CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Diploma Advanced Level

MARK SCHEME for the October 2012 series

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, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October 2012 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

1 **(a)** **(i)** **Explain why gross profit had risen as predicted, while turnover had not.** **[3]**

Allow **1 mark** for explaining that turnover is sales revenue.
Allow up to **2 marks** for any reasonable explanation e.g. costs of production had fallen, therefore allowing more profit per unit etc.

(ii) **Explain why the figure for net profit was disappointing, even though the gross profit figure was encouraging.** **[3]**

Allow **1 mark** for explaining the net profit = Gross profit minus expenses.
Allow up to **2 marks** for any reasonable explanation e.g. the level of expenses had risen more than expected etc.

(b) **(i)** **Explain what is meant by producing under a licence.** **[2]**

Allow **2 marks** if the answer is complete e.g. the owner of the licence allows other firms to manufacture the product providing they pay an annual licence fee and they agree to maintain quality standards.

(ii) **Explain what is meant by a multinational company.** **[3]**

Allow **3 marks** if the answer is complete e.g. a company that owns and operates production facilities in several countries and employs nationals from these countries at all levels within the organisation.

(c) **Explain how <u>one</u> external (PEST) factor, mentioned in the case study, could affect the company.** **[3]**

Allow **1 mark** if the answer identifies PEST as Political, Economic, Social and Technological.
Allow a further **2 marks** if the answer identifies the Economic factor in the case study and provides a reasonable explanation of the effects e.g. if the economy recovers sales should rise etc.

(d) **Explain the purpose of <u>two</u> end of year statements that will be submitted to the Annual General Meeting.** **[2 × 3 = 6]**

Allow **1 mark** for identifying a relevant statement e.g. Balance sheet, Profit and loss account, Cash flow statement etc.
Allow **2 further marks** for explaining the purpose of the statement e.g. the balance sheet shows the net worth of the business the value of all assets and liabilities and whether there has been any growth in the business.

[Total: 20]

2   It is common in the accounting process to make adjustments to the accounts in respect of fixed assets, debtors and stocks.   **[8]**

   (a) Explain why it is considered necessary to make such adjustments detailing which accounting principles are being used when the adjustments are made.

   Allow **2 marks** for a statement that the adjustments are necessary in order to present a 'true and fair view' of the financial affairs of the business.
   Allow **a further 2 marks** if the answer indicates the nature of the adjustments e.g. fixed assets will be depreciated, provisions will be made for bad and doubtful debtors and stocks may be valued in different ways e.g. LIFO, FIFO, AVCO etc.
   Allow **up to 4 marks** for an answer that clearly indicates how accounting principles are being applied e.g. reducing the value of fixed assets via depreciation is in line with the principle of prudence which states that losses should be reported immediately etc

   (b) Using the information in <u>Item 1</u>, calculate

   (i)   the annual depreciation allowance for Machine A, using the straight-line method
   [4]

   Allow **1 – 2 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are errors within the calculation.
   Allow **3 – 4 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are fewer errors the calculation or at the top end the answer is correct.

   (ii)   the annual depreciation allowance for Machine B, using the straight-line method **[4]**

   Allow **1 – 2 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are errors within the calculation.
   Allow **3 – 4 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are fewer errors the calculation or at the top end the answer is correct.

   (iii)   the accumulated depreciation for <u>both</u> machines after three years   **[4]**

   Allow the full award if the candidate calculates totals for each machine separately or provides a combined total for accumulated depreciation.
   Allow **1 – 2 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are errors within the calculation.
   Allow **3 – 4 marks** if the answer demonstrates that the candidate knows how to complete the calculation but there are fewer errors the calculation or at the top end the answer is correct.

   See Appendix 1 for suggested solution

   [Total: 20]

3   (a)   **Distinguish between a prospectus, a bonus issue and a rights issue as methods of raising share capital.**   **[3 × 4 = 12]**

Allow **up to 4 marks** for **each** explanation.

Prospectus – a document, often published in the financial press that contains information about the business, together with details of the proposed share issue and an invitation to apply for the shares at an agreed price.
A bonus issue is also known as capitalisation and involves providing existing shareholders with additional 'free' shares. The finance for these shares comes from the business's retained profits and once the shares are issued these profits become part of the permanent capital of the business.
A rights issue involves inviting existing shareholders to purchase additional shares on the basis of their existing shareholdings. These shares will be offered at a discount, but there is no legal requirement for the existing shareholders to buy the shares.

