Pearson LCCI

Friday 8 March 2019

Time: 3 hours | Paper Reference **ASE 20098**

Certificate in Cost and Management Accounting (VRQ)

Level 3

Please check the examination details above before entering your candidate information

Candidate name

Centre Code

Candidate Number

Candidate ID Number

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen
  – *pencil can only be used for graphs, charts, diagrams, etc.*
- **Fill in the boxes** at the top of this page with your name, candidate number, centre code and your 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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Pearson

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

1 Hyperion Ltd manufactures a product called the XR27. The directors of Hyperion Ltd are preparing the budgets for the three months April to June 2019. The following information is available.

- Sales are expected to be:

	April	May	June	July
Units (XR27s)	31 200	28 125	26 725	33 080

- There will be 12 480 units of XR27s in the inventory at 1 April 2019.
- Closing inventory in any month should represent 40% of the next month's expected sales.
- 7.5% of XR27s produced are found to be defective and are scrapped as they have no value and cannot be reused.

(a) Prepare, for **each** of the months April to June, the Production Budget for XR27s showing the **total** number of units to be produced, allowing for the defective units. Your answer should be in columnar format.

(5)

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Product XR27 contains Material Alpha.

The following information is available for Material Alpha.

- There will be 41 000 kg of Material Alpha in the inventory at 1 April 2019.
- Material Alpha in the inventory is to be reduced to 35 000 kg by the end of June at a constant rate.
- One completed XR27 contains 1.35 kg of Material Alpha, costing $6.40 per kg.
- 10% of Material Alpha is wasted in production.

(b) Prepare, for **each** of the months April to June, the Materials Purchases Budget for Material Alpha. Your answer should be in columnar format and show the amount of Material Alpha that needs to be purchased each month in kg and $.

(7)

During the previous months, the production of XR27s had varied as had the cost of the electricity used. The following information was available.

	Lowest month	**Highest month**
XR27s produced (units)	27 620	36 180
Monthly electricity cost ($)	57 250	58 534

(c) Calculate the:

(i) variable cost of electricity per XR27

(2)

(2)

(ii) fixed cost of electricity per month

(iii) electricity cost if 39 400 units are produced.

(2)

(d) Give **two** possible benefits of effective inventory management and control.

(2)

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(e) Explain the importance of the principal budgeting factor when preparing budgets.

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(Total for Question 1 = 22 marks)

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2 Orcus Ltd has two production departments (Manufacturing and Packing) and two service departments (Stores and Administration).

Production overheads for February 2019 were:

	$
Machine depreciation	12 400
Rent	5 600
Heat, light and power	3 300
Stores salaries	4 700
Administration salaries	6 100
Other overheads	5 800

The following information is available.

	Manufacturing	**Packing**	**Stores**	**Administration**
Machine value ($000)	490	140	70	-
Floor area (square metres)	380	120	240	60
Other overheads ($)	1 780	2 150	885	985
Electricity usage (%)	50	30	15	5
Direct labour hours	800	2 400	-	-
Machine hours	1 200	500	-	-
Number of stores requisitions	225	75	-	-

The company policy is to reapportion service department overheads to the production departments, using the direct method, on the following bases:

- Administration – 40% manufacturing, 60% packing
- Stores – number of stores requisitions.

Overhead Distribution Table

Expense	**Total**	**Basis**	**Departments**			
			Manufacturing	**Packing**	**Stores**	**Administration**
	$		$	$	$	$
Machine depreciation						
Rent						
Heat, light and power						
Stores salaries						
Administration salaries						
Other overheads						
Total						
Reapportionment of overheads						
Administration overheads						
Stores overheads						
Revised total						

(a) Complete the Overhead Distribution Table for February 2019.

- Allocate and apportion overheads using the appropriate bases.
- Reapportion the Administration and Stores to the production departments using the bases provided.
- All figures should be rounded to the nearest dollar ($).

(10)

Space is provided below for workings.

The Manufacturing Department absorbs overheads on the basis of machine hours.

The Packing Department absorbs overheads on the basis of direct labour hours.

(b) Calculate the hourly overhead absorption rates for the following, giving your answer to two decimal places.

(i) Manufacturing Department

(1)

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(ii) Packing Department.

(1)

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The actual overheads and the number of machine hours and direct labour hours worked during February were as follows:

	Manufacturing Department	**Packing Department**
Overheads incurred ($)	25 600	12 300
Direct labour hours	760	2 260
Machine hours	1 120	500

(c) Calculate the over or under absorption of overheads for the month for the:

(i) Manufacturing Department

(2)

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(ii) Packing Department.

