Cost Accounting Level 3

Model Answers

Series 4 2013 (ASE3017)

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Level 3 Cost Accounting
Series 4 2013

How to use this booklet

Model Answers have been developed to offer additional information and guidance to Centres, teachers and candidates as they prepare for LCCI International Qualifications.

(1) Model Answers – summary of the main points that the Chief Examiner expected to see in the answers to each question in the examination paper, plus a fully worked example or sample answer (where applicable)

Teachers and candidates should find this booklet an invaluable teaching tool and an aid to success.

Pearson provides Model Answers to help candidates gain a general understanding of the standard required. The general standard of model answers is one that would achieve a Distinction grade. Pearson accepts that candidates may offer other answers that could be equally valid.

LCCI IQ SERIES 4 EXAMINATION 2013
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 (1.1)

(a) (i) **Batches manufactured**

Customer's requirement	3,600 units	
Production required allowing for 10% inspection rejects (3,600/0.90) =	4,000 units	(1)
Batches required (4,000/80)	**50 batches**	(1)

(2 marks)

(ii) **Weight of material introduced into process**

Finished weight of complete unit	10kg	
Weight of material A in finished unit (10 x 3/5)	6kg	(1/2)
Weight of material B in finished unit (10 x 1/5)	2kg	(1/2)
Weight of material C in finished unit (10 x 1/5)	2kg	(1/2)
Weight of material A before cleaning process (6/0.75)	8.0kg	(1)
Weight of material B before cleaning process (2/0.80)	2.5kg	(1)
Weight of material C before to cleaning process (2/0.80)	2.5kg	(1)

Total weight of material A introduced into process (4,000 x 8.0)	**32,000kg**	(1/2)
Total weight of material B introduced into process (4,000 x 2.5)	**10,000kg**	(1/2)
Total weight of material C introduced into process (4,000 x 2.5)	**10,000kg**	(1/2)

(6 marks)

(iii) **Weight of material purchased from supplier**

	Material A	**Material B**	**Material C**
Opening stock	5,000kg	1,000kg	1,200kg
Closing stock (80% of opening stock)	4,000kg	800kg	960kg
Reduction in stock level	1,000kg	200kg	240kg

Material A purchased from supplier (32,000 – 1,000)	**31,000kg**	(1)
Material B purchased from supplier (10,000 – 200)	**9,800kg**	(1)
Material C purchased from supplier (10,000 – 240)	**9,760kg**	(1)

(3 marks)

(iv) **Income received from rejects**

Number of units rejected	(4,000 – 3,600)	400 units	(1/2)
Income received	(400 x £20)	**£8,000**	(1/2)

(1 mark)

(v) **Cost of disposing of waste**

Material A waste (8.00 – 6.00) x 4,000	8,000kg		(1/2)
Material B waste (2.50 – 2.00) x 4,000	2,000kg		(1/2)
Material C waste (2.50 – 2.00) x 4,000	2,000kg		(1/2)
Total material waste	12,000kg		
Cost of waste disposals (12,000 x £2)		**£24,000**	(1/2)

(2 marks)

Question 1 continued

(b) **Manufacturing profit**

		£	£	
Sales (3,600 x £100)			360,000	(1/2)
Add income from rejects			8,000	(1)
			368,000	
Manufacturing cost of sales				
Material A	(32,000 x £4)	128,000		(1/2)
Material B	(10,000 x £3)	30,000		(1/2)
Material C	(10,000 x £2)	20,000		(1/2)
Labour	(50 x £400)	20,000		(1)
Cost of waste disposals		24,000		(1)
Fixed overheads		40,000		
			262,000	
Manufacturing profit			**£106,000**	(1)

(6 marks)

(Total 20 marks)

Question 2
Syllabus Topic 4: Budgetary planning and control (4.6, 4.8 and 4.9)

(a) Cost centre M15 budgeted statement for the production of 3,200 units

Overhead costs	Flexed budget £'s		Actual costs £'s	Expenditure variance £'s	
Indirect material	15,680	**(2)**	16,680	1,000A	**(1of)**
Indirect labour	9,600	**(2)**	9,100	500F	**(1of)**
Maintenance	9,500	**(3)**	9,800	300A	**(1of)**
Depreciation	3,440	**(1)**	3,540	100A	**(1of)**
Supervision	5,000	**(1)**	4,800	200F	**(1of)**
	43,220		43,920	700A	

