### Multiple choice

<table>
<thead>
<tr>
<th>Question</th>
<th>Correct answer</th>
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### Structured questions

1. (a) (i) **Gross profit / revenue (year 2):**
   
   Gross profit = revenue (sales) – cost of sales

   \[
   \text{Cost of sales:} \quad \$ \\
   \text{Opening inventory:} \quad 10,000 \\
   \text{add Purchases:} \quad 110,000 \\
   \text{less Closing inventory:} \quad 20,000 \\
   \text{100,000} 
   \]

   Therefore, gross profit = 200,000 – 100,000 = $100,000

   and gross profit / revenue (%) = (100,000 / 200,000) × 100 = 50%

(ii) **Profit for year / revenue (year 2):**

   \[
   \text{Profit for year = gross profit – expenses} \quad \$
   \]

   Gross profit 100,000

   Expenses 50,000

   Profit for the year 50,000

   Therefore, profit for the year / revenue (%) = (50,000 / 200,000) × 100 = 25%

(iii) **Profit for year / closing capital (year 2):**

   \[
   \text{Profit for the year} = (50,000 / 80,000) × 100 = 62.5%
   \]

(iv) **Rate of inventory turnover (year 2):**

   \[
   \text{Rate of inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory}} \\
   \text{Average inventory} = \frac{(\text{opening inventory} + \text{closing inventory})}{2} \\
   = \frac{(10,000 + 20,000)}{2} = 15,000
   \]

   Therefore, rate of inventory turnover = \$100,000 / \$15,000 = 6.7 times

   Or

   \[
   \frac{\text{Average inventory} / \text{Costs of sales}}{\text{365 days}} = \frac{(15,000 / 100,000) × 365}{0.15 × 365} = 54.25 \text{ days}
   \]

(b) (i) The percentage of gross profit to revenue increased from 37.5% in year 1 to 50% in year 2. This could be the result of

- revenue increasing at a faster rate than the cost of sales, for example, because overall sales have risen and/or the business has been able to increase its selling prices without reducing customer demand;
- a fall in the cost of sales, for example, due to the business purchasing goods from cheaper suppliers.

(ii) **Profit for year as a percentage of revenue increased from 20% to 25%**. This could have been the result of

- gross profit increasing;
- an increase in other incomes, such as interest on business savings or sales commission;

Profit for the year will also increase if expenses fall. However profit for the year as a percentage of revenue did not increase by as much as the gross profit margin in revenue. This suggests expenses may actually have risen and that the main reason profit for the year as
a percentage of revenue increased was due to an increase in gross profit.

(iii) Profit for year as a percentage of closing capital measures the efficiency with which capital is being employed in the business. It increased from 50% to 62.5% which suggests.

- profit for the year has increased at a faster rate than capital employed, or
- capital employed in the business fell.

(iv) The rate of inventory turnover was unchanged at 6.7 times. Cost of sales and average inventory may have changed over time but in the same proportion.

(c) A business may experience the following problems if its current liabilities exceed its current assets (any two of the following problems):

- it will have negative working capital and will therefore be unable to pay off all its debts as they fall due
- suppliers may refuse to supply it with more goods on credit until it is able to pay off its debts
- cheques it has issued to make payment may not be honoured by its bank
- it may have to sell off non-current assets to raise cash

A possible solution to these problems is (any one of the following):

- for the owners to introduce new capital to the business
- to secure a long term bank loan
- for the owners to reduce their personal drawings from the business so it holds more cash
- to sell off surplus non-current assets

2(a)

<table>
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<th>Workings</th>
<th>Ratios</th>
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| (i) Gross profit / Revenue | Gross profit = revenue – cost of sales  
= $50 000 – $30 000 = $20 000  
Gross profit / revenue (%) =  
= ($20 000 / $50 000) × 100 = | 40% |
| (ii) Profit for year / revenue | Profit for year = gross profit – expenses  
= $20 000 – $12 500 = $7 500  
Profit for year / revenue (%) =  
= ($7 500 / $50 000) × 100 = | 15% |
| (iii) Profit for year / capital | ($7 500 / $37 500 ) × 100 = | 20% |

