## Mark Scheme

## December 2016 Results

## PEARSON LCCI (ASE20098) Level 3 Certificate in Cost and Management Accounting

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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 <br> Number | Answer AO2 (3) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( a ) ( i )}$ | Award 1 mark for contribution and 1 mark for <br> break-even units. <br> Award 1of mark for break- even revenue. <br> Break even in units <br> Selling price $\$ 106.00$ less variable costs $\$ 76(\$ 23.50+$ <br> $\$ 38.00+\$ 14.50)=\$ 30$ contribution 1 <br> Break even = Fixed overheads \$102,500 / \$30 = 3 417 <br> units 1of <br> BE in revenue $=3417 \times \$ 106=\$ \mathbf{3 6 2 ~ 2 0 2 ~ 1 o f ~}$ | (3) |


| Question <br> Number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( a ) ( i i )}$ | Award 1 mark for margin of safety in units and 1of <br> mark for MOS percentage. <br> Margin of safety $=7000-3417=\mathbf{3 5 8 3}$ (1of) $/ 7000=$ <br> $\mathbf{5 1 . 2 0 \%}$ of | (2) |


| Question Number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 1(a)(iii) | Award 1 mark for profit before fixed costs and $10 f$ mark for final profit figure. $\begin{aligned} & \text { Profit }=\mathbf{7} 000 \times \$ 30=\$ 210000(\mathbf{1 o f})-\$ 102500= \\ & \$ 107500 \text { 1of } \end{aligned}$ | (2) |


| Question <br> Number | Answer AO2 (3) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( b ) ( i )}$ | Award 1 mark for contribution. Award 1of mark for <br> break even in units and 1 of mark for break in <br> revenue. |  |
|  | Selling price $\$ 106.00$ less variable costs $\$ 66.50(\$ 23.50$ <br> $+\$ \mathbf{2 8 . 5 0}+\$ 14.50) \quad=\$ 39.50$ contribution $\mathbf{1}$ |  |
|  | Break even $=$ Fixed overheads $\$ 133250(\$ 102500 \times$ <br> $1.30) / \$ 39.50=\quad \mathbf{3 7 4}$ units 1of |  |
|  | BE in revenue $=3374 \times \$ 106=\$ \mathbf{3 5 7} \mathbf{6 4 4} \mathbf{1 o f}$ | (3) |


| Question Number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 1(b)(ii) | Award 1 mark for margin of safety in units and 1 of mark for MOS percentage. $\begin{aligned} & \text { Margin of safety }=7000-3374=\mathbf{3} \mathbf{6 2 6} \text { (1) } / 7000= \\ & \mathbf{5 1 . 8 0 \%} \text { 1of } \end{aligned}$ | (2) |
| Question Number | Answer AO2 (2) | Mark |
| 1(b)(iii) | Award 1 mark for profit before fixed costs and $10 f$ mark for final profit figure. $\begin{aligned} & \text { Profit }=7000 \times \$ 39.50=\$ 276 \mathbf{5 0 0}(\mathbf{1})-\$ 133250= \\ & \mathbf{\$ 1 4 3} \mathbf{2 5 0} \text { 1of } \end{aligned}$ | (2) |


| Question Number | Answer AO3 (6) | Mark |
| :---: | :---: | :---: |
| 1(c) | 1 mark for both correctly labelled fixed costs. <br> 1 mark for both correctly labelled break-even point. <br> 1 mark for both correctly labelled break-even points. <br> 1 mark for correctly labelled X axis. <br> 1 mark for correctly labelled $Y$ axis. <br> 1 mark for both lines (must stop at 7 000) <br> Q1 Profit Volume Chart | (6) |


| Question <br> Number | Answer AO4 (3) AO5 (1) | Mark |
| :--- | :--- | :--- |
| 1(d) | Award 3 marks for analysis and 1 mark for <br> recommendation. Max 4. <br> Answers may include: <br> It would be worthwhile installing the new <br> machinery <br> The company would have a slightly lower break even (1) <br> and a greater margin of safety (1) <br> The company would make more profit at output/sales of <br> 7,000 units (1) <br> Using additional machinery might improve the quality of <br> the product (1) | It would not be worthwhile installing the new <br> machinery |
| Possible redundancies (1) <br> Availability of funds to purchase machine (1) <br> Recommendation <br> Company should/should not install machinery (1of) | (4) |  |

