

Mark Scheme

December 2017 Results

Pearson LCCI Certificate in Cost and Management Accounting Level 3 (VRQ) (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.

Question Number	Answer AO2 (6)						Mark
1 (a)	Order of priority						
	Product P \$ per unit	Q	R	S			
	Selling price	240	400	360	259	(1)	
	Less Variable costs: Direct material Direct labour 50	60 100	100 80	92 60	65		
	variable overnead <u>40</u> <u>150</u>	<u>80</u> 280	<u> </u>	<u> </u>	(1)		
	Contribution per unit (\$) Labour hours per unit	<u>90</u> 5	<u>120</u> 10	<u>128</u> 8	<u>84</u> 6	(1) (1)	
	Contribution per dlh (\$) (1)	18.00	0 12.0	00 16	.00	14.00	
	Order of priority (10F)	1	4		2	2 3	(6)

Question Number	Answer AO2 (6)	Mar k
1 (b)	Marks will be awarded for an (OF) order of priority provided there is evidence of a commitment to supply the contracted units	
	Production schedule Balance of labour hours 33 150 Product P 250 units x 5 labour hours 1 250 (1) 900 units x 5 labour hours 4 500 (10F) Product B 2 500 units x 8 labour hours 20 000 (10F)	
	Product Q350 units x 10 labour hours 3500 29250 (1) Balance of labour hours3 900Product S400 units x 6 labour hours = 2 400(1)250 (BAL) units x 6 labour hours = 1 500(10F)	
		(6)

Question	Answer AO2 (4)	
Number		Mark
1 (c)	Award 10F mark for first two products. Award 10F marks for 3rd and 4th products	
	Contribution schedule	
	Product P 1 150 units x \$ 90 = \$103 500	
	Product R 2 500 units x \$128 = \$320 000 (10F(both))	
	Product Q 350 units x \$120 = \$42 000	
	Product S 650 units x $$84 = \frac{54600}{10F(both)}$	
	Total contribution \$520 100	
	Less fixed costs \$284 000 (1)	
	Profit \$236 100 (10F)	
	Schedule must be related to what the student has produced in 1b	(4)

Question	Answer AO1 (2) AO3 (2)	
Number		Mark
1(d)	Award 1 mark (AO1) for point made and 1 mark (AO3) for development 4 max	
	The principal budget factor provides the starting point for the production of all the other budgets. (1) The principal budget factor will determine or limit the budget or activity levels of all the other factors. (1)	
	The supply or demand of a factor determines if it is the principal budget factor. (1) If labour or material is in short supply, it will be the principal budget factor which restricts the activity of the organisation. (1)	
	Unless the company can overcome any constraints it will not be able to expand or achieve its target outcomes. (1) This could limit the amount of profit/contribution made. (1)	
	Accept any other valid answer	(4)

Total for Question 1 = 20 marks

Question	Answer AO2 (16)	м	lark
2(a) Notes	Profit as per financial accounts 406 650 (1)		
	Inventory adjustments		
2070= (2)	Raw materials - opening [85 380 - 89 250] 3 870 (1)	
(7200)= (2)	WIP - opening $[56 \ 100 - 54 \ 000]$ $[2 \ 100)$ WIP closing $[58 \ 000 - 64 \ 000]$ $[51 \ 000 - 54 \ 000]$	(1) (1)	
7900= (2)	WiP - closing [38 900 - 64 000] (3 100) (3 100) Finished goods - opening [66 250 - 72 950] 6 700 Finished goods - closing [84 300 - 83 100] <u>1 200</u> <u>2 770</u>	(1) (1)	
	409 420		
	Add		
1490= (2)	Discount allowed 9 650 (1 Interest charges 6 500 (1 <u>16 150</u> 425 570	L) L)	
(48450) 45325 = (1) (see above)	LessDepreciation $(48\ 450\ -\ 45\ 325)$ $3\ 125\ (13)\ 3125\ ($	L) L) L) L) L) L)	
	working/simple single step arithmetic totals shown wit calculation. See left margin for guidance.	hout	16)

Question	Answer AO1 (3) AO3 (3)	
Number		Mark
2 (b)	Award 1 mark (AO1) for point made and 1 mark (AO3) for development	
	A non-integrated system has two, distinct, sets of accounts - cost accounts and financial accounts (1), which need to be kept in agreement by a reconciliation statement or the use of control accounts (1).	
	Both sets of accounts may have different valuations for inventory and/or different methods to calculate depreciation charges (1) which will give different profits for the cost accounts and the financial accounts (1)	
	There are items, such as discounts allowed or discounts received (1), which are only recorded in the financial accounts (1)	
	There are items, such as notional rent (1) , which are only recorded in the cost accounts (1)	(6)

