

# Pearson LCCI

## Certificate in Cost and Management Accounting (VRQ) Level 3

Tuesday 14 June 2016

**Time: 3 hours**

Paper Reference

**ASE20098**

**Complete the details below in block capitals.**

Candidate name

Centre Code

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Candidate Number

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Candidate ID Number

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**You do not need any other materials.**

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, candidate number, centre code and candidate ID number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*
- Answers should be given to an appropriate degree of accuracy.

### Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*
- Calculators may be used.

### Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- You are advised to show your workings.
- Check your answers if you have time at the end.

Turn over ►

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**Answer ALL questions. Write your answers in the spaces provided.**

**1** Diamonde Limited manufactures a single product.

It is expected that the production and sales for the month of October will be between 10 000 and 14 000 units.

The following cost budgets for October have been prepared at these two levels of activity:

<b>Units</b>	<b>10 000</b>	<b>14 000</b>
<b>Cost element</b>	<b>\$</b>	<b>\$</b>
Direct materials	468 000	651 690
Direct labour	324 000	463 320
Production overheads	436 500	488 700
Administration overheads	285 300	285 300

The following budgeted information is also provided:

- Each unit requires 3 kg of raw material.
- Any orders over 37 500 kg will receive a 5% discount on the quantity over 37 500 kg.
- The direct labour cost increases by 20% on any units of production over 12 500 units per month.
- Production overheads consist of a variable element plus a fixed monthly element. In addition, there is a stepped increase of \$27 000 in the fixed monthly element when production reaches 11 500 units.
- No inventory of finished goods or raw materials is held.

During the month of October, 13 200 units were manufactured and sold.

The following costs were incurred:

	<b>\$</b>
Direct materials	616 982
Direct labour	423 932
Production overheads	489 950
Administration overheads	284 100



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(b) Explain why Diamonde Limited prepares a flexible cost budget.

(2)

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(c) Explain what is meant by the term **principal budget factor** using an example that might apply to Diamonde Limited.

(4)

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(Total for Question 1 = 18 marks)



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- 2 Akpom Limited operates a system where the cost accounts are kept separate from the financial accounts.

The following balances were in the Cost Ledger at the beginning of Month 5:

	\$
Raw materials control	76 550
Work-in-progress control	40 550
Finished goods control	58 850
Production overhead control (under absorbed)	4 860
Financial ledger control	180 810

The following transactions took place during Month 5:

	\$
Purchases of raw materials	535 600
Indirect materials issued	39 100
Direct wages incurred	149 460
Indirect factory wages and salaries incurred	75 420
Other indirect manufacturing expenses	50 850
Production overheads absorbed	172 500
Sales	946 250

At the end of Month 5, the following balances remained:

	\$
Raw materials control	90 700
Work-in-progress control	22 215
Finished goods control	48 235

- (a) Prepare the following cost ledger accounts for Month 5 using the information provided, balancing off all accounts.

- (i) Raw Materials Control Account

(3)

Details	\$	Details	\$



(ii) Wages Control Account

(2)

Details	\$	Details	\$

(iii) Production Overhead Control Account

(3)

Details	\$	Details	\$

(iv) Work-in-Progress Control Account

(3)

Details	\$	Details	\$



(v) Finished Goods Control Account

(3)

Details	\$	Details	\$

(vi) Financial Ledger Control Account

(4)

Details	\$	Details	\$

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(b) Describe what is meant by:

(i) an integrated accounting system

(2)

(ii) a non-integrated accounting system.

(2)

**(Total for Question 2 = 22 marks)**



- 3 Hernandez Limited uses absorption costing, based on a labour hour rate, to establish the production costs for the three products it produces.

The budgeted details for the next period are as follows:

Product	Exe	Whye	Zed
Production (units)	3 000	2 500	2 000
Direct materials (\$)	180 000	120 000	72 000
Direct labour (\$)	168 000	175 000	84 000
Direct labour hours per unit	4	5	3
Direct materials per unit (kg)	5	4	3
Machine hours per unit	2.5	4.0	3.5
Number of production runs	150	200	250
Number of orders	150	175	225

Production overheads for the period are \$341 400 and are absorbed on a direct labour hour basis.

