



FINANCIAL MANAGEMENT, SYSTEMS AND TECHNIQUES

Certificate stage examination

6 June 2007

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

Instructions to candidates

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

*Answer **six** questions in total*

Both compulsory questions from **Section A**
Four of the five questions from **Section B**

*The questions in Section A carry, in total, **40** marks*
*The questions in Section B each carry a total of **15** 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.

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 – answer both questions)

1

Traditional methods used for the acquisition of information systems in large public sector organisations have involved the bespoke development of systems using highly formalised approaches to systems development such as SSADM (structured systems analysis and design methodology).

These approaches have often proved to be expensive and lacking in flexibility and have led to new methods being considered and used.

• **Requirement for question 1**

- (a) Explain what bespoke development involves and how SSADM would be used. 5
- (b) Identify and explain the main criticisms that have been made of bespoke development. 4
- (c) Suggest two alternative approaches to the acquisition of new systems and explain what advantages they may have over the methods considered in sections (a) and (b). Give an example for each approach of a system for which it might be particularly appropriate. 6
- (d) Another alternative which could be considered is to enter into a partnership with the private sector, for example in the form of a PFI agreement. Explain how this might operate and what effects the arrangement would have upon the project management and systems development processes. 3
- (e) What is central government's current position on such arrangements and why has this position been taken up? 2

(20)

2

Delicious Fish plc is a commercial producer of salmon and trout using fish farms operating within a controlled environment. The company is able to sell as much fish as it can produce and its expansion is limited only by the size of its fish farms. At the present time there is no likelihood of any increase in size due to the terms of the planning agreement under which it operates. It has been operating on the basis of an estimated normal production of 20,000 kg of fish per month.

Figures for the last six quarters appear to indicate that the normal production is being exceeded. The General Manager is anxious to ascertain whether this increase has any statistical validity and also to try to establish a reason for the increase.

The fish live and grow within water which is normalised at a temperature of 12°C. The process of normalisation is affected by air temperature and has been based upon the assumed air temperature for the time of year. Global warming has led to increases in actual temperatures and the Managing Director is convinced that there is a link between air temperature and his perceptions of increased production levels.

Data for the last six quarters is shown below:

Output Kg.	Mean air temperature °C
19,500	16
21,300	20
21,200	20
21,500	20
21,000	19
20,400	18

- **Requirement for question 2**

- (a) Test the hypothesis, at a 5% level of significance, that the normal production level is 20,000 kg of fish per quarter. Do your conclusions still apply at the 10% level? What advice can you give the Managing Director? 12
- (b) Establish whether there is a correlation between the level of output and the mean air temperature for each quarter. Explain the significance of your findings and why it is necessary to exercise caution in using correlation. 8

(20)

SECTION B (Answer four from five questions)

3

Penhill Council provides bar and catering facilities at four of its largest sports and leisure centres. The management of these facilities was contracted out to Food For Leisure (FFL) plc, the contract being awarded for three years following a competitive tendering exercise. The contract has two years remaining and was let for a fixed price specifying required outputs and minimum quality standards.

The Sports and Recreation Department is responsible for the provision of the sports and leisure centres. Staffing changes within the department have caused a number of management problems during the last year. Regular contract monitoring has not been carried out and there are a number of concerns regarding the operation of the bar and catering facilities at the centres. These include:

- Opening times and bar prices being changed without due notice and consultation.
- Tables not being cleared and serving areas not being kept clean.

You are an accountant in the Finance Department and have responsibility for the Sports and Recreation Department. You have been asked to produce a report for the Director of Sports and Recreation on the contract monitoring situation.

• **Requirement for question 3**

Prepare a report for the Director of Sports and Recreation covering:

- (a) The basic requirements of an effective contract monitoring system and the processes that should be followed to manage performance. 12
- (b) Suggestions for action that should be taken to resolve the concerns regarding the operation of the bar and catering facilities 3

(15)

4

Northern Organics supplies a wide range of fresh and frozen foods to catering and retail outlets. The business has grown rapidly over a period of ten years and 95% of sales are made on a credit basis. New customers are taken on without any credit vetting taking place. The business is now facing a working capital problem and is faced with appraising its systems and procedures.

Turnover for the year ended 31 December 2007 is projected to be £40m. Contribution is normally 20% of turnover. The average level of debtors during the year is estimated as being £10m. This is felt within the business to be far too high and this feeling has been confirmed from information received from two benchmarking partners operating in a related industry.

The Chief Executive is anxious to improve the situation and has asked for suggestions. At a recent management team meeting the Finance Director and the Marketing Director came up with proposals.