Total for Question 2 = 22 marks

Question Number	Answer AO2 (6)	Mark
3 (a)(i)	Contribution - Fixed cost = Net cash flows Year 1 $180 - 64 = 116$ Year 2 $252 - 64 = 188$ Year 3 $288 - 64 = 224$ Year 4 $324 - 64 = 260$ Year 5 $288 - 64 = 224$ (1 for all) (1 for all)	Hurk
	Net present value (NPV)	
	YearNet cashDisc.Present valuesflowFactor	
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	*\$224 000 (of) + \$100 000 (residual value)= 324 000 (1)	(6)

Question Number	Answe	er AO2 (5)			Mark
3(a)(ii)	Interr	nal rate of	return (IRR)	
	<u>Year</u>	<u>Net cash</u> <u>flow</u>	<u>Disc.</u> Factor	Present values	
	0 1 2 3 4 5 IRR =	\$000 (740) 116 of 188 of 224 of 260 of 324 of 12% + {3	<u>@ 12%</u> 1.000 0.893 0.797 0.712 0.636 0.567 NPV = % × [21.99(1	<pre>\$000 (740.00) 103.59 of 149.84 of 159.49 of 165.36 of <u>183.71 of 1 for all</u> <u>21.99 (1) of</u></pre>	
	13.07	% (1) of			(5)

Question Number	Answer AO5(3)	Mark
3(b)	The investment should not be undertaken (1) by the company since it generates a negative NPV of \$39 810 (1) and earns an IRR of 13.07% which is lower than the 15% cost of capital (1) .	(3)

Question Number	Answer AO1(3) AO3(3)	Mark
3(c)	The NPV method recognises that money has a time value (1). It takes the present value of cash inflows minus the present value of cash outflows, to arrive at a net present value of a capital project. (1)	
	The IRR is the cost of capital rate at which the present value of the cash flow matches the initial investment (1) The IRR requires meeting a minimum return rate in order to go ahead with the project (1) .	
	The NPV method selects projects that have a positive net cash flow (1) , whilst the IRR method chooses projects that have a rate of return which is higher than the cost of capital (1)	(6)

Total for Question 3 = 18 marks

Questio	Answer AO2 (10)		
n Number			Mark
4(a)	Workings:		Hark
	Total production costs = \$950 000 + \$520 000 - = \$2 160 000 (1)	+ \$690 000	
	Sales value = 60 000 x \$48.00 = \$2 880 000	(1)	
	\$	\$	
	Direct material (8 ÷ 365) days x \$950 000	20 822 (1)	
	Work-In-progressDirect material $(10 \div 365)$ days x \$950 000 x 100%26 027Direct labour $(10 \div 365)$ days x \$520 000 x 60%8 548Production overheads $(10 \div 365)$ days x \$690 000 x 40%7 562	(1) (1) (1)	
	Finished goods (14 ÷ 365) days x \$2 160 000 (OF)	42 137 (3) 82 849 (1)	
	Trade receivables (45 ÷ 365) days x \$2 880 000 (OF)	<u>355 068</u> (1OF) 500 876	
	Less: Trade payables ($35 \div 365$) days \times \$950 000 Total working capital requirements for the year	(<u>91 096</u>) (1) 409 780(1OF)	
			(10)

Questio	Answer AO4(3) AO5(3)	
Number		Mark
4(b)	Award 1 mark (AO4) for point made and 1 mark (AO5) for evaluation Inventory: The aim is to hold sufficient inventory to meet the immediate needs of the customers (1), without holding excessive amounts of inventory which will tie up working capital and involve the company in unnecessary holding costs (1) Trade receivables The company needs to offer attractive settlement terms to encourage customers to purchase their products (1). However, cash must be collected in a timely fashion, in order to pay existing creditors and to enable the company to purchase more inventory (1) Trade payables The company needs to get the best possible terms, discounts and repayment period (1), whilst continuing to ensure that the supplier is still willing to deal with their requirements	
	Accept any other valid answer	(6)

