Management Accounting Level 3

Model Answers

Series 2 2013 (ASE3024)

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Level 3 Management Accounting
Series 2 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. The contents of this booklet are divided into 3 elements:

(1)	Questions	– reproduced from the printed examination paper
(2)	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)
(3)	Helpful Hints	– where appropriate, additional guidance relating to individual questions or to examination technique

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.

EDUCATION DEVELOPMENT INTERNATIONAL PLC
LCCI IQ SERIES 2 EXAMINATION 2013
MANAGEMENT ACCOUNTING
LEVEL 3
MARKING SCHEME

DISTINCTION MARK 75%
CREDIT MARK 60%
PASS MARK 50%

TOTAL 100 MARKS

QUESTION 1
Syllabus Topic: Short term cost behaviour (1.2), (1.3), (1.4) & (1.5)

(a)	(i)		(ii)	
Production in units	**8,400**		**10,500**	
Costs				
Direct materials **[W1]**	33,600	**1**	42,000	**1**
Direct labour **[W2]**	25,200	**1**	31,500	**1**
Production overheads **[W3]**	30,975	**3**	35,175	**1**
Selling, distribution and admin costs **[W4]**	26,550	**2**	31,380	**1**
Total Costs	**116,325**		**140,055**	**1**
Cost per unit	**13.85**	**1**	**13.34**	**1**

(14 marks)

Workings

[W1] Materials 37,800/9450 = £4 per unit x 8,400 = £33,600

[W2] Labour 28,350/9450 = £3 per unit x 8,400 = £25,200

[W3] Production overheads

	Costs	**Units**	
High	35,175	10,500	
Low	33,075	9,450	
Diff	**2,100**	**1,050**	**Therefore, VC = £2 per unit**

Fixed Costs = £14,175 — 35,175 less 21,000 (10,500 units x £2)
33,075 less 18,900 (9,450 units x £2)

8,400 x £2 per unit = 16,800 plus FC 14,175 = **£30,975**

[W4] S & D TC £28,965 less FC £7,230 = VC 21,735/9,450 units = £2.30 VC per unit

8,400 units @ £2.30 per unit = £19,320 plus FC £7,230 = **£26,550**

10,500 units @ £2.30 per unit = £24,150 plus FC £7,230 = **£31,380**

(b) Differentiation between 'direct' and 'indirect' costs:

Direct costs are those that can be allocated to a cost unit i.e. **specifically identified with the cost of a product**, or a unit of output. **1**

Indirect costs (or overheads) **cannot be allocated to a cost unit, specifically identified to a product or a unit of output**, but are a general cost of running the business. **1**

QUESTION 1 CONTINUED

(c) A semi variable cost has an **element of both a fixed and variable cost**. A **utility bill, like heat and light**, might have a fixed charge for the equipment and a variable cost for the actual gas/electricity consumed **2**

A stepped fixed cost will **increase by a specific proportion (amount) at a certain level of output.**
An example could be that an **additional supervisor** needs to be employed once **production exceeds a certain level of output** **2**

(Total 20 marks)

QUESTION 2
Syllabus Topic: Short term decision making (3.3), (3.5), (3.6) and (2.4)

(a) **Order of priority - a maximum of 34,055 labour hours**

Product	**Aye**	**Bee**	**Cee**	
Selling price (£ per unit)	320	280	360	
Less Variable Costs (£ per unit)	223	179	260	
Contribution (per unit £)	97	101	100	**1½**
Divided by labour hours per unit	11	15	23	
= Contribution per labour hour £	**8.82**	**6.73**	**4.35**	**3**
Order of priority	**1**	**2**	**3**	**1**

Production schedule – labour hours

		Balance 34,055 hours	
Product Aye 500 units x 11 hours per unit	5,500		**½ of**
Product Bee 350 units x 15 hours per unit	5,250		**½ of**
Product Cee 350 units x 23 hours per unit	8,050		**½ of**
	18,800	**15,255**	
Product Aye 600 units x 11 hours per unit	6,600	8,655	**1½ of**
Product Bee 577 units x 15 hours per unit	8,655	nil	**1½ of**