(b)   **Explain two advantages and two disadvantages of raising finance through issuing debentures.**   **[4 × 2 = 8]**

Allow **up to 2 marks** for each advantage/disadvantage.

Advantages – the business knows exactly the cost of the capital as there will be a fixed interest rate, large amounts of finance can be easily raised, the interest that is payable is tax deductible etc.
Disadvantages – the interest charges have to be paid whether profits are made or not, the debentures are often secured against assets of the business and therefore there is a risk of losing some assets etc.

[Total: 20]

4   (a)   **Distinguish between contribution and profit.**   [8]

Allow **2 marks** for explaining each term.

Contribution is the surplus of revenue after variable cost has been deducted that is available to cover fixed costs.
Profit is the surplus of revenue after all costs, both variable and fixed, have been deducted.

(b)   **Using the information in the case study, calculate**

(i)   **the monthly contribution from Machine A**   [3]

(ii)   **the monthly contribution from Machine B**   [3]

(iii) **the annual profit from both machines, assuming that they will operate for 10 months of the year**   [6]

See Appendix 2 for suggested solution

[Total: 20]

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5   Ratio analysis is often used by accountants to measure the performance of a business.

(a) Explain what is meant by a ratio, and describe with examples <u>three</u> types of ratios that will be used by accountants. [10]

Allow **2 marks** for a statement that a ratio shows the relationship between two variables and will be used for making comparisons with previous results.
Allow **up to 3 marks** for each type/group of ratio- **1 mark** for identifying, **1 mark** for explaining and **1 mark** for an example – to **a maximum of 8 marks**.
Possible content

(i) **The analysis of liquidity**

Liquidity refers to those assets which are readily available as cash or which can be easily and quickly turned into cash. It is important for an organisation to be able to meet its immediate needs for cash but at the same time it should ensure that most of its assets are employed in producing profits for the organisation. There is therefore a balance to be made between the ability to cover current liabilities and the use of assets in the profit making process. A number of key liquidity ratios have been developed.

1   **Current(Working capital) ratio** =

Current Assets : Current liabilities.

2   **Acid test (Quick) ratio** =

Current assets – Stocks : Current liabilities

3   **Rate of stock turnover** =

$\dfrac{\text{Average Stock/Closing Stock}}{\text{Cost of sales}} \times 365$ = ? days

4   **Debtors Settlement period** =

$\dfrac{\text{Debtors}}{\text{Turnover}} \times 365$ = ? days

5   **Creditors Settlement period** =

$\dfrac{\text{Creditors}}{\text{Credit purchases}} \times 365$ = ? days

(ii) The analysis of profitability

In assessing the success of a business the profit figure is significant but it is also important to judge how successful the business has been by comparing this year's performance with previous years and making comparisons with other firms in the same market. The most effective way of doing this is to use the key ratios shown below.

1 Return on shareholders' capital employed =

$$\frac{\text{Net profit before interest and tax}}{\text{Shareholders' capital employed}} \times 100 = ? \%$$

2 Return on total capital employed =

$$\frac{\text{Net profit before interest and tax}}{\text{Total capital employed}} \times 100 = ? \%$$

3 Gross profit margin =

$$\frac{\text{Gross profit}}{\text{Turnover or sales revenue}} \times 100 = ? \%$$

4 Net profit margin =

$$\frac{\text{Net profit before interest and tax}}{\text{Turnover or sales revenue}} \times 100 = ? \%$$

Net profit = Gross profit – Expenses

(iii) The analysis of efficiency

A number of ratios can be used to reflect how efficiently the business has used the capital that was available to it. Many of these ratios will be of interest to the shareholders who have made their contributions of capital and for this reason they are sometimes known as shareholder ratios. The key ratios in this category are as follows.

