ACCOUNTING FOR DECISION MAKING

Diploma stage examination

11 June 2007

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

Instructions to candidates

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

*Answer **four** questions in total*

One** compulsory question from Section **A
Three** of the four questions from Section **B

*The question in Section A carries **40** marks*
*The questions in Section B each carry a total of **20** 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 examination room.

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.

Formula sheets, statistical tables, graph paper and cash analysis paper are available from the invigilator, where applicable.

AT THE HEART OF
YOUR CAREER

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SECTION A (Compulsory)

1 In 2001 the government published the Valuing People White Paper which was designed to bring about changes to improve the lives of people with learning disabilities as well as their families and carers. The White Paper provided for each local authority to set up a Learning Disabilities Partnership Board and for each of the Boards to produce a plan designed to improve and modernise service provision for those with learning disabilities.

Bishopvale County Council has historically provided a number of Day Care Centres for adults with learning disability. The Council is proposing an improvement and modernisation plan designed to improve the service and to strengthen the amount of independent support by Day Care Centres. The partnership board has approved the rationalisation and modernisation of the catering provision and a decision has been taken that meals will be provided in all Day Centres.

Current meals provision reflects the ad hoc way decisions had been taken over a period of many years. Some of the centres have been preparing meals on the premises through a mixture of using their own catering staff and involving clients in the provision.

The other centres have an annual renewable contract with the Council's own catering service, Citifood. Citifoood is currently contracted to catering five days per week but is unable to offer weekend service. It has been decided that the centres should be open seven days per week and that meals should be available at weekends. For this reason extending the Citifood contract to all centres has been rejected at the short-listing stage.

A Working Group has been set up to identify the options available to Bishopvale and to make recommendations on the most appropriate way forward. Valuing People sets great store in consulting the clients and involving them as far as possible in the decision making processes. As a result a number of meetings and workshops have taken place and a shortlist of options has been proposed. Some work has begun on identifying a suitable investment appraisal approach which would combine financial and non-financial considerations. Whilst the financial implications of the proposals are regarded as being important there is a general acceptance that they should not be the sole determinant of any decision which is made.

The three options under consideration are:
1. Each Day Centre to provide its own in-house catering facilities and employ its own catering staff, in effect rolling out the existing system which has been in place in some of the centres that are closing.
2. The use of one in-house central kitchen which would produce and distribute meals to all of the centres.
3. To employ an external catering contractor.

Option 1

The rationalisation of the day centres was based upon providing centres which were all to be roughly the same size. An analysis of current costs at the centres providing catering shows quite a consistent pattern of costs and cost behaviour. A costing model has been developed for rolling out the existing provision to the remaining day centres. Employee and premises costs are almost entirely fixed, although a substantial increase or decrease in demand for meals could give rise to a stepped increase or decrease.

Provisions costs are variable. Over the relevant range of meals they would be expected to vary directly with the number of meals provided.

The cost of producing meals in-house is estimated based upon out-turn figures for 2006/07. The actual fixed costs for the three currently in-house catered centres have been factored up to reflect the increased provision plus local knowledge of the building and working conditions. The in house provider plans to supply meals at £2.60 per meal.

	£
Fixed costs	
Employees	210,000
Variable costs	
Provisions	130,000
	370,000

Building work would be required in order to create kitchen facilities in the additional centres and there would be a need to acquire appropriate equipment. Some upgrading of existing centres would also be necessary to bring all the facilities up to the required standard. The equipment would be acquired on a ten year lease. The cost of this would be £10,000 per annum payable in advance. The building work is estimated to cost £30,000.

Option 2

This would involve the use of one in-house central kitchen which would produce and distribute meals to all of the centres. An appropriate site in a central location has already been identified. This is a development area starter factory unit and a ten year rental has been negotiated with an initial two year rent free period. This reflects the need to carry out initial conversion work at a cost of £150,000. The kitchen equipment would be acquired through a ten year lease at an annual cost of £50,000. Other costs are estimated as follows:

	£
Fixed costs	
Employees	150,000
Rent	20,000
Premises	12,000
	182,000

Option 2 will provide savings of 10% on the current level of pricing but there would be a cost for delivery which has been estimated as 10p per meal.

Option 3

This would involve contracting with an external caterer. The caterer would be responsible for the whole operation including the collection of income. As the catering function is loss making the contract would be based upon a payment being made by the local authority to the contractor. The contract would be issued through negotiation and discussions have already been held with a company that currently provides a large part of the council's school meals provision. The payment would be made up of a fixed element plus an amount per meal. The best estimate of this is a fixed amount of £95,000 per annum plus £2.00 per meal (for a minimum of 50,000 meals). The fixed element would be payable in advance and the variable element in arrears at the end of the year. The contractor would be responsible for all costs including delivery.