(2)

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(d) Explain **one reason** why Orcus Ltd would use a predetermined overhead absorption rate.

(2)

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(e) Evaluate the production overhead apportionment, allocation and absorption methods used by Orcus Ltd in February.

(6)

(Total for Question 2 = 24 marks)

3 Prometheus Ltd manufactures three products – Aye, Bee and Cee – using a process costing system. A by-product, Dee, is also produced by this process.

The inputs used in production in February 2019 were as follows:

Material Wye	9 000 kg at \$7.50 per kg
Material Zed	7 000 kg at \$5.75 per kg
Direct labour	1 250 hours at \$8.00 per hour

Overheads are absorbed at a rate of \$15.20 per labour hour.

The outputs from production in February 2019 were as follows:

	Quantity	**Selling price**
Product Aye	6 500 kg	\$40.00
Product Bee	3 200 kg	\$35.00
Product Cee	4 700 kg	\$20.00
Product Dee	1 000 kg	\$6.50

All waste material has no value but does need to be disposed of at a cost of \$3.00 per kg.

Joint costs are apportioned between the main products on the basis of sales revenue.

(a) Prepare the Process Account for February 2019

(10)

(b) State **two** methods, **other than sales revenue**, that could have been used to apportion joint costs.

(2)

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Prometheus Ltd also manufactures Product EX250

The following information is available.

- The opening work-in-progress and the costs incurred during February 2019 were:

	Opening work-in-progress	**Costs incurred during month**
Materials	\$3 480	\$31 200
Labour and overheads	\$4 950	\$39 465

- The output produced during the period was 4 200 complete units that were sent to customers.
- There were 1 500 units of closing work-in-progress, which were:

Material	60% complete
Labour and overheads	35% complete

(c) Calculate the cost of:

(i) Product EX250 that was sent to customers

(3)

(ii) work-in-progress at the end of February 2019

(3)

(Total for Question 3 = 18 marks)

4 Rhea Ltd manufactures a single product using a standard absorption costing system.

The budgeted information relating to February 2019 was as follows:

Budgeted output	56 000 units
Direct materials	44 800 kg at $11.00 per kg
Direct labour	8 400 hours at $7.50 per hour
Fixed production overheads	$5.00 per unit

The **actual** results for February 2019 were as follows:

Actual output	63 500 units
Direct materials	49 600 kg costing $486 080
Direct labour	9 300 hours costing $76 725
Fixed production overheads	$286 200

Additional information

- The product was sold for $16.00 per unit.
- The budgeted profit for actual output of 63 500 units was $105 762.50
- The fixed overhead expenditure variance was $6 200 Adverse.

(a) Calculate the following variances for February 2019:

(i) material price

(2)

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(ii) material usage

(3)

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(iii) labour rate

(2)

(iv) labour efficiency.

(3)

(b) Prepare the Profit Reconciliation Statement using the variances calculated in (a) and those provided.

(4)

PROFIT RECONCILIATION STATEMENT			
Budgeted profit for actual production of 63 500 units			**$105 762.50**
Variances	**Favourable**	**Adverse**	
Direct materials price			
Direct materials usage			
Direct labour rate			
Direct labour efficiency			
Fixed overhead expenditure			
Total variance			
Actual profit for actual production of 63 500 units			

(c) Suggest **one** possible reason for **each** of the following variances calculated in (a):

(i) material price variance

(1)

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(ii) labour rate variance.

(1)

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(d) Describe what is meant by the term **attainable standard**.

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(e) Explain **one** benefit of using an attainable standard.

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(Total for Question 4 = 20 marks)

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5 Pandora Ltd manufactures a product, the RB53, that it sells for $17.75 per unit.

The variable costs of production are $9.25 per unit and the fixed costs for this product are $205 700 per month.

Sales are expected to be 30 000 units per month.

(a) Calculate the break-even point in number of units and in $.

(3)

(b) Calculate the margin of safety in number of units and as a percentage of sales.

(2)

The directors of Pandora Ltd are considering whether to replace the RB53 with the ZX68.

The following information about the ZX68 is available.

- 30 000 units are expected to be sold per month at $19.95 each.
- The variable cost of producing one unit will be $8.75
- The fixed costs will be $260 400 per month.
- The directors would like a profit of $60 000 per month.

(c) Prepare a profit-volume chart, on the graph paper provided, that shows:

- the break-even points for **each of** the RB53 and the ZX68
- the profit made by **each** of the products if 30 000 units are sold each month.

(6)

(d) Evaluate whether Pandora Ltd should produce and sell the RB53 or the ZX68.

(5)

(Total for Question 5 = 16 marks)

TOTAL FOR PAPER = 100 MARKS

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