Mark Scheme

June 2017<br>Results

PEARSON LCCI<br>Level 3 Certificate in Cost and<br>Management Accounting (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 <br> number | Answer AO2 (1) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( a ) ( i )}$ | Award 1 correct answer mark <br> Reorder level = maximum usage $\times$ maximum lead time |  |
|  | $=48 \mathrm{~kg} \times 18$ days = 864 $\mathbf{~ k g ~ ( 1 ) ~}$ | (1) |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| 1(a)(ii) | Award 1 method mark and 1 mark for correct (OF) <br> answer <br> Minimum inventory level $=$ <br> Reorder level less (average usage $\times$ average lead time) <br> $=864(o f)-(40 \times 15) 600(1)=\mathbf{2 6 4} \mathbf{~ k g ~ ( 1 o f ) ~}$ | (2) |


| Question <br> number | Answer AO2 (3) | Mark |
| :--- | :--- | :--- |
| 1(a)(iii) | Award 2 method marks and 1 mark for correct (OF) <br> answer <br> Maximum inventory level $=$ Reorder level less <br> [minimum usage $x$ minimum lead time) plus reorder <br> quantity <br> 864 (of) $-(32 \times 12) 384=\mathbf{4 8 0}(\mathbf{1 )}$ <br> $480+3000(\mathbf{1 )}=\mathbf{3 ~ 4 8 0 ~ k g ~ ( 1 0 f ) ~}$ |  |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( a ) ( i v ) ~}$ | Award 1 method mark1 and 1 mark for correct <br> answer <br> Average inventory level <br> $=$ Reorder quantity $/ 2+$ minimum inventory level <br> $=(3000 / 2) 1500+264(1 o f)=\mathbf{1} 764 \mathbf{k g}$ (1of) | (2) |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{1 ( b ) ( i )}$ | Award 1 method mark and 1 mark for correct <br> answer <br> Annual ordering cost <br> Number or orders required $=4500 \times 12=54000 / 2000$ <br> $=$ <br> $\mathbf{2 7}$ orders (1) $\times \$ 380=\$ \mathbf{1 0} \mathbf{2 6 0}$ (1) |  |


| Question number | Answer AO2 (3) | Mark |
| :---: | :---: | :---: |
| 1(b)(ii) | Award 2 method marks and 1 mark for correct answer <br> Inventory holding costs <br> Average inventory $=2000 / 2=1000+1800=\mathbf{2 8 0 0}$ (1) $2800 \times \$ 28=\$ 78400(1) \times 20 \%=\$ 15680(1)$ | (3) |
| Question number | Answer AO1 (2) AO3 (2) | Mark |
| 1(c) | Award 1 mark for identifying each method (two required) and 1 mark for related explanation (two required) <br> Password (1) to restrict access to files and folders (1) <br> Mechanical security devices (keypads) (1) to restrict access to offices/buildings/rooms (1) <br> Encryption (1) to restrict external hacking (1) <br> Training to raise awareness (1) of the need to maintain security procedures (1) | (4) |


| Question <br> number | Answer (AO1) 2 (AO3) 2 | Mark |
| :--- | :--- | :--- |
| $\mathbf{1 ( d )}$ | Award 1 mark for identifying a consequence and 1 <br> mark for related explanation (two required) <br> Loss of reputation (1) - which could lead to loss of clients <br> (1) <br> Sensitive information is leaked (1) - competitors could <br> exploit this leak (1) <br> Legal proceedings (1) - damaged parties take action to <br> recover losses (1) <br> Increase costs (1) - increased liability insurance (1) <br> To protect copyright/patents/designs (1) to prevent a loss <br> of competitive edge (1) |  |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| $\mathbf{2 ( a )}$ | Award 1 method mark and 1 correct answer mark. |  |
|  | Fixed overhead recovery rate $=$ |  |
|  | Budgeted fixed overhead <br> Budgeted hours $(2100 \times 4.5)$$\frac{132300}{9450}$ (1) $=\mathbf{\$ 1 4 . 0 0}$ (1) |  |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :---: |
| $\mathbf{2 ( b ) ( i ) ~}$ | Award 1 method and 1 correct answer mark. Variance must <br> state Adverse for the second mark. <br> Fixed overhead expenditure variance <br> Budget $\$ 132300$ less Actual $\$ 141750(1)=9450$ Adverse (1) | (2) |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| 2(b)(ii) | Award 1 method mark and 1 OF answer mark. <br> Variance must state Favourable for the second mark. |  |
|  | Fixed overhead volume variance |  |
|  | Standard hours $(2416 \times 4.5)$ 10872  <br> Budgeted hours (2 $100 \times 4.5)$ $\frac{9450}{1422}$ (1) x \$14.00 (of)  <br>   $\mathbf{1 9 9 0 8}$ Favourable (10f) |  |
|  |  | (2) |


