Pearson LCCI

Certificate in Cost and Management Accounting (VRQ)
Level 3

Wednesday 11 April 2018
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 Amalthea manufactures the RS88 using a standard absorption costing system.

The **budgeted** information for March 2018 was:

Budgeted output	25 000 units
Direct materials	47 000 kg at $5.60 per kg
Direct labour	6 250 hours at $7.20 per hour
Fixed production overheads	$4.40 per unit

The **actual** results were:

Actual output	21 800 units
Direct materials	43 170 kg costing $259 020
Direct labour	5 720 hours costing $40 612
Fixed production overheads	$108 300

(a) Explain:

(i) the term 'attainable standard'

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(ii) **one** possible effect on workers of using attainable standards.

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(b) Calculate the following variances for the period March 2018.

(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 overhead expenditure

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(vi) Fixed overhead volume

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(c) Suggest **one** possible reason that may explain the:

(i) material usage variance

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(ii) labour rate variance.

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2 Phobos started to produce D44 at the start of February 2018.

The production and costs relating to February and March 2018 were as follows:

	February	**March**
Units produced	42 000	55 000
Total production costs ($)	558 070	602 270

The selling price of D44 was $9.95 per unit.

Phobos estimates that by June 2018 sales of D44 will be 80 000 units per month.

Costs and revenues **per unit** are not expected to change from February to June 2018.

(a) Calculate, for D44, the:

(i) variable costs per unit

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(ii) fixed costs per month.

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(b) Calculate the break-even point in:

(i) units

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(ii) revenue.

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(c) Calculate the sales revenue required for the business to make a profit of $131 000 per month.

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(d) Calculate, if the business does sell 80 000 units per month in June 2018, the margin of safety:

(i) in units

(1)

(ii) as a percentage of sales units.

(2)

(e) Prepare a break-even chart for an output of 80 000 units for June 2018 that shows the:

- fixed cost
- total cost
- sales revenue
- break-even point in units
- profit at 80 000 units
- margin of safety in units.

(6)

Workings

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3 Metis uses Material GX10 in its production processes.

The following information is available.

	Monthly Usage	Current Order Quantity	Current Price	Minimum Inventory
Material GX10	10 000 kg	20 000 kg	$7.00 kg	5 000 kg

The holding costs are estimated to be $0.70 per kg.

The ordering costs are estimated to be $500 per order.

(a) Calculate the current **ordering** costs for Material GX10 for one year.

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(b) Calculate the current **holding** costs for Material GX10 for one year.

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The current supplier of Material GX10 has offered a 2.5% discount if Metis increases the size of its orders to 60 000 kg.

(c) Complete the table to show the costs if Metis were to order in quantities of 20 000 kg and 60 000 kg.

(6)

Costs	20 000 kg	60 000 kg
Purchasing		
Ordering		
Holding		
Total		

Workings

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(d) Advise Metis as to which order size it should use. Give **one** reason for your answer.

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(e) Calculate the Economic Order Quantity, showing clearly the formula used.

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The accountant is concerned that if inventory is ordered in quantities of 60 000 kg, the insurance policy (which only covers an average inventory holding of $250 000) might not provide enough cover.

(f) (i) Calculate the average inventory values if orders are in quantities of:

- 20 000 kg
- 60 000 kg.

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(ii) Advise Metis if the insurance policy covers both order quantities.

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(g) Explain **two** benefits for Metis of having an effective inventory management system.

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4 Himalia produces three products: A11, B22 and C33.

Information relating to production in March 2018 was as follows:

	A11	**B22**	**C33**
Sales / Expected Demand	5 000 units	4 000 units	3 000 units
	$	$	$
Revenue	132 500	164 000	166 800
Material cost (variable)	52 500	72 000	72 000
Direct labour cost (fixed)	30 000	24 000	18 000
Fixed overheads	50 000	40 000	30 000
Variable overheads	10 000	8 000	6 000
Profit/(Loss)	(10 000)	20 000	40 800
Kg of Plastinox per unit	0.70	1.20	1.60

The material Plastinox is used to produce all three products. Due to shortages in the world markets, only 11 000 kg per month will be available from April 2018.

(a) State **two** other possible limiting factors, apart from the availability of materials, for a manufacturing business like Himalia.

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(b) Calculate the contribution per kg of materials made by each of the three products.

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(c) Calculate the production schedule that will maximise the monthly profit made by Himalia for April 2018

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(d) Calculate the total contribution and profit that Himalia would make if the production schedule in (c) was applied.

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(e) Evaluate whether Himalia should apply the product mix recommended in (c).

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5 One of the products made by Pasiphae is the WX93.

The management of Pasiphae had set a production target of 20 units per labour hour for **each** of its 15 production line workers.

Each worker is contracted to work 180 hours per month.

In March 2018:

- 56 862 units of WX93 were produced
- A total of 2 916 labour hours were worked.

(a) Calculate, for March 2018, the:

(i) standard hours for the production of 56 862 units

(1)

(ii) production efficiency ratio

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(iii) production capacity ratio

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(iv) production volume ratio.

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Pasiphae also manufactures Product E20. At the start of March 2018, the opening work-in-progress and the costs incurred during March 2018 were:

	Opening work-in-progress	**Costs incurred during month**
Materials	$2 600	$13 720
Labour and overheads	$4 100	$7 450

The output produced during March 2018 was as follows:

Materials	2 700 completed units that were sent to customers plus 1 000 units that were 50% complete
Labour and overheads	2 700 completed units that were sent to customers plus 1 000 units that were 30% complete.

(b) Calculate the cost of:

(i) Product E20 that was sent to customers

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(ii) Product E20 work-in-progress at the end of the month.

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Pasiphae does not have an integrated accounting system. Instead, many of the various parts of the accounting function operate on different systems using different specialist software.

The directors of Pasiphae have stated that it is essential that the management information produced is accurate and up-to-date and as a result most of this specialist software is the latest version.

Employees in the accounting department carry out their own work and, when they have finished a task, the data is copied across onto the general ledger.

The accounting packages are installed on 15 computers in various offices. Some of the computers are networked, but most are stand-alone machines. The general ledger is only installed on one open-access machine in the accounts office.

(c) Evaluate whether the current system is likely to produce information that is accurate and up-to-date.

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TOTAL FOR PAPER = 100 MARKS

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