1   Earnings per share =

$$\frac{\text{Earnings available to ordinary shareholders}}{\text{Number of ordinary shares that have been issued}} = ?\ p$$

2   Price earnings ratio =

Market price per share : earnings per share = ? : 1

3   Dividends per share =

$$\frac{\text{Total ordinary share dividend}}{\text{Number of ordinary shares issued}} = ?\ p$$

4   Dividend yield =

$$\frac{\text{Dividend per share} \times 100}{\text{Market price per share}} = ?\ \%$$

5   Dividend cover =

$$\frac{\text{Earnings per share}}{\text{Dividends per share}} = ?\ \text{times}$$

6   Dividend payout ratio =

$$\frac{\text{Ordinary share dividend} \times 100}{\text{Earnings available to ordinary shareholders}} = ?\ \%$$

7   Capital turnover =

$$\frac{\text{Sales revenue}}{\text{Capital employed}} = ?\ \text{times}$$

8   **Expense ratios**

These ratios express the expenses associated with the level of sales achieved as a percentage of the revenue. In most instances it would be better to see the percentage figure reducing but in some circumstances the percentage may be rising e.g. marketing expenses may rise as the business enters a new market.
It is possible to construct many ratios which refer to the individual expenses and two examples are given below

Marketing and sales expenses × 100 = ? %
Sales revenue

Total labour expenses × 100 = ? %
Sales revenue

9   **Capital gearing** =

Gross borrowing (debentures and loans) × 100
Equity investment (ordinary and preference shares issued)   **[10]**

(b)   Explain the possible limitations of ratio analysis.   **[10]**

Allow **up to 4 marks** for any well explained limitation **up to a maximum of 10 marks.**
Possible content
Ratios are useful when interpreting the results shown in the final statements but ratio analysis does have some limitations.
When making comparisons over a period of time it is necessary to take account of the following factors: changes that have taken place in accounting procedures e.g. the introduction of new accounting standards, changes in the business climate e.g. has the economy entered into a recession, has the prevailing inflation rate increased, thus inflating the profit figures within the accounts and has the business changed its operating procedures and/or its trading activities e.g. it could have moved into new markets.

In addition to the above factors it is also important that in any comparison is made on a like for like basis. It would not be useful to compare the results from a well established company with those for a newly established company as a meaningful comparison is not possible.

A further problem relates to the type of information being compared. The accounting data used in ratio analysis is historic and quantitative and therefore valuable information related to future plans and positive factors such as the morale of the workforce will not be included. This can give a false picture of the future prospects of the business.

[Total: 20]

Appendix 1

2 **(b) (i)** Machine A

Initial Purchase Price	$600 000
Residual Value	10% of purchase price
Useful life	6 years

Annual depreciation allowance = $\dfrac{\text{Initial purchase price – Residual value}}{\text{Number of years of useful life}}$

$$= \frac{\$600\ 000 - (\$600\ 000 \times 10\%)}{6} = \$90\ 000 \text{ p.a}$$

   (ii) Machine B

Initial Purchase Price	$800 000
Residual Value	15% of purchase price
Useful life	8 years

Annual depreciation allowance = $\dfrac{\text{Initial purchase price – Residual value}}{\text{Number of years of useful life}}$

$$= \frac{\$800\ 000 - (\$800\ 000 \times 15\%)}{8} = \$85\ 000 \text{ p.a.}$$

   (iii) Machine A Annual depreciation is $90 000 × 3 = $270 000

Machine B Annual depreciation is $85 000 × 3 = $255 000

Combined annual depreciation = $90 000 + $85 000 = $175 000 × 3 = $525 000

Appendix 2

4   **(b) (i)**   Machine A

Maximum output per month	10 000 units
Sales price per unit	$12
Variable cost per unit	$8
Fixed overhead costs per unit per month	$1.50

Contribution = Sales revenue – Variable costs

= (10 000 x $12) – (10 000 x $8) = $40 000

(ii)   Machine B

Maximum output per month	15 000 units
Sales price per unit	$10
Variable cost per unit	$7
Fixed overhead costs per unit per month	$1.25

Contribution = Sales revenue – Variable costs

= (15 000 x $10) – (15 000 x $7) = $45 000

(iii)   Profit = Fixed overheads – Contribution

Monthly contribution = $40 000 + $45 000 = $85 000

Monthly overheads = (10 000 x $1.50) + (15 000 x $1.25)

= $15 000 + $18 750 = $33 750

Monthly profit = $85 000 – $33 750 = $51 250

Annual profit = $51 250 x 10 = $512 500