UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Diploma Advanced Level

MARK SCHEME for the October 2004 question papers

CAMBRIDGE INTERNATIONAL DIPLOMA IN BUSINESS

5173   Business Finance (Core), maximum mark 100

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All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

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UNIVERSITY *of* CAMBRIDGE
International Examinations

October 2004

CAMBRIDGE INTERNATIONAL DIPLOMA

Advanced Level

MARK SCHEME
MAXIMUM MARK: 100
PAPER: 5173 BUSINESS Business Finance

You must attempt all of the following tasks.

1   (a)   **Explain what is meant by the term 'goodwill'**   **[2]**

For a vague definition   [1 mark]
For a fuller definition   [2 marks]

Self assessed value of reputation, intangible asset

(b)   **Explain the likely financial consequences of obtaining a patent.   [2]**

For a vague definition   [1 mark]
For a clear and complete explanation of consequences   [2 - 3 marks]

Sole rights of production (1) - allows future stream of profits during patent life (1)

(c)   **Identify and explain <u>one</u> advantage and <u>one</u> disadvantage of 'sub-contracting the manufacturing through a licensing agreement'   [4]**

1 mark for listing advantage/disadvantage plus 1 further mark if advantage/disadvantage is explained

Advantage - no need to establish production facilities save on costs, etc
Disadvantage - loss of potential profits from the manufacturing of the products, etc

(d)   **Explain how 'sponsorship' could be financially advantageous to New Moon Ltd.   [2]**

To achieve an award of 2 marks the role of sponsorship must be explained e.g. initial payment brings cost effective research and may enhance the image of the firm. If candidate merely defines sponsorship maximum of 1 mark

(e)   **Explain what is meant by the term 'venture capitalists'   [2]**

For vague definition e.g. investors [1 mark]
For fuller definition - risk taking investors who look to small/medium sized firms for investment opportunities and who will often require a seat on the Board

[Total: 12]

2   **Explain how <u>each</u> of the external (PEST) factors outlined in the case study would be likely to affect the profitability of the firm   [3 x 4 = 12]**

For each factor identified and classified within PEST framework [1 mark]
Allow up to 2 further marks per factor for explanation of possible effects - explanation must mention likely effects on sales/revenue/costs for full award

[Total: 12]

3.   **Use the information provided in item 1.**

(a)   **Calculate the percentage accounting rate of return (ARR) for each of the alternative projects**   **[5 x 2 = 10]**

Level 1 - Candidate has limited knowledge of process - makes some calculations with errors   [1 - 2 marks]

Level 2 - Candidate demonstrates knowledge of process and makes relevant and correct calculations   [3 - 5 marks]

(b)   **Calculate the payback period for each of the projects**   **[3 x 2 = 6]**

Level 1 - Candidate has limited knowledge of process - makes some calculations with errors   [1 mark]

Level 2 - Candidate demonstrates knowledge of process and makes relevant and correct calculations   [2 - 3 marks]

See Appendix 1 for suggested solutions for (a) and (b)

(c)   **Explain why a firm such as New Moon Ltd should consider introducing investment appraisal methods that take account of the time value of money**   **[4]**

Level 1 - Candidate makes vague statements about the use of money   [1 - 2 marks]

Level 2 - Candidate has a clear idea of time value and introduces the concept of discounted cash flow and time value methods   [3 - 4 marks]

[Total: 20]

4   (a)   **Distinguish clearly between a trial balance and a balance sheet**   **[4]**

Level 1 - Candidate defines both terms in a vague manner or only one term clearly   [1 - 2 marks]

Level 2 - Candidate produces clearer definition of both terms and makes an effective comparison   [3 - 4 marks]

Trial balance - interim statement - check on the application of funds - Balance sheet - final year end statement - provides evidence of change in worth of the business

(b)   **Outline and explain the basic balance sheet equation**   **[3]**

For simple statement that balance sheet always balances   [1 mark]
For inclusion of balance sheet equation and explanation
                                                                                [up to 2 additional marks]

Assets – Liabilities = owner/shareholder's Equity

(c) **An audited set of accounts will represent a true and fair view of the financial affairs of a business**

Identify and explain two possible adjustments that may be necessary to ensure that the accounts are accurate [3 x 2 = 6]

For statement that accuracy must be represented as 'true and fair'
[1 mark]

Adjustments - to include
- depreciation
- revaluation
- provision for bad debts, etc

1 mark for relevant adjustment up to 2 further marks for explanation of how adjustments are made to the accounts
[Total: 13]

5 **Using the information contained in Item 1 and employing the straight line method of depreciation**

(a) **Calculate the annual depreciation allowance for each of the projects**
[3 x 3 = 9]

Level 1 - Candidate has limited knowledge of the process and makes a limited attempt to produce calculations [1 mark]

Level 2 - Candidate has a clear knowledge of process and at top end produces accurate results [2 - 3 marks]

See Appendix 2 for suggested solution

(b) **Calculate the book value for each of the project machines at the end of year 3** [1 x 3 = 3]

1 mark for correct process and calculation

See Appendix 2 for suggested solution

(c) **State with reasons which of the projects you would recommend should be undertaken** [3]

Allow 1 mark for criteria of choosing highest APR%
Allow 1 mark for criteria of choosing shortest payback period
Allow 1 further mark for discussion linked to lower initial outlay/revenues obtained in shorter period or any other relevant argument
[Total: 15]

