Mark Scheme

June 2016
Results

Pearson LCCI (ASE20098) Level 3
Management Accounting

PEARSON

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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 Number	Answer	Mark
1(a)	**Award marks for workings where figures in table are incorrect.** **Variance figure is of - must give correct indication of fav or adverse**	

Cost element	Flexible budget 13,200 units		Actual costs	Variance	
Direct materials **1of**	616 122	**2**	616 982	**860**	**Adv**
Direct labour **1of**	432 216	**2**	423 932	**8 284**	**Fav**
Production overheads **1of**	483 660	**3**	489 950	**6 290**	**Adv**
Administration overheads	285 300	**1**	284 100	**1 200**	**Fav**

Workings
Direct materials:

468 000 / 10,000 = $46.80 per unit / 3 = **$15.60** per kg

39,600kg (13,200 x 3kgs) x $15.60 = **$617 760** **(1)**

less 2,100 (39,600 – 37,500) x $0.78 **=** <u>**1 638**</u> **(1)**
$616 122

Direct labour

$324 000 / 10,000 = **$32.40** per unit x 12,500 = **$405 000** **(1)**

(13,200 – 12,500) = 700 units x (32.40 + 20%) $38.88 **=** <u>**27 216**</u> **(1)**
$432 216

Production overheads

($488 700 – $27 000) $461 700 – $436 500 =
$25 200 / 4,000 units (14,000 – 10,000) = **$6.30 variable cost per unit** **(1)**

Fixed element = $436 500 less $63 000 (10,000 x $6.30) = **$373 500** **(1)**

13,200 x $6.30 **= $83,160 + $373 500 + $27 000 = $483 660** **(1)**

| | | **(12)** |

Question number	Answer	Mark
1(b)	**Award 1 mark for explanation and 1 mark for development.** To allow costs to be predicted for the actual level of activity that occurs (1) This will give a meaningful comparison of actual costs with (flexed) budgets(1)	**(2)**

Question number		Mark
1(c)	**Award up to 2 marks for definition. Award 1 mark for identification of example. Award 1 mark for development.** The principal budget factor is the factor that determines or limits (1) the budget or activity level of all other factors (1). The supply or demand of a factor determines if it is the principal budget factor (1). If a company is limited to producing 1,000 units a month because of the available labour force(1) that will be the principal budget factor limiting all the other factors, e.g. sales levels and material requirement (1)	
		4

Total for question 1 = 18 marks

Question number	Answer	Mark

2(a)(i)	**Award 1 mark for all entries, correct, on debit side.**
	Award 1 mark for all entries, correct, on credit side.
	Award 1 mark for correct calculation of WIP on credit side.
	
	Raw Materials Control Account
	Balance b/d 76,550 ⎫ 1 W I P control **482,350 1**
	Financial ledger control 535,600 ⎭ Prod ohs control 39,100 ⎫ 1
	                                 Balance c/d 90,700
	                  612,150 612,150
		(3)

Question number	Answer	Mark

2(a)(ii)	**Award 1 mark for all entries, correct on debit side. Award 1 mark for all entries, correct, on debit side.**
	
	Wages Control Account
	Financial ledger control **224,880** W I P control 149,460 ⎫ 1
	                       Prod ohs control 75,420 ⎭ 224,880 **(1)**
	                       224,880
		(2)

Question number	Answer	Mark
2(a)(iii)	**Award 1 mark for all entries, correct on debit side (ex Bal c/d). Award 1 mark for all entries, correct, on credit side.** **Award 1 mark for correct Balance c/d and placement on debit side.** **Production Overheads Control Account** Balance b/d 4,860 ⎫ W I P control 172,500 **(1)** Raw materials control 39,100 ⎪ Wages control 75,420 ⎬ 1 Financial ledger control 50,850 ⎭ Balance c/d **2,270** 1 172,500 172,500	(3)

Question number	Answer	Mark
2(a)(iv)	**Award 1 mark for entries on debit side (allow OF for Mats control). Award 1 mark for all entries on credit side (excluding FG control). Award 1 mark for of calculation of FG control on credit side.** **W I P Control Account** Balance b/d 40,550 ⎫ Finished good **822,645 1of** Materials control 482,350 **of** ⎬ 1 Wages control 149,460 ⎪ Prod ohs control 172,500 ⎭ Balance c/d 22,215 844,860 844,860 **1**	(3)

Question number	Answer	Mark
2(a)(v)	**Award 1 mark for all correct debit entries (allow OF for WIP control). Award 1 mark for all correct credit entries, (excl Prod cost of sales). Award 1 mark for correct Prod cost of sales, on credit side.** **Finished Goods Control Account** Balance b/d 58,850 **(1)** Prod cost of sales **833,260** **1** WIP control <u>822,645</u> **of** Balance c/d <u>48,235</u> <u>881,495</u> <u>881,495</u> **(1)**	(3)

