



Mark Scheme

September 2017
Results

PEARSON LCCI Certificate in
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

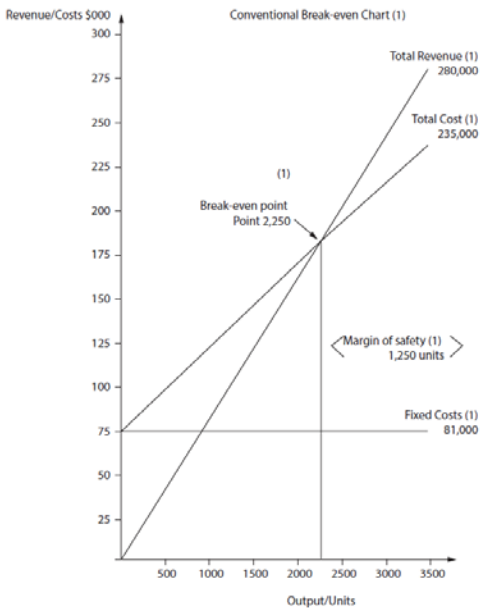
Accuracy marks will only be awarded if the candidates' answer is correct, and in line with the mark scheme.

Question Number	Answer AO2 (2)	Mark
1(a)(i)	<p>Contribution/sales ratio</p> <p>Variable costs = Direct labour (2 hours x \$6)</p> <p>12</p> <p>Direct materials (2 kg x \$8)</p> <p>16</p> <p>Variable production overheads (2 hours x \$8)</p> <p><u>16</u></p> <p>Total variable costs 44</p> <p>Selling price \$80 less \$44 = Contribution \$36 per unit (1)</p> <p>\$36 / \$80 x 100 = 45% C/S ratio (1 of)</p>	(2)

Question Number	Answer AO2 (2)	Mark
1(a)(ii)	<p>Break even point in units =</p> <p>Fixed costs \$81 000 / \$36 (1 of) = 2 250 units (1 of)</p>	(2)

Question Number	Answer AO2 (2)	Mark
1(a)(iii)	<p>Margin of safety = 3 500 – 2 250</p> <p>= 1 250 / 3 500 (1 of)</p> <p>= 35.7% (1 of)</p>	(2)

Question Number	Answer AO2 (2)	Mark
1(b)	$\begin{aligned} \text{Sales units} &= 36\,000 + 81\,000 \\ &= 117\,000 / \$36 \text{ (1 of)} \\ &= 3\,250 \text{ units (1 of)} \end{aligned}$	(2)

Question Number	Answer AO3 (6)	Mark
1(c)	<p>Conventional Break-even Chart (1)</p>  <p>Break even point = 2 250 units (1) Margin of safety = 3 500 to 2 250 = 1 250 units (1) Total revenue = 3,500 units x \$80 = \$280 000 (1) Total variable costs = 3,500 x \$44 = \$154 000. Total costs = \$154 000 + Fixed costs \$81 000 (1) = \$235 000 (1)</p> <p>1 mark for axis/labelling.</p>	(6)

Question Number	Answer AO4 (2) AO5 (2)	Mark
1(d)	Using a break even chart enables the company to clearly see the potential areas of profit or loss (1) . If the chart was constructed on a spreadsheet the company could do an analysis on the effects of likely changes in the key variables (1) . The company could analyse the possible effects on the breakeven/profit of raising the price and or lowering the costs (1) . Apart from the breakeven point, the chart clearly shows the margin of safety, thus alerting the company to any potential difficulties (1)	(4)

Question Number	Answer AO1 (2)	Mark
1(e)	Selling price per unit is constant across the range of activity (1) Total fixed costs are constant across the range of activity (1) Variable costs per unit are constant across the range of activity (1) Cost can readily be split between fixed and variable (1) 2 marks maximum	(2)

