

# Mark Scheme

# January 2020

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.

## fb Both entries/answers should be present

Naterial X   12   78   000   00tput   22   760   177   178	
Material X	
Material X	
Material Y 7 200 30 600 Material Z 4 800 27 120 Labour - 16 200 Overhead - 24 390 S Abn Gain 560 4 368 24 180 560 678  Material input: 12 000 + 7 200 + 4 800 = 24 000 kg (1) Overheads = 1 500 hours x \$16.26 = \$24 390 (1) Normal loss = 7.5% of 24 000 kg = 1 800kg (1) x \$1.75 = \$3 150 (1) Budgeted output: 24 000 x 92.5% = 22 200 kg (1) Abnormal gain = 22 200 less 22 760 = 560 kg (1) x \$7.80 = \$4 368 (1) OF  Working for the output:  Material X 12 000 x 6.50 = 78 000 Material Z 4 800 x 5.65 = 27 120 Labour 1 500 x 10.80 = 16 200 Overheads 1 500 x 16.26 = 24 390 Total cost Scrap proceeds 1 800 x 1.75 = 3 150 Net Cost Expected 92.5% x 24 000 = 22 200  Output  Material G 10 for 1	
Material Z	
Labour Overhead - 24 390 [1] Loss   ]  Abn Gain   560   4 368   [3]   24 560   180   678    Material input: 12 000 + 7 200 + 4 800 = 24 000 kg (1) Overheads = 1 500 hours x \$16.26 = \$24 390 (1) Normal loss = 7.5% of 24 000 kg = 1 800kg (1) x \$1.75 = \$3 150 (1) Budgeted output: 24 000 x 92.5% = 22 200 kg (1) Abnormal gain = 22 200 less 22 760 = 560 kg (1) x \$7.80 = \$4 368 (1) OF  Working for the output:    Material X	
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Cost per kg	(10)
Question Answer (AO2 2)	Mark
1(b)	
Normal Loss Account	
Process Account 3 150 (1of)	
1100000 / 10000110   5 150   (201)	
Abnormal Gain Account	(2)
\$ Process Account 4 368 (1of)	
FIUCESS ACCOUNT 4 300 (101)	
Question Answer (AO1 2) (AO3 2)	
1(c) 1 (AO1) mark for basic point and 1 (AO3) mark for development.	Mark
Answers may include:	Mark

•	Joint-products are two or more products that are intentionally produced by a single manufacturing process that share common costs (1) whereas by-products are an incidental consequence of the process (1). The proceeds from the sale of joint-products tends to be commercially significant (1) whereas the proceeds from the sale of by-products is generally regarded as being of minor value (1). The costs of the process prior to the split-off point are apportioned between the joint-products (1) but are not apportioned to the by-products (1).  Joint products are usually separated at some point and each requires further work (1) whereas by-Products are usually disposed of straightaway (1).	(4)
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Question	Answer (AO4 2)	Mark
1(d)	<ul> <li>Answers may include:</li> <li>The products do not sell for the same price (1) and so the products making a greater contribution to the business' revenue or profitability are not currently bearing a higher share of the costs – which is unfair (1).</li> <li>The method results in all joint products having the same cost per unit, which might mean those with lower prices show a loss (1) This might be misleading for decision making as the nature of joint products is that they all have to be produced from the common process (1).</li> </ul>	(2)
	ONE required	

Question	Answer (A01 2) (A03 2)	Mark
1(e)	1 (AO1) mark for basic point and 1 (AO3) mark for development	
	Answers may include:	
	<ul> <li>The business may be involved in production that takes time or is of a continuous nature, where there is likely to be work-in-progress at the period end (1) - the use of "equivalent units" enables the value of finished product and work-in-progress can be calculated (1).</li> </ul>	
	<ul> <li>Process costing is suitable when there are several stages to production / goods are transferred from one stage to another (1) – this will enable costs of each stages to be identified (1).</li> </ul>	
	<ul> <li>Process costing is suitable where there are joint and or by-products</li> <li>(1) – this will enable the common-costs to be attributed to the relevant products</li> </ul>	
	A maximum of 2 points to be made.	(4)

