

Mark Scheme (Results)

Series 3 2014

Pearson LCCI Level 3
COST ACCOUNTING (ASE3017)

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June 2014

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**LCCI IQ SERIES 3 EXAMINATION 2014
COST ACCOUNTING
LEVEL 3
MARKING SCHEME**

**DISTINCTION MARK 75%
MERIT MARK 60%
PASS MARK 50%**

TOTAL 100 MARKS

Question 1

Syllabus Topic 1: Materials and stock control (1.3), (1.7), (1.8)

(a) Stock Record Card: Material RM1

Reorder level 300kg of free stock

Reorder quantity 250kg

Date	Receipts (kg)	Issues (kg)	Stock in hand (kg)	Allocated stock (kg)	Stock on order (kg)	Free stock (kg)
Month 6						
1st			200	50	250	400*
2nd			200	70*	250	380*
3rd		50	150	20*	250	380
4th		80	70	20	250	300*
4th			70	20	500*	550*
8th	250		320	20	250*	550
10th			320	100*	250	470*
15th		100	220	100	350*	470
20th	20		240	100	350	490*
27th	100		340	100*	250*	490
			(1)	(2)	(2)	(3)

* Of can be awarded at particular dates if the balance differences are correct
(8 marks)

(b) Raw material RM2

(i) Reorder level

$$= \text{maximum usage} \times \text{maximum lead time}$$

$$= 50 \times 10 = \mathbf{500\text{kg}}$$

(1)

(ii) Minimum stock control level

$$= \text{Reorder level} - (\text{average use} \times \text{average lead time})$$

$$= 500 - (45 \times 7) = \mathbf{185\text{kg}}$$

(2of)

(iii) Maximum stock control level

$$= \text{Reorder level} - (\text{minimum use} \times \text{minimum lead time}) + \text{reorder quantity}$$

$$= 500 - (40 \times 4) + 1,500 = \mathbf{1,840\text{kg}}$$

(3of)

(iv) Annual stock holding costs

$$= 12\% \times \text{average stock} \times \text{cost of material per kg}$$

$$= 12\% \times 935 \times \text{£}10$$

$$= \mathbf{\text{£}1,122}$$

1 of (as long as 12% and £10 used)

(2of)

workings:

$$\text{Average stock} = \text{order quantity} / 2 + \text{minimum stock control level}$$

$$= 1,500/2 + 185 = 935\text{kgs}$$

(8 marks)

Question 1 continued

- (c) (i) Reorder level
The stock level at which the business reorders more stock. **(1)**
- (ii) Allocated stock
Stock that has been scheduled for use.

Stock can be allocated (0) **(1)**
- (iii) Free stock
Stock that is available for reservation or allocation (1), (or immediate issue from stock, without prior reservation (1), provided there is physical stock in stores).

Award 1 mark if formula is stated. **(2)**
- (4 marks)**

(Total 20 marks)

Question 2

Syllabus Topic 2: Costing methods and systems (2.3), (2.6)

(a) Process Account for May (Net sales value basis)

	Kg	£'s	Product	Kg	£'s	
Direct material P	600	6,000	A	400	7,600	(1/2 of)
Direct material Q	400	2,400	B	270	6,480	(1/2 of)
Direct labour		4,000	C	200	3,920	(1/2 of)
Overheads		6,000	D	50	800	(1)
Waste disposals		<u>400</u>	Normal loss	<u>80</u>		(1)
	<u>1,000</u>	<u>18,800</u>		<u>1,000</u>	<u>18,800</u>	

Workings:

Waste disposals: $(1,000 - 920) \times £5 = £400$

Labour /overhead cost for Product A = $400/8 \times (£8+£12) = £1,000$ (1)

Container cost for Product C = $200/4 \times £6 = £300$ (1/2)

Labour/overhead cost for Product C = $[(200/4) / 10] \times (£8+£12) = £100$ (1)

Net sales for Product A = $(400 \times £50) - £1,000 = £19,000$ (1 of)

Net sales for Product B = $270 \times £60 = £16,200$

Net sales for Product C = $(200 \times £51) - (£300 + £100) = £9,800$ (1 of)

Total net sales = $19,000+16,200+9,800 = £45,000$

Apportionment:

Use of : $(18,800-800) \frac{1}{2}$

Product A = $(18,800 - 800) \times 19,000/45,000 = £7,600$ (1 of)

Product B = $(18,800 - 800) \times 16,200/45,000 = £6,480$ (1 of)

Product C = $(18,800 - 800) \times 9,800/45,000 = £3,920$ (1 of)

(13 marks)

(b) Only answers presented as individual profits can be awarded marks.