The estimates produced to date assume that the current level of pricing is maintained. Contractors currently charge £3. This has been unchanged for four years and was based upon an authority-wide fair pricing initiative. These prices have produced large deficits and appear to be much cheaper than those charged by neighbouring authorities. It has been suggested that this development provides an opportunity to increase prices and the proposal is to increase the charge to £3.25 or £3.50 per meal. There is some uncertainty over what effect this would have on demand. A number of stakeholders have already been consulted and the outcome of the consultation is summarised in the table below.

	£3.25 Demand	Probability	£3.50 Demand	Probability
Worst possible	40,000	0.3	34,000	0.2
Intermediate	44,000	0.4	38,000	0.4
Best possible	47,000	0.3	44,000	0.4

The Council uses the Treasury TDC of 3.5% for all financial appraisals.

- **Requirement for question 1**

(a) Based on the figures provided and using current price levels calculate the NPV of the three alternatives over ten years. Recommend the best alternative from a financial point of view. Assume an annual demand of 50,000 meals. *18*

(b) You are responsible to the senior accountant responsible for the Valuing People agenda and you have been given the responsibility for developing a weighted benefit analysis which reflects a range of non-financial issues that should be taken into account in the investment appraisal. You have been given the task of arranging and managing the consultation process. The senior accountant has asked you to explain in a briefing note the approach you intend to take. In your note you should cover the management of the meetings and an outline of how you would use weighted benefit analysis. You should include your own suggestions as to the criteria that might be used and the weighting system that you would favour. You also need to comment upon the balance that you would strike between financial and non-financial factors and what you see as the possible limitations of this technique. *12*

(c) Using expected values assess the risk involved in increasing the price of meals. What is the effect of this upon the investment appraisal and what would you recommend? What impact would the worst case scenario have? *10*

Present value factors for 3.5% are shown below:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
0.9662	0.9335	0.9019	0.8714	0.8420	0.8135	0.7860	0.7594	0.7337	0.7089

(40)

SECTION B (Answer three from four questions)

2

Innosoft plc is a software company specialising in niche products and aiming mainly for the over 50s and post retirement leisure market. It has recently developed a new product which helps people combine interests in genealogy and local history through role play. It is called Timelord and preview copies have been very well reviewed in the Sunday broadsheets and received significant exposure on national radio.

The market for the software is expected to have a four year life-span and the following estimates have been made for this period

	Year 1	Year 2	Year 3	Year 4
Sales and production (units)	150,000	120,000	80,000	60,000
Selling price per unit	£30	£30	£26	£26

Cost information has been produced as follows:

- For the first year of production direct material costs are estimated as being £12 per unit. Other variable costs would be £4 per unit.
- Annual additional fixed production costs (excluding depreciation) will be incurred if production goes ahead. Based on year 1 capacity this is expected to be £6.00 per unit.
- The production of Timelord would require the use of a new machine which would be dedicated to the product. The machine would cost £800,000 and would have no useful purpose at the end of the four year period. Capital allowances would be claimed on a reducing balance basis over the period.
- Advertising and marketing costs would be £450,000 in the first year, £150,000 in the second and £100,000 in the third year of production. There would be no advertising in the final year.

Innosoft is a profitable company and pays tax at a rate of 30%. Tax is payable one year in arrears. The company uses an after-tax discount rate which is based upon its current cost of capital. This is 10% but an adjustment needs to be made to convert this figure into a real rate. Inflation is assumed to be 3.5%.

A decision is required on whether to go ahead with the production and sale of the new product.

- **Requirement for question 2**

(a) Calculate the Net Present Value (NPV) and the Internal Rate of Return (IRR) of the proposed investment. *12*

(b) Make recommendations based upon your analysis and explain the basis of them. Comment upon the assumptions made and upon the choice of discount rate. *4*

(c) What are the relative merits and demerits of the NPV and IRR methods of investment appraisal? *4*

(20)

3

Inkontrol plc manufactures control equipment for use in commercial security systems. The main product is the ADM2 which is supplied directly to the market. A major component of the ADM2 is the MA3. This is also manufactured by InKontrol but in a separate division. InKontrol is organised on a divisional basis with each division acting as a profit centre and being responsible for its own manufacturing and sales decisions. The ADM2 is manufactured by Division A and the MA3 is manufactured by Division M. Each ADM2 requires one MA3.

Division A has received an order for 100,000 ADM2s to be supplied in the next three months. This order could be very profitable but would require an additional supply of MA3s from Division M. Division M has been producing 250,000 MA3s per annum but has capacity to produce 320,000. It currently sells the MA3s to Division A at the same price it charges its external customers, which is £20 per unit.