(14 marks)

Workings

Indirect material
Actual output in excess of 3,000 units therefore 2% cost reduction will have been received
Cost per unit = £17,150 / 3,500 units = £4.90 per unit.
Flexed budget cost for 3,200 units = 3,200 x £4.90 = £15,680

Indirect labour
Actual output less than 3,500 units therefore no increase in cost incurred
Cost per unit = £9,000 / 3,000 units = £3.00 per unit.
Flexed budget cost for 3,200 units = 3,200 x £3.00 = £9,600

Maintenance

Total overhead	=	Fixed o/h + (unit variable o/h x units)
(Using output units of 3,500 and 4,000)		
11,500	=	Fixed o/h +unit variable o/h x 4,000
10,250	=	Fixed o/h +unit variable o/h x 3,500
1,250	=	unit variable o/h x 500
Variable o/h	=	1,250 / 500 = £2.50 per unit.
Fixed cost	=	£11,500 – 4,000 x £ 2.50 = £1,500
Flexed budget cost for 3,200 units =		£1,500 + 3,200 x £2.50 = £9,500

(b) A fixed budget is normally set prior to the start of an accounting period and is used for planning purposes. It is based on one level of activity. **(2)**

A flexible budget, used for control purposes, changes in response to changes in activity by recognising different cost behaviour patterns. **(2)**

(4 marks)

(c) The main objective of preparing flexible budgets is to enable costs to be predicted for the actual level of activity which occurs.
This allows the meaningful comparison of actual costs with budgets using variance analysis.

(2 marks)

(Total 20 marks)

Question 3

Syllabus Topic 3: Cost volume profit analysis 3.1, 3.2 and 3.4

(a) **Standard cost per unit product**

	Product Tee £	Product Pee £	
Material	10.40	32.00	**(1)**
Labour	9.60	18.00	**(1)**
Overheads	10.00	12.00	
Total production cost	30.00	62.00	**(1of)**

(3 marks)

(b) **Contribution/sales ratio**

	Product Tee £	£	Product Pee £	£	
Selling price		40.00		80.00	
Material	10.40		32.00		
Labour	9.60		18.00		
Variable cost		20.00		50.00	
Contribution		20.00		30.00	
Contribution/sales ratio per unit	**50%**	**(1/2of)**	**37.50%**		**(1/2 of)**

Overall contribution/sales ratio

Total sales (6,000 x £40) + (2,000 x £80) = £400,000

Total contribution (6,000 x £20) + (2,000 x £30) = £180,000

Contribution/sales ratio = 180,000/400,000 = **45%** **(2of)**

(3 marks)

(c) **Break-even revenue**

Total fixed costs / overall contribution/sales ratio

£112,500/0.45 = **£250,000** **(1of)**

Workings

Fixed costs	£	
Production overheads (£10 x 6,000) + (£12 x 2,000)	= 84,000	
Administration overheads	28,500	
Total fixed cost	112,500	**(2)**

(3 marks)

(d) **Profit for year**

	£	
Income from sales	400,000	
Variable cost	(220,000)	
Contribution	180,000	
Fixed costs	(112,500)	
Profit	**67,500**	**(2of)**

(2 marks)

(e) (i) **Revised contribution/sales ratio**

= £(180,000/408,000) x 100% = 44.12% (to two decimal places) **(1of)**

(1 mark)

(ii) **Revised break-even revenue**

117,000/(180,000 / 408,000) = **£265,200** **(1)**

Workings

	£	
Sales for Tee (decrease by 10%) = 240,000 x 90%	= 216,000	
Sales for Pee (increase by 20%) = 160,000 x 120%	= 192,000	
Total sales	408,000	**(1½)**
Contribution for Tee £20 x (6,000 x 0.9)	= 108,000	
Contribution for Pee £30 x (2,000 x 1.2)	= 72,000	
Total contribution	180,000	**(1½)**

Fixed costs = £112,500 + £4,500 = £117,000 **(1)**

(5 marks)

