for 2003/2004. *1*

(d) What are the benefits to organisations of producing budgets? *6*

(20)

2 You are a CIPFA trainee accountant for Highberry City Council. As part of your CIPFA P1 Management Accounting course you have been asked to give a presentation to your group on capital budgeting. Prepare the notes for your presentation covering the following areas:

- **Requirement for question 2**

(a)	The aims and objectives of capital budgets.	*7*
(b)	The content of a capital budget.	*4*
(c)	The process of preparing the organisation's capital budget.	*6*
(d)	The monitoring of capital budgets.	*3*
		(20)

3

ABC plc is preparing its annual budget for the financial year 1 July 2002 to 30 June 2003. You are the accountant responsible for preparing the fuel oil consumption part of the budget.

It is known from past experience that the fuel oil usage is believed to follow a semi-variable cost behaviour pattern.

The following information has been gathered from the previous 12 months fuel oil usage records:

Month	**Gallons (000s)**	**Fuel oil cost £000**
July	29.95	1,235
August	34.25	1,312
September	38.95	1,165
October	34.15	1,300
November	41.90	1,000
December	26.05	1,150
January	25.93	950
February	32.12	1,160
March	30.99	1,035
April	48.05	1,365
May	34.99	1,055
June	42.89	1,130

- **Requirement for question 3**

(a) Estimate the fixed and variable elements of the fuel oil costs from the above data using the following methods:

(i) High-low method. *4*
(ii) Least squares method. *10*

(b) (i) Give three requirements, and an explanation of each requirement, for using mathematical techniques such as multiple regression analysis. *4*

(ii) Explain which method (high-low or least squares) is superior and outline the circumstances in which you may choose to use the other one. *2*

(20)

SECTION B (Answer all three questions)

4 Redford District Council provides a library service, which is part of the Department of Leisure Services. There are currently six large libraries and two mobile libraries in the authority. You are the trainee accountant responsible for the budgetary control information for the library service.

Below is the budgetary control information for the libraries provided to the Chief Librarian for the period ending 30 September 2002. The budgetary control report needs to be profiled (currently all budget to date figures are allocated evenly over the 12 months of the year).

Library Service budgetary control statement
for the period April 1 2002 to 30 September 2002

	Annual budget £	Budget to date £	Actual to date £
Expenditure			
Employees	680,000	340,000	425,000
Premises	310,000	155,000	160,000
Transport	18,000	9,000	9,500
Supplies and services	280,000	140,000	93,000
Agency payments	52,000	26,000	26,000
Miscellaneous expenses	5,000	2,500	0
Support services	50,000	25,000	25,000
Capital charges	313,000	156,500	156,500
Total expenditure	**1,708,000**	**854,000**	**895,000**
Income			
Sales	6,000	3,000	0
Fees and charges	153,000	76,500	98,500
Rents	8,000	4,000	3,900
Miscellaneous income	2,000	1,000	1,050
Total income	**169,000**	**84,500**	**103,450**
Net expenditure	**1,539,000**	**769,500**	**791,550**

The following additional information is also available:

Employees consist of permanent and casual members of staff. The permanent members of staff are paid on a monthly basis but 80% of the casual staff costs are incurred by the end of September, for holiday cover.

Budgeted employee costs are as follows:

	£
Permanent	590,000
Casual	90,000

Premises budget is split as follows:

	£	
Non domestic rates	110,000	Paid in full in April
Repair and Maintenance	55,000	Occurs evenly over the year
Energy costs	145,000	30% occurs evenly in the first six months and the remainder spread evenly over the last six months

Transport costs are the vehicle running costs of the mobile libraries; these are spread evenly over the financial year.

Supplies and services are for the purchase of library books. Library books are purchased centrally to maximise discounts. There are three main buying points in the financial year: these usually occur in July, November and March. The budget is normally spent in three equal instalments.

Agency payments are for the contract cleaning of the libraries. This is paid on a monthly basis.

Miscellaneous expenses are normally incurred in the last three months of the financial year.

Capital charges and support service charges were normally a year end charge; however, to comply with the CIPFA Best Value Code Of Practice 2001 these will now be charged on a monthly basis throughout the year.

Income from sales normally occurs in March as the libraries hold year-end book sales of old stock.