Question	Answer (AO2) 1	Mark
2(a)(i)	Labour fixed = $75\ 000 - (80\ 000\ x\ \$0.05) = \$71\ 000\ (1)$	(1)

Question	Answer (AO2) 1	Mark
2(a)(ii)	Heat, light and power variable = $24\ 000 - 16\ 000$ = <b>\$0.10 per unit (1)</b>	(1)
	80 000	

Question	Answer (AO2) 1	Mark
2(a)(iii)		
	Cost of hiring 1 machine = $$14 400 = $4 800 (1)$	(1)
	3	

Question	Answer (AO2) 4	Mark
2(a)(iv)	Variable = $\frac{$166\ 350 - 162\ 600}{80\ 000 - 65\ 000} = \frac{3\ 750}{15\ 000}$ (1) = \$0.25 per unit (1)	
	Fixed = $$166 350 - (80 000 \times $0.25)$ (1) = $$146 350$ (1of) [2] Or $$162 600 - (65 000 \times $0.25)$ = $$146 350$	(4)

Question	Answer (AO2 6)			Mark
2(b)	Selling price = <u>611 000</u> or <u>752</u> 65 000 80	000 = <b>\$</b> 9	9.40 per unit (1)	
		Fixed	Variabl	
			e	
	Materials	74 000	2.80	
		71 000	0.05	
	, , ,	16 000	0.10	
		14 400	0.25	
		146 350	0.25	
	Non-production overheads		2.20	
	4	71 200	3.20	
		(1of)	(1of)	
	Contribution = 9.40 - 3.20 = \$	6.20 (1c	of) [3]	
	Break-Even point (units) = $\frac{471}{6}$ .	<u>200</u> = <b>7</b> .20	6 000 units (1of) [5]	(6)
	Break-Even Revenue = 76 000	x \$9.40	= \$714 400 (1of)	(0)

Question	Answer (AO2 2)	Mark
2(c)	Margin of Safety (units) = 80 000 - 76 000 = <b>4 000 units (1of)</b>	
	Margin of Safety (%) = $\frac{4\ 000}{80\ 000}$ x 100 = <b>5.00% (1of)</b>	(2)
Question	Answer (AO3 6)	Mark
2(d)	Marks to be awarded for the following:  Labelling of both axes (1)  Correct cost line – cost at 110 000 units will be \$1 350 520 (1)  Correct revenue line – revenue at 110 000 units will be \$1 485 000 (1)	
	Break-even point of <b>93 600 units (10f)</b> Margin of Safety of <b>16 400 units (10f)</b> Profit at 110 000 units of <b>\$134 480 (10f)</b>	(6)

Question	Answer (AO4 3) (AO5 2)	Mark
2(e)	Answers may include:	
	In favour of JT44:	
	• JT44 has a lower breakeven point in units (by 17 600) and lower revenue (\$733 000) than FL26 (1) – this might be more achievable (1).	
	<ul> <li>JT44 has lower fixed and variable costs (by \$296 320 and \$2.10 per unit) than FL26 (1) – this means less capital tied up / less risk if sales are lower than expected (1).</li> </ul>	
	In favour of FL26:	
	<ul> <li>FL26 potentially gives \$109 680 more profit per month than JT44 (1) – this will keep investors happy (1).</li> <li>FL26 has a higher margin of safety in units (by 12 400 units) and as a % (9.9%) than JT44 (1) – this means that disappointing sales will take slightly longer to cause losses (1).</li> </ul>	
	Maximum 4 marks.	(5)
	<b>Conclusion:</b> Prospero Ltd should produce FL26 because, potentially, it offers a higher profit <b>(1)</b> .	
	The final mark should be awarded if the conclusion is supported by at least 1 point made.	
	Check 2(c) and (d) for Own Figure marks	