| Question <br> number | Answer AO2 (2) | Mark |
| :--- | :--- | :--- |
| 2(b)(iii) | Award 1 method mark and 1 OF answer mark. <br> Variance must state Favourable for the second mark. |  |
|  | Fixed overhead capacity variance  <br> Budgeted hours 9450  <br> Actual hours $\quad \frac{11235}{1785(1) \times \mathbf{\$ 1 4} \text { (of) }=\mathbf{2 4} \mathbf{9 9 0} \text { Favourable (1of) }}$ (2) $\mathbf{l}$ |  |


| Question number | Answer AO2 (2) | Mark |
| :---: | :---: | :---: |
| 2(b)(iv) | Award 1 method mark and 1 OF answer mark. Variance must state Adverse for the second mark. <br> Fixed overhead efficiency variance <br> $\begin{array}{ll}\text { Standard hours }(2416 \times 4.50) & 10872 \\ \text { Actual hours } & \frac{11235}{363(\mathbf{1})} \times \mathbf{\$ 1 4} \text { (of) }\end{array}$ $=5082$ Adverse (1of) | (2) |


| Question <br> number | Answer AO4 (2) | Mark |
| :--- | :--- | :--- |
| 2(c) | Capacity Efficiency Volume Expenditure Total o/h variance |  |
|  | 24990 F - $5082 \mathrm{~A}=\mathbf{1 9 9 0 8} \mathbf{F}$ (1)-9 450 A <br> $=10458$ |  |


| Question <br> number | Answer AO1 (2) AO3 (2) | Mark |
| :--- | :--- | :--- |
| 2(d) | 1 mark for statement and 1 mark for development x <br> 2 required. Maximum 2 marks per standard. |  |
|  | Ideal standards are only possible under the most efficient <br> operating conditions - they make no allowance for <br> normal losses, waste or machine downtime (1). Ideal <br> standards are unlikely to be used in practice as they are <br> unrealistic (1)/ are likely to have an adverse impact on <br> employee motivation (1). | An attainable standard assumes realistic levels of <br> operation, making allowances for normal losses, waste or <br> machine downtime (1). Attainable standards are thought <br> to provide the most realistic basis to which actual costs <br> should be compared (1) / may have a motivating effect on <br> employees (1). |

Total for question 2-16 marks

| Question number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3(a)(i) | Award 1 ma Award 1 ma mark for th <br> Balance b/d Creditors | ark for bo rk for th e balance <br> \$ 57500 367800 $425300$ | entries on the de entries on the cr <br> Raw Materials <br> W I P <br> Materials - P\&L <br> Prod O/heads <br> Balance c/d | it side. dit side and $\begin{gathered} \text { Account } \\ \$ \\ 333400 \\ 7500 \\ 19800 \\ \mathbf{6 4 6 0 0} \mathbf{( 1 )} \\ \hline 425300 \\ \hline \end{gathered}$ | (3) |


| Question number | Answer AO2 (3) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3(a)(ii) | Award 1 mark for first two correct entries and 1 mark for next two correct entries on the debit side. Award 1 mark for correct entry on the credit and the correct balance. |  |  |  | (3) |
|  |  | \$ | W I P Accoun \$ |  |  |
|  | Balance b/d | 34680 | Finished Goods | 488290 |  |
|  | Production Overheads | 86250 |  |  |  |
|  | Wages | 74750 |  |  |  |
|  | Material | 333400 | Balance c/d | 40790 |  |
|  |  | $\underline{529080}$ |  | $\underline{529080}$ |  |


| Question number | Answer AO2 (2) |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3(a)(iii) | Award 1 mark for both entries on the debit side. Award 1 mark for both entries on the credit side. |  |  |  |  |
|  | Finished Goods Account |  |  |  |  |
|  | Balance b/d | $\$$ 40900 | COGS - P \& L | $\$$ 508230 |  |
|  | WIP | 488290 | Balance c/d | 20960 |  |
|  |  | $\underline{529190}$ |  | $\underline{529190}$ | (2) |




| Question <br> number | Answer AO1 (2) AO3 (2) | Mark |
| :--- | :--- | :--- |
| $\mathbf{3 ( b )}$ | In a non-integrated system the cost accounts are kept <br> separate from the financial accounts and it will be <br> necessary for the two sets of accounts to be reconciled <br> with the use of control accounts (1). <br> Using control accounts will enable the company to <br> frequently check the accuracy of the accounts and <br> highlight any errors (1). | Any over or under absorbed production overhead can be <br> carried forward as a balance into the next period's <br> accounts (1). <br> The financial ledger control account will keep a record of <br> all the individual control account balances, as a further <br> means of checking on the accuracy of the control accounts <br> (1). |

