Pearson LCCI

Certificate in Cost and Management Accounting (VRQ)

Level 3

Monday 11 April 2016
Time: 3 hours

Paper Reference
ASE20098

Complete the details below in block capitals.

Candidate name

Centre Code

Candidate Number

Candidate ID Number

Total Marks

You do not need any other materials.

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 Greenhouse Partners use two different raw materials, RM1 and RM2.

The following information is available for raw materials RM1 and RM2.

Raw material RM1

Budgeted annual use	12 000 kg (evenly distributed throughout the year)
Material cost	$10 per kg
Ordering costs	$200 per order
Inventory holding costs	12% of the average stockholding value per annum
Order sizes available	1 000 kg, 2 000 kg, 3 000 kg and 4 000 kg
Minimum inventory (safety)	1 000 kg

Raw material RM2

Usage varies between 240 kg and 360 kg per day.

Lead time for delivery varies between 15 and 21 days.

Order quantity size 10 000 kg.

(a) Identify **four** benefits of inventory management and control.

(4)

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(b) (i) Complete the table for the options of a total purchase of 12 000 kg of raw material RM1 in a year.

(5)

Order size (kg)	Number of orders	Order costs ($)	Average inventory (kg)	Holding costs ($)	Total costs ($)
1 000					
2 000					
3 000					
4 000					

(ii) Evaluate, giving **one** reason, which of the order sizes Greenhouse Partners should select.

(1)

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(c) For raw material RM2 calculate the:

(i) reorder level

(1)

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(ii) minimum inventory control level

(2)

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(iii) maximum inventory control level.

(3)

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(Total for Question 1 = 16 marks)

2 Sinclair Brothers makes a single product in a factory with a capacity of 150 000 units. The following information is available for Period 2:

- it plans to sell 120 000 units at $15 per unit
- fixed costs of $440 000 are forecast
- a net profit of $520 000 is forecast.

(a) Calculate for Period 2 the forecast:

(i) break-even point in units

(4)

(ii) margin of safety as a percentage of sales

(1)

(iii) contribution/sales ratio.

(1)

Sinclair Brothers is considering changing its production process for Period 3.

The change would:

- increase the fixed overheads to $700 000
- reduce the variable costs to $5 per unit
- have no effect on the selling price.

(b) Calculate the forecast profit in Period 3 for sales of 120 000 units using the changed production process.

(3)

(c) Advise management of the sales level (units) at which the changed process would be more profitable than the original process.

(5)

(d) Explain the meaning of the following terms:

(i) opportunity cost

(2)

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(ii) relevant cost.

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(Total for Question 2 = 18 marks)

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3 Iron Fabrications manufactures products using three production departments (A, B and C) and two service departments (P and Q) within its factory.

The following information is available:

	Production			Service	
	A	**B**	**C**	**P**	**Q**
Total budgeted overheads (allocated and apportioned)	$8 802	$7 511	$10 207	$7 200	$9 280

The service departments are used by other departments as follows:

	Department				
	A	**B**	**C**	**P**	**Q**
Department P	40%	20%	30%	nil	10%
Department Q	50%	20%	10%	20%	nil

Budgeted output is 2 000 units.

Budgeted labour and machine hours are as follows:

	Department		
	A	**B**	**C**
Labour hours	8 000	200	3 500
Machine hours	nil	6 000	2 500

(a) Reapportion the overheads of the service departments to the production departments using the repeated distribution method.

(11)

(b) Calculate, for Department A, the pre-determined overhead absorption rate based on labour hours.

(1)

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(c) Advise management, giving reasons, of **two** different methods of calculating the overhead absorption rate, other than based on labour hours, for Department B and Department C.

(4)

Method for Department B

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Reason

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Method for Department C

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Reason

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(d) Calculate, for Department B and Department C, the pre-determined overhead absorption rates based on your answers from part (c).

(2)

Department B

Department C

(e) Explain the following terms, giving **one** example of each:

(i) allocated overheads

(2)

(ii) apportioned overheads.

(2)

(Total for Question 3 = 22 marks)

4 The One Product Company manufactures and sells a single product.
The following information is available for the six-month period ending 30 June.

Sales

Budgeted sales:

Month	January	February	March	April	May	June
Sales (units)	240	260	240	260	250	220

The selling price is $40 per unit. Cash sales are expected to be 40% with the remaining 60% of customers allowed one month's credit.

It is estimated that 5% of credit customers will be bad debts.

Production

The company manufactures 60% of the budgeted sales in the month before sale and the remaining 40% in the month of sale.

Costs

- Direct material will be $16 per unit. Material will be purchased in the month before use in production and paid in the month after purchase.
- Wages will be paid at the rate of $12 per unit, payable in the month of production. A bonus payment of $4 per unit will be paid on all additional monthly production in excess of 200 units. The bonus payment is paid in the month following production.
- Fixed production overheads of $18 000, including depreciation of $6 000, are budgeted for the year ahead. Fixed production overheads are budgeted to be the same each month and are payable in the month they are incurred.
- Variable selling expenses will be $4 per unit, payable in the month following the sale.
- Fixed administration overheads will be $7 200 for the year and are budgeted to be the same per month, payable in the month that they are incurred.

Cash

The company will have a bank overdraft of $2 000 at the start of February.

(a) Prepare the following budgets for the months of February, March and April:

(i) production (units)

(3)

(ii) material purchases ($)

(2)

(iii) labour costs ($)

(3)

(iv) cash ($).

(11)

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(b) Evaluate the cash flow situation for the three-month period February, March and April.

(1)

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(c) Describe **two** uses of a cash budget.

(4)

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(Total for Question 4 = 24 marks)

5 The Makitlast Company is considering the purchase of a new machine. Two alternative machines (A and B) are being considered.

The following information is available:

	Machine A	**Machine B**
Initial cost	$800 000	$900 000
Useful life	5 years	5 years
Residual value (at end of 5 years)	$120 000	$250 000
Annual profits (net of straight line depreciation)	$100 000	$110 000

The company has a cost of capital of 12% per annum.

The 12% discount cash flow factors are:

	12%
Year 1	0.893
Year 2	0.797
Year 3	0.712
Year 4	0.636
Year 5	0.567

(a) Explain the meaning of the terms:

(i) net present value

(2)

(ii) internal rate of return.

(2)

(b) Calculate the annual cash flow income for:

(i) Machine A

(2)

(ii) Machine B.

(2)

(c) Calculate the net present value (NPV) for both machines.

(7)

(d) Advise management, giving **one** reason, which machine to purchase based on the NPV values calculated in (c).

(1)

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(e) State **two** advantages and **two** disadvantages of the net present value investment appraisal technique.

(4)

Advantages

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2 .....

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Disadvantages

1 .....

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(Total for Question 5 = 20 marks)

TOTAL FOR PAPER = 100 MARKS

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