In view of the large order the two divisions have entered into negotiations on the transfer price. Division M has offered to reduce its price to Division A by the amount of its variable distribution costs. Division A has responded by offering to pay the standard variable cost (excluding distribution costs) plus a 30% mark up. This has led to a stalemate between the two divisions. Division A has also informed Division M that they have managed to source 50,000 MA3s from a rival manufacturer at a price of £14 per unit. The division has not made a decision on this yet but they will need to decide within the next couple of weeks whether to go ahead.

The Company Financial Controller has the responsibility of trying to ensure that decisions such as this are taken for the benefit of the company as a whole. He has no direct powers of decision making but can bring substantial authority and influence to bear on the situation. He has suggested a compromise where the transfer price could be set at Division M's full unit cost (excluding distribution costs). Fixed overhead will be charged based on current capacity.

Production and sales figures for the last two quarters are shown below for Division M.

	Quarter 1	Quarter 2
Production (units)	60,000	70,000
	£	£
Direct manufacturing costs	595,000	680,000
Divisional overheads		
Administration	85,000	85,000
Premises	45,000	45,000
Repairs and maintenance	13,000	14,000
Marketing and sales	40,000	45,000
Distribution	128,000	143,000
Company overheads	12,000	12,000

The Financial Controller has asked you for a briefing note on this.

- **Requirement for question 3**

Prepare a briefing note for the Company Financial Controller. This should include:

- A calculation of the three suggested transfer prices.
- An assessment of what action would benefit the company most.
- Suggestions as to how negotiations between the two divisions should proceed.

(20)

4

The table produced below compares the performance of three Housing Associations over a selected range of Performance Indicators (PIs). The figures shown relate to financial year ended 31 March 2006. The Housing Associations are referred to as Housing Associations A, B and C.

	Housing Association A	Housing Association B	Housing Association C	Mean national average
Number of managed dwellings	22,490	3,650	6,300	n/a
Average weekly rent (2 beds)	£66.25	£55.55	£62.56	£63.10
Operating cost as percentage of turnover	74%	69%	64%	80%
Weekly operating cost per dwelling	£54.50	£74.45	£45.60	£52.35
Weekly investment in housing stock per dwelling #	£14.40	£38.20	£35.30	£36.00
Percentage of rent collected	97.5%	99.1%	98.7%	99.1%
Rent debit written off during year	0.4%	0.2%	0.1%	0.1%
Current tenant rent arrears at year end	2.8%	3.4%	3.2%	5.2%
Vacant dwellings available	4.0%	3.5%	2.5%	2.1%
Average re-let time	62 days	17 days	42 days	44 days
Emergency repairs completed on target	89%	96%	92%	95%
Routine repairs completed on target	88%	97%	95%	92%
Energy efficiency rating of stock *	75	66	62	66
Failing decent homes standard ##	30.1%	21.5%	38%	19.3%
Tenant satisfaction all round	80%	79%	83%	79%
Tenant satisfaction with participation**	64%	47%	65%	62%

cost of maintenance, repairs, improvements etc
*standard assessment based upon scale from 1 (highly inefficient) to 120 (highly efficient) based upon energy costs required to create a standard heating regime
Decent Homes Standard as set by central government
** participation in management and decision making

- **Requirement for question 4**

(a) Prepare a brief report commenting upon the performance of Housing Association A as revealed by the above table. *7*

(b) What are the limitations of your report, and what do you see as being the benefits and limitations of using performance indicators in general? *8*

(c) How might the above indicators be used within a balanced scorecard framework? Suggest two arguments in favour of using a balanced scorecard approach. *5*

(20)

5

Westdale District Council is a small local authority which provides the majority of its services from a centralised headquarters building in the market town of Appleton. The Administrative Services Department is responsible for the finance function (including internal audit), human resource management and legal services. It has long been thought that the size of the authority makes it impossible for it to benefit from economies of scale and it is also felt that all reasonable and feasible options for cost reduction have been considered and, where appropriate, implemented in recent years.

The Chief Executive has been asked to investigate the possibility of outsourcing the administrative functions. A working group of officers and members is shortly due to begin discussions on the matter.

You have been seconded to the Chief Executive's office and she has asked you to research this from a management accounting point of view and provide her with a briefing which will form part of the report to the first meeting.

- **Requirement for question 5**

Produce a briefing note for the Chief Executive outlining:

(a) The potential beneficial financial implications to the organisation of outsourcing the administrative functions. *5*

(b) The possible problem areas and the implications for cost reduction and cost control. *5*

(c) An evaluation of the main risks and uncertainties involved and comment briefly on how they might be assessed and managed. *5*

(d) The principal areas which need to be addressed prior to the outsourcing taking place if the financial benefits are to be realised. *5*

(20)