Total for Question 4 = 16 marks

Question Number	Answer AO2 (16)	Mark
5(a)	Award a total of 16 marks as indicated.	
	Material handling Aye \$78 100 / 28 400 kg = \$2.75 per kg used (1) Material (2 000 x 5kg) 10 000 + (1 600 x 7kg) 11 200 + (1 200 x 6kg) 7 200 Total material used = 28 400 kg (1) Product One = 5 kg x \$2.75 = \$13.75 per unit Note: OF based	
	on kg usage Product Two = 7 kg x \$2.75 = \$19.25 per unit kg usage Product Three = 6 kg x \$2.75 = \$16.50 per unit kg usage	
	Material handling Bee \$65 360 / 17 200 kg = \$3.80 per kg used (1) Material (2 000 x 4kg) 8 000 + (1 600 x 2kg) 3 200 + (1 200 x 5kg) 6 000 Total material used = 17 200 kg (1) Product One = 4 kg x \$3.80 = \$15.20 per unit Note: OF based	
	Bit kg usage Product Two = 2 kg x \$3.80 = \$7.60 per unit kg usage Product Three = 5 kg x \$3.80 = \$19.00 per unit kg usage	
	<u>Set up</u> \$115 200 / 200 production runs = \$576 per production run (1) Product One = \$576 x 80 prod runs = \$46 080 / 2 000 units = \$23.04 per unit	
	Product Two = \$576 x 60 prod runs = \$34 560 / 1 600 units = \$21.60 per unit Draduct Three = \$576 x 60 prod runs = \$24 560 / 1 200 u/s = \$28 80 per unit	
	Note: OF based on production runs and units	
	$\frac{\text{Machining}}{\text{MC hours}} $51 000 / 10 200 (1) = $5.00 per machine hour (1)M/C hours (2 000 x 1.5) 3 000 + (1 600 x 3) 4 800 + (1 200 x 2) 2 400Product One = $5.00 x 1.5 machine hours = $7.50 per unitProduct Two = $5.00 x 3 machine hours = $15.00 per unitProduct Three = $5.00 x 2 machine hours = $10.00 per unitNote: OF based on machine hours for each product$	
	Packaging \$68 340 / 300 orders = \$227.80 (1) Product One = \$227.80 x 130 orders = \$29 614 / 2 000 units = \$14.81 per unit Product Two = \$227.80 x 90 orders = \$20 502 / 1 600 units = \$12.81 per	
	unit Product Three = \$227.80 x 80 orders = \$18 224 / 1 200 u's = \$15.19 per unit Note: OF based on number of orders and units	
	Production overhead cost per unit Product One Product Two Product Three \$/unit \$/unit \$/unit	
	Material handling Aye 13.75 19.25 16.50 1 OF Material handling Bee 15.20 7.60 19.00 1 OF Set up 23.04 21.60 28.80 1 OF Machining costs 7.50 15.00 10.00 1 OF Packaging 14.81 12.81 15.19 1 OF TOTAL 74.30 76.26 89.49	
	Direct material Aye75.00105.0090.00Direct material Bee60.0030.0075.00Direct labour31.2525.0018.75	
	Total Cost 240.55 (1of) 236.26 (1of) 273.24 (1of)	(16)

Question Number	Answer AO4(5) AO5 (1)	Mark
5b	Award up to 5 marks for analysis points – maximum of marks for arguing one side. Award 1 mark for conclusio Max 6 marks	
	Answers may include:	
	In favour of ABC costing With ABC costs are allocated on a discreet usage basis. Product that	
	use more of an activity are charged a higher proportion of the overall	
	cost (1) e.g. Product One has the highest number of production runs	
	per unit and should therefore be allocated the greatest proportion of set- up costs per unit. (1)	
	Products made in smaller batches (i.e. Products Two and Three) cause an increase in costs (1) and should therefore be charged more (pro rata) using ABC than those made in larger batches. (1)	
	Using absorption costing, the overheads for Products One, Two and Three are \$94.50, \$75.60 and \$56.70. Using ABC, the overhead costs are \$74.30, \$76.26 and \$89.49. (1) We can see that Product One would benefit from a more realistic cost, at the expense of Product Three, which would incur a greater proportion of the overheads (1)	
	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. (1)	
	Not all costs can be related to, e.g. labour activity/machine hours.(1)	
	Against ABC costing ABC is expensive and time-consuming to introduce (1) Possibly difficult to identify appropriate cost drivers (1)	
	Conclusion It would be appropriate for the company to use ABC as cost allocation is more accurate. (1)	(6)

Total for Question 5 = 22 marks