

# INFORMATION AND FINANCIAL MANAGEMENT

## **Professional 1 examination 7 December 2000**

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 **all five** questions. 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.*



# 1

You work for an NHS Trust which is considering developing Internet and intranet sites. The Director of Finance, who is responsible for information systems within the trust, has been asked to prepare proposals for the sites. Aware that you are familiar with the use of communications networks as part of your CIPFA studies, she has asked you to prepare some briefing notes to assist her with a presentation to the board of directors.

- **Requirement for question 1**

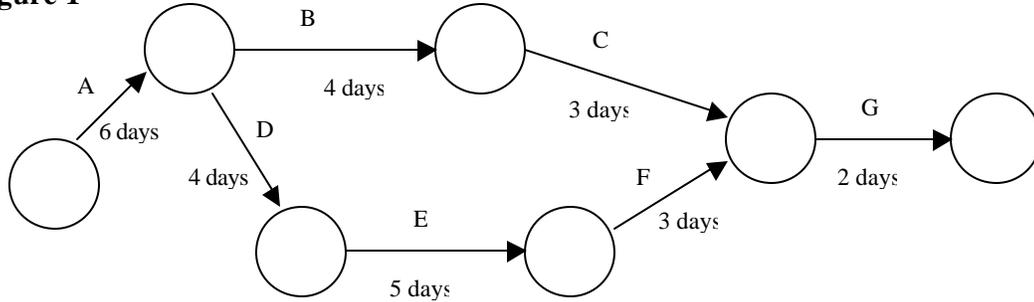
- (a) Explain what is meant by the terms Internet, intranet and extranet, distinguishing between each. Using an example, identify how a public sector organisation, such as the trust, might use each to best effect. 9
- (b) Identify four Internet tools and briefly describe each one. 8
- (c) How might the trust benefit from the growth of electronic commerce (e-commerce)? 3
- (d) What risks are associated with the development of Internet and intranet sites by the trust? How might these be managed? 5

(25)

# 2

Figure 1 shows a project plan for the implementation of a financial information system.

**Figure 1**



• **Requirement for question 2**

- (a) What is meant by the term “critical path”, and what activities lie on the critical path of the project? 3
- (b) Why is the critical path useful for the project manager when monitoring the progress of the project and making resource allocation decisions? 2
- (c) It has been decided to add two additional activities to the project plan. No other activities are affected by the inclusion of these activities. The precedents for activities A, B, C, D, E, F and G are unchanged. The new activities are as follows:

Activity	Precedence	Duration
H	B	7 days
I	H	4 days

- (i) Re-draw the new network, including these new changes. 4
- (ii) What is the critical path in the re-drawn network? How long will it take to complete the project with the two added activities? How many days could activity F overrun without affecting this overall duration? 3
- (d) The network diagram in Figure 1 provides one way of representing the project graphically. Identify an alternative method of graphical representation and explain how it might be used alongside the network diagram to help manage the project. 3

(15)

# 3

Maybole Industrial Therapy Organisation (MITO) is a not-for-profit organisation which provides employment opportunities for individuals with learning difficulties. The organisation aims to assist its trainees to gain full-time employment by improving their skills and helping them gain greater self-esteem. A key objective for MITO is, therefore, to be able to assist as many clients as possible by providing them with a training opportunity which leads to sustainable full-time employment.

MITO operates a factory producing a range of goods for commercial and public-sector customers who support the organisation. These customers, however, expect the same levels of service from MITO as from a commercial supplier.

Governance and funding for the organisation comes from the local authority, an economic development agency and a national charity. The organisation is dependent on annual funding support from these agencies and the European Social Fund, as well as revenue generated from its operations.

It is important that MITO is perceived within the community as achieving its aims, as it faces competition from other social inclusion groups for valuable public funds.

- **Requirement for question 3**

- |     |   |   |
|-----|---|---|
| (a) | Briefly, describe the purpose of a balanced scorecard.  | 5 |
| (b) | Identify the characteristics required of performance indicators if they are to be of value and give examples of reasons why performance indicators can sometimes be counter-productive. | 4 |
| (c) | Devise a balanced scorecard for MITO. For each perspective, identify a critical success factor and an appropriate performance measure.  | 6 |

(15)

# 4

The University of Scotia is planning its cash management activity in the forthcoming financial year. It is also concerned about the reliability of its forecasts of available balances. It estimates that its total cash demand for the coming year will be £350 million. The cost of withdrawing cash from investments is estimated at £250 per transaction. The interest rate on short-term investments is 7%.

- **Requirement for question 4**

(a) Using the Baumol model, calculate:

- (i) the optimal quantity of cash to withdraw from investments each time the cash balances reduce to zero, that is, the optimal cash conversion or ordering quantity;
- (ii) the number of withdrawals each year;
- (iii) the average cash balance; and
- (iv) the total cost of cash management. 8

(b) Compare and contrast the Baumol model with the Miller-Orr model (calculation not required). 7

(c) Using the Miller-Orr model, calculate the target balance and upper cash limit, if:

- Variance of daily cash flows = £750,000<sup>2</sup>
- Transaction costs = £250 per transaction
- Lower cash limit = £150,000
- Daily opportunity cost of cash = 0.02% 5

(20)

# 5

You are employed as a project accountant for a direct service organisation (DSO) of West Ayrshire Council. West Ayrshire has devolved much of the management accounting function to units and departments within the Council. You have been asked to design a budgetary control system to measure the performance of the DSO. You are currently evaluating a report generator package, which interfaces with the general ledger.

- **Requirement for question 5**

- (a) What features would you look for in the design of a control system? Identify four features and describe them briefly. 6
- (b) Identify and describe four alternative types of standard that may be used in the standard setting process. Describe each briefly, clearly identifying the advantages and disadvantages of each. 6
- (c) What qualities would you look for in reports generated by the new system to ensure they would be useful to managers? 8
- (d) What are likely to have been the main influences that have led the Council to decentralise much of its management accounting function? 5

(25)