Finance Director proposal:

This is to appoint a Credit Control Manager at a total cost of £25,000 p.a. This individual would work within the Finance Department where he/she would have the responsibility of credit vetting and control of outstanding debt. The Finance Director estimates that this would have the effect of reducing turnover by 5% as some customers would be adjudged to be detrimental to the company's interests. He has also estimated that the average period of debt would be cut to 40 days. The Marketing Director opposed this on the grounds that any reduction in turnover would be bad for the company. He also expressed doubts over the achievability of the 40 day figure.

Marketing Director proposal:

This would be to offer a discount for payment of debt within 30 days. He has come up with figures based upon some consultations he has had with other marketing directors whom he knows personally. He has suggested that with a 2% discount 60% of customers would pay within 30 days. The Finance Director is sceptical of these figures and was also unsure of whether this would provide the company with a saving.

Northern Organics' current cost of capital is 9%.

Assume simple interest in calculations.

- **Requirement for question 4**

- | | |
|--|----|
| (a) Calculate the financial implications of both of the proposals. | 12 |
| (b) Recommend what action, if any, should be taken. | 3 |

(15)

5

Teach the World is a UK registered charity which has the aim of providing education aid and support to third world countries. This work involves building schools and classrooms, and providing teachers, books and other educational resources. The work tends to be project based and this leads to uneven patterns of expenditure. Income comes from a number of sources. Some of it is based upon planned giving by supporters but there is also investment income from bequests and foundations and from the investment of balances. In addition, a lot of effort is placed on generating corporate sponsorships and support which can be substantial but is also unpredictable. Finally, income is also raised through special fund raising events focused on particular times of the year. These can be specific to the charity or may be the result of national events such as Comic Relief or the London Marathon. Income streams are healthy but difficult to predict.

Two years ago a leading trustee provided some free management consultancy advice for the charity. This led to the adoption of a number of new systems and procedures. One of these was the introduction of a cash management system based upon the Baumol Model. This has not been as successful as it had been hoped. At some times cash balances have been perceived to have been too high and at others dangerously low.

The Board has decided that the cash balance should not be allowed to fall below £10,000 in the future. A suggestion has been made that the Miller-Orr Model could be used and some data has been produced based upon the last two years receipts and payments. The standard deviation of daily net cash flows has been calculated as £350. The cost of transferring funds (cash to/from investments) is £70. The annual interest on investments is 9%.

• **Requirement for question 5**

- (a) Explain why the Baumol Model is inappropriate for Teach the World. Why might the Miller-Orr Model be more helpful and how should it be used? 6
- (b) Calculate the target cash balance for Teach the World, the upper limit and the estimated average balance. 9

(15)

6

The importance of good financial management in public sector organisations can not be questioned. The provision of an efficient and effective finance function is a key element of financial management. This being so it might be expected that there would be a uniform approach to the organisation and delivery of the finance function throughout the public sector. This is not the case.

- **Requirement for question 6**

- (a) What is the finance function and why is it so important to public sector organisations? 3
- (b) The finance function can be centralised or decentralised. What do you understand by these descriptions? How would decentralisation work and what are the advantages and disadvantages of this approach? 6
- (c) Some organisations have chosen to outsource some or all of their finance function. What does this involve and what are the potential benefits? 3
- (d) More recently there is a trend towards exploring the possibility of "shared services". How might this work and what are the dangers of taking this approach? 3

(15)

7

Downholme Council is seeking to improve the efficiency and effectiveness of its domestic refuse collection and recycling services. Its existing fleet of vehicles is ageing and not particularly well suited to the requirements of kerbside collections. A proposal has been put forward to purchase new vehicles to replace the existing fleet. Financial constraints mean that this can not be done for the whole fleet initially and the Council has only agreed to this subject to savings being made and a full investment appraisal being carried out. Acquisition would be through purchase as the Council is not in favour of leasing arrangements as a matter of policy.

Initially it is proposed to purchase three vehicles which will cover the northern district of the Council area. The new vehicles will replace five existing vehicles and will allow for a rationalisation of collection routes and re-cycling procedures. Each vehicle will cost £45,000. The proposal will give rise to savings in manpower, servicing and maintenance, fuel and other costs of £20,000 in the first year and £35,000 in subsequent years. The vehicles have a life of five years at the end of which they should have a disposable value of £5,000 each.

The Council has determined that a discount rate of 6% should be used in all investment appraisals.

- **Requirement for question 7**

- (a) Calculate the Net Present Value (NPV) and Internal Rate of Return (IRR) of the proposed investment. 8
- (b) What decision rules should be applied for the use of Net Present Value? 3
- (c) Why is it necessary to discount cash flows when considering the future effects of investment decisions? 4

(15)