TOTAL FOR QUESTION 1 – 20 MARKS

Question Number	Answer AO2 (6)					Mark
2(a)	Product	Q	R	S	T	
	\$ per unit					
	Selling price	128	74	240	192	
	Less Variable costs:					
	Direct material	24	18	42	30	
	Direct labour	40	20	80	60	
	Variable overhead	32	16	30	48	(1)
		<u>96</u>	<u>54</u>	<u>152</u>	<u>138</u>	(1)
	Contribution per unit	\$32	\$20	\$88	\$54	(1)
	Direct labour hours per unit	<u>4</u>	<u>2</u>	<u>8</u>	<u>6</u>	(1)
	Cont per direct labour hour	\$8.00	\$10.00	\$11.00	\$9.00	(1)
	Order of priority	4	2	1	3	(1 of)
					(6)	

Question Number	Answer AO2 (4)	Mark
2(b)	<p>Production schedule will all be OF marks based on order of priority in 2(a)</p> <p>Balance of labour hours 32 000</p> <p>Product S</p> <p>1 875 units x 8 labour hours 15 000 (1 of)</p> <p>Product R</p> <p>2 250 units x 2 labour hours 4 500 (1 of)</p> <p>Product T</p> <p>1 750 units x 6 labour hours <u>10 500</u> <u>30 000</u> (1 of)</p> <p>Balance of labour hours 2 000</p> <p>Product Q 500 units x 4 labour hours (1 of)</p>	(4)

Question Number	Answer AO2 (5)	Mark
2(c)	<p>Contribution schedule will all be OF based on units in 2b and the contribution is calculated in 2a</p> <p>Product S 1 875 units x \$88 = \$165 000 (1 of) for 1st 2</p> <p>Product R 2 250 units x \$20 = \$45 000</p> <p>Product T 1 750 units x \$54 = \$94 500 (1 of) for 2nd 2</p> <p>Product Q 500 units x \$32 = <u>\$16 000</u></p> <p>Total contribution <u>\$320 500</u></p> <p>Less fixed costs <u>\$180 000</u> (2)</p> <p>Profit <u>\$140 500</u> (1 of)</p> <p>Fixed costs = (1 875 x \$40) \$75 000 + (2 250 x \$10) \$22 500 + (1 750 x \$30) \$52 500 + (1 500 x \$20) \$30 000 (1) = \$180 000 (1)</p>	(5)

Question Number	Answer AO1 (1) AO3 (1)	Mark
2(d)(i)	<p>Award 1 mark for initial statement and 1 mark for development.</p> <p>A sunk cost has already occurred. These are costs that have been created by a previous decision and cannot be amended (1). Sunk costs are irrelevant for future decision making (1) an example could be the lease taken out on a new shop opened (1).</p> <p>2 marks maximum</p>	(2)

Question Number	Answer AO1 (1) AO3 (1)	Mark
2(d)(ii)	<p>Award 1 mark for initial statement and 1 mark for development.</p> <p>Incremental/differential costs equate to the difference(s) in total costs between alternative proposals (1). An example would be the additional costs of producing an extra 100 units a week - such as increasing a supervisor's wages by \$100 a week to deal with the additional work (1) Note: A marginal cost equates to the additional cost of producing ONE extra unit.</p>	(2)

TOTAL FOR QUESTION 2 – 19 MARKS

Question Number	Answer AO2 (16)	Mark
3(a)	<p>Profit as per financial accounts 486 000 (1)</p> <p><u>Inventory adjustments</u></p> <p>Raw materials - opening [128 050 – 133 700] 5 650 (1)</p> <p>Raw materials -closing [128 450 – 120 680] 7 770 (1)</p> <p>WIP – opening [84 180 – 80 960] (3 220) (1)</p> <p>WIP - closing [97 785 – 91 590] 6 195 (1)</p> <p>Finished goods – opening [109410 – 9450] (9 960) (1)</p> <p>Finished goods – closing [127350 – 123150] <u>4 200</u> (1) <u>10 635</u> 496 635</p> <p><u>Add</u></p> <p>Loss on sale of asset 13 700 (1)</p> <p>Discounts allowed 16 350 (1)</p> <p>Interest charges 9 750 (1)</p> <p>Under absorbed overhead <u>13 980</u> (1) <u>53 780</u> 550 415</p> <p><u>Less</u></p> <p>Depreciation (64 600 - 58 350) (6 250) (1)</p> <p>Discounts received (16 320) (1)</p> <p>Sundry Investment income (29 000) (1)</p> <p>Notional rent charge <u>(15 300)</u> (1) <u>(66 870)</u></p> <p>Profit as per cost accounts 483 545 (1of)</p>	(16)

