

FINANCIAL MANAGEMENT, SYSTEMS AND TECHNIQUES

Certificate stage examination

7 June 2006

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 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

Blackbored plc supplies educational equipment to schools and colleges. Its customers are mainly large public sector organisations. Benchmarking exercises show that Blackbored is performing quite well within its sector and has significantly expanded both its range of products and overall turnover over the past five years. Turnover is now 220% in real terms of what it was five years ago. Some of the smaller trade creditors have been expressing dissatisfaction with Blackbored's payment performance and have indicated that they are unwilling to continue supplies unless some improvement is made.

There is now some concern that this expansion has had an adverse effect on the working capital position and also that the method of financing used has damaged the company's gearing. There is a feeling that there may soon be a downturn in the overall performance of the sector partly due to a reduction in funds available to schools and colleges and a realignment of budget priorities, and partly due to a saturation of the market as new entrants lead to greater competition for existing business. The consequence is that Blackbored may be vulnerable to this change in market conditions and may not be in a good position to cope with additional risks.

The following information has been extracted from the accounts for the year ended 31 December 2005 and is shown with the previous year's figures for comparison.

	2005	2004
	£m	£m
Sales	55	45
Purchases	35	22
Inventory	5	5
Debtors for sales	25	15
Trade creditors	18	15
Bank cash/(overdraft)	(2)	5
Bank loan (5 years)	5	0
10% debenture stock	25	20
£1 Ordinary shares	50	50
P and L account balance	10	15

The Finance Director has asked you, as Management Accountant, to produce a report analysing the current situation and suggesting action that could be taken to improve the financial outlook for Blackbored.

• **Requirement for question 1**

Prepare a report for the Finance Director on the current position with recommendations for action to be taken. Your analysis should concentrate upon the position as indicated by a calculation of relevant working capital ratios and the capital gearing ratio.

Please state clearly any assumptions made.

(20)

2

A housing survey was carried out in October 2005 in the district of Richdale. The survey collected data on monthly rents from a random sample of 50 rented properties in the area. The results are shown in Table 1 below:

Table 1

400	425	420	390	390	350	250	500	550	415
380	450	480	380	500	430	500	340	320	400
390	500	420	370	260	650	420	410	300	580
400	510	330	410	400	210	420	400	350	420
410	550	400	480	430	390	450	380	450	400

A similar survey based upon a sample of 50 properties was carried out in October 2000. This produced a mean rent of £360 with a standard deviation of £60. A price index used in the district is shown in Table 2.

Table 2

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
100	102	104	107	111	113	116	118	121	124

• **Requirement for question 2**

From the data provided above:

- (a) Group the 2005 data using £50 intervals and calculate the mean and standard deviation of the sample. 6
- (b) Estimate the population mean at the 95% level of confidence. 4
- (c) Use the index to update the 2000 survey figures. Based upon real values of rents, how confident (at the 95% level) can we be that there is a difference between the results of the two surveys? 6
- (d) What size of sample should be used to estimate the population mean to within £20 with 95% confidence? (Assuming the standard deviation of the population is equivalent to your calculated figure for 2005.) Is the sample size satisfactory? 4

(20)

SECTION B – (Answer four questions from this section)

3

A survey carried out at Newhope Health Centre found that the length of time spent by General Practitioners with their patients was normally distributed with an average of 15 minutes, and a standard deviation of 3 minutes. This was based upon a population of 400 consultations over a period of six months, and it covered five doctors working within the practice.

• **Requirement of questions 3**

- (a) What is the difference between continuous and discrete distributions? Give an example of each. 2
- (b) Calculate the probability of a patient taken at random seeing a doctor:
- (i) For more than 16 minutes.
 - (ii) For less than 18 minutes.
 - (iii) For less than 13 minutes.
 - (iv) For between 11 and 17 minutes. 4
- (c) It has been assumed that age is the main determinant of consultation time with the very young and the very old requiring more time. Further analysis of the data has produced the results shown in the table below. Consultation times have been broken down into four main categories and patients have been divided into three groups by age.

Consultation time	Age group		
	0-15 years	16-65 years	66 and over
<12 minutes	15	50	15
12 to 14 minutes	20	70	15
15 to 17 minutes	20	70	25
>18 minutes	25	50	25

Using a chi square test, assess the assumption (at the 5% level of significance) that age is a determinant of the length of consultation time. 9

(15)

4

Risk management can be broken down into a number of key stages. Once risks have been identified, analysed and quantified in terms of probability and effect the organisation reaches the difficult stage of dealing with the risk. This broadly involves deciding whether the risk can be accommodated in some way or whether it should be transferred.