Question number	Answer	Mark

2(a)(vi)	**Financial Ledger Control Account**
	
	Sales 946,250 **1** Balance b/d 180,810 ⎫
	                       Raw mats control 535,600 ⎬ **1**
	                       Wages control 224,880**of** ⎭
	                       Prod ohs control 50,850
	Balance c/d (W1) <u>158,880</u> **1** Profit c/d (W2) <u>112,990</u> **1**
	          <u>1,105,130</u> **of** <u>1,105,130</u>
	
	W1 Balance =
	$90,700 + W I P 22,215 + FG 48,235 – Prod o/h 2,270 = **$158,880 of**
	
	W2
	Sales 946,250 less Production cost of sales 833,260 = Profit **$112,990of**
		(4)

Question number	Answer	Mark
2(b)	Integrated accounts are a set of accounting records that provide **both** financial and cost accounts **(1)** using a **common input of data (1)**	(2)

Question number	Answer	Mark
2(b)	Non-integrated accounts are a system where the cost accounts are distinct from the financial accounts **(1).** The two sets of accounts are kept in agreement by the use of controls accounts **(1)**	(2)

Total for question 2 = 22 marks

Question number	Answer	Mark
3(a)	Workings: 3,000 units of Exe x 4 hours = 12,000; 2,500 units of Whye x 5 hours = 12,500; and 2,000 units of Zed x 3 hours = 6,000. This equals **30,500 (1)** direct labour hours Overheads = $341 400 / 30 500 = **$11.19 per labour hour** **1of** Workings: Exe = 4 labour hours x $11.19 = $44.76; Whye = 5 x $11.19 = $55.95; Zed = 3 x $11.19 = $33.57	

Prod overhead cost per unit	Exe	Whye	Zed	
Direct materials	60.00	48.00	36.00	**1**
Direct labour	56.00	70.00	42.00	**1**
Overheads	44.76	55.95	33.57	**1of**
TOTAL	**160.76**	**173.95**	**111.57**	**1**of

(6)

Question number	Answer	Mark
3b		

Inspection/Set up $99 600 / 600 **(1)** = **$166 per production run (1)**
Exe = $166 x 150 = $ 24 900 / 3 000 units = **$8.30 per unit**
Whye = $166 x 200 = $33 200 / 2 500 units = **$13.28 per unit**
Zed = $166 x 250 = $41 500 / 2 000 units = **$20.75 per unit**

Machining $93 100 / 24 500**(1)** = **$3.80 per machine hour   (1)**
Machine hours = 2.5 x 3 000 + 4 x 2 500 + 3.5 x 2 000 = **24,500**
Exe = 2.5 m/c hrs x $3.80 = **$9.50**   Whye = 4 m/c hrs = **$15.20**
Zed = 3.5 m/c hrs = **$13.30**

Packaging $49 500 / 550**(1)** = **$90 per order   (1)**
Exe = $90 x 150 = $13 500 / 3 000 units = **$4.50 per unit**
Whye = $90 x 175 = $15 750 / 2 500 units = **$6.30 per unit**
Zed = $90 x 225 = $20 500 / 2 000 units = **$10.12 per unit**

Material handling $99 200 / 31 000**(1)** = **$3.20 per kg used   (1)**

Material quantity: (3,000 x 5kg) 15,000 + (2,500 x 4kg) 10,000 + (2,000 x 3kg) 6,000 = **31,000**
Exe = 5 kg x $3.20 = **$16.00**   Whye = 4 kg x $3.20 = **$12.80**
Zed = 3 kg x $3.20 = **$9.60**

Prod overhead cost per unit	**Exe**	**Whye**	**Zed**	
Inspection / set- up costs	8.30	13.28	20.75	**1**
Machinery costs	9.50	15.20	13.30	**1**
Packaging	4.50	6.30	10.12	**1**
Material handling	16.00	12.80	9.60	**1**
Overheads (sub total)	**38.30 of**	**47.58 of**	**53.77 of**	
	Exe	**Whye**	**Zed**	
Direct Materials	60.00	48.00	36.00	
Direct Labour	56.00	70.00	42.00	
Overheads	38.30	47.58	53.77	
TOTAL	**154.30 of**	**165.58**	**1of 131.**	
1of				

(14)