	AO2 9) (AO 3	-,					
	(1)	Total		Depa	rtments		
Expense	Basis	\$			\$		
			Manuf	Pack	Stores	Admin	
R&R	Area	8 000	3 200	1 600	2 400	800	(1)
Mach dep'n	Machine Value	12 600	9 765	2 331	504	-	(1)
St salaries	Direct	4 700	-	-	4 700	-	(1)
Ad salaries	Direct	3 500	-	-	-	3 500	(1)
H, L & P	Consumption	2 900	1 305	580	290	725	(1)
Other o/h	Allocation	11 100	4 420	2 780	1 785	2 115	
Total			18 690	7 291	9 679	7 140	(1of)
Reapportio	nment						
Stores over	heads 240/400	160/400	5 807	3 872	(9 679)	-	(1of)
Admin over	heads 50 : 50		3 570	3 570	-	(7 140)	(1of)
Total			28 067	14 733			(1of)

Question	Answer (AO2 2)	Mark
3(b)	<b>Manufacturing OAR</b> = 28 067 / 1 500 = <b>\$18.71</b> per machine hour <b>(1of)</b>	(2)
	<b>Packing OAR</b> = 14 733 / 1 600 = <b>\$9.21</b> per labour hour <b>(1of)</b>	

Question	Answer (AO2 4	)				Mark
3(c)	Manufacturing Absorbed 1 685 x 18.71 = Actual overheads	\$ 31 526.35 (1of)  30 300.00 1 226.35	Packing Absorbed 1 643 x 9.21 = Actual overheads	\$ 15 132.03 <u>14 630.00</u> <b>502.03</b>	(1of)	
		Over (1of)		Over	(1of)	(4)
	The over or under-absorption must be appropriate otherwise 1 mark for both.					

**Total for Question 3 = 16 Marks** 

Question	Answer (AO2 1)	Mark
4(a)(i)	Standard hours production = 247 680 / 50= <b>4 953.60 hours (1)</b>	(1)
Question	Answer (AO2 2)	Mark
4(a)(ii)	Production Efficiency = $\frac{4.953.60}{4.290}$ (1of) x 100 = 115.47% (1of)	(2)
Question	Answer (AO2 3)	Mark
4(a)(iii)	Capacity = $\frac{4\ 290}{4\ 080}$ (of) x 100 = <b>105.15%</b> ( <b>1of</b> )	
	Budgeted hours = 24 x 170 = <b>4 080 hours [1]</b>	(3)
Question	Answer (AO2 2)	Mark
4(a)(iv)	Volume = $\frac{4.953.60}{4.080}$ (1of) x 100 = 121.41% (1of)	(2)
Question	Answer (A01 2) (A0 3 1)	Mark
4(b)	1 (AO1) mark for basic point and 1 (AO3) mark for development  Standard cost is the predetermined / expected cost of an activity (1) under effective working conditions / which makes allowances for a certain amount of waste or idle-time (1).	(2)

Question	Answer (AO4 4) (AO 5 2)	Mark			
4(c)	Answers may include:  Effective Controls:				
	<ul> <li>The 97% compliance with saving / backing up data is high (1) - this should reduce the likelihood of information being lost should the system crash (1).</li> <li>Employees can only access to parts of the system required by their job role (1) - this should help maintain confidentiality of sensitive information (1).</li> <li>There is a high compliance with the rule concerning USB sticks (1) - this should help maintain the security/confidentiality of information (1).</li> </ul>				
	Ineffective Controls:				
	<ul> <li>The 36% compliance with locking/logging out computers is low / computers take 10 minutes to lock when there is inactivity (1) - this makes it easier for someone to access someone's work station and cause problems (1).</li> <li>75% of employees are still using their original (weak) passwords (1) - this threatens the security of the system and its information (1).</li> </ul>				

The firewall and virus protection are three years old / out-of-date
 (1) – this makes the system more likely to suffer from viruses
 which may steal or corrupt data (1).
 Conclusion: Portia Ltd has effective / ineffective controls protecting
 the safety, security and confidentiality of information (1).
 The conclusion should reflect at least 1 point made.
 A maximum of 4 marks to be awarded if only one side of the
 argument is presented.