Question 3 continued

(f) Advise

Revised profit = contribution – fixed costs = £180,000 - £117,000 = **£63,000** **(2of)**

Budgeted profit without additional advertising = £67,500

Advise Dual Products not to increase their advertising costs as this will result in a profit which is £4,500 lower than their original budgeted profit. **(1of)**

(3 marks)

(Total 20 marks)

Question 4

Syllabus Topic 5: Standard costing and variances (5.8, 5.9, 5.11, 5.12 and 5.18)

(a) (i) **Production efficiency ratio**

= Standard direct labour hours of actual production x 100%
Actual direct labour hours worked

= 1,680 x 4 x 100% = **93.33%** **(2)**
7,200

(ii) **Production capacity ratio**

= Actual direct labour hours worked
Budgeted direct labour hours

= 7,200 x 100% = **112.5%** **(2)**
1,600 x 4

(iii) **Production volume (activity) ratio**

= Standard direct labour hours of actual production x 100%
Budgeted direct labour hours

= 1,680 x 4 x 100% = **105%** **(2)**
1,600 x 4

(6 marks)

(b) (i) Direct labour rate variance

Actual hours	7,200		
Standard rate per hour	£12		
	£86,400		
Actual cost of labour	£84,400		
Labour rate variance		**£2,000F**	**(1½)**

(ii) Idle time variance

Idle time hours	800		
Standard rate per hour	£12		
Idle time variance		**£9,600A**	**(1½)**

(iii) Direct labour efficiency variance

Production output		1,680		
Standard hours per unit		4		
		6,720		**(1)**
Actual hours	7,200			
Idle time hours	(800)			
Actual productive hours		6,400		**(1)**
Standard – actual productive hours		320		**(1)**
Standard rate per hour		£ 12		
Labour efficiency variance			**£3,840F**	**(1)**

(7 marks)

(c) **Fixed production overhead variance**

(i) Expenditure

Budgeted			£51,200	
Actual			£48,800	
				£2,400F **(1)**

(ii) Volume

Standard hours for budgeted output	(1,600 x 4)	6,400		
Standard hours for actual output	(1,680 x 4)	6,720		
		320		
Fixed overhead absorption rate	(£51,200/6,400)	£8		
Volume variance	(320 x £8)		**£2,560F**	**(2)**

Question 4 continued

(iii)	Volume capacity				
	Standard hours for budgeted output		6,400		
	Actual hours for actual output		7,200		
			800		
	Fixed overhead absorption rate		£8		
	Volume capacity variance	(800 x £8)		**£6,400F**	**(2)**
(iv)	Volume efficiency				
	Standard hours for actual output		6,720		
	Actual hours for actual output		7,200		
			480		
	Fixed overhead absorption rate		£8		
	Volume efficiency variance	(480 x £8)		**£3,840A**	**(2)**

(7 marks)

(Total 20 marks)

Question 5

Syllabus Topic 6: Accounting systems 6.4

(a) (i)

Raw Material Stock Account

	£			£	
Opening balance (30,000-800)	29,200	(1½)	Work-in-progress	83,800	(1of)
Purchases	80,000	(1)	Closing balance (25,000+400)	25,400	(1½)
	109,200			109,200	

(5 marks)

(ii)

Production Overhead Account

	£			£	
Opening balance	700	(1)	Work-in-progress	105,900	(1½of)
Overhead expenditure	105,000	(1)	Closing balance (700+2,500)	3,200	(1)
Notional rent	3,400	(1½)			
	109,100			109,100	

(6 marks)

(iii)

Work-in-Progress Account

	£			£	
Raw material	83,800	(1of)	Finished goods	252,200	(1of)
Direct wages	62,500	(1)			
Production overhead	105,900	(1)			
	252,200			252,200	

(4 marks)

(iv)

Finished Goods Stock Account

	£			£	
Opening balance (70,000+2,000)	72,000	(1½)	Cost of goods sold	241,700	(1of)
Work-in-progress	252,200	(1of)	Closing balance (80,000+2,500)	82,500	(1½)
	324,200			324,200	

(5 marks)

(Total 20 marks)

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