Total for Question 1 = 24 marks

| Question Number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2(a)(i) | Award 1 mark for all correct entries on the debit side. Award 1 mark for all correct entries on the credit side (excluding work-in-progress). Award 1 OF for calculation of work-in-progress on the credit side. <br> Raw Materials Account |  |  |  | (3) |



| Question Number | Answer AO2 (2) |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: |
| 2(a)(iii) | Award 1 mark for correct bal b/d side. Award 1 mark for cost of sal | work-in-prog <br> of) and corre <br> s Account <br> Cost of sales <br> Balance c/d | f) on the debit d on credit side. $\begin{gathered} \$ \\ 259,500 \text { of } \\ \left.\underline{\underline{28,960}}\}_{1}\right\}_{1}, 460 \end{gathered}$ |  |


| Question Number | Answer AO2 (4) | Mark |
| :---: | :---: | :---: |
| 2(a)(iv) | Award 1 mark for first two entries and 1 mark for next two entries on the debit side. Award 1 mark for overrecovery of overhead on the debit side. Award 1 mark for work-in-progress and placement on the credit side. | (4) |
| Question Number | Answer AO1 (2) | Mark |
| 2(b) | An integrated accounting system is a set of records that provides financial and cost accounting information (1) using a common input of data (1) | (2) |

Total for question 2 = 14 marks

| Question Number | Answer AO2 (1) | Mark |
| :---: | :---: | :---: |
| 3(a)(i) | Award 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Direct material total <br> $\begin{array}{lr}\text { Standard price } \times \text { standard usage }(\$ 4 \times 5 \mathrm{~kg} \times 10600) & 212000 \\ \text { Actual price } x \text { actual usage }(55000 \times \$ 3.80) & \underline{209000} \\ & \mathbf{3 0 0 0} \text { Fav } \mathbf{1}\end{array}$ | (1) |
| Question Number | Answer AO2 (2) | Mark |
| 3(a)(ii) | Award 1 method mark and 1 correct answer mark. Variance must state correct Adverse or Favourable (accept Adv and Fav) for the second mark. <br> Direct material price variance <br> $\begin{array}{ll}\begin{array}{ll}\text { Actual price } x \text { actual usage }(55000 \times \$ 3.80) \\ \text { Standard price } x \text { actual usage }(\$ 4 \times 55000 \mathrm{~kg}) & 209000 \\ & \frac{220000}{11000} \mathbf{~ ( 1 ) ~}\end{array} \\ & 1\end{array}$ | (2) |


| Question Number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 3(a)(iii) | Award 1 method mark and 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Direct material usage variance <br>  | (2) |


| Question Number | Answer AO2 (1) | Mark |
| :---: | :---: | :---: |
| 3(a)(iv) | Award 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Direct labour total <br> $\begin{array}{lr}\text { Standard rate } x \text { standard hours } \$ 6 \times 4 \mathrm{hrs} \times 10,600 & 254400 \\ \text { Actual rate } x \text { actual hours }(41340 \times \$ 6.20) & \underline{256308} \\ & \mathbf{1 9 0 8} \mathbf{~ A d v ~} \mathbf{1}\end{array}$ | (1) |


| Question Number | Answer AO2 (2) |  | Mark |
| :---: | :---: | :---: | :---: |
| 3(a)(v) | Award 1 method mark and 1 co Variance must state Adverse or and Fav). <br> Direct labour rate variance <br> Actual rate $\times$ actual hours (41 $340 \times \$ 6.20$ ) Standard rate $\times$ actual hours ( $\$ 6 \times 41340$ ) | ct answer mark. vourable (accept Adv $\begin{aligned} & 256308 \\ & \left.\frac{248040}{268}\right\}_{(1)}^{8268} \mathbf{A d v} \end{aligned}$ | (2) |


| Question Number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 3(a)(vi) | Award 1 method mark and 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Direct labour efficiency variance <br> $\begin{array}{ll}\text { Standard rate } x \text { actual hours (see above) } & 248040 \\ \text { Standard rate } x \text { standard hours }(\$ 6 \times 4 \text { hrs } \times 10,600) & \underline{\mathbf{2 5 4} 400} \\ & \text { (1) } \\ \text { Fav }\end{array}$ | (2) |


| Question Number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 3(a)(vii) | Award 1 method mark and 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Fixed overhead variance: expenditure variance <br> $\begin{array}{ll}\text { Actual overhead - given } \\ \text { Budgeted overhead 10,000 units } \times \$ 22.00 & \frac{224470}{\mathbf{2 2 0} 000} \\ & \}_{\text {470 }} \text { (1) } \\ \text { Adv }\end{array}$ | (2) |
| Question Number | Answer AO2 (2) | Mark |
| 3(a)(viii) | Award 1 method mark and 1 correct answer mark. Variance must state Adverse or Favourable (accept Adv and Fav). <br> Fixed overhead variance: volume variance <br> Overhead absorption rate $\times$ (actual output - budgeted output) $\$ 22.00 \times(10600-10000)(\mathbf{1})=13200$ Fav (1) | (2) |
| Question Number | Answer AO1 (2) | Mark |
| 3(b)(i) | Award 1 mark for each part of the statement. Max 2 A standard cost is a predetermined unit cost (1). It is a target cost that should be achievable under normal efficient operating conditions (1). | (2) |
| Question Number | Answer AO1 (2) | Mark |
| 3(b)(ii) | Award 1 mark for each part of the statement. Max 2 The standard hour is the quantity of work achievable under expected operating conditions levels in an hour (1). It is a measure of performance and not time spent (1). | (2) |