**Total for Question 4 = 16 Marks** 

Question	Answer (AO2 3)	Mark		
5(a)(i)	Material usage: (36 725 - 37 180) <b>(1) 455</b> x 5.40 = <b>\$2 457 Adv (1of)</b>			
	Material usage. (30 723 - 37 180) (1) 435 x 3.40 - \$2 437 Adv (101)			
	Standard quantity = (39 000 / 24 000) x 22 600 = <b>36 725 kg</b> (1.625 x 22 600) = 36 725 kg			
	Standard price = 210 600 / 39 000 = <b>\$5.40 (1)</b>	(3)		
	The variance must be correctly identified as adverse to get the final mark.			
Question	Answer (AO2 2)	Mark		
5(a)(ii)	Material price: (5.40 (of) $-5.25$ ) (1) 0.15 $\times$ 37 180 = \$5 577 Fav (1of)			
	Actual price = 195 195 / 37 180 = <b>\$5.25</b>	(2)		
	The variance must be correctly identified as favourable to get the final mark.			
Question	Answer (AO2 3)	Mark		
5(a)(iii)	Labour efficiency: $(7\ 119 - 6\ 890)$ <b>(1) 229</b> x 9.50 = <b>S2 175.50 Fav (1of)</b>			
	Standard quantity = (7 560 / 24 000) x 22 600 = <b>7 119 hours</b>			
	Standard rate = 71 820 / 7 560 = <b>\$9.50 (1)</b>	(3)		
	The variance must be correctly identified as favourable to get the final mark.			
Question	Answer (AO2 2)	Mark		
5(a)(iv)	Labour rate: $(9.50 \text{ (of)} - 9.60) (1) 0.10 \times 6890 = $689 \text{ Adv (1of)}$			
	Actual rate = 66 144 / 6 890 = <b>\$9.60</b>	(2)		
	The variance must be correctly identified as adverse to get the final mark.			
Question	Answer (AO2) 1			
5(a)(v)	Overhead Expenditure: 166 380 - 161 490 = <b>\$4 890 Fav (1)</b>	(1)		
Question	Answer (AO2 2)	Mark		
5(b)				
	Materials (210 600 / 24 000) x 22 600 = 198 315.00 ) (1) for Labour (71 820 / 24 000) x 22 600 = 67 630.50 ) both Overheads  Standard Cost 432 325.50 (10f)	(2)		
	Overheads must be as shown for the own figure mark			

Question	n Answer (AO2 4)					Mark
5(c)		\$	\$	\$	]	
	Standard cost for actual production			432 325.50	OF	
	Variances	Fav	Adv			
	Direct materials usage		2 457			
	Direct materials price	5 577			(1of) both	
	Direct labour rate		689			
	Direct labour efficiency	2 175.50			1	
	Fixed overhead expenditure	4 890			(1of) for all three	
	Total variance	12 642.50	3 146	(9 496.50)	(1of) all 3	
	Actual cost of actual production			422 829	(1of)	(4)

Question	Answer (AO1 3)	Mark
5(d)	Answers may include:	
	Material price variance	
	The lower quality material will probably have <b>cost less per kg</b> than the <b>normal material</b> , resulting in a <b>favourable</b> material price variance <b>(1)</b> .	
	Material usage variance	
	Lower quality material may have resulted in <b>more wastage</b> / <b>production problems</b> , resulting in an <b>adverse</b> material usage variance (1).	
	Labour efficiency variance	(3)
	More wastage / production problems caused by the lower quality material will have resulted in the <b>workers taking more time</b> , resulting in an <b>adverse</b> labour efficiency variance (1).	

**Total for Question 5 = 20 Marks** 

**TOTAL FOR PAPER = 100 MARKS**