Working: Balance available = 8,655 hours divided by 15 hours per unit = 577 units

(10 marks)

(b)

Contribution schedule – labour hours	**£**	
Product Aye 500 units x £97 per unit	48,500	**½ of**
Product Bee 350 units x £101 per unit	35,350	**½ of**
Product Cee 350 units x £100 per unit	35,000	**½ of**
Product Aye 600 units x £97 per unit	58,200	**½ of**
Product Bee 577 units x £101 per unit	58,277	**½ of**
Total Contribution	**235,327**	**½ of**
Less Fixed Overhead	95,000	
Profit	**140,327**	**1 of**
OR		
Product Aye 1,100 units x £97 per unit	106,700	**1 of**
Product Bee 927 units x £101 per unit	93,627	**1 of**
Product Cee 350 units x £100 per unit	35,000	**½ of**
Total Contribution	**235,327**	**½ of**
Less Fixed Overhead	95,000	
Profit	**140,327**	**1 of**

(4 marks)

(c)

Required Profit for the month	118,500	
Fixed Costs	195,000	
Total Contribution	313,500	**1**
Product Exe 3,200 x £30	(96,000)	**1**
Product Whye 4,400 x £27	(118,800)	**1**
Balance of contribution	**98,700**	**1**

Required contribution £98,700 / £21 = 4,700 units of Zed **2**

(6 marks)

(Total 20 marks)

QUESTION 3
Syllabus Topic: Long-term decision-making (7.3) and (7.7)

(a) (i) Payback period

	Machine Exe		Machine Whye	
Year	**Cash flows**	**Cumulative cash flows**	**Cash flows**	**Cumulative cash flows**
	£000	**£000**	**£000**	**£000**
0	(310)	(310)	(275)	(275)
1	80	(230)	70	(205)
2	80	(150)	75	(130)
3	80	(70)	80	(50)
4	60	(10)	80	
5	60			

Payback period for Machine Exe = 4 years + (10/60) **= 4.167 years** **2**

Payback period for Machine Whye = 3 years + (50/80) = **3.625 years** **2**

Alternative answer: Machine Exe = **4 years 2 months**; Machine Whye = **3 years 7.5 months**

(4 marks)

(ii) Accounting rate of return

	Machine Exe	**Machine Whye**	
Average annual profit	420,000 - 310,000/6 = 18,333	465,000 – 275,000/6 = 31,667	**2**
Average investment value	310,000/2 = 155,000	275,000/2 = 137,500	**2**
	18,333 / 155,000 x 100% = **11.8%**	31,667 / 137,500 x 100% = **23.1%**	**2**

(6 marks)

(iii) Net present value

	Machine Exe				Machine Whye			
Year	**Cash flow**	**Factor**	**Present value**		**Cash flow**	**Factor**	**Present value**	
	£000		**£000**		**£000**		**£000**	
0	(310)	1.000	(310)		(275)	1.000	(275)	
1	80	0.893	71.4	½	70	0.893	62.5	½
2	80	0.797	63.8	½	75	0.797	59.8	½
3	80	0.712	57.0	½	80	0.712	57.0	½
4	60	0.636	38.2	½	80	0.636	50.9	½
5	60	0.567	34.0	½	80	0.567	45.4	½
6	60	0.507	30.4	½	80	0.507	40.6	½
			(15.2)				41.2	

NPV of machine Exe = **(£15,200)** NPV of machine Whye = **£41,200**

(6 marks)

(b) Machine Exe has a negative NPV and should not be purchased, despite a positive ARR **2**

Machine Whye has a positive NPV and is therefore viable, and also has the shorter payback period and the higher ARR **2**

(4 marks)

(Total 20 marks)

QUESTION 4
Syllabus Topic: (5.4), (5.8) and (5.10)

