## Mark Scheme

## September 2019

Pearson LCCI Certificate in<br>Cost and Management Accounting (VRQ) Level 3(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.
- Where marks are awarded for own figure answers, these marks can only be awarded if evidence of how the candidate arrived at their values has been provided (their workings).
- If candidate's fail to provide their workings when instructed in the paper, it may not be possible to achieve all marks associated with the question, even
- If the final answer is correct.
- For calculation questions full marks can be awarded where correct answer is seen with no workings shown, unless question states that candidate must provide workings.


## Abbreviation

## of Own Figure rule

Accuracy marks can be awarded where the candidates' answer does not match the mark scheme, though is accurate based on their valid method.

## cao Correct Answer Only rule

Accuracy marks will only be awarded if the candidates' answer is correct, and in line with the mark scheme.
fb Both entries/answers should be present

| Question | Answer (AO1 1) (AO3 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( a )}$ | Award 1 AO1 mark for basic explanation and 1 AO3 mark for <br> development. |  |
| Ideal Standard is the standard set under the highest (or best ever) <br> level of performance and efficiency / under perfect operating <br> conditions (1) - it makes no allowance for wastage, inefficiency or <br> production problems. (1) | (2) |  |


| Question | Answer (AO1 1) (AO3 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( b )}$ | Award 1 AO1 mark for basic explanation and 1 AO3 mark for <br> development. |  |
| Answers may include: <br> Given that perfect conditions rarely exist (or cannot be bettered) <br> (1) - it is likely that variances arising will be adverse (and <br> meaningless) (1) <br> As this standard is unlikely to be achieved very often (1) - <br> workers are likely to become very demotivated. (1) |  |  |


| Question | Answer (AO2 3) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( c ) ( i )}$ | Material price: $(8.70-9.25) 0.55 \times 54120=\mathbf{\$ 2 9} \mathbf{7 6 6} \mathbf{A d v}$ (1) |  |
|  | Actual price $=500610 / 54120 \mathrm{~kg}=\mathbf{\$ 9 . 2 5 / \mathbf { k g ~ ( 1 ) }}$ <br> Standard price $=438480 / 50400 \mathrm{~kg}=\mathbf{\$ 8 . 7 0 / \mathbf { k g } ( \mathbf { 1 ) }}$ <br>  <br> The variance must be correctly identified as adverse to get the final <br> mark. | $\mathbf{( 3 )}$ |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( c ) ( i i )}$ | Material usage: $(57600-54120) 3480 \times 8.70=\mathbf{\$ 3 0} \mathbf{2 7 6}$ Fav (1) |  |
|  | Standard quantity $=(50400 / 63000) \times 72000=\mathbf{5 7} \mathbf{6 0 0} \mathbf{~ k g ~ ( 1 )}$ <br>  <br> The variance must be correctly identified as favourable for the final <br> mark. | $\mathbf{( 2 )}$ |


| Question | Answer (AO2 3) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( c ) ( i i i ) ~}$ | Labour rate: $(12.00-12.10) 0.10 \times 22540=\mathbf{\$ 2} \mathbf{2 5 4}$ Adv (1) |  |
|  | Actual rate $=272734 / 22540$ hours $=\mathbf{\$ 1 2 . 1 0 / h o u r ~ ( 1 ) ~}$ |  |
|  | Standard rate $=264600 / 22050$ hours $=\mathbf{\$ 1 2 . 0 0} /$ hour (1) <br> The variance must be correctly identified as adverse to get the final <br> mark. | (3) |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( c ) ( i v ) ~}$ | Labour efficiency: $25200-22540) \times 12.00=\mathbf{\$ 3 1} \mathbf{9 2 0}$ Fav (1) |  |
|  | Standard quantity $=(22050 / 63000) \times 72000=\mathbf{2 5} \mathbf{2 0 0}$ hours (1) <br>  <br>  <br> The variance must be correctly identified as favourable to get the final <br> mark. | (2) |