Fees and charges, mainly for the late return or loss of books, do not occur evenly over the year - 40% of the fees and charges normally occur in the summer holiday months of July and August. The remaining 60% are spread evenly over the rest of the financial year.

The rent income arises as all the libraries have community meeting rooms within them and a small fee is made for the use of these rooms by local community organisations. This income is collected evenly over the financial year.

Miscellaneous income is for the use of library photocopiers by the general public. This income is normally collected evenly over the financial year.

- **Requirement for question 4**

(a) Prepare a profiled budgetary control statement in a format that will be more helpful to the Chief Librarian. Provide an explanation in relation to any changes you deem to be appropriate. *12*

(b) Recommend any further ways in which the budgetary control statement might be improved. *3*

(c) Explain, in the context of budgetary control, what is meant by the term virement. Give a brief description of the type of regulations controlling the use of virement you would expect to see in a public sector organisation. *5*

(20)

5

Timber plc is a logging company based in the Highlands of Scotland. They are considering the purchase of a new tree felling and bark-stripping machine with the intention of expanding their business. Investigations by the purchasing department have led to the identification of three possible options. Machine A – cost £400,000; Machine B – cost £460,000; and Machine C – cost £365,000. Because of capital rationing the company only requires one new additional machine. Machine A and B have an expected life of 5 years. Machine C has an expected life of 4 years.

The following additional information is available for each machine:

Year	Machine A Expected cash inflows £	Machine B Expected cash inflows £	Machine C Expected cash inflows £
1	160,000	200,000	110,000
2	140,000	140,000	130,000
3	130,000	100,000	192,000
4	125,000	102,000	200,000
5	111,000	102,000	

The expected scrap value of Machine A is £20,000, Machine B £30,000 and Machine C £16,000. The company estimates its cost of capital at 10%. The company charges depreciation on a straight-line basis.

- **Requirement for question 5**

(a) Calculate the pay back period for each project. *3*

(b) Calculate the Accounting Rate of Return for each project. *6*

(c) Calculate the Net Present Value of each project. *5*

(d) State which project they should accept and give your reasons. *1*

(e) Explain the extent to which the three techniques are useful in the evaluation of capital projects and state what additional non-financial factors management would need to consider before making a final decision. *5*

(20)

6

ABC plc manufactures sports watches and sells them to a large number of retailers. The company markets the watches through three geographical continents: Europe, America and Asia.

The estimates of the costs and revenues for each of the sales areas for the next financial year are as follows:

	Europe	**America**	**Asia**	**Total**
	£	**£**	**£**	**£**
Sales	1,800,000	2,000,000	1,800,000	5,600,000
Cost of goods sold	795,000	899,000	1,000,000	2,694,000
Gross profit	**1,005,000**	**1,101,000**	**800,000**	**2,906,000**
Selling costs:				
Salesmen's salaries	162,000	198,000	240,000	600,000
Management expenses	78,000	122,000	160,000	360,000
Advertising	75,000	115,000	110,000	300,000
Salesmen's expenses	105,000	125,000	160,000	390,000
	420,000	**560,000**	**670,000**	**1,650,000**
Head office:				
Administration expenses	160,000	180,000	180,000	520,000
Storage costs	63,000	72,000	71,000	206,000
	223,000	**252,000**	**251,000**	**726,000**
Total costs	**643,000**	**812,000**	**921,000**	**2,376,000**
Net profit/loss	**362,000**	**289,000**	**-121,000**	**530,000**

The sports watches are packaged and despatched from storage. It is estimated that 50% of the storage costs are variable and the remainder fixed.

All of the selling costs are fixed except for the salesmen's expenses, which are variable with the sales revenue. The fixed selling costs are divisible to each sales area.

The Head Office administration expenses are unavoidable and incurred centrally. These have been apportioned to the sales continents on the basis of sales value.

- **Requirement for question 6**

As a result of the loss made by the Asia area, management have asked you to:

(a) Financially assess whether the Asia area should be abandoned. *5*

(b) Explain the assumptions and reasoning behind your decision to part (a). *5*

(c) Explain, and provide illustrations of, the following terms:

(i) Sunk cost. *2*
(ii) Opportunity cost. *3*
(iii) Relevant cost. *3*
(iv) Contribution. *2*

(20)