The options available are:

- Risk reduction (or elimination).
- Risk transfer.
- Self-insurance.

• **Requirement for question 4**

- (a) Explain what each of the options entails. 3
- (b) Choose one example from a public service organisation known to you relating to each of the options. In each case explain fully the nature of the risk being addressed and discuss the effectiveness of the approach being taken. 9
- (c) In what ways might the approach taken to risk management in the public sector differ from that taken in the private sector? 3

(15)

5

The nature of effective information varies with the level of managerial decision-making that is being informed. The Anthony Model reflects the conventional analysis where there are three levels: strategic, tactical and operational. As providers of financial management information accountants should be aware of the differing information requirements at these three levels.

- **Requirement for question 5**

- (a) Define each of the three levels of management and describe the main characteristics of information at each of the levels. 6
- (b) Choose an example of financial management information for each of the levels, and explain how the above characteristics would apply. 5
- (c) What are the main features of good quality financial management information? How can accountants be sure that the needs of information users are being met? 4

(15)

6

South Layton District Council has developed its use of Information and Communications Technology (ICT) in a haphazard and decentralised fashion over the past twenty years. As a result different departments have purchased systems to suit their own purposes and the degree of compatibility and lack of standardisation is unsatisfactory and not conducive to efficiency and effectiveness. A skills survey of staff has also pointed to significant variations in knowledge and understanding between individuals and between departments.

A working group has been set up to try to improve the current situation through developing a more co-ordinated and rational approach to systems development and procurement. Each member of the group has been asked to concentrate upon one aspect of ICT and to produce a briefing that could then be developed into guidelines for the Council. You have been asked to look at computer output, and printing in particular.

• **Requirement for question 6**

Produce a briefing note for the next meeting of the group. Your briefing note should cover:

- (a) An introduction outlining the nature of computer output in an organisational context. 3
- (b) Identification of the main types of output hardware with an indication of the factors which should be considered in choosing between them. 6
- (c) A description of the three main types of printer that the organisation might use and of the main criteria that could be used in selecting which would be most appropriate. 6

(15)

7

Towncars plc operates a nationwide network of branches in a variety of UK locations providing for the sale and servicing of new and second hand cars. There are twelve branches in total, six of which only sell second hand cars. The remaining six sell both new and second hand vehicles and operate a car service and parts centre.

Towncars operates different systems for the banking of sales receipts, depending upon the type of sale. The proceeds of new car sales are all banked on the day of receipt, whilst those from second hand sales are banked once a week on Mondays. Receipts from servicing work are banked twice weekly on Tuesdays and Fridays. Banking facilities are not available at the weekend (New car receipts from Saturdays are banked on Mondays).

The total annual sales receipts amount to £42m which is split between the three activities:

- New car sales – 40%
- Second hand sales – 40%
- Servicing and parts – 20%

The current position is summarised in the table below.

	Sat	Sun	Mon	Tue	Wed	Thur	Fri
New car sales							
- takings	2.8		2.8	2.8	2.8	2.8	2.8
- bankings			5.6	2.8	2.8	2.8	2.8
Second hand sales							
- takings	2.8		2.8	2.8	2.8	2.8	2.8
- bankings			16.8				
Servicing and parts							
- takings	1.4		1.4	1.4	1.4	1.4	1.4
- bankings				4.2			4.2

All figures are shown in £m.

The business makes use of an overdraft as a means of financing its working capital requirement. The average overdraft is £70,000 upon which Towncars is paying 7.5% simple interest. The Finance Director is convinced that the company would save interest charges if bankings could be made daily (with weekend sales being banked on Mondays).

The operation trades six days per week. It is assumed that the daily sales value for all areas of the business is spread evenly across the week. It is estimated that the only cost incurred would be a flat rate amount for each additional banking. This would be £6. All other costs, including staff, would be absorbed within existing overheads.

• **Requirement for question 7**

- (a) Calculate the value of the annual interest which could be saved if the banking system is changed and compare this with the additional cost that would be incurred. Consider any relevant non-financial considerations and make an appropriate recommendation. 9
- (b) Explain what the cash receipts float is and how it relates to the cash pool. What are the main sources of delay which need to be taken into account in forecasting the float? 6

(15)