| Question | Answer (AO2 1) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( c ) ( v ) ~}$ | Fixed overhead expenditure: $385200-340200=\mathbf{\$ 4 5 0 0 0}$ |  |
|  |  | Adv (1) |
|  | The variance must be correctly identified as adverse to get the mark. | (1) |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( c ) ( v i )}$ | Fixed overhead volume: $5.40 \times(72000-63000)=\mathbf{\$ 4 8 \mathbf { 6 0 0 }} \mathbf{F a v ( 1 )}$ |  |
|  | OAR $=\$ 340200 / 63000=\mathbf{£ 5 . 4 0 / \text { unit (1) }}$The variance must be correctly identified as favourable to get the <br> final mark. | (2) |



| Question | Answer (AO1 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( e ) ( \mathbf { i ) }}$ | Answers may include: |  |
|  | Material used might have been of a higher quality (1) <br> Higher skilled workers wasted less material than expected (1) <br> There were less machine-related problems that reduced wastage (1) <br> Inappropriate standard setting at the time of preparing the budget <br> (1) <br> OF rule applies | (1) |


| Question | Answer (AO1 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( e ) ( i i )}$ | Answers may include: <br> Increased output and overheads not entirely fixed (1) <br> There may have been an increase in overheads between <br> budget-setting and the work being done (1) <br> OF rule applies | (1) |


| Question | Answer (AO2 5) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2(a)(i) | Operational overheads: |  |  |  |  |
|  | Licences / Insurance | $4 \times 4650$ | \$18 600 | ) 1 for <br> ) both |  |
|  | Servicing / Repairs | $4 \times 3 \times 1250$ | \$15000 |  |  |
|  | Depreciation | $4 \times \frac{(320000-50000)}{6}$ | \$180 000 | (1) |  |
|  | Tyres | $4 \times 2 \times 8 \times 600$ | \$38 400 | (1) |  |
|  |  | Operational overheads | \$252000 | (1 of) |  |
|  |  | Budgeted Km 4 x 90000 | 360000 |  |  |
|  |  | OAR per km | \$0.70 | (1 of) |  |
|  | Overheads (1of) - must have all four elements OAR (1of) - must divide operational overheads by 360000 km |  |  |  | (5) |


| Question | Answer (AO2 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{2 ( a ) ( i i )}$ | Administrative overheads: |  |
|  | Overhead Absorption Rate $=\frac{\$ 153000}{850 \text { jobs }}=\mathbf{\$ 1 8 0}$ per job (1) | (1) |


| Question | Answer (AO3 2) | Mark |
| :--- | :--- | :---: |
| 2(b) | Answers may include: |  |
| This will ensure that costs are passed onto the customer as and <br> when work is done (1) which will hopefully ensure that all <br> overhead costs are covered during the period (1). <br> This will assist with cost-plus price-setting (1) as it will help to <br> ensure that even the indirect costs are considered when providing <br> a quotation (1). <br> Maximum of 2 Marks | (2) |  |


| Question | Answer (AO3 1) | Mark |
| :--- | :--- | :---: |
| 2(c)(i) | Answers may include: <br> • Operational overheads: as these are largely related to the <br> amount of distance travelled by the buses and so it seems fair <br> to charge a customer more whose job requires the buses to travel <br> greater distances (1). <br> Accept that these costs are variable |  |


| Question | Answer (AO3 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{2 ( c ) ( i i )}$ | Answers may include: Administration overheads: regardless of size, each job requires a <br> similar amount of Administration and so it seems fair to pass <br> these costs onto the customer on a 'per job' basis (1). <br> Accept that these costs are fixed  |  |


| Question | Answer (AO2 2) | Mark |  |
| :--- | :--- | ---: | :--- | :--- |
| $\mathbf{2 ( d ) ( i ) ~}$ | Operational absorbed $\mathbf{1 7 8} \mathbf{4 0 0} \times \$ 0.70$ OF $=$ | $\$ 124$ | $\mathbf{( 1 ) O F}$ |
|  |  | 880 |  |
|  | Operational overheads incurred | $\$ 147$ |  |
|  |  | 630 |  |
|  |  | $\$ 22$ | (1of) |
|  |  | 750 |  |