Question Number	Answer AO1 (1) AO3 (1)	Mark
3(b)	<p>They may have used different methods to calculate the depreciation charge (1)</p> <p>Different methods are likely to make higher/lower charges to each set of accounts (1)</p>	(2)

TOTAL FOR QUESTION 3 – 18 MARKS

Question Number	Answer AO2 (5)	Mark																														
4(a)(i)	<p>Award 1 mark for all closing inventory figures. Award 1 mark for all opening inventory figures. Award 1 of mark for each total figure. Direction of +/- inventory must be correct</p> <table><tr><td>Production budget (units)</td><td>Product Aye</td><td>Product Bee</td><td>Product Cee</td><td></td></tr><tr><td>Budgeted sales units</td><td>3 000</td><td>2 000</td><td>3 600</td><td>(1)</td></tr><tr><td>Add Closing inventory</td><td>725</td><td>360</td><td>480</td><td>(1)</td></tr><tr><td></td><td><hr/>3 725</td><td><hr/>2 360</td><td><hr/>4 080</td><td></td></tr><tr><td>Less Opening inventory</td><td>575</td><td>550</td><td>680</td><td>(1)</td></tr><tr><td>Budgeted production units</td><td><hr/>3 150</td><td><hr/>1 810</td><td><hr/>3 400</td><td>(1)</td></tr></table>	Production budget (units)	Product Aye	Product Bee	Product Cee		Budgeted sales units	3 000	2 000	3 600	(1)	Add Closing inventory	725	360	480	(1)		<hr/> 3 725	<hr/> 2 360	<hr/> 4 080		Less Opening inventory	575	550	680	(1)	Budgeted production units	<hr/> 3 150	<hr/> 1 810	<hr/> 3 400	(1)	(4)
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4(a)(ii)	<p>Accept budgeted production units as OF from a. Do not accept sales units Award 1of for production required figure. Award 1 mark for each of the inventory figures Direction of +/- must be correct for budgeted purchases figure</p> <p>Purchases budget for Material Exe (kg and cost)</p> <table><tr><th>Product</th><th></th><th>Aye</th><th>Bee</th></tr><tr><td>Cee</td><td>Total</td><td></td><td></td></tr><tr><td>Budgeted production units (kg)</td><td></td><td>3 150 of</td><td>1 810 of</td></tr><tr><td>3 400 of</td><td>1</td><td></td><td></td></tr><tr><td>Material required per unit</td><td></td><td>x <u>2.5</u></td><td>x <u>2.0</u></td></tr><tr><td></td><td></td><td>x <u>3.0</u></td><td></td></tr><tr><td>Kg required for production</td><td></td><td><u>7 875</u></td><td><u>3 620</u></td></tr><tr><td><u>200</u></td><td><u>21 695</u></td><td></td><td><u>1</u></td></tr><tr><td></td><td>(1 of)</td><td></td><td></td></tr><tr><td></td><td></td><td>Add</td><td>Closing</td></tr><tr><td>inventory</td><td><u>4 450</u></td><td>1</td><td></td></tr><tr><td></td><td>26 145</td><td></td><td></td></tr><tr><td></td><td></td><td>Less</td><td>Opening</td></tr><tr><td>inventory</td><td><u>3 400</u></td><td>1</td><td></td></tr><tr><td></td><td></td><td>Budgeted purchases</td><td></td></tr><tr><td>(kg)</td><td>22 745 (1 of)</td><td></td><td></td></tr><tr><td></td><td></td><td>Cost of material</td><td></td></tr><tr><td>per kilo</td><td>x</td><td></td><td></td></tr><tr><td><u>\$16.50</u></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>Budgeted purchases</td><td></td></tr><tr><td>(cost)</td><td>\$375 292.50 (1 of)</td><td></td><td></td></tr></table>	Product		Aye	Bee	Cee	Total			Budgeted production units (kg)		3 150 of	1 810 of	3 400 of	1			Material required per unit		x <u>2.5</u>	x <u>2.0</u>			x <u>3.0</u>		Kg required for production		<u>7 875</u>	<u>3 620</u>	<u>200</u>	<u>21 695</u>		<u>1</u>		(1 of)					Add	Closing	inventory	<u>4 450</u>	1			26 145					Less	Opening	inventory	<u>3 400</u>	1				Budgeted purchases		(kg)	22 745 (1 of)					Cost of material		per kilo	x			<u>\$16.50</u>						Budgeted purchases		(cost)	\$375 292.50 (1 of)			(6)