Profit statement for month of May (£'s)

	Product A	Product B	Product C	
Sales	20,000	16,200	10,200	(1)
Less costs				
Apportioned costs	7,600	6,480	3,920	(1 of)
Labour/overheads	1,000		100	
Container costs			<u>300</u>	
Profit	<u>8,600</u>	<u>6,480</u>	<u>4,320</u>	(1 of)
	<u>11,400</u>	<u>9,720</u>	<u>5,880</u>	(1 of)

(4 marks)

(c)

Normal loss: A loss that is expected in production under normal operating conditions (1)

Abnormal loss: A loss that exceeds the normal loss (1)

Abnormal gain: A gain over the expected finished goods output or lower than expected loss (1)

(3 marks)

(Total 20 marks)

Question 3

Syllabus Topic 3: Cost – volume – profit analysis (3.1), (3.2), (3.3), (3.4), (3.7)

(a)	A £000	B £000	C £000	Total £000
Sales	200	160	120	480
Direct material	60	56	30	
Direct labour	<u>40</u>	<u>48</u>	<u>30</u>	
Variable cost	<u>100</u>	<u>104</u>	<u>60</u>	<u>264</u>
Contribution	100	56	60	216
Contribution sales ratio	50% (½)	35% (½)	50% (½)	45% (2½)

(4 marks)

- (b) (i) Break-even revenue
 = Fixed cost / overall contribution to sales ratio
 = £112,500/0.45

$$\frac{1}{1}$$
 = **£250,000** (1of)
- (ii) Margin of safety
 = (Budgeted sales revenue – break-even revenue) / Budgeted sales revenue
 = [(£480,000 – £250,000)/£480,000] x 100%

$$\frac{1}{1}$$
 = **47.9%** (1of)
- (iii) Budgeted profit
 = Total contribution – Fixed cost
 = £216,000 – £112,500

$$\frac{1}{1}$$
 = **£103,500** (1of)

(6 marks)

- (c) Break-even revenue
 Revised fixed cost / revised contribution sales ratio
 = (£112,500 + £15,100) / 0.464
 = **£275,000** (1of)
- Workings:
 Increase in total sales revenue (50% increase in C – 25% decrease in B)
 = (£120,000 x 0.5) – (£160,000 x 0.25) = £60,000 – £40,000 = £20,000
 Revised total sales = £480,000 + £20,000 = £500,000 (1of)
 Increase in total variable cost
 = (£60,000 x 0.5) – (£104,000 x 0.25) = £30,000 – £26,000 = £4,000 (1of)
 Revised variable cost = £264,000 + £4,000 = £268,000
 Revised contribution = £500,000 – £268,000 = £232,000 (1of)
 Revised contribution sales ratio £232,000 / £500,000 = 46.4% (1of)

(5 marks)

- (d) Budgeted profit (with additional advertising)
 = Revised contribution – Revised fixed cost
 = £232,000 – £127,600 = £104,400 (1)
 Advise the company to increase the advertising on Product C as the overall effect will be to increase profits (by £900) (1of)

(2 marks)

- (e) Limitations of break-even analysis
 Any three of the following:
- It assumes unit selling price remains constant regardless of how many products are sold.
 - It assumes total fixed costs remain constant.
 - It assumes variable costs per unit remain constant.
 - It assumes costs can be split into their fixed and variable elements.
 - It assumes stock levels remain the same. Items are not produced for stock but sold immediately.