| Question | Answer (AO2 2) |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: |
| 2(d)(ii) | Administrative absorbed $465 \times \$ 180$ OF = | \$83 700 | (1)OF | (2) |
|  | Administrative overheads incurred | \$81760 |  |  |
|  | Over-absorption | \$1940 | (10f) |  |


| Question | Answer (AO4 5) (AO5 1) | Mark |
| :---: | :---: | :---: |
| 2(e) | Answers may include: <br> Negative factors: <br> - The company has under-absorbed by $\$ 20810$ / is on track to under-absorb by $\$ 41620$ (1) - which means that overheads costs per job / km will be more than budgeted (1). <br> - Under-absorption means that not all of the overhead costs have been passed onto the customer (1) - which is eating into the profits of the business (1). <br> - If the company continues to do less work than budgeted then there will be less contribution made (1) - and therefore less profit (1). <br> - If the company is charging a market price, then the underabsorption will result in less contribution than expected (1) - and therefore less profit will be made (1). <br> Positive factors: <br> - If the market is competitive then prices quoted might be lower than they should have been (1) - and some customers who might have gone elsewhere will be attracted (1). <br> General point: <br> Both under- or over-absorption of overheads can cause a problem <br> (1) - but it is better to over-absorb than under-absorb overheads <br> (1). <br> Maximum of 4 marks for presenting only one side of the argument. <br> Conclusion: The under-absorption of overheads is likely to cause more problems than provide benefits. (1) <br> Award 1 mark for conclusion that is compatible with the points made. | (6) |


| Question | Answer (AO2 1) | Mark |
| :--- | :--- | :--- |
| 3(a)(i) | Reorder level $=8 \times 250=\mathbf{2 0 0 0} \mathbf{~ k g ~ ( 1 ) ~}$ |  |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{3 ( a ) ( i i )}$ | Minimum level $=2000$ OF (ai) $-(6 \times 175) \mathbf{1 0 5 0 \quad ( 1 ) = 9 5 0 ~ k g}$ <br> $(\mathbf{1 o f})$ | (2) |


| Question | Answer (AO2 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{3 ( a ) ( \text { iii ) }}$ | Reorder quantity $=\mathbf{7 5 0 0}-950$ OF (aii) $=\mathbf{6 5 5 0} \mathbf{~ k g ~ ( 1 ~ o f ) ~}$ <br> Accept alternative formula | (1) |


| Question | Answer (AO2 2) | Mark |
| :---: | :---: | :---: |
| 3(a)(iv) | Average Inventory (kg)=950 OF (aii) + (6550 OF / 2) (aiii) (1 of) = 4225 kg (1 of) <br> Accept alternative formula | (2) |


| Question | Answer (AO2 1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{3 ( a ) ( v )}$ | Average Inventory (\$) = 4 225 kg OF (aiv) $\times \$ 4.80$ per $\mathrm{kg}=\mathbf{\$ 2 0}$ <br> $\mathbf{2 8 0}(\mathbf{1}$ of) |  |


| Question | Answer (AO1 1) (AO2 3) | Mark |
| :---: | :---: | :---: |
| 3(b) | $\mathrm{EOQ}=\sqrt{\frac{2 c d}{H}(\mathbf{1})}$ <br> Award the formula mark if the answer is correct $=\sqrt{c} \begin{aligned} & c=\text { cost of placing the order } \\ & d=\text { demand } \\ & h=\text { holding costs } \\ & 2.50(\mathbf{1 )} \end{aligned}$ | (4) |


| Question | Answer (AO1 2) | Mark |
| :---: | :---: | :---: |
| 3(c) | Answers might include: <br> - Material handling costs (1) <br> - Rental of warehouse space (1) <br> - Heat \& light (1) <br> - Warehouse staff wages (1) <br> - Depreciation of equipment (1) <br> - Security staff (1) <br> - Security equipment (1) <br> - Financial costs (interest, money tied up) (1) <br> - Wastage (1) <br> - Theft (1) <br> NOT ordering costs | (2) |


