## Mark Scheme

## June 2018

Pearson LCCI Level 3 Certificate in Cost and Management Accounting (VRQ)<br>(ASE20098)

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

| Question Number | Answer (AO2) 5 |  |  |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1(a)(i) | Award 1 mark for each correct column of figures |  |  |  |  |  | (5) |
|  | Order size <br> (kg) | No of orders | Order costs <br> (\$) | Average inventory (kg) | Holding costs (\$) | Total costs (\$) |  |
|  | 500 | 12 | 2400 | 1250 | 1125 | 3525 |  |
|  | 1000 | 6 | 1200 | 1500 | 1350 | 2550 |  |
|  | 1500 | 4 | 800 | 1750 | 1575 | 2375 |  |
|  | 2000 | 3 | 600 | 2000 | 1800 | 2400 |  |
|  | 3000 | 2 | 400 | 2500 | 2250 | 2650 |  |
|  |  | (1) | (1) | (1) | (10f) | (10f) |  |
|  |  |  |  |  |  |  |  |


| Question <br> Number | Answer (A04) 1 (AO5) 1 | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( a ) ( i i ) ~}$ | Award 1of mark for answer. |  |
|  | $\mathbf{1 5 0 0} \mathbf{~ k g ~ ( 1 ) ~ a s ~ t h i s ~ h a s ~ t h e ~ l o w e s t ~ t o t a l ~ c o s t ~ ( 1 o f ) ~}$ | (2) |


| Question <br> Number | Answer (AO1) 1 |  |
| :--- | :--- | :--- |
| $\mathbf{1 ( a ) ( i i i ) ~}$ | The most efficient re-order level in terms of ordering and holding costs | (1) |


| Question <br> Number | Answer (A02) 1 | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( b ) ( i ) ~}$ | Award 1 mark for correct answer. |  |
|  | Reorder level $=280 \times 21=\mathbf{5} \mathbf{8 8 0} \mathbf{~ k g ~ ( 1 ) ~}$ | (1) |


| Question Number | Answer (AO2) 2 | Mark |
| :---: | :---: | :---: |
| 1(b)(ii) | Award 1 method mark and 1of for answer. $\begin{aligned} & \text { Minimum control level }=\mathbf{5 8 8 0}(\mathrm{of})-(250 \times 18) \mathbf{4} \mathbf{5 0 0}(\mathbf{1})=\mathbf{1} \mathbf{3 8 0} \mathbf{~ k g} \\ & \text { (10f) } \end{aligned}$ | (2) |


| Question Number | Answer (AO2) 3 | Mark |
| :---: | :---: | :---: |
| 1(b)(iii) | Award 2 method marks and 1of for answer. $\begin{aligned} \text { Maximum control level }=\mathbf{5} \mathbf{8 8 0} \text { (of) }-(220 \times 15) \mathbf{3} \mathbf{3 0 0}=\mathbf{2 ~ 5 8 0 ( 1 o f )} \\ 2580+8000(\mathbf{1})=\mathbf{1 0 5 8 0} \mathbf{~ k g ~ ( 1 0 f )} \end{aligned}$ | (3) |


| Question <br> Number | Answer AO1 (2) AO3 (2) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( c )}$ | Answers may include |  |
| Having too little inventory could lead to a 'stock-out' (no available <br> inventory) (1) resulting in lost production/lost sales/lack of customer <br> confidence (1) If you want repeat custom, you need to meet customer <br> demand quickly (1) TWO max |  |  |
| Having too much inventory might tie up working capital (1) and lead to <br> expensive handling and storage costs (1) There is also the risk that the <br> inventory might become obsolete or damaged (1) TWO max |  |  |

