Pearson LCCI

Certificate in Cost and Management Accounting (VRQ)
Level 3

Thursday 6 July 2017
Time: 3 hours

Paper Reference
ASE20098

Complete the details below in block capitals.

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

1 Oak Ltd manufactures a single product using a standard absorption costing system.

The budgeted information for June 2017 was as follows:

Budgeted output	12 000 units
Direct materials	45 000 kg at $3.80 per kg
Direct labour	16 800 hours at $9.00 per hour
Fixed production overheads	$6.25 per unit

The actual results were as follows:

Actual output	10 760 units
Direct materials	41 200 kg costing $150 380
Direct labour	15 600 hours costing $143 520
Fixed production overheads	$78 150

Additional information

Oak Ltd was unable to obtain the usual grade of material because the supplier went out of business in June 2017. Oak Ltd was forced to buy materials from an alternative supplier.

(a) Explain the:

(i) term **ideal standard**

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(ii) possible implications of using ideal standards when calculating variances.

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(b) Calculate the following variances for June 2017:

(i) material price

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(ii) material usage

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(iii) labour rate

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(iv) labour efficiency

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(v) fixed production overhead expenditure

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(vi) fixed production overhead volume.

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

(i) material price

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(ii) labour efficiency.

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(Total for Question 1 = 18 marks)

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2 Pine Ltd uses material in its production.

The following information is available for Material Z.

	Monthly usage	**Current Order quantity**	**Current price**	**Minimum inventory**
Material Z	6 000 kg	8 000 kg	$9.00 kg	2 000 kg

- The holding costs are estimated to be $0.75 per kg per year.
- The ordering costs are estimated to be $200 per order.

(a) Explain **two** limiting factors when a business determines its maximum inventory level.

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(b) Calculate the current **ordering** costs for Material Z for one year.

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(c) Calculate the current **holding** costs for Material Z for one year.

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The current supplier of Material Z has offered a 3% discount if Pine Ltd increases the size of its orders to 24 000 kg, instead of the current order quantity of 8 000 kg.

(d) Complete the table below to show the total costs for the two possible quantities of Material Z for one year.

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Costs	8 000 kg	24 000 kg
	$	$
Purchasing		
Ordering		
Holding		
Total		

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(e) Analyse which order quantity would be the best for Pine Ltd, giving a reason for your answer.

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(f) Explain **two** benefits to Pine Ltd of maintaining an effective inventory management system.

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(Total for Question 2 = 20 marks)

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3 Laburnum Transport is a haulage company that operates four lorries to make deliveries. The company uses a traditional overhead absorption costing system for its operational and administrative overheads.

A total of 300 deliveries have been contracted for 2017.

The budgeted overhead costs for 2017 are as follows:

- **Operational overheads:**
  - Each lorry, which cost $84 000, is budgeted to travel 60 000 km in the year.
  - The lorries have a useful life of 5 years after which they will each have a disposal value of $12 000
  - Road fund licences and insurance for the year are $4 000 per lorry.
  - Servicing and repairs per lorry will be $850 per 15 000 km.
  - Tyres are replaced every 30 000 km at a cost of $250 per tyre. Each lorry has 8 tyres.
- **Administration overheads:**
  - Rent, rates and insurance will be $16 000 for the year.
  - Other costs will be $50 000 for the year.

Running (direct) costs for 2017 will be:

- Fuel will be $1.50 per litre with a fuel consumption of 6 km per litre per lorry.
- Drivers are employed at a cost of $15 per hour and each lorry will need 2 400 driver hours.
- The work is evenly distributed throughout the year.

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(a) Calculate the following overhead absorption rates for 2017.

(i) Operational overheads per km

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(ii) Administration overheads per contracted delivery

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(b) State **two** reasons why Laburnum Transport uses predetermined overhead absorption rates.

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(c) Explain why Laburnum Transport selected the following as a basis for absorbing overheads:

(i) Per km for operational overheads

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(ii) Per contracted deliveries for administration overheads

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(d) Calculate the cost of a contracted delivery that involves one lorry travelling 900 km and 40 driver hours.

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During December 2016, Laburnum Transport forecast that the total of administration overheads would increase by 6% from 1 June 2017.

During June 2017, the business carried out the following:

- 24 contracted deliveries
- total distances of 27 200 km.

(e) Calculate the total of over- or under-absorption of overheads in June 2017.

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(f) Evaluate how the over- or under-absorption of overheads calculated in (e) would affect Laburnum Transport if this **continues throughout the rest of the year**.

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(Total for Question 3 = 25 marks)

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4 Juniper Ltd produces the ST19. Two flexed budgets had been prepared for June 2017 and were as follows:

	Budget 1	Budget 2
Units made and sold	100 000	150 000
	$	$
Revenue	**595 000**	**892 500**
Costs:		
Raw materials	180 000	270 000
Labour (note 1)	65 000	67 500
Heat, light and power (note 2)	22 600	27 600
Machine hire (note 3)	35 000	56 000
Production overheads (note 4)	147 000	154 000
Non-production overheads	123 000	123 000
Total costs	**572 600**	**698 100**
Net profit	**22 400**	**194 400**

Additional information

1. Labour is a semi-variable cost. Basic salaries are fixed at $60 000 for June 2017 and the remainder is an output-related bonus.

2. Heat, light and power is a semi-variable cost where the variable element is $0.10 per unit.

3. The company hires machines, each of which has a capacity of 20 000 units per month.

4. Production overhead is a semi-variable cost.

(a) Calculate the:

(i) selling price per unit

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(ii) labour output-related bonus per unit

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(iii) heat, light and power fixed cost for June 2017

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(iv) cost of hiring **one** machine

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(v) production overheads variable element **per unit** and the fixed element **total**.

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(b) Explain **one** implication of using flexible budgets in terms of setting targets and judging performance.

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The number of units actually produced and sold was 162 000

(c) Complete the flexed budget and variance columns in the table for June 2017. You must show whether the variances are adverse (A) or favourable (F).

(12)

	Actual	**Flexed budget**	**Variance**
	162 000	162 000	
Revenue	**955 800**		
Costs:			
Materials	286 740		
Labour	69 450		
Heat, light and power	29 120		
Machine hire	63 800		
Production overheads	153 750		
Non-production overheads	123 500		
Total costs	**726 360**		
Net profit	**229 440**		

(Total for Question 4 = 20 marks)

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5 Willow Ltd manufactures the GH33. There are two options for setting the selling price.

The following information is available for the two options.

	Option One	Option Two
Selling price per unit	$12.50	$9.95
Estimated monthly demand (units)	10 000	16 000
Fixed costs per month	$50 700	$55 590
Variable cost per unit	$4.70	$4.50
Break-even point (units)	6 500	?

Additional information

1. Option One is the actual performance of the product in June 2017.

2. Option Two will be to increase production/sales to 16 000 units per month.

(a) Calculate the profit that Willow Ltd made in June 2017 by selling 10 000 units of GH33 using Option One.

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(b) Calculate the number of units that need to be sold under Option Two for Willow Ltd to make the same amount of profit that you calculated in (a).

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Willow Ltd is considering expanding its production to 16 000 units per month (Option Two).

(c) Calculate the break-even point (in units) for Option Two.

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(d) Calculate the margin of safety for both options in units and as a percentage of sales.

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Option One:

Option Two:

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(e) Evaluate whether Willow Ltd should choose Option Two. You should consider the assumptions that have been made by Willow Ltd.

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(Total for Question 5 = 17 marks)

TOTAL FOR PAPER = 100 MARKS

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