- (a) Calculate the production costs, using absorption costing, (to two decimal places) for **one unit** of **each** product.

(6)



The company is now considering using activity based costing (ABC) to calculate the production costs of each product.

The following information gives a breakdown of the overhead costs for the period:

Activities	Costs (\$)	Cost drivers
Set up / Inspection	99 600	Number of production runs
Machining	93 100	Number of machine hours
Packaging	49 500	Number of orders
Material handling	99 200	Quantity of material used

- (b) Calculate the production costs, using activity based costing, (to two decimal places) for **one unit** of **each** product.

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- (c) Evaluate which of the two methods of costing (absorption or activity based) would be the most appropriate for Hernandez Limited, with reference to your calculations from (a) and (b).

(6)

**(Total for Question 3 = 26 marks)**



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- 4 Dawson Maloney Limited manufactures products using three production cost centres: Assembly, Finishing and Testing.

The budgeted production overhead costs for Year 15, that have been allocated and apportioned to the three cost centres, were as follows:

Cost centres	<b>Assembly</b>	<b>Finishing</b>	<b>Testing</b>
	\$	\$	\$
	255 000	292 500	200 000

In Assembly and Finishing the costing system uses an overhead absorption rate based on machine hours.

In Testing the costing system uses an overhead absorption rate based on direct labour hours.

The machine hours and direct labour hours for Year 15 were budgeted as:

Cost centres	<b>Assembly</b>	<b>Finishing</b>	<b>Testing</b>
Machine hours	15 000	15 000	8 000
Direct labour hours	14 000	13 000	10 000

- (a) Calculate pre-determined overhead absorption rates for **each** of the three production cost centres for Year 15.

(3)

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The actual results for Year 15 were as follows:

Cost centres	Assembly	Finishing	Testing
Overheads incurred (\$)	228 500	281 400	204 500
Actual machine hours	14 855	14 950	8 400
Actual direct labour hours	13 520	12 750	10 100

- (b) Calculate the over/under absorbed overhead for **each** production cost centre in Year 15.

(6)

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(c) State what is meant by:

(i) allocation of production overheads

(1)

(ii) apportionment of production overheads

(1)

(iii) absorption of production overheads

(1)

(iv) under absorption of production overheads.

(1)

**(Total for Question 4 = 13 marks)**





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**QUESTION 5 BEGINS ON THE NEXT PAGE.**



5 Bosingwa is considering acquiring new machinery to expand its production capacity.

Two alternative machines have been identified, Machine A and Machine B.

The expected cash flows of Machine A are as follows:

	<b>Machine A</b>
	<b>\$000</b>
Purchase cost of machine	500
Working capital requirement at Year 0	60
Estimated annual net cash inflows:	
Year 1	120
Year 2	260
Year 3	200
Year 4	130
Estimated disposal value of machine	30

Additional information:

- The working capital required at Year 0 will be released at the end of Year 4.
- The machines are to be depreciated on a straight line basis.
- Both machines have a lifespan of four years.
- The company's cost of capital is 10% per annum.

The relevant discount factors are as follows:

	10%	15%
Year 1	0.909	0.870
Year 2	0.826	0.756
Year 3	0.751	0.658
Year 4	0.683	0.572

(a) Explain the meaning of the terms:

- (i) net present value

(2)

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(ii) internal rate of return.

(2)

(b) Calculate, for **Machine A**, the

(i) net present value

(4)

(ii) internal rate of return

(4)



(iii) discounted payback period, giving your answer in years to two decimal places.

(3)

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The following figures have been calculated for Machine B:

Net present value	\$86 010
Internal rate of return	14.08%
Discounted payback period	3.71 years

(c) Evaluate **each** of the two machines as an investment opportunity, and recommend which machine should be purchased.

(6)

(Total for Question 5 = 21 marks)

TOTAL FOR PAPER = 100 MARKS