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4(a)(iii)	<p>Accept budgeted production units as OF from a(i). Do not accept sales units. Award 1of for each of the budgeted labour hours. Award 1of for budgeted labour cost.</p> <p>Direct labour (Grade II) budget (hours and cost)</p> <table> <tr> <th>Product</th><th>Aye</th><th>Bee</th></tr> <tr> <td>Cee</td><td></td><td></td></tr> <tr> <td>Total</td><td></td><td></td></tr> <tr> <td>Budgeted production units</td><td>3 150 of</td><td>1 810 of</td></tr> <tr> <td>400 of</td><td></td><td>3</td></tr> <tr> <td>Hours required per unit</td><td>x <u>0.8</u></td><td>x <u>1.5</u></td></tr> <tr> <td>x <u>0.8</u></td><td>(1)*</td><td></td></tr> <tr> <td>Budgeted labour hours</td><td><u>2 520</u></td><td><u>2 715</u></td></tr> <tr> <td><u>720</u></td><td></td><td><u>2</u></td></tr> <tr> <td>7 955 (1 of)</td><td></td><td></td></tr> <tr> <td></td><td colspan="2">Cost of labour per</td></tr> <tr> <td>hour x <u>\$12.50</u> (1)</td><td colspan="2">Budgeted labour</td></tr> <tr> <td>(cost) \$99 437.50 (1 of)</td><td colspan="2"></td></tr> </table>	Product	Aye	Bee	Cee			Total			Budgeted production units	3 150 of	1 810 of	400 of		3	Hours required per unit	x <u>0.8</u>	x <u>1.5</u>	x <u>0.8</u>	(1)*		Budgeted labour hours	<u>2 520</u>	<u>2 715</u>	<u>720</u>		<u>2</u>	7 955 (1 of)				Cost of labour per		hour x <u>\$12.50</u> (1)	Budgeted labour		(cost) \$99 437.50 (1 of)			(4)
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Question Number	Answer AO1 (2) AO3 (2)	Mark
4(b)	<p>Award 1 mark for each relevant suggestion. Accept other reasonable suggestions. 2 marks maximum.</p> <p>Provides a means of communicating management's plans throughout the organisation (1) so that all of the workforce is informed of the company's intentions (1).</p> <p>Forces managers to think about and plan for the future (1). Without which, managers might spend their time dealing with basic daily issues (1).</p> <p>The budgeting process provides a means of allocating resources (1) to those areas proven to be in need and where they can be used effectively (1).</p> <p>Budgeting co-ordinates the activities of the organisation (1) by integrating the plans of the various departments/ helping to ensure that everyone is pulling in the same direction (1).</p> <p>Budgets define goals and objectives (1) that can serve as benchmarks for evaluating subsequent performance (1).</p>	(4)

Question Number	Answer AO1 (2)	Mark
4(c)	<p>Award 1 mark for each relevant suggestion. 2 marks maximum.</p> <p>The size of the company might dictate shorter budget periods. (1)</p> <p>The complexity of the company - many departments or offices/factories. (1)</p> <p>The requirement of external agencies, like a bank. (1)</p> <p>Government requirements - tax rules. (1)</p>	(2)

