Pearson LCCI

Thursday 6 December 2018

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

1 Lichaj Burke Ltd manufactures and sells four products. The company is currently preparing its production schedule for the next period.

The details for these four products are as follows:

	Product Aye $ per unit	**Product Bee $ per unit**	**Product Cee $ per unit**	**Product Dee $ per unit**
Selling price	69	92	143	68
Direct materials	24	32	60	20
Direct labour ($8 per hour)	20	24	32	16
Variable overhead costs	10	12	16	8
Machine hours per unit	3	6	5	4
Sales demand (units)	1 000	600	400	750

The fixed overhead costs are charged to products on the total direct labour hours required to satisfy the total demand shown above for each product, per period, at a rate of $2 per hour.

The availability of machine hours will be limited to **10 100 hours** for the period.

(a) Calculate the order of priority for production in the period to maximise contribution.

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(b) Prepare the optimum product mix (optimum production schedule) that will maximise profit.

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(c) Calculate the profit resulting from the product mix (production schedule) identified in (b).

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(d) Identify **two** limiting factors for a business, other than machine hours.

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(Total for Question 1 = 16 marks)

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2 Kingsley de Wijs Ltd operates a non-integrated accounting system.

At the end of the accounting period the profit shown in the financial accounts was $260 940

Examination of the two sets of accounts revealed the following differences:

	Cost accounts	Financial accounts
	$	$
Opening inventory valuations		
Raw materials	77 100	74 480
Work-in-progress	51 860	58 070
Finished goods	131 080	125 840
Closing inventory valuations		
Raw materials	85 620	80 460
Work-in-progress	43 460	40 700
Finished goods	158 050	155 775
Other items		
Depreciation	29 180	31 155
Profit on sale of a non-current asset		4 500
Dividends received		7 550
Discount allowed to customers		5 080
Sundry investment income		8 250
Notional rent charge	22 500	
Interest charges paid		6 450
Over absorbed overheads carried forward	4 600	

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(a) Calculate the profit for the period as shown in the **cost accounts** using a profit reconciliation statement.

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(b) Explain why it is necessary to undertake a reconciliation in a non-integrated accounting system.

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(Total for Question 2 = 20 marks)

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3 Evandro Henrikson is considering investing in a new machine to reduce operating costs over the next **five** years.

Two machines are currently being considered, the details of which are as follows:

	Machine Aye	**Machine Bee**
Capital cost	$800 000	$900 000
Residual value	NIL	NIL
Annual cost savings	$100 000	$100 000

The above cost savings have been calculated after the deduction of depreciation on a straight line basis.

The company's cost of capital is **15%** per annum.

Discount factors	12%	15%	20%
Year 1	0.893	0.870	0.833
Year 2	0.797	0.756	0.694
Year 3	0.712	0.658	0.579
Year 4	0.636	0.572	0.482
Year 5	0.567	0.497	0.404
	3.605	3.353	2.992

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(a) Calculate, for the proposed investment in each machine, the:

(i) net present value

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(ii) internal rate of return.

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(b) Advise the company which machine to purchase, giving **one** reason for your answer.

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Costing techniques are used for long-term decision making and short-term decision making.

(c) State **one** example of each of the following and **one** costing technique that might be associated with that example.

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Long-term decision making

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Short-term decision making

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(d) Explain why internal rate of return (IRR) and net present value (NPV) do not necessarily rank projects in the same order.

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4 Bowan Diamonde manufactures a single product and is budgeting to produce and sell 50 000 units during the next year.

The production costs for the year are as follows:

	$000s
Direct materials	850
Direct labour	460
Production overheads	620

The following information is also available.

- The selling price will be $48 per unit.
- Production and sales will take place evenly throughout the year.
- Direct materials will be held in inventory for an average of eight days before being issued to production.
- Work-in-progress will take an average of 12 days before production is complete.
- Work-in-progress will be:
  100% complete of direct materials
  60% complete of direct labour
  40% complete of production overheads.
- Finished products will be in inventory for an average of 14 days before their sale.
- The company plans to grant its customers an average credit period of 45 days.
- The company will take an average of 35 days to pay its direct material suppliers.
- Assume that 1 year = 365 days.

(a) Calculate the company's total working capital budget requirement for the next year (in $).

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(b) Analyse the objectives of managing the following components of the working capital cycle.

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Inventory

Trade receivables

Trade payables

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(c) Explain **two** of the characteristics of effective management information.

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5 Farrel and Fletcher Ltd is in business making winding machines.

It manufactures two products, Exe and Whye, each of which pass through two operations: cutting and forming.

At present the company uses absorption costing, based on a machine hours rate, to establish the production overhead costs.

The budgeted details for the next period are as follows:

Product	**Exe**	**Whye**
Production (units)	2 500	2 000
Total direct labour cost ($)	60 000	40 000
Total direct material cost ($)	50 000	80 000
Machine hours per unit	2.0	1.5
Batch size	20 units	40 units

Production overheads for the period are $176 000 and are absorbed on a machine hours basis.

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

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

The following overhead and cost driver information is available for the period:

Activity	**Cost ($)**	**Cost driver**
Cutting	69 000	Number of operations
Forming	33 000	Number of operations
Machine set-up	7 000	Machine set-ups
Inspection	45 000	Inspections
Material handling	22 000	Material requisitions

	Exe	**Whye**
Cutting	12 operations per unit	8 operations per unit
Forming	2 operations per unit	3 operations per unit
Machine set-up	1 per batch	1 per batch
Inspection	2 per unit	2 per unit

Material handling

Both products are made from the same raw material that is issued in single sheets against a materials requisition.

One sheet of material will make 20 units of Exe and 16 units of Whye.

No wastage of materials is expected.

(b) Calculate the total production **overhead** cost (to two decimal places) for **one** unit of Exe and **one** unit of Whye using activity based costing.

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(c) Explain **two** disadvantages the company might face if it decided to introduce activity based costing.

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(Total for Question 5 = 20 marks)

TOTAL FOR PAPER = 100 MARKS

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