

COMMONWEALTH OF AUSTRALIA

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Family Name	
Given Names	
Student Number	
Teaching Period	Semester 2 Special/Summer Semester, 2015

FINAL EXAMINATION	DURATION
PRBA002 – Cost and Management Accounting	Reading Time: 10 minutes
	Writing Time: 180 minutes

INSTRUCTIONS TO CANDIDATES

There are **TWO** parts to the exam – **BOTH** must be answered.

Part A – Multiple Choice

Part B – Practical Questions

Make sure that you insert your exam paper into your exam booklet.

EXAM CONDITIONS

You may begin writing from the commencement of the examination session. The reading time indicated above is provided as a guide only.

This is a RESTRICTED OPEN BOOK examination

Any non-programmable calculator is permitted

No handwritten notes are permitted

Hard copy, unannotated English translation dictionary only

ADDITIONAL AUTHORISED MATERIALS	EXAMINATION MATERIALS TO BE SUPPLIED
No additional printed material is permitted	1 x 16 Page Book 1 x 4-Multiple Choice Answer Sheet

**THIS EXAMINATION IS PRINTED
DOUBLE-SIDED.**

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Part A: Multiple choice questions – answer these in the sheet provided.

There are **25 questions** and the marks are shown for each of these. There are **47 marks** in total

The following questions are worth 1 mark each

Part B: All of the following questions must be answered.

Answer these questions in the exam booklet provided. There are **53 marks** for this section.

Question 1 – 21 marks

i) Use the following information to find the unknown amounts. Assume each set of information is an independent case.

a.	Merchandise Inventory	Purchases	\$420 000	
		Cost of goods sold	446 000	
		Beginning balance	82 000	
		Ending balance	?	
				(2 marks)

b.	Direct Materials	Beginning balance	\$14 000	
		Ending balance	28 000	
		Purchases	96 000	
		Direct materials used	?	
				(2 marks)

c.	Work-in-process Inventory	Ending balance	\$44 000	
		Cost of goods manufactured	42 000	
		Beginning balance	16 000	
		Current manufacturing costs	?	
				(2 marks)

d.	Finished Goods Inventory	Cost of goods manufactured	\$124 000	
		Ending balance	40 000	
		Cost of goods sold	122 000	
		Beginning balance	?	
				(2 marks)

(Total 8 marks)

ii) Crows Nest Manufacturing uses departmental cost driver rates to apply manufacturing overhead costs to products. Manufacturing overhead costs are applied on the basis of machine-hours in the Machining Department and on the basis of direct labour-hours in the Assembly Department. At the beginning of 2013, the following estimates were provided for the coming year:

	<u>Machining</u>	<u>Assembly</u>
Direct labour-hours	10 000 dlh	90 000 dlh
Machine-hours	100 000 mh	5000 mh
Direct labour cost	\$80 000	\$720 000
Manufacturing overhead costs	\$250 000	\$360 000

The accounting records of the company show the following data for Job #846:

	<u>Machining</u>	<u>Assembly</u>
Direct labour-hours	100 dlh	170 dlh
Machine-hours	270 mh	30 mh
Direct material cost	\$3700	\$2600
Direct labour cost	\$800	\$1900

Required:

- a. Compute the manufacturing overhead allocation rate for each department. **(2 marks)**

- b. Compute the total cost of Job #846. **(4 marks)**

(Total 6 marks)

iii) A local engineering firm is bidding on a design project for a new client. The total budgeted direct-labour costs for the firm are \$800 000. The total budgeted indirect costs are \$1 200 000. It is estimated that there are 16 000 billable hours in total.

Required:

- a. What is the budgeted direct-labour cost rate? **(2 marks)**
- b. What is the budgeted indirect-cost rate assuming direct-labour cost is the allocation base? **(2 marks)**
- c. If the firm has a 20% mark-up percentage, what should it bid on the project if the direct labour hours are estimated at 500 hours? **(3 marks)**

(Total 7 marks)

Question 2 - 5 marks

Cedar Rapids Chemical placed 220 000 litres of direct materials into the mixing process. At the end of the month, 10 000 litres were still in process, 30% converted as to labour and factory overhead. All direct materials are placed in mixing at the beginning of the process and conversion costs occur evenly during the process. Cedar Rapids Chemical uses weighted-average costing.

Required:

Determine the equivalent units in process for

i) direct materials

(2 mark)

AND

ii) conversion, assuming that 12 000 litres of chemicals were 40% complete prior to the addition of the 220 000 litres.

(3 marks)

(Total 5 marks)

Question 3 - 12 marks

Rosewall Company manufacturers tennis rackets. Some of the company's data was misplaced. Use the following information to replace the lost data:

Analysis	Actual Results	Flexible Variances	Flexible Budget	Sales-Volume Variances	Static Budget
Units Sold	225 000		225 000		206 500
Revenues	\$84 160	\$2000 F	(A?)	\$2800 U	(B?)
Variable Costs	(C?)	\$400 U	\$31 720	\$4680 F	\$36 400
Fixed Costs	\$16 560	\$1720 F	\$18 280		\$18 280
Operating profit	\$35 480	(D?)	\$32 160	(E?)	\$30 280

Required:

- What are the respective flexible-budget revenues (A)? (2 marks)
- What are the static-budget revenues (B)? (2 marks)
- What are the actual variable costs (C)? (2 marks)
- What is the total flexible-budget variance (D)? (2 marks)
- What is the total sales-volume variance (E)? (2 marks)
- What is the total static-budget variance? (2 marks)

(Total 12 marks)

Question 4 - 16 marks

i) Armidale University offers only high-tech graduate-level programs. Armidale has two principal operating departments, Engineering and Computer Sciences, and two support departments, Facility and Technology Maintenance and Enrollment Services. The base used to allocate Facility and Technology Maintenance is budgeted total maintenance hours. The base used to allocate Enrollment Services is number of credit hours for a department. The Facility and Technology Maintenance budget is \$500 000, while the Enrollment Services budget is \$1 200 000. The following chart summarises budgeted amounts and allocation-base amounts used by each department:

	<i>Services Provided (Annually)</i>				
	Budget	Engineering	Computer Sciences	F&T Maintenance	Enrollment Services
<i>F&T Maintenance (in hours)</i>	\$500 000	1000	2000	Zero	5000
<i>Enrollment Services (in credit hrs)</i>	\$1 200 000	24 000	36 000	2000	Zero

Required:

Prepare a schedule which allocates service department costs using the step-down method with the sequence of allocation based on the highest-percentage support concept. Compute the total amount of support costs allocated to each of the two principal operating departments:

a. Engineering (4 marks)

AND

b. Computer Sciences. (4 marks)

(Total 8 marks)

ii) Kirkland Company manufactures a part for use in its production of hats. When 10 000 items are produced, the costs per unit are:

Direct materials	\$0.60
Direct manufacturing labour	3.00
Variable manufacturing overhead	1.20
Fixed manufacturing overhead	<u>1.60</u>
Total	<u>\$6.40</u>

Mike Company has offered to sell to Kirkland Company 10 000 units of the part for \$6.00 per unit. The plant facilities could be used to manufacture another item at a savings of \$9000 if Kirkland accepts the offer. In addition, \$1.00 per unit of fixed manufacturing overhead on the original item would be eliminated.

Required:

a. What is the relevant per unit cost for the original part? (2.5 marks)

b. Which alternative is best for Kirkland Company? By how much? (5.5 marks)

(Total 8 marks)

*****End of Exam*****