Total for question 3-20 marks


| Question <br> number | Answer AO5 (2) | Mark |
| :--- | :--- | :--- |
| 4(b) | Project Aye should be selected as it has a positive NPV (1). <br> Project Bee would never be selected as it has a negative NPV, <br> which indicates that it does not make a positive return on the <br> investment (1). | (2) |


| Question <br> number | Answer AO2 (4) | Mark |
| :--- | :--- | :--- | :--- |
| 4(c)(i) | Award 1 mark for the collective DCF calculations. Award <br> 1 mark for the NPV figure. Award 1 mark for the IRR |  |
|  | method and 1 mark for the final calculation. |  |


| Question number | Answer AO2 (3) | Mark |
| :---: | :---: | :---: |
| 4(c)(ii) | Award 1 mark for the DCF calculations. I mark for the method and 1 mark for the answer. All of which must be discounted. <br> Discounted payback (discounted at 12\%) $\begin{aligned} & \text { Payback period for Project Aye } \\ & =\mathbf{3}+(29.89 / 57.24 \times 12) \mathbf{6 . 2 6} \\ & =\mathbf{3} \text { years (1of) and } \mathbf{6} \text { months (1of) } \end{aligned}$ | (3) |
| Question Number | Answer (AO1) 2 (AO3) 2 | Mark |
| 4(d) | Award 1 AO1 mark for technique and 1 AO3 mark for example. <br> An example of a short-term decision might be "increasing production over the next three months in order to meet an unexpected increase in demand" (1). <br> Techniques that are used include: break-even analysis; limiting factors; and marginal costing (1). <br> Award 1 AO1 mark for technique and 1 AO3 mark for example. <br> An example of a long-term decision might be the need to build a new production line, buy a new machine or introduce a new (or improved) product (1). <br> The techniques that are used come under the heading of 'capital investment appraisal': payback; discounted cash flow; average rate of return; internal rate of return; and absorption costing (1). | (4) |


| Question Number | Answer (AO2) 6 |  |  |  |  | Mark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5(a) | Absorption costing <br> Workings: 3000 units of Exe $\times 4$ hours $=12000 ; 2500$ units of Why x 4 <br> hours $=10000$; and 2000 units of Zed $\times 3$ hours $=6000$. <br> This equals 28000 (1) direct labour hours <br> $=\$ 408800 / 28000$ direct labour hours = \$14.60 per labour hour 1 of <br> Workings: Exe $=4$ labour hours $\times \$ 14.60=\$ 58.40$; Whye $=4 \times$ $\$ 14.60=$$\$ 58.40 ; \text { Zed }=3 \times \$ 14.60=\$ 43.80$Production overhead cost per unit Exe Whye Zed  <br> Direct Materials $(\$ 9.60$ per kg) 48.00 38.40 28.80 $\mathbf{1}$ <br> Direct Labour $(\$ 11.20$ per hour $)$ 44.80 44.80 33.60 1 <br> Overheads 58.40 58.40 43.80 1of <br> TOTAL $\mathbf{1 5 1 . 2 0}$ $\mathbf{1 4 1 . 6 0}$ $\mathbf{1 0 6 . 2 0}$ 1of |  |  |  |  |  |



| Question <br> Number | Answer (AO4) 4 (AO5) 2 | Mark |
| :--- | :--- | :--- |
| $\mathbf{5 ~ ( c ) ~}$ | Award up to 4 AO4 marks for analysis - 2 marks for <br> absorption <br> costing; 2 marks for ABC. Award up to 2 AO5 marks for <br> conclusion. <br> Answers may include: <br> Workings: <br> Using absorption costing the overheads for all three products <br> are: Exe \$58.40; Whye \$58.40; and Zed \$43.80. Using ABC, <br> the overheads for each product would be: Exe \$45.20; Whye <br> $\$ 59.10 ;$ and Zed \$57.72 |  |
| Analysis: <br> When using absorption costing, not all overhead costs can be <br> related to the absorption rate being applied, <br> i.e. labour activity (1) so the use of absorption costing would <br> appear to be inappropriate (1). <br> With ABC, costs are allocated on a discreet usage basis. <br> Products which use more of an activity are charged a higher <br> proportion of the overall cost (1) Product Zed has the highest <br> number of production runs and orders, <br> and should therefore be allocated the greatest proportion of <br> inspection and packaging costs (1). <br> OR <br> Products made in smaller batches (i.e Zed) cause an increase in <br> costs (1) and should therefore be charged more (pro rata) <br> using ABC, than those made in larger batches (1). |  |  |
| Evaluation <br> Activity based costing builds up a more realistic allocation of <br> costs (1) an advantage of which could be e.g. a more accurate <br> cost/selling price can be calculated for specific products (1) | Switching methods would see the overhead cost for Exe fall <br> from \$58.40 to \$45.20, and the overhead costs for Zed rise <br> from \$43.80 to \$57,72 (1). |  |
| It can be seen that product Zed has now been charged with a <br> more appropriate cost. (1) | (6) |  |