Total marks for Question 1 = 18 marks


| Question Number | Answer AO2 (4) |  |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2(a)(ii) |  |  |  |  |  |  |
|  | Year | Net cash flows | Disc. Factor | Present values | 1 of$10 f$ |  |
|  |  | \$000 | 10\% | \$000 |  |  |
|  | 0 | (510) | 1.000 | (510.00) |  |  |
|  | 1 | 150 | 0.909 | 136.35 |  |  |
|  | 2 | 150 | 0.826 | 123.90 |  |  |
|  | 3 | 150 | 0.751 | 112.65 |  |  |
|  | 4 | 80 | 0.683 | 54.64 |  |  |
|  | 5 | 140 | 0.621 | 86.94 |  |  |
|  |  |  | NPV = | 4.48 |  |  |
|  | IRR | $10 \%+(2 \%$ | $\frac{4.48}{(4.48+19}$ | (1) = |  |  |
|  | (4) |  |  |  |  |  |


| Question Number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2(a)(iii) | Discounted payback (12\%) |  |  |  |  |
|  | Year | Present values | Cumulative DCF | 1of (for all three) |  |
|  | 0 | (510.00) | (510.00) |  |  |
|  | 1 | 133.95 | (376.05) |  |  |
|  | 2 | 119.55 | (256.50) |  |  |
|  | 3 | 106.80 | (149.70) |  |  |
|  | 4 | 50.88 | (98.82) | 1of (for all three) |  |
|  | 5 | 79.38* | (19.44) |  |  |
|  | The investment fails to pay back within the five years (1). |  |  |  | (3) |


| Question <br> Number | Answer AO4 (3) | Mark |
| :--- | :--- | :--- |
| 2(b) | The investment in new machinery should NOT be undertaken: (1of) <br> It earns an IRR of $\mathbf{1 0 . 3 7 \%}$ which is lower than the cost of capital of <br> $\mathbf{1 2 \%}$ (1) <br> It generates a negative NPV of $\mathbf{\$ 1 9} \mathbf{4 4 0}$ which doesn't recover the <br> initial cost. <br> It doesn't provide a discounted payback within the five-year life of <br> the investment (1). <br> Max 3 |  |


| Question <br> Number | Answer AO5 (4) | Mark |
| :--- | :--- | :--- |
| 2(c) | Using a discounted payback approach takes into account the time value of <br> money (1). This overcomes the weakness of the traditional payback <br> method as a means of appraising an investment (1). <br> In this instance the discounted payback shows that the project does NOT <br> make a positive return within the estimated five-year life (1). <br> Had the traditional method been used it would have shown that the <br> investment made a payback sometime within the fourth year (1) |  |

Total marks for Question 2 = 20 marks


| Question <br> Number | Answer (AO1) 1 | Mark |
| :--- | :--- | :--- |
| 3(b) | Any one: <br> The budget could be flexed on a planned production level (1). <br> The budget could be flexed on a planned level of service e.g. hotel rooms(1) |  |


| Question <br> Number | Answer (AO1) 1 |  |
| :--- | :--- | :--- |
| 3(c) | Any one : <br> The size of the company might dictate the length of the budget period (1). <br> The complexity of the company - many departments/offices/factories (1). <br> The requirement of external agencies, like a bank (1). <br> Government requirements - tax rules (1). <br> A rolling/continuous budget might have a specific timescale (1). |  |


| Question <br> Number | Answer (AO1)2 (AO3)2 | Mark |
| :--- | :--- | :--- |
| 3(d) | Award one mark for point made and a second mark for development. |  |
| In terms of behaviour, costs (in the short-term) can be thought of as |  |  |
| variable, semi-variable or fixed (1). Cost behaviour dictates that not all |  |  |
| costs change in direct proportion to the increases or decreases in output |  |  |
| $\mathbf{( 1 ) .}$ |  |  |
| As time progresses, all costs are thought to be variable (1). An example of <br> this is factory rent, which in the short term is fixed. However, this <br> cost could change in the long-term (1). | $\mathbf{( 4 )}$ |  |

