FINANCIAL MANAGEMENT, SYSTEMS AND TECHNIQUES

Certificate stage examination
7 December 2005

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

Instructions to candidates

*Answer **six** questions in total: **Two** questions from **Section A**, plus **four** questions from **Section B**. The marks available for each question are shown in italics in the right hand margin.*

All workings must be shown. Where calculations are required using formulae, calculators may be used but steps in the working 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.

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.

SECTION A – (Compulsory)

1

Romald is a charitable foundation which supports services for the elderly in the area of a group of local authorities and primary care trusts. Its annual revenue expenditure is £240,000 per annum and this is incurred evenly throughout the year.

Romald is funded through contracts with partner organisations and also through donations and bequests. The flow of income is much more uneven than the expenditure and this has led to the organisation having relatively large cash balances at certain times. Romald has had discussions with investment advisors who have indicated that they should be able to generate a net return of 5% per annum on investments and that they would charge a flat rate fee of £120 on all transactions, whether they involved investment or disinvestment of cash.

The management board has discussed the issues around cash management and is keen to pursue the possibility of employing the investment advisors. This is subject to two conditions which have been suggested by the Director of Finance. The first is that a recognised cash management model is used (Miller-Orr has been suggested), and the second is that the cash balance is not allowed to fall below £5,000. The board has asked for a report on the implications of the proposals.

Data on net monthly cash flows is available, but this only relates to the last eighteen months, as before that the funding regime differed significantly from the present arrangements. The figures are given in Table 1 below:

Table 1. Net monthly cash flows

Year/month	Net cash flow surplus/(deficit) £
04	
July	1,000
August	2,000
September	4,900
October	(1,700)
November	(3,200)
December	(600)
05	
January	1,150
February	450
March	1,250
April	3,400
May	(1,500)
June	(2,800)
July	600
August	1,800
September	600
October	(1,000)
November	(1,000)
December	(400)

- **Requirement for question 1**

Produce a report for the management board on the implications of using the investment advisors based around the application of the Miller-Orr model. The report should:

(a)   Provide a comprehensive set of guidelines for the management of cash balances within Romald using the Miller-Orr model.   *15*

(b)   Explain clearly the benefits and limitations of using the Miller-Orr model.   *2*

(c)   Consider the Baumol model as an alternative and provide a reasoned recommendation for which model should be used within Romald.   (No calculations required.)   *3*

(20)

2 Hauxwell plc is wholesale provider of office supplies manufactures which it sells to a large number of businesses of varying sizes. Most of its business is carried out on credit and generally customers have been willing to make payments within a reasonable timescale. Recently, however, the debtors position of the company has worsened and this is having an adverse effect on working capital management as a whole. The Finance Director has raised concerns with the Board and has been asked to come up with some suggestions for improving the position.

The estimated value of annual sales is £30m and debtors at the end of the year are expected to be £7.5m.

The current invoicing terms are that payment is required within 30 days which is in line with the Late Payments legislation. To date the company has not made use of their legislative powers, as it feels that this might have a detrimental effect on customer relations. The Finance Director is also unsure whether the debtor control section could deal with the extra work involved. He has come up with two suggestions. They are:

1.   To introduce a discount for early payment of debts.
2.   To outsource part of the debtor function to an agency.

The Finance Director is convinced that a 2% discount for payment within 30 days would have a beneficial effect upon the debtor position and would be sufficient incentive to encourage slower payers. The Management Accountant has carried out some research and talked to benchmarking partners and her view is that a 2% discount would have a significant effect.   She has assigned probabilities to these outcomes as follows:

Percentage of debtors taking advantage of discount	Probability %
30%	20
40%	40
50%	40

Quotes have been received from a number of debt collection agencies. The best alternative available would charge 0.5% of debtor receipts and has estimated that they could achieve a reduction in the year end debt figure to £5m.

Hauxwell plc is currently paying 8% per annum for its bank overdraft. (Simple interest).

- **Requirement for question 2**

(a)   Assess the financial implications of offering discount and of using an agency and make an appropriate recommendation. Your calculation of the effects of offering discount should take into account the most probable outcome.   *14*

(b)   Outline the main provisions of the Late Payment of Commercial Debts Act 1998 (as amended) and comment upon whether it might be worthwhile applying those provisions in this case.   *6*

(20)

SECTION B – (Answer four questions from this section)

3

Mancastle is a large unitary local authority with an annual revenue budget of £250m. It has an in-house Information Systems (IS) department which takes responsibility for a significant amount of systems development within the authority. In recent years criticism of the department has increased within the authority and it is perceived as being behind the times, inflexible and slow to deliver. An external consultant hired to review the department's work suggested that:

- standards of documentation were not as high as they should be
- the department was too remote and did not understand the real needs of users
- the length of time taken in development often means that business needs change during the development process
- the approach taken to systems development should be reviewed.

