

FINANCIAL MANAGEMENT, SYSTEMS AND TECHNIQUES

Certificate stage examination
8 June 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**

The Contract Services Unit (CSU) of Eggleston District Council has produced a schedule of rates for housing maintenance work. After experiencing some problems with contract prices, samples have been taken of activity times for certain jobs in order to compare them with the standard times being used in the pricing of contracts. The workforce is organised geographically into North and South areas and a team has been assigned to each area. Fifty jobs were randomly sampled in each area. The results are shown in the table below.

Table 1. Sample statistics for Job A

	Mean time (Minutes)	Standard Deviation (Minutes)
North	46.8	4.26
South	45.0	2.21
Aggregate	45.9	3.30

The results of the samples have given rise to concern that there is a significant difference in performance of the two teams and also that the overall performance is not in line with the standard time of 45 minutes which is being used presently. There is a strong feeling that this should be increased.

- **Requirement of question 1**

- (a) Test the hypothesis that there is a difference at the 1% significance level in the performance of the North and South teams from the evidence of the samples taken. 8
- (b) On the basis of the samples how much reliance can be placed on 45 minutes as an accurate estimate of the standard time for the job? Use a 5% significance level. Should the standard be increased? 8
- (c) Explain what is meant by:
 - (i) 5% significance level;
 - (ii) one tail test;
 - (iii) two tail test; and
 - (iv) indicate how your approach would have differed if the total sample size had only been twenty. 4

(20)

2

Greenville Council has an arrangement for making kerbside collections of plastic and tin waste for recycling purposes. The Council provides each householder with an identifiable plastic sack (each one has a Council logo on it) and collects from each householder fortnightly. On collection householders are provided with a replacement sack. The demand for sacks is, therefore, known and the pattern of usage is regular and predictable.

The Council has a contract for the supply of the sacks which allows them to purchase in variable amounts throughout the year. The cost of a sack is 3p and the Council issues 18,000 each fortnight. The cost of placing an order is £27 and the holding cost, including storage and cost of capital is £11 per 1,000 sacks.

This area is to be examined to see whether value for money is being achieved and two possibilities need to be evaluated. The first is the suggestion that ordering would be more efficient if the Economic Order Quantity (EOQ) method was being used. The second suggestion is that the contractor would allow discount for bulk buying.

The contractor has indicated that they would provide a bulk buy discount, charging 2.75p per sack, if the Council were prepared to order 150,000 sacks at a time.

- **Requirement for question 2**

Prepare a report for the Chief Executive assessing the two alternatives being proposed.

- (a) Outline the assumptions underlying the EOQ method and comment upon its suitability for this situation. 5
- (b) Calculate the EOQ and the number of orders required to meet the annual demand for sacks, and then estimate the overall annual cost of employing this method. 6
- (c) Estimate the annual cost of using bulk buying under the terms proposed by the contractor and compare the cost per sack with the EOQ method. 5
- (d) Make appropriate recommendations taking into account financial and non-financial considerations. 4

(20)

SECTION B (Answer four questions from this section)**3**

According to *Chaffey* (CIPFA OLM 2003,145) there are “three main methods for acquiring the information system necessary to support a particular business need”. Additionally, organisations may adopt a hybrid approach when it is deemed to be required. Each method has advantages and disadvantages and choice of method should be subject to a careful evaluation before choosing the approach most appropriate to the particular situation.

• Requirement for question 3

- (a) Identify and briefly describe the three main methods and suggest what forms a hybrid approach might take. 5
- (b) Outline six factors that could be used in evaluating the best method to meet the needs of a particular situation. 6
- (c) Suggest, with reasons, which method might be most appropriate in the following circumstances. 4
 - (i) Payroll application.
 - (ii) Financial management system in a small college.
 - (iii) Service delivery system in large government department.
 - (iv) Electronic point of sales (EPOS) system in retail chain.

(15)

4

The role of the project manager involves dealing with a wide range of issues and activities at the same time. It is important for a project manager not to concentrate upon one area but to try to achieve a balance in managing these different areas.

- **Requirement for question 4**

- (a) Using the project manager direction finder model, identify and describe the three main areas of management in which the project manager should be involved. 6
- (b) What problems might be faced by the project manager in these three areas and what can the project manager do to overcome them? 9

(15)

5

A fundamental requisite of successful information systems is a recognition of the role and value of information in the management of an organisation. Information can meet the needs of different levels of management and can satisfy decision making requirements in different ways. Most organisations will require a variety of information systems to meet those needs.

- **Requirement for question 5**

- (a) Identify and briefly describe the three levels of management common to most organisations and explain how information needs may differ at each level. 6
- (b) Choose three different types of information systems commonly found in business organisations and explain what management needs they are likely to meet and how they will meet them. 6
- (c) *Chaffey (2003)* suggests that information systems can be used as a source of competitive advantage. How could this be achieved? 3

(15)

6

Staindale College provides a catering facility for its students and has kept statistics of turnover broken down over the three terms of the academic year. Usage of the facility tends to peak during the first two terms and reduces in the final term of each year when many students have examinations and when courses have finished.

Turnover for the last three full years plus the first term of the current year is shown in the table below:

	Term 1 £	Term 2 £	Term 3 £
2001/2002	212,600	215,600	189,400
2002/2003	216,500	217,300	198,400
2003/2004	218,300	219,400	203,600
2004/2005	224,200	Not available	Not available

- **Requirement for question 6**

- (a) Using time series decomposition (additive model) forecast turnover figures for the final two terms of the current year and the first term of 2005/2006. 12
- (b) Comment upon the results of your calculations and upon the benefits and limitations of the technique. 3

(15)

7 FIPAC is a public sector organisation providing services to other public sector bodies and direct to individual clients. The organisation's levels of outstanding debt and bad debts has been rising and it is failing to meet performance indicator targets after benchmarking against similar organisations.

The Management Board has asked for a report on possible ways in which the situation could be improved and upon the possibilities for outsourcing the function.

- **Requirement for question 7**

Produce a report for the Management Board which:

- (a) Identifies and describes the four main areas in which an organisation can improve its debtor position and suggests possible improvement measures. 9
- (b) Outlines how outsourcing could work and the potential advantages and disadvantages of this approach. 6

(15)