TOTAL FOR QUESTION 4 – 20 MARKS

Question Number	Answer AO2 (6)	Mark
5(a)	<p>Working capital cycle:</p> <p>Inventory period = $(£312 \div £2\ 520) \times 365 = 45$ days (1) (Average inventory is acceptable for the inventory figure.)</p> <p>Add: Trade receivables collection period = <math>(£320 \div £2\ 160 \text{ (1 of)}) \times 365 =</math> <u>54</u> days (1 of) 99</p> <p>Less: Trade payables repayment period = $(£242 \div £2\ 592) \times 365 =$ <u>34</u> days* (1 of)*</p> <p>Working capital cycle <u>65</u> days (1 of)</p> <p>*Accept $£242 / 2\ 520 \times 365 = 35$ days</p> <p>Workings £000</p> <p>Sales value = $2\ 520 \div 0.70 = 3\ 600 \times 60\% = 2\ 160$ (1)</p> <p>Purchases = Cost of sales + closing stock – opening stock $2\ 520 + 312 - 240 = 2\ 592$ (1)</p>	(6)

Question Number	Answer AO2 (5)	Mark
5(b)	<p>Expected change in working capital cycle</p> <p>Inventory holding period $= (312 \times 1.15) 358.8 / (2\,520 \times 1.20) 3\,024 (1) \times 365$ $= 43 \text{ days } (1 \text{ of})$</p> <p><u>Add</u>: Trade receivables collection period $= 54 + 12 = 66 \text{ days } (1 \text{ of})$</p> <p><u>Less</u>: Trade payables payment period $= 34 \text{ of} + 18 = (52) \text{ days } (1 \text{ of})$</p> <p>Working capital cycle $57 \text{ days } (1 \text{ of})$</p> <p>Therefore the expected change is an decrease of 8 days (1 of)</p>	(5)

Question Number		Mark
5(c)	<p>Award OF marks for the Sales and Purchases calculated in part a provided that full workings are shown</p> <p>Expected net working capital investment \$000</p> <p>Increase in Inventory $= (\\$312 \times 1.15) \\$359 - \\$312$ $= 47 \text{ (1)}$</p> <p><u>Add</u>: Increase in Trade receivables $= (\\$3\,600 \text{ OF} \times 1.20)$ $= \\$4\,320 \times 0.6 = (2\,592 \text{ OF} \times 66) \div 365$ $= \\$469 \text{ (1 of)} - \\$320 = 149 \text{ (1 of)*}$</p> <p>196</p> <p><u>Less</u>: Increase in Trade payables $= (\\$2\,520 \times 1.20) =$ $\\$3\,024 + 359 - 312 = (3\,071 \times 52) \div 365 = \\$437 \text{ (1 of)} -$ $\\$242 = (195) \text{ (1 of)}$</p> <p>Net investment in working capital 1 (1 of)</p>	(6)

Question Number	Answer Answer AO4 (3) AO5 (3)	Mark
5(d)	<p>Award 1 mark for initial statement and 1 mark for development</p> <p>The inventory holding period doesn't appear to change, but the company will be holding a greater value of inventory. There may be unexpected costs associated with increasing the value of the inventory, such as increased storage costs, if additional warehousing has to be made available. (2 max)</p> <p>The company is already providing a generous 54 days credit to receivables. This will make the liquidity position more problematic. Existing customers will exploit this increased period for collection. (2 max)</p> <p>Will the suppliers be willing to accept a longer repayment period, or will they refuse to supply the company. Will the company lose out on trade discounts or cheaper prices if they attempt to increase the repayment period. (2 max)</p> <p>Conclusion: Is the new sales forecast reliable (1) What other factors might affect the company's estimations, e.g. political or economical changes (1).</p>	

TOTAL FOR QUESTION 4 – 20 MARKS

TOTAL FOR PAPER IS 100 MARKS