The present approach is based upon the traditional systems development life cycle (SDLC). It is now being suggested that the use of the structured systems analysis and design methodology (SSADM) might help to solve some of the department's problems.

- **Requirement of question 3**

(a)   Explain what is meant by SDLC and SSADM. What are the main differences between the two approaches?   *6*

(b)   Is SSADM an answer to all the department's problems? Consider the problems as outlined above. Where might SSADM help and where might it be of little assistance?   *6*

(c)   Suggest an alternative approach (to SDLC and SSADM) that could be taken and indicate how this might be of benefit to Mancastle.   *3*

(15)

4 Woodland Council is considering converting part of the car park of the Woodtown Leisure Complex into a skateboard area. At the present time two alternative plans are being considered. Plan A is for a large-scale development which a public consultation exercise has indicated as being clearly favoured. Plan B is only half the size and would not fully meet the needs of the public and other interested parties. It has been estimated that Plan A would cost £80,000 and Plan B £50,000. The Council has internal funding amounting to £30,000 and there is a possibility of an additional £50,000 being available from external sources. This additional amount is only available for a limited period of time and would depend upon the project being completed to a very tight deadline. Running costs for both plans are relatively small and it is estimated that fee income will cover these amounts. The Net Present Value (NPV) has been calculated for both alternatives (over 10 years at 3.5%). The NPV for Plan A is -£51,000   and for Plan B it is -£29,000.

Initial work on the two plans has identified the key activities and provided estimates of activity times and dependencies. This information is summarised in Table 1 below.

Table 1. Activity data – Skateboard area development

Activity	Preceding activity	Plan A – time in days	Plan B – time in days
1	None	5	5
2	None	4	4
3	1	9	5
4	2	12	12
5	3	8	4
6	4	7	4
7	3	3	3
8	2	10	8
9	8	18	6
10	7	10	8
11	6,9	7	5
12	11	9	9
13	10	13	7
14	5	6	6
15	12,13,14	11	11
16	15	8	4

The key activities are the same for each plan, but the duration differs due to the difference in the scale of the two plans. In order to qualify for external funding the project must be completed within 60 days.

- **Requirement for question 4**

(a)   Construct a network diagram for the project and calculate for each of the plans the expected duration and the critical path.   *7*

(b)   Comment on the result of your analysis. Which are the key network activities from a management point of view and why?   *3*

(c)   What does a negative NPV mean? How do the NPV figures given contribute to the debate surrounding the choice between Plan A and Plan B?   *3*

(d)   What should Woodland Council do? Give your reasons.   *2*

(15)

5 Public sector organisations, as users of information systems, produce and store large amounts of information. As users of large-scale computer systems they are becoming increasingly susceptible to the effects of computer crime. At the same time the need to control and manage information responsibly is ever more important.

- **Requirement for question 5**

(a) What main forms might computer crime take? Identify two pieces of legislation which have been introduced as an aid to combating computer crime.   *8*

(b) Data protection has been the subject of legislation since 1984 with the original Act being revised in 1998. Briefly outline the provisions of this Act and contrast them with the Freedom of Information Act 2000. Provide an example of a request that could be made under each Act.   *7*

(15)

6

Public sector organisations must have an efficient and effective finance function which contributes to the overall good management of the organisation.

- **Requirement for question 6**

(a) Explain what is meant by the finance function and describe four main categories of financial work. *5*

(b) Is the finance function the same thing as a finance department? Give reasons for your answer. *2*

(c) In order for the finance function to operate efficiently and effectively is it necessary for it to be centralised? What are the alternatives and what do you see as being the main arguments in favour of each approach? How would the role of the finance director vary for each approach? *8*

(15)

7 The NHS performance targets for 2004/2005 stated that 98% of Accident and Emergency (A and E) patients should have a wait of less than four hours before being seen. The results of samples taken at the A and E department of the Barhampton University Hospital for October 2004 and February 2005 are shown in the following table.

Waiting time in A and E (mins)	October 2004 %	February 2005 %
Less than 61	12	10
61 to 120	30	28
121 to 180	48	46
181 to 240	5	13
241 to 300	4	2
More than 300	1	1

Each sample was of 1,000 patients and was conducted on a random basis.

- **Requirement for question 7**

(a) Draw cumulative frequency graphs (ogives) using mid-point figures to show the distributions of time in A and E during October 2004 and February 2005 and use the graphs to determine the median and inter-quartile ranges (IQR) for the time spent in A and E. *10*

(b) How useful are the figures calculated in part (a) and how do they compare to other alternatives as measures of average and dispersion? (No calculations required.) *5*

(15)