(3 marks)

(Total 20 marks)

Question 4

Syllabus Topic 4: Budgetary planning and control (4.10)

Syllabus Topic 5: Standard costing and variance (5.4), (5.8), (5.17)

(a) (i) Operational Overheads (for all five vehicles)

	£	
Road fund licence (£1,000 x 5)	5,000	
Insurance (£2,000 x 5)	10,000	
Servicing	15,000	(1)
Tyres (£200 x 6 x 5)	6,000	
Depreciation	<u>64,000</u>	(1)
	<u>100,000</u>	

Predetermined absorption rate = £100,000 / (5 x 50,000)
= **£0.40 per km** (1)

Workings:

Servicing £600 x (50,000/10,000) x 5 = 15,000
Depreciation [£85,200 – (20,000 + 1,200)] x 5 x 0.20 = £64,000

(ii) Office Overheads

	£	
Rent	16,000	
Insurance	12,000	
Administration	<u>20,000</u>	
	<u>48,000</u>	

Predetermined absorption rate = £48,000 / 240 (1)
= £200 per contract (1)

or £10 per contracted job (1)

(5 marks)

(b) (i) Budgeted Cost Statement for Year 14

	£	
Agency driver wages (1,920 x £12 x 5)	115,200	(½)
Fuel (50,000/5 x £1.40 x 5)	70,000	(½)
Operational overheads	100,000	(½)
Office overheads	<u>48,000</u>	(½)
	<u>333,200</u>	

(ii) Budgeted Cost Statement for Month 5, Year 14

	£	
Agency driver wages (800 x £12)	9,600	(½)
Fuel (20,000/5 x £1.40)	5,600	(½)
Operational overheads (20,000 x £0.4)	8,000	(1)
Office overheads (£200 x 20)	<u>4,000</u>	(1)
	<u>27,200</u>	

(5 marks)

(c) (i) Material (fuel) price variance

		£	
Standard price @ actual usage (€1.4 x 4,100)		5,740	
Actual price		<u>5,330</u>	
		<u>410</u>	F (1½)

Award 1 mark for figure, ½ mark for description

(ii) Material (fuel) usage variance

		£	
Standard usage @ standard price [(20,500/5) x €1.4]		5,740	
Actual usage @ standard price (4,100 x €1.4)		<u>5,740</u>	
		<u>0</u>	(1½)

Award 1 mark for figure, ½ mark for description

(3 marks)

Question 4 continued

(iii)	Labour (driver) rate variance		£	
	Actual hours @ standard rate	(775 x £12)	9,300	
	Actual cost		<u>9,400</u>	
			<u>100</u>	A (1½)

Award 1 mark for figure, ½ mark for description

(iv)	Labour (driver) efficiency			
	Standard hours @ standard rate	(787.2 x £12)	9,446.4	
	Actual hours @ standard rate	(775 x £12)	<u>9,300</u>	
			<u>146.4</u>	F

Workings:

Actual hours = $1920 \times 20,500 / 50,000 = 787.2$ (1½)

Award 1 mark for figure, ½ mark for description

(3 marks)

(d) Award 1 mark for each reason related to a transport company.

Reasons for variance:

Material price variance	Price of fuel per litre lower than budget	(1)
Material usage	Fuel consumption same as budget	(1)
Labour rate	Unexpected increase in agency wages	(1)
Labour efficiency	Drivers completed the contracts in a quicker time than budget	(1)

(4 marks)

(Total 20 marks)

Question 5

Syllabus Topic 6: Accounting systems (6.1), (6.6)

- (a) Non-integrated accounting system
 A system that keeps both a financial and a cost account (1). The accounts being kept in agreement by use of control accounts or reconciled by other means (1). (2 marks)

(b) **Reconciliation statement:**

		80,630
Profit as per cost accounting		
Add differences in stock valuation		
Opening raw materials	1,550	
Closing work-in-progress	960	
Less differences in stock valuation		
Opening work-in-progress	1,120	
Opening finished goods	860	
Closing raw material	330	
Closing finished goods	570	
Add		
Difference in depreciation	1,000	
Dividends received	2,900	
Discount received	1,100	
Notional rent charge	6,000	
Administration overhead over-absorbed	420	
Less		
Discount allowed	1,200	
Production overhead under-absorbed	480	
	<u>13,930</u>	<u>4,560</u>
Profit as per financial accounts		<u>9,370</u> <u>90,000</u> of

(14 marks)

- (c) Notional rent:
 A notional cost or charge represents the charge of using a resource (1) which has no actual cost (1). (2 marks)

- (d) Depreciation:
 Different methods to calculate the depreciation could have been used (1). For example, cost accounting could have used reducing balance whereas financial accounting could have used the straight line method (1). (2 marks)

(Total 20 marks)