| Question | Answer (AO1 2) (AO3 2) | Mark |
| :---: | :---: | :---: |
| 3(d) | 1 AO1 mark for basic point and 1 AO3 mark for development. <br> Answers may include <br> - Information will no longer need to be copied from one part of the system to another / only one set of accounts (1) - this will reduce errors / save time / reduce compatibility problems (1). <br> - When data is entered onto the system, all relevant parts of the system will be updated (1) - this means that information is up-to-date / there is only one figure stored for any given item (1). <br> - Integrated systems usually have a reports menu where formats can be adapted (1) - this means that Hyperion can produce reports quickly / in the required format (1). <br> - Integrated systems usually have inbuilt protections / audit tools (1) - so it less likely that impossible data can be entered onto the system / this will highlight irregular and possibility fraudulent behaviour (1). <br> 2 points required which must relate to the BENEFITS of operating such a system <br> * Items in bold will relate to non computerised systems | (4) |


| Question | Answer (AO1 1) (AO3 1) | Mark |
| :---: | :---: | :---: |
| 3(e) | 1 AO1 mark for basic point and 1 AO3 mark for development. <br> Answers may include <br> - Strong or unique / frequently changing passwords (1) - this will make it more difficult for people accessing systems / data that they are not authorised to see (1). <br> - Logging out (1) - requiring staff to log out when not at their workstation will prevent people gaining unauthorised access (1). <br> - Computers locking (1) - ensuring automatic locking after a short period of inactivity will prevent people from improperly accessing the workstation (1). <br> - Restriction on use of 'memory sticks' (USB-drives) (1) - this will reduce the risk of viruses that might corrupt or steal data, being introduced to the system / this will make it more difficult for staff to download and steal data (1). <br> - Encryption of 'memory sticks' (USB-drives) (1) - this will make it more difficult for outsiders to read the information if the USB is lost or stolen (1). <br> - Not allowing access to non-work-related websites / introducing rules about opening emails from unrecognised sources (1) - will reduce the risk of viruses that might corrupt or steal data, being introduced to the system (1). <br> - Restricted access (1) - only allowing people access to the parts of the system related to their job will prevent unauthorised access to really sensitive information (1). <br> - Regular backing up (1) - this will reduce the likelihood of data being lost or corrupted by unexpected problems like power cuts (1). <br> 1 point required | (2) |


| Question | Answer (AO2 4) |  |  | Mark |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4(a)(i) |  |  |  |  |  |  |
|  |  | Product A | Product B | Product C | Total |  |
|  | Contribution | 320000 | 175000 | 81000 | 576000 |  |
|  | Revenue | 800000 | 500000 | 300000 | 1600000 |  |
|  | C/S Ratio | $\mathbf{4 0 \%}$ | $\mathbf{3 5 \%}$ | $\mathbf{2 7 \%}$ | $\mathbf{3 6 \%}$ |  |
|  |  | $\mathbf{( 1 )}$ | $\mathbf{( 1 )}$ | $\mathbf{( 1 )}$ | $\mathbf{( 1 )}$ | $\mathbf{( 4 )}$ |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| 4(a)(ii) | Break-Even Revenue $=\$ 449280 / \mathbf{3 6 \%}$ (1of) = \$1 248 000 (1of) |  |
|  | Own figure must come from 4ai with clear workings. |  |
|  | NOT \$21.50 which is the contribution OR 1.02 | (2) |


| Question | Answer (AO2 3) | Mark |
| :--- | :--- | :--- |
| 4(a)(iii) | Target Revenue = \$539 280 (1) / 36\% (1of) = \$1 498 000 (1of) |  |
|  | Required contribution = \$449 $280+\$ 90000=\$ 539 \mathbf{2 8 0}$ |  |
|  | Own figure must come from 4ai with clear workings. |  |
|  | NOT \$21.50 which is the contribution OR 1.02 |  |


| Question | Answer (AO2 3) | Mark |
| :---: | :---: | :---: |
| 4(a)(iv) | Margin of Safety (\$) = 1600000 (ai) OF - 1248000 (aii) OF = \$352 000 (1of) <br> Margin of Safety (\%) $=\frac{\$ 352000(1 o f) \times 100=22.00 \% ~(1 o f)[2]}{\$ 1600000}$ | (3) |