## Total marks for Question 3 = 22 marks

| Question Number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4(a)(i) | Award 1 mark for both correct entries on the debit side. Award 1 mark for both correct entries on credit side and 1 mark for correct calculation of WIP on credit side. |  |  |  |  |
|  | Raw Materials Control Account |  |  |  |  |
|  | Balance b/d | 69100 | WIP control | 434290 |  |
|  | Financial ledger control | 482040 | Prod ohs control | 35200 |  |
|  |  |  | Balance c/d | 81650 |  |
|  |  | $\underline{551140}$ |  | $\underline{551140}$ |  |
|  |  |  |  |  | (3) |



| Question Number | Answer AO2 (3) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 4(a)(iii) | Award 1 mark for all correct entries on debit side (excluding Bal c/d). <br> Award 1 mark for correct entry on credit side. <br> Award 1 mark for correct Balance c/d and placement on debit side. |  |  |  |
|  | Production Overheads Control Account |  |  |  |
|  | Balance b/d | 4350 | W I P control | 155250 |
|  | Raw materials control | 35200 |  |  |
|  | Wages control | 67900 |  |  |
|  | Financial ledger control | 45800 |  |  |
|  | Balance c/d | $\underline{\mathbf{2 , 0 0 0}}$ |  |  |
|  |  | 155250 |  | 155250 |


| Question Number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4(a)(iv) | Award 1 mark for first two entries on debit side (allow OF for Materials control). <br> Award 1 mark for second two entries on the debit side. Award 1 mark for OF calculation of FG control and correct balance on credit side. |  |  |  |  |
|  | WIP Control Account |  |  |  |  |
|  | Balance b/d | 36500 | Finished good | 740440 of |  |
|  | Materials control | 434290 of |  |  |  |
|  | Wages control | 134500 |  |  |  |
|  | Prod ohs control | $\underline{155250}$ | Balance c/d | $\underline{20100}$ |  |
|  |  | $\underline{760540}$ |  | $\underline{760540}$ |  |
|  | (3) |  |  |  |  |


| Question Number | Answer AO2 (2) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4(a)(v) | Award 1 mark for correct balance b/d and allow OF for WIP control. Award 1 mark for correct balance c/d and allow OF for Prod cost of |  |  |  |  |
|  | Finished Goods Control Account |  |  |  |  |
|  | Balance b/d | 53100 | Prod cost of sales | 750140 of |  |
|  | WIP control | 740440 of | Balance c/d | 43400 |  |
|  |  | $\underline{793540}$ |  | $\underline{793540}$ |  |
|  | sales. |  |  |  | (2) |


| Question Number | Answer AO2 (5) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4(a)(vi) | Award 1 mark for sales on debit side and 1 mark for balance provided that workings are shown if incorrect. <br> Award 1 for first two credit entries. Award 1 for further two entries Award 1 mark for profit provided that workings are shown if incorrect. |  |  |  |  |
|  | Financial Ledger Control Account |  |  |  |  |
|  | Sales | 851650 | Balance b/d | 163050 |  |
|  |  |  | Raw mats control | 482040 |  |
|  |  |  | Wages control | 202400 |  |
|  |  |  |  |  |  |
|  |  |  | Prod ohs control | 45800 |  |
|  | $\begin{aligned} & \text { Balance c/d } \\ & \text { (W1) } \end{aligned}$ | 143150 | Profit c/d (W2) | 101510 |  |
|  |  | 994800 |  | 994800 |  |
|  | ```W1 Balance = $81650 + W-I-P $20 100 + FG $43 400 - Prod o/h $2 000 (OF) = $143 150 (OF)```W2Sales $\$ 851650$ less Production cost of sales $\$ 750140$ (OF) =Profit \$101 510 (OF) |  |  |  |  |
|  |  |  |  |  | (5) |


| Question <br> Number | Answer AO1 (1) AO3 (3) | Mark |
| :--- | :--- | :--- |
| 4(b) | In a non-integrated system the cost accounts are kept separate from the <br> financial accounts and it will be necessary for the two sets of accounts to be <br> reconciled with the use of control accounts (1). <br> Using control accounts will enable the company to frequently check the <br> accuracy of the accounts and highlight any errors (1). <br> Any over or under absorbed production overhead can be carried forward as <br> a balance into the next period's accounts (1). <br> The financial ledger control account will keep a record of all the individual <br> control account balances, as a further means of checking on the accuracy of <br> the control accounts (1). |  |