(a) (i) Current ratio = Current Assets/Current Liabilities

= 177,000/54,000 = **3.28 : 1** **2**

Acid Test = CA (less stock)/Current liabilities

= 88,000/54,000 = **1.63 : 1** **2**

(4 marks)

(ii) The Current ratio shows the **number of times that the current liabilities are covered by the current assets**. It is the initial indicator of the **firms ability to repay its short term creditors**

The acid test (quick) ratio compares the **current assets (minus stock) to current liabilities**. **Stock is excluded** from the calculation as it is the **least liquid** (convertible to cash) of the current assets

(4 marks)

(b) (i) Stockholding period

= (75,000 + 89,000) 164,000/2 = 82,000/634,000 x 365 days = **47 days**

COGS = O/S + P – C/S = 75,000 + 648,000 – 89,000 = **634,000** **2**

(ii) Debtors collection

= (90,000 + 64,000) = 154,000/2 = 77,000/540,000 x 365 = **52 days**

Credit sales = 900,000 x 60% = **£540,000** **2**

(iii) Creditors repayment

= (68,000 + 54,000) = 122,000/2 = 61,000/648,000 x 365 = **34 days** **2**

(6 marks)

(c) Working capital management involves the management of stock, debtors, creditors and cash/bank with the aim of minimising the risk of insolvency. Efficient working capital management will ensure that a company has sufficient cash to meet its day-to-day operational needs.

(2 marks)

(d) The company could reduce the amount of cash/credit tied up in stocks **1**
Reducing purchases/closing stock to more appropriate levels **1**
Aim to reduce the time taken to collect money owed by debtors **1**
Increase the time taken to pay creditors (without risking losing suppliers) **1**
Reduce any other creditors – bank overdraft. Increase bank balance **1**
Actively pursue customers who are overdue with payments

Any other acceptable answer

(4 marks)

(Total 20 marks)

QUESTION 5
Syllabus Topic : (6.6), (6.7) & (6.12)

(a) Fixed overhead absorption rate =

Budgeted fixed overhead / Budgeted hours (1,400 x 4.5) = 88,200 / 6,300 = **£14.00 per hour** **1**

Total fixed overhead variance: 1,600 x 4.5 = 7,200 x 14 =
100,800 less Actual fixed overheads 92,500 = **8,300 Favourable** **2**
(3 marks)

(b) (i) Fixed overhead expenditure variance

Budget £88,200 less Actual £92,500 = **4,300 Adverse** **1**

(ii) Fixed overhead volume variance

Standard hours (1600 x 4.5) 7,200 less Budgeted hours
(1400 x 4.5) 6,300 = 900 x £14.00 = **12,600 Favourable** **2**

(iii) Fixed overhead capacity variance

Budgeted hours 6,300 less Actual hours 7,450
= 1,150 x £14 = **16,100 Favourable** **2**

(iv) Fixed overhead efficiency variance

Standard hours (1,600 x 4.50) 7,200 less the Actual hours
- 7,450 = 250 x £14 = **3,500 Adverse** **2**
(7 marks)

(c) (i) Production efficiency ratio (%)

$$\frac{\text{Standard direct labour hours of actual production}}{\text{Actual direct labour hours worked}} \times 100\%$$

= 187,650 hrs/192,384 hrs x 100% **= 97.54 %** **3**

(ii) Production capacity (usage) ratio (%)

$$\frac{\text{Actual direct labour hours worked}}{\text{Budgeted direct labour hours}} \times 100\%$$

= 192,384 hrs/182,250 hrs x 100% = **105.56 %** **3**

(iii) Production Volume **(**activity) ratio (%)

$$\frac{\text{Standard direct labour hours of actual production}}{\text{Budgeted direct labour hours}} \times 100\%$$

= 187,650 hrs/182,250 hrs x 100% = **102.96 %** **2**
(8 marks)

(d) Production volume ratio = Capacity usage ratio x Production efficiency ratio
102.96% = 105.56% x 97.54% **2**
(2 marks)

(Total 20 marks)

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