(b)

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<thead>
<tr>
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<th>Workings</th>
<th>Amounts $</th>
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</thead>
</table>
| (i) Profit for year | Profit / capital = 12.5%  
where capital = $80 000  
Therefore, profit = 0.125 × 80000 = | 10 000 |
| (ii) Sales | Profit / revenue = 10%  
where profit = $10 000  
Therefore, revenue (sales) = profit / 10%  
= 10 000 / 0.1 = | 100 000 |
| (iii) Gross profit | Revenue (sales) = $100 000  
If gross profit / revenue = 50%  
Then gross profit = revenue × 50%  
= $100 000 × 0.5 = | 50 000 |

(c) (i) Success in trading: Bough has been more profitable and more successful than Branch. Bough has returns more gross profit as percentage of revenue at 50% than Branch where gross profit as percentage of revenue is 40%.
(ii) Success in controlling expenses:

Bough’s expenses were $40 000 compared with just $12 500 for Branch.

Bough also spent a higher proportion of its revenue from sales on expenses.

Branch has therefore been more successful at controlling its expenses.

However, Bough generated more sales and profit as a percentage of revenue than Branch and so was clearly able to use its expenses more effectively than Branch to earn income and profit.

(iii) Success in employing capital

At 20% Branch returned a higher proportion of profit from its capital than Bough (12.5%).

This means Branch has been more successful at using its capital employed to generate sales and profit than Bough.

3

(a) (i) Cost of sales:

If revenue (sales) = $120 000

and gross profit / revenue = 20%

then gross profit = 20% of $120 000 =

$24 000

so cost of sales = revenue – gross profit

= 120 000 − 24 000 = $96 000

(ii) Purchases:

Cost of sales: $122 500

Inventory at 1 April 2011 22 500

add Purchases ?

less Inventory at 31 March 2012 26 500

Cost of sales 96 000

Therefore, rearrange as follows:

Cost of sales 96 000

add Inventory at 1 April 2011 26 500

122 500

less Inventory at 1 April 2011 22 500

Purchases 100 000

(iii) Expenses:

Profit for the year = gross profit – expenses

Profit for the year / revenue = 8%

Therefore, profit for the year =

120 000 × 0.08 = $9 600

From (i) gross profit = $24 000

So, Expenses = gross profit – profit for the year

= 24 000 − 9 600 = $14 400

(b) Rate of inventory turnover = (cost of sales / average inventory) where average inventory = (opening inventory + closing inventory) / 2

= 96 000 / (22 500 + 26 500) / 2 = 96 000 / 24 500 = 3.92 times

(c) Ashok might increase his rate of inventory turnover in the following ways (any two of the following):

- hold less inventory
- reduce selling prices / mark up for profit in selling prices to increase sales
- increase sales by increasing advertising and other promotions
- offer cash discounts to customers to encourage more sales

(d) If closing inventory is revalued at $30 000 (from $26 500) then cost of sales will have been reduced by $3 500 and therefore gross profit and profit for the year will both rise by $3 500. Profit for the year will therefore increase from $9 600 (from (a) ii) to $13 100.

Or calculate as follows:

Profit for year = gross profit – expenses

where gross profit = revenue – cost of sales

and cost of sales = opening inventory + purchases – closing inventory

Therefore:

Cost of sales: $122 500

Inventory at 1 April 2011 22 500

add Purchases 100 000

less Revalued Inventory at 30 000

31 March 2012 92 500

Adjusted gross profit = 120 000 − 92 500 = $27 500

Expenses from (a) (iii) = $14 400

So, adjusted profit for the year = 27 500 − 14 400 = $13 100

(e) Holding too much inventory can have the following disadvantages (any three of the following):

- It ties up too much working capital of the business and may be difficult to sell off quickly if the business runs short of cash to meet its immediate liabilities;
- inventory can deteriorate over time and may become difficult to sell off;
• goods can become out of date and unwanted by customers if tastes and fashions change;
• it increases storage needs and costs;
• losses will be greater if the inventory is stolen or destroyed by fire.