Total for Question 4 = 22 marks

| Question <br> Number | Answer (AO2) 2 |  |
| :--- | :--- | :--- |
| $\mathbf{5 a ( i )}$ | Award 1 mark for each correct answer. | Mark |
|  | Rate of inventory turnover $=$ |  |
|  | Year $2016=78(000) \times 365=28470 / 468=\mathbf{6 1}$ days (1) |  |
|  | Year $2017=96 \times 365=35040 / 458=\mathbf{7 7}$ days (1) |  |


| Question <br> Number | Answer (AO2) 2 | Mark |
| :--- | :--- | :--- |
| 5a(ii) | Award 1 mark for each correct answer. |  |
|  | Trade receivables collection period = |  |
|  | Year $2016=51 \times 365=18615 / 788=\mathbf{2 4}$ days (1) |  |
|  | Year $2017=88 \times 365=32120 / 876=\mathbf{3 7}$ days (1) | (2) |


| Question <br> Number | Answer (AO2) 3 | Mark |
| :--- | :--- | :--- |
| $5 a($ iii $)$ | Award 1 mark for each correct answer. |  |
|  | Trade payables repayment period |  |
|  | Year $2016=48 \times 365=17520 / 485=\mathbf{3 6}$ days (1) |  |
|  | Year $2017=67 \times 365=24455 / 490=\mathbf{5 0}$ days (1) | (2) |


| Question Number | Answer (AO2) 3 | Mark |
| :---: | :---: | :---: |
| 5a(iv) | Award 1 mark for each correct answer (two decimal places). <br> Current ratio <br> Year $2016=(51+78+38) 167: 48=3.48: \mathbf{1}$ (1) <br> Year $2017=(88+96) 184:(67+24) 91=2.02: \mathbf{1}$ | (2) |


| Question <br> Number | Answer (AO2) 3 | Mark |
| :--- | :--- | :--- |
| $5 a(\mathrm{v})$ | Award 1 mark for each correct answer (two decimal places) |  |
|  | Acid test ratio |  |
|  | Year $2016=(51+38) 89: 48=\mathbf{1 . 8 5 : 1}$ (1) |  |
|  | Year $2017=88:(67+24) 91=\mathbf{0 . 9 7 : \mathbf { 1 } \text { OR 1:1.03 (1) }}$ | (2) |


| Question <br> Number | Answer (AO3) 3 (AO4) 3 (AO5) 2 | Mark |
| :--- | :--- | :--- |
| 5(b) | Answers may include: <br> The company's rate of inventory turnover measured in days has <br> increased/worsened, indicating that the company is taking more time to <br> sell its inventory (1) so too much working capital is being tied up (1) <br> [*award this point only once] | The trade receivables collection period has increased/worsened <br> indicating that debtors are taking longer to repay (1). The company needs <br> to take action (credit control) to recover its debts sooner (1) |
| The trade payables payment period is taking longer. There could be a risk <br> of a supplier refusing to deal with the company (1). On the other hand this <br> may help the cash flow position (1). <br> The current ratio has reduced but the accounts show that too much <br> working capital is tied up in inventory and trade receivables (1) [*award <br> this point only once] <br> The acid test appears to be reasonable but the accounts show that the <br> company has a bank overdraft (1) | (8) max. |  |
| Conclusion (AO5) <br> The company has a liquidity problem. (1) It has a bank overdraft in year <br> 17 and has no immediate means to pay its trade payables (1) |  |  |