Question number	Answer	Mark
3(c)	**Award up to 4 marks for analysis points. Award up to 2 marks for conclusion. Answers may include:**	
	Not all costs are able to be related to e.g. labour activity **(1)** so the use of absorption costing may not be appropriate (1).	
	With ABC costs are allocated on a discreet usage basis**.** Products that use more of an activity are charged a higher proportion of the overall cost **(1)** e.g. product Zed has the highest number of orders and should therefore be allocated the greatest proportion of packaging costs. **(1)**	
	Products made in smaller batches (i.e. Zed) 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, products Exe and Whye are subsidising product Zed **(1)**. The overheads for Exe, Whye, and Zed are $44.76, $55.95, and $33.57. Using the ABC the overhead costs are $38.30, $47.58, and $53.78. It can be seen that product Zed has now been charged with a more appropriate cost. **(1)**	
	Conclusion Activity- based costing builds up a more realistic allocation of costs **(1)** an advantage of which could be, e.g., that a more accurate selling price can be calculated for specific products **(1)**	
		(6)

Total for question 3 = 26 marks

Question number	Answer	Mark
4(a)	**Award 1 mark for each correct overhead absorption rate.** Cost centre overhead absorption rates 		Assembly	Finishing	Testing
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Total overheads	255,000	292,500	200,000
Machine hours	15 000	15 000	
Direct labour hours			10 000
	$17.00 1	**$19.50 1**	**$ 20.00 1**
	Per m/c hr	per m/c hour	per direct labour hour		**3**

Question number	Answer	Mark
4(b)	**Award 1 mark for each correct overhead absorbed. Award 1 mark for each overhead incurred including correct identification.** Calculation of over/under absorption: 		Assembly	Finishing	Testing
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Actual machine / labour hour	14 855	14 950	10 100
Overhead absorption rate - $	17.00	19.50	20.00
Overheads absorbed - $	252 535 **1of**	291 525 **1of**	202 000 **1of**
Overheads incurred - $	228 500	281 400	204 500
Over/under absorption - $	**24 035 1of** over absorbed	**10 125 1of** over absorbed	**2 500 1of** under absorbed		**(6)**

Question number	Answer	Mark
4(c)(i)	Allocation is the charging of a whole item of cost to a cost centre (1)	**(1)**

Question number	Answer	Mark
4(c)(ii)	Apportionment is the sharing of overheads between two or more cost centres (1)	**(1)**

Question number	Answer	Mark
4(c)(iii)	Absorption is a method of charging overheads to a product or service (1)	**(1)**

Question number	Answer	Mark
4(c)(iv)	Under absorption is when insufficient overheads are charged to a product or service (1)	**(1)**

Total for question 4 = 13 marks

Question number	Answer	Mark
5(a)(i)	Net present value is the conversion of future cash flows into present-day values **(1)** which shows the discounted value of the investment/project **(1)**	**(4)**

Question number	Answer	Mark
5(a)(ii)	Internal rate of return estimates the interest rate/cost of capital (1) at which the discounted cash flow is zero (1)	**(4)**

Question number	Answer	Mark

5(b)(i)	**Net present value – 10%**
	
	Machine A
	
	Year Cash flow Factor Present value
	         $000 $000
	0 (560) 1.000 (560.00) **1**
	1 120 0.909 109.08
	2 260 0.826 214.76
	3 200 0.751 150.20 **1**
	4 **220** * 0.683 150.26 **1**
	                           64.30
	
	(130 + 60 + 30) **NPV** = **\$64,300** **1**
		(4)

Question number	Answer	Mark
5(b)(ii)	**Internal rate of return – 15%** **Machine A** Year Cash flow Factor Present value £000 £000 0 (560) 1.000 (560.00) 1 120 0.870 104.40 2 260 0.756 196.56 3 200 0.658 131.60 4 220 0.572 <u>125.84</u> **1of** <u>(1.60)</u> **1of** **IRR for Machine A** = 10% + {5% × [64.30 ÷ (64.30 + 1.60)]} **1** = **14.88%** **1** **Award 1 mark for each part calculation of the IRR.**	**(4)**

Question Number	Answer	Mark
5(b)iii	**Discounted payback period** **Machine A** Year Cash flows Cumulative cash flows £000 £000 0 (560.00) (560.00) 1 109.08 (450.92) 2 214.76 (236.16) 3 150.20 (85.96) **1** 4 150.26 = **3** years (**1**) + (85.96 / 150.26) = **3.57 years** (**1**) **Accept:** = **3** years (**1**) + (130 x 0.683) = **3.96 years**	**(3)**

Question Number	Answer	Mark
5(c)	**Award up to 4 marks for analysis. Award 2 marks for evaluation.** **Answers may include:** **Case for Machine A** Machine A has a lower capital cost **(1)** higher IRR **(1)** and a shorter payback period **(1)**. **Case for Machine B** Machine B has a higher net present value **(1)**. We need more information on B to be able to make a valid judgement **(1)**. **Conclusion** Figures for costs and revenues are only estimates **(1)** Machine A or B could be selected **(1)** – if conclusion follows from argument above.	
		(6)

Total for question 5 = 21 marks

TOTAL FOR PAPER = 100 MARKS