4 (a) The percentage of gross profit to revenue may have increased because Susan Morgan was able to (any two of the following): 
• raise the selling prices of her goods
• reduce the rate of trade discount given to credit customers
• pass on any increase in the cost of sales to her customers
• purchase goods for resale at lower prices

(b) The percentage of profit for the year to revenue may have increased because Susan Morgan was able to (any two of the following): 
• increase the gross profit margin / gross profit as percentage of revenue
• reduce expenses
• increase other business income

(c) Expenses = gross profit - profit for the year
Therefore, the percentage of expenses to revenue = percentage of gross profit to sales − percentage of profit for the year to sales
(i) For the year ended 31 July 2013 : 21% − 10% = 11%
(ii) For the year ended 31 July 2014 : 25% − 11% = 14%

(d) The percentage of expenses increased by 3%. This means the business became less efficient at controlling its expenses.

(e) Working capital ratio = current assets : current liabilities

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<tr>
<td>Inventory</td>
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<tr>
<td>Trade receivables</td>
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<tr>
<td>Bank</td>
<td>1 000</td>
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<td>Cash</td>
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<td>$9 350</td>
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<table>
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<th>Current liabilities:</th>
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<tbody>
<tr>
<td>Trade payables</td>
<td>5 600</td>
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Therefore, working capital ratio = 9 350 : 5 600 = 1.67 : 1

(f) Quick ratio = (current assets − inventory) : current liabilities

\[
\text{Current assets} - \text{inventory} = 9 350 - 4 850 = 4 500
\]

Therefore, quick ratio = 4 850 : 5 600 = 0.87 : 1

(g) Susan should not be satisfied. Her quick ratio has fallen from 1.05 : 1 to 0.87 : 1. This means Susan can no longer meet her immediate liabilities as they fall due from her most liquid assets (trade receivables and cash in bank and in hand). She must now rely on the sale of inventory to raise sufficient cash to pay her debts. However, the sale of inventory in bulk to raise cash may be difficult to achieve quickly and without making a loss.

(h) It is important for Susan Morgan to have an adequate amount of working capital to be able to (any one or more of the following):
• to meet her business liabilities as they fall due
• to pay for running expenses
• to fund the purchase of additional goods for resale in order to earn revenue

(i) (i) She pays $10 000 additional capital into the business bank account:
Cash in bank and therefore current assets and working capital increase by $10 000. There is no change in current liabilities.

(ii) Payment of $20 from petty cash for office expenses:
Working capital falls by $20
Current assets decrease by $20 as petty cash decreases. There is no change in the current liabilities.

(iii) Payment of $240 by cheque to Jones, a trade payable, in full settlement of $240 owing:
Working capital increases by $10
Current assets decrease by $240 but current liabilities are reduced by $250

(iv) Receipt of $230 in cash from the sale of goods (cost price $270):
Working capital decreases by $40
Inventory decreases by $270 as cash increases by $230 so current assets decrease by $40. There is no change in the current liabilities.

(j) Any one of the following reasons in each case:

(i) A bank manager will be interested in Susan Morgan’s financial statements to consider the
• ability of the business to repay any loans or overdrafts when they fall due;
• the assets or security it has available to cover any loan or overdrawn amount.
(ii) An employee will be interested in the financial health of the business because it will determine
- the ability of the business to continue paying his or her wages;
- the ability of the business to offer an increase in wages;
- how secure his or her job is.

(iii) A supplier of goods on credit will want to identify
- the working capital position of the business to check its ability to meet its liabilities on time;

- how long on average it takes the business to pay its trade payables;
- the future prospects of the business;
- a suitable credit limit for the business.

(iv) A potential purchaser of the business will want to know the
- profitability of the business
- the value of the net assets of the business