6 **(a)** **Identify and explain <u>two</u> duties of the directors of a private limited company** **[2 x 2 = 4]**

For listing of duties [1 mark]
Allow up to 1 additional mark for quality of explanation of duties

Safeguard shareholders investment
Ensure firm operates within legal guidelines
Formulate policy that is economically viable, etc

(b) **Identify and explain <u>one</u> advantage and <u>one</u> disadvantage of converting from a private limited company to a public limited company** **[2 x 2 = 4]**

1 mark for listing advantage/disadvantage
Plus 1 additional mark for explaining advantage/disadvantage
Advantage - access to funds, enhanced reputation, etc
Disadvantage - loss of privacy, more formalities, etc

(c) **Identify and explain two methods that could be employed to 'go public'** **[2 x 2 = 4]**

1 mark for identifying method plus 1 further mark for explanation
e.g. Prospectus, Private Placing, Offer for sale, etc

[Total: 12]

7 **Use the information contained in Item 2**

(a) **Calculate:**

(i) **the direct material price variance** **[3]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 - 3 marks]

(ii) **the direct material usage variance** **[3]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 - 3 marks]

(iii) **the direct material total variance** **[2]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 marks]

(b) **Calculate**

(i) **the direct labour rate variance** **[3]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 - 3 marks]

(ii) **the direct labour efficiency variance** **[3]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 - 3 marks]

(iii) **the direct labour total variance.** **[2]**

Level 1 - Candidate has limited knowledge of method required and/or makes many errors [1 mark]

Level 2 - Candidate demonstrates knowledge of method necessary and produces accurate results [2 marks]

[Total: 16]

See Appendix 3 for suggested solution

Appendix 1

3 (A)

$$ARR\% = \frac{Average\ Net\ Return}{Initial\ Investment} \times 100$$

Net Return = Revenue - (Running Cost + Initial Outlay)

Project A

Returns	=	($120000 x 3) + $150000 + $90000
	=	$360000 + $150000 + $90000
	=	$600000
Running Costs		($15000 x 4) + $20000
	=	$60000 + $20000 = $80000
Net Return	=	$600000 - ($80000 + $300000)
	=	$220000
Av Net Return	=	$220000/5 = $44000
ARR	=	$\underline{\$\ 44000}$ x 100 = 15% (Accept 14.7%)
		$300000

Project B

Returns	=	($75000 x 5) + ($130000 x 2) + $120000
	=	$375000 + $260000 + $120000
	=	$755000
Running Costs		($10000 x 5) + ($15000 x 2) + $12000
	=	$50000 + $30000 + $12000
	=	$92000
Net Return	=	$755000 - ($92000 + $400000)
	=	$263000
Av Net Return	=	$263000/8 = $32875
ARR	=	$\underline{\$32875}$ x 100 = 8% (Accept 8.2%)
		$400000

3 (B)

Payback period = Time period for net returns to repay initial purchase costs

<u>Project A</u>

Initial cost	=	$300000		
Net Return	=	Revenue - Running Costs		
After yr 1		$120000 - $15000		= $105000
2				= $210000

Payback	=	2 years + $\frac{90000}{105000}$	x 12	= 2 yrs 10 months

<u>Project B</u>

Initial cost	=	$400000		
After yr 1		$75000 - $10000		= $65000
After yr 5				= $325000
Payback	=	5 years + $\frac{75000}{111500}$	x 12	= 5 yrs 8 months

Appendix 2

5(A)

Annual Depreciation = $\dfrac{\text{Initial Cost - Residual Value}}{\text{Useful Life}}$

Project A

Annual Depreciation = $\dfrac{\$300000 - \$10000}{5}$

= $58000

Project B

Annual Depreciation = $\dfrac{\$400000 - \$25000}{8}$

$46.875

Project C

Annual Depreciation = $\dfrac{\$750000 - \$45000}{12}$

$58750

5(B)

Book Value = Initial Cost - Accumulated Depreciation

Project A

= $3000000 - ($58000 x 3) = $126000

Project B

= $400000 - ($46875 x 3) = $259375

Project C

= $750000 - ($58750 x 3) = $573750

Appendix 3

7(A)

(I)

Direct material price variance
11700 kgs of raw materials should have cost (@$10) $117000
Actual Cost $98600
Price Variance $18400 (F)

F = Favourable

(II)

Direct material usage variance 1000 units produced should have used
10000 kgs of materials 10000 kgs   =   10000 kgs
Actual Usage   =   11700 kgs
Usage variance in kgs   1700 kgs
X standard cost @ $10 = $17,000 (A)

A = Adverse

(III)

Direct material total variance
= Direct material price variance + allied material usage variance
= $18400 (F) + $17000 (A) = $1400 (F)

7 (B)

(I)

Direct labour rate variance
Difference between what 2300 hours should have cost and what it actually cost

2300 hours should have cost @ $5 hour $11500
Actual cost   8900
Direct Labour rate variance   2600   (F)

(II)

Direct labour efficiency variance
1000 units should have taken @2hrs per unit   2000   hrs
Actual hours   2300
Efficiency variance in hours   300   (A)
X standard rate per hour @ $5   5
                                               $1500   (A)

(III)

Direct labour total variance = Direct labour rate variance + direct labour efficiency variance
= $26000 (F) + $15000 (A)
= $1100 (F)