| Question | Answer (AO2 2) | Mark |
| :--- | :--- | :---: |
| 4(a)(v) | Forecast Profit $=\mathbf{\$ 5 7 6} \mathbf{0 0 0}(\mathbf{a i})(\mathbf{1 O F})-\$ 449280=\$ 126720$ <br> $(10 f)$ |  |




| Question | Answer (AO2 6) | Mark |
| :---: | :---: | :---: |
| 5(a) | ```Selling price = $502 200 / 36 000 = $13.95 (1) Absorption cost = $533 400 / 36 000 = $14.82 (1) (4.80+0.65 = 0.20 + 5.25 + 3.92) Marginal cost = $4.80 (1) + $0.65 (1) + $0.20 (1) = $5.65 (1) [4] Material costs = $172 800 / 36 000 = $4.80 (1) Labour cost (variable) = ($212 400-$189 000) / 36 000 = $0.65 (1) Direct labour NOT $5.90 Overhead (variable) = ($148 200-$141 000) / 36 000 = $0.20 (1) Overheads NOT $4.12``` | (6) |


| Question | Answer (AO2 3) | Mark |
| :--- | :--- | :---: |
| $\mathbf{5 ( b )}$ | Contribution $=\$ 9.95-\$ 5.65$ OF $=\mathbf{\$ 4 . 3 0}$ (1of) <br> Loss $=(31200)+(6000 \times 4.30) \mathbf{2 5 ~ 8 0 0 ~ O F ~ ( 1 ) ~ = ~ l o s s ~ o f ~} \mathbf{\$ 5} \mathbf{4 0 0}$ <br> $(\mathbf{1 o f})$ |  |


| Question | Answer (AO3 1) (AO4 1) | Mark |
| :---: | :---: | :---: |
| 5(c) | Answers my include: <br> Accept the offer (1) <br> - The loss will be reduced / by $\$ 25800$ per quarter (1). <br> - The business will be selling the product in a new market - which may lead to further contracts / expansion (1). <br> - Expansion may enable the business to gain economies of scale / for example, discounts from buying materials in bulk (1). <br> Do not accept the offer (1): <br> - Existing customers may not be happy to find the new customer is paying a lower price / they may seek to renegotiate / cease buying (1). <br> - The customer may use a different currency/ a change in the exchange rate may cause problems (1). <br> - The costs of transportation might be significant/ this may remove the contribution gained on the extra units (1). <br> - Expanded production might require more staff / invest in new machinery / increased capacity / might be expensive / difficult to achieve (1). <br> There may be legal / technical requirements in the customer's country / this might mean the business has to make alterations to the product (1). | (2) |


| Question | Answer (AO4 3) (AO5 3) | Mark |
| :---: | :---: | :---: |
| 5(d) | Answers may include: <br> Short-term (keeping production): <br> - Keep production as the selling price is greater than the variable costs (1), so a contribution is being made to fixed costs (1) <br> - If the business closes down, it will fixed costs of $\$ 330000$ (1) which will lead to bigger losses than the \$31 200 currently being made (1). <br> - The product is making a positive contribution of $\$ 298800$ (1) which will be lost if it closes down production (1). <br> - The prediction about sales and costs not changing may be wrong (1) - there may be an upturn in the market/more contract offers (1). ** <br> Short-term (stopping production): <br> - It may be possible to use the resources to make another product (1) - which might lead to profits being made (1). <br> Long-term (keeping production): <br> - The contract from the overseas customer may be the first of many (1) - long-term the product may have a profitable future (1) <br> - The prediction about sales and costs not changing may be wrong (1) - there might be an upturn in the market / profitability (1) <br> Long-term (stopping production): <br> - The sales revenue does not cover all the costs (1) so a loss is being made (1) <br> - Fixed costs are only fixed in the short-term (1) - a planned closure in the future will eliminate the losses (1) <br> - The company may already be designing a new / replacement product (1) - this might be more profitable than the existing one (1) <br> Conclusion: The company should / should not continue to produce Exe (1) <br> Maximum of $\mathbf{3}$ marks for short-term or long-term. <br> ** Only award once | (6) |

Total for Question 5 = 17 Mark

TOTAL FOR PAPER = $\mathbf{1 0 0}$ MARKS

