UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Diploma Advanced Level

MARK SCHEME for the October 2007 question paper

CAMBRIDGE INTERNATIONAL DIPLOMA IN BUSINESS

5173   Business Finance, Maximum mark 100

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began.

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

1 (a) Identify and explain two financial reasons why Dr Moon might consider opening a new factory in an overseas country. **[4]**

Allow 1 mark per valid reason and a further mark if the reason is explained.
Cost savings – lower wage rates- nearer to market – lower distribution costs etc.

(b) Explain why a company might be interested in purchasing the patent for the fuel pump. **[2]**

Allow 1 mark if the answer only refers to exclusive manufacturing rights.
An answer that links the patent to high profits or discusses the purchase of an intangible asset should attract an award of 2 marks.

(c) List and explain one advantage and one 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.

A – no need to establish production facilities – save on cost etc.

D – 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) (i) Explain what is meant by the term venture capitalists. **[2]**

For vague definition e.g. investors (1 mark).
For fuller definition – risk averse investors who look to small/medium sized firms for investment opportunities and who will often require a seat on the Board (2 marks).

(ii) Explain why a venture capitalist would be particularly interested in investing in a company such as New Moon Ltd (3 marks).

The answer should refer to the role of the venture capitalist as a risk taker- providing funds to businesses that are developing new products in new areas of the market where returns are uncertain but could be substantial. Allow 1 mark per element to a maximum of 3 marks.

[Total: 17]

2   **Explain how each of the external (PEST) factors outlined in the case study could affect the future profitability of the firm (4 x 3 marks).**   **[12]**

For each PEST factor identified allow 1 mark
Allow a further 2 marks if the answer demonstrates an awareness of how the factor is likely to affect sales revenue/costs/profits.

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

(a) **Calculate the likely average annual profit for projects A and B (2 x 5 marks).**

Level 1 – Candidate has limited knowledge of process – makes some calculations with errors.   **[1–3]**

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

(b) **Calculate the payback period for projects A and B (2 x 3 marks).**

Level 1 – Candidate has limited knowledge of process – makes some calculations with errors.   **[1]**

Level 2 – Candidate demonstrates knowledge of process and makes relevant and correct calculations.   **[2–3]**

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

                                                                                                                                              [Total: 16]

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]

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

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.**   **[2]**

For simple statement that balance sheet always balances – 1 mark.
For inclusion of balance sheet equation and explanation – 1 additional mark.

Assets – Liabilities = owners/shareholders' 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 marks 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: 12]

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

(a) calculate the estimated residual value for each of the projects (A, B and C). [3 x 3 marks]

Level 1 – Candidate has limited knowledge of process and makes limited attempt to produce calculations. [1]

Level 2 – Candidate has clear knowledge of process and at top end produces accurate results. [2–3]

(b) calculate the book value for each of the project machines at the end of year 3.
[3 x 2 marks]

Allow 1 mark for demonstrating knowledge of how to undertake the calculation and a further mark if the calculation is correct. If answer provides correct solution only allow 2 marks.

[Total: 15]

6 (a) List and explain two duties of the directors of a private limited company. [2 marks x 2]

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 one advantage and one disadvantage of converting from a private limited company to a public limited company.   [2 marks x 2]

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 used to 'go public'.   [2 marks x 2]

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

[Total: 12]

Using the information contained in Item 2

7 (a) Calculate

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

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

Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results.   [2–3]

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

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

Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results .   [2–3]

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

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

Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results.   [2]

(b) Calculate

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

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

      Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results. [2–3]

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

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

      Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results. [2–3]

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

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

      Level 2 – Candidate demonstrates knowledge of method necessary and produces accurate results. [2]

[Total: 16]

Appendix 1

3 **(a)** Net Return/Profit = Revenue – (Running Cost + Depreciation Allowances)

Project A

Returns	= ($120000 x 3) + $150000 + $90000
	= $360000 + $150000 + $90000
	= $600000
Running Costs	= ($15000 x 4) + $20000
	= $60000 + $20000
	= $80000
Depreciation Allowances	= $50,000 p.a. = $250,000
Net Return	= $600,000 – ($80000 + $250,000)
	= $270,000
Average Net Profit	= $270,000/5
	= $54,000

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
Depreciation Allowances	= $40,000 p.a. = $320,000
Net Returns	= $755000 – ($92,000 + $320,000)
	= $343,000
Average Net Profit	= $343,000/8
	= $42,875

(b) Payback period = Time Period for net returns to repay initial purchase costs

Project A

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

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

Project B

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) Residual Value = Purchase price of asset – Accumulated depreciation allowances over useful life

Project A

Annual Depreciation	= $ 50,000
Useful life	= 5 years
Accumulated depreciation	= $ 250,000
Residual value = $300,000 – $250,000	= $ 50,000

Project B

Annual Depreciation	= $40,000
Useful life	= 8 years
Accumulated depreciation	= $320,000
Residual value = $400,000 – $250,000	= $80,000

Project C

Annual Depreciation	= $ 60,000
Useful life	= 12 years
Accumulated depreciation	= $ 720,000
Residual value = $750,000 – $720,000	= $ 30,000

(b) Book Value = Initial Cost – Accumulated Depreciation

Project A
= $3000000 – ($50,000 X 3) = $150,000

Project B
= $400000 – ($40,000 X 3) = $280,000

Project C
= $750000 – ($60,000 X 3) = $570,000

Appendix 3

7 (a) (i) Direct material price variance
            11500 kgs of raw materials should have cost (@ $12) $ 138,000
            Actual Cost $ 131,000
            Price Variance $ 7,000 (F)

            F = Favourable

    (ii) Direct material usage variance 1000 units produced should have used
          10000 Kgs of materials 10000 kgs   =   10000 kgs
          Actual Usage   =   11500 kgs
          Usage variance in Kgs   1500 kgs
          X standard cost @ $12 = $18,000 (A)

          A = Adverse

    (iii) Direct material total variance
          = Direct material price variance + allied material usage variance
          = $7,000 (F) + $ 18,000(A) = $11,000(A)

   (b) (i) Direct Labour rate variance
             Difference between what 2100 hours should have cost and what it actually cost
             2100 hours should have cost @ $ 8hour $16,800
             Actual cost   9,500
             Direct Labour rate variance   7,300 (F)

     (ii) Direct labour efficiency variance
           1000 units should have taken @ 2.5 hrs per unit   2500hrs
           Actual hours   2100
           Efficiency variance in hours   400 (F)
           X standard rate per hour @ $8 = $ 3200 (F)

     (iii) Direct labour total variance = Direct labour rate variance + direct labour efficiency
           variance
           = $7300 (F) + $3200 (A)
           = $10,500 (F)