| Question <br> Number | Answer AO1 (2) | Mark |
| :--- | :--- | :--- |
| 3(c) | Award 1 mark for reason. Award 1 mark for <br> development. Max 2. <br> Investigation of variances is important: Two marks for one <br> answer: <br> To take advantage of favourable situations (1) or to attempt <br> to correct adverse ones. (1) <br> To determine what external factors might cause the variance <br> (1) for example seasonal/economic factors. (1) <br> To determine if the variance is caused by internal factors (1) <br> and to pinpoint who or what is responsible for the variance. <br> (1) <br> To enable standards to be revised where necessary (1) and to <br> promote good working practice. (1) | (2) |


| Question Number | Answer AO2 (4) | Mark |
| :---: | :---: | :---: |
| 4(a) | Award 1 mark for each of the three components of the working capital cycle and 1 OF mark for the total, providing there are no aliens. <br> Working capital cycle <br> Inventory holding period $=(455 / 2565) \times 365=$ Add: Trade receivables collection period $=(630 / 4275) \times 365=54$ days 1 Less: Trade payables payment period $=(475 / 2565) \times 365=\underline{(68)}$ days 1 Working capital cycle | (4) |
| Question Number | Answer AO2 (4) | Mark |
| 4(b) | Award 1 mark for each calculation of the inventory period. Award 1 mark for both the trade payables and trade receivable totals. <br> Award 1 OF mark for the final increase figure. <br> Expected change in working capital cycle <br> Inventory holding period <br> $=(455 \times 1.2) 546 /(2565 \times 1.15) 2950(1) \times 365=68$ days (1) <br> Add: Trade payables collection period $=54$ of $+24=78$ days <br> Less: Trade receivables payment period $=68$ of $+12=\underset{(80)}{(80)}$ days $\} 1 \mathrm{OF}$ Working capital cycle 66 days <br> Therefore the expected change is an increase of 15 days (66-51) (1 OF) | (4) |
| Question Number | Answer AO2 (6) | Mark |
| 4(c) | Award 1 mark for inventory total. Award 1 mark for part working and 1 mark for total on each of the trade receivables and trade payables. ```Expected net working capital investment \$000 Increase in Inventory \(=[(\$ 455 \times 1.2) \$ 546-\$ 455=\) \(91 \quad 1\) Add: Increase in trade receivables = \([(\$ 4275 \times 1.15) \$ 4916.25 \times(78 \div 365)]=\$ 1051\) (1of) \(-\$ 630=421\) 1of Less: Increase in trade payables = \([(\$ 2565 \times 1.15) \$ 2949.75 \times(80 \div 365)]=\$ 647\) (1of) \(-\$ 475=(172) 1\) of Net investment in working capitalNone``` | (6) |


| Question <br> Number | Answer AO3 (2) AO4 (2) AO5 (2) | Mark |
| :--- | :--- | :--- |
| 4(d) | Award 4 marks for explanation. Award 2 marks for <br> importance. <br> Working capital management involves the careful control of <br> inventory levels (1) with the aim of not carrying too much, too <br> little, or obsolete inventory. (1) |  |
| Aiming to keep the trade receivables payment period at a low <br> level by seeking prompt payment. (1) | Aiming to delay the payment of trade payables (without <br> incurring any penalties). (1) | Efficient working capital management will ensure that a <br> company has sufficient cash to meet its day-to-day <br> operational needs (1) with the overall aim of minimising the <br> risk of insolvency/illiquidity. (1) |

Total for question $4 \mathbf{=} \mathbf{2 0}$ marks


| Question Number | Answer AO4 (5) AO5 (1) | Mark |
| :---: | :---: | :---: |
| 5(b) | Award up to 5 marks for analysis points - maximum of 4 marks for arguing one side. Award 1 mark for conclusion. Max 6 marks <br> Answers may include: <br> In favour of ABC costing <br> With ABC costs are allocated on a discreet usage basis. Products that use more of an activity are charged a higher proportion of the overall cost (1) e.g. Product Three has the highest number of production runs per unit and should therefore be allocated the greatest proportion of set- up costs per unit. (1) <br> Products made in smaller batches (i.e. Product Three) cause an increase in costs (1) and should therefore be charged more (pro rata) using ABC than those made in larger batches. (1) <br> Using absorption costing, the overheads for Products One, Two and Three are $\$ 53.50, \$ 42.80$ and $\$ 32.10$. Using ABC, the overhead costs are $\$ 38.39, \$ 46.60$ and $\$ 52.22$. <br> Activity- based costing builds up a more realistic allocation of costs (1) an advantage of which could be, e.g., a more accurate selling price can be calculated for specific products. <br> (1) <br> Not all costs are able to be related to, e.g. labour activity/machine hours. (1) <br> Against ABC costing <br> $A B C$ is expensive and time- consuming to introduce (1) <br> Possibly difficult to identify cost drivers (1) <br> Conclusion <br> It would be appropriate for the company to use ABC as cost allocation is more accurate. (1) | (6) |

Total for question 5 = 22 marks

