



**DIVISION OF TECHNICAL EDUCATION AND MANAGEMENT STUDIES**

<b>EXAMINATION</b>	December 2010, Final Examination
<b>TUTORS</b>	Mrs. F Beerom-Henry, Ms. U Joseph, Ms. E Louisy
<b>PROGRAMME CODE</b>	3-BUS-ABA-AD
<b>PROGRAMME TITLE</b>	Applied Arts – Business Administration # <b>AAI</b>
<b>COURSE TITLE</b>	Management Accounting
<b>COURSE CODE</b>	ACC 203
<b>DATE</b>	16 <sup>th</sup> December, 2010
<b>COMMENCEMENT TIME</b>	9:00 a.m.
<b>DURATON</b>	2 hrs
<b>INVIGILATOR(S)</b>	ML. Catty, N. Goolaman, L. Joseph, L. Ollivierre, C. Alexander, L. Phillips, C. Fevriere, C. Charles, A. Plummer, L. S-Terrance, G. Severin
<b>ROOM(S)</b>	CEHI-1R-02 CEHI-1R-03 OTW-1R-03 GAB-0R-04 BUS-0R-01

***INSTRUCTIONS***

Write ID# only on each page of your answer booklet.

- There are seven (7) questions in this paper.
- Candidates are required to answer **any three (3)** complete questions.

Show all workings clearly.

Use of silent electronic calculators is permitted.

Turn cell phones off, remove calculator covers, and place these items in bags at the front of the room.

Borrowing or lending is prohibited.

**GO TO NEXT PAGE WHEN INSTRUCTED**



**INSTRUCTION:** Answer any three (3) complete questions.

Question 1 (20 marks)

A) Study the following cost terms and situations carefully. A cost term can be used once, more than once or not at all.

Variable cost	Product cost	Opportunity cost
Fixed cost	Period cost	Sunk cost
Prime cost	Conversion cost	Mixed cost

- L.A. Company produces a sports bag that is very popular with college students. The cloth going into the manufacture of the sports bag would be called direct materials and classified as a **(i)** ----- cost. In terms of cost behaviour, the cloth could also be described as a **(ii)** ----- cost.
- The direct labour cost required to produce the sports bag, combined with the manufacturing overhead cost involved, would be known as **(iii)** ----- cost.
- Taken together, the direct materials cost and the direct labour cost required to produce the sports bags would be called **(iv)** -----cost. The company used to produce a smaller sports bag that was not very popular. Some three hundred of these smaller bags are stored in one of the company's warehouses. The amount invested in these bags would be called a **(v)** ----- cost.
- The sports bags are sold through agents who are paid a commission on each bag sold. These commissions would be classified by L.A. Company as a **(vi)** ----- cost. In terms of cost behaviour, commission would be classified as a **(vii)** ----- cost.
- L.A. Company depreciates its equipment using the straight line method. Depreciation on equipment used to produce sports bags would be classified as a **(viii)** ----- cost. However, depreciation on any equipment used by the company in selling and administrative activities would be classified as a **(ix)** ----- cost. In terms of cost behaviour, depreciation would be classified as a **(x)** ----- cost.
- A **(xi)** ----- cost is also known as an inventoriable cost, since such costs go into the work-in-process inventory account and then into the finished goods inventory account before appearing on the trading account as part of cost of goods sold.
- The salary of L.A. Company's president would be classified as a **(xii)** ----- cost, since the salary will appear on the profit and loss account as an expense in the time period in which it is incurred.

**Required**

On your answer sheet create a numbered list from **(i)** to **(xii)**. Choose the term from the group above that most appropriately describes the cost identified in each of the above situations.

**(12 marks)**

B) The owner/operator of Cabs Taxi Company is interested in determining the cost equation for his one-vehicle taxi service, based on the number of miles driven. To that end he has collected the following volume and cost data.

<u>Month</u>	<u>Total Operating Costs</u>	<u>Number of Miles Driven</u>
July	\$16 000	\$13 000
August	17 800	14 250
September	12 400	9 750
October	15 100	12 500
November	13 250	10 500
December	11 500	9 000

**Required:**

- i) Use the **high-low** method to calculate the variable and fixed cost components and establish the cost function. **(5 marks)**
- ii) The owner feels that the maximum level of operating costs that the company can sustain, because of cash flow concerns, is \$14 500. Determine the number of miles that correspond to that level of costs. **(3 marks)**

Question 2

(20 marks)

The information below pertains to the operations of **Williams Copra Manufactures Limited** for the year ended September 30, 2010.

Inventory Oct 1<sup>st</sup> 2009:

Raw Materials	\$	10 000
Work In Progress		5 000
Finished Goods		14 900

Purchases of raw materials	75 000
Direct labour	40 000
Factory overheads: Variable	21 000
Fixed	11 000

Rent and rates	42 000
Heat and light	16 000

Administrative expenses:

Stationery and postage	12 000
Staff salaries	66 580

Sales	280 000
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Plant and machinery: at cost	60 000
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Provisions for depreciation	22 000
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Motor vehicles (for deliveries): at cost	15 000
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Provisions for depreciation	5 000
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Accounts Payables	10 900
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Accounts Receivables	31 000
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Drawings	12 600
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Bank	26 500
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Capital	328 000
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Provisions for unrealized profit	2 660
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Motor vehicle running costs	9 500
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Additional information:

		\$
a) Inventory at September 30, 2010:	Raw Material	15 000
	Work in Progress	7 250
	Finished Goods	15 100

b) The factory output is transferred to the Trading and Profit and Loss A/C at factory cost plus 20% for factory profit.

c) Rent and rates and Heat and light are apportioned to factory and administration as follows: 60% Factory; 40% Administration.

d) Depreciation is provided annually on the straight line method:

Plant and machinery	15%	(75% Factory; 25% Administration)
Motor vehicles	18%	

e) Amounts accrued at September 30, 2010 for direct labour- \$5 000. Rent and rates prepaid at this date - \$ 7 000.

f) Increase the provisions for unrealized profits to \$3 000.

**Required:**

Prepare the Manufacturing Income Statement for **Williams Copra Manufacturers Limited** for the year ended 30<sup>th</sup> September, 2010. **(20 marks)**

Question 3

(20 marks)

**Tomas Recovery Inc.** uses raw material “SAMot” in a manufacturing process. Information as to purchases and issues of material “SAMot” are given in the table below. Answer all questions on the basis of this information.

DATE		RECEIPTS		ISSUES		BALANCE ON HAND	
		QTY	PRICE	QTY	PRICE	QTY	PRICE
Jan	1					100	\$1.50
Jan	24	300	\$1.56				
Feb	8			80	\$5.00		
Mar	16			140	\$5.00		
Jun	11	150	\$1.60				
Aug	18			130	\$6.00		
Sep	6			110	\$6.00		
Oct	15	150	\$1.70				
Dec	29			140	\$7.00		

**Required:**

- i) If a **perpetual inventory** record of material “SAMot” is operated on a **FIFO** basis, what will the closing inventory valuation be? Show all workings. **(3 marks)**
- ii) If a **perpetual inventory** record of material “SAMot” is operated on a **AVCO** basis, what will the closing inventory valuation be? Show all workings. **(4 marks)**
- iii) Prepare a columnar Income Statement (*Trading Account Section only*) for the year to December 31, illustrating calculation of comparative Gross Profits by the **FIFO and AVCO** methods of inventory valuation. **(6 marks)**
- iv) Assume a **periodic inventory** system is maintained. Show the Income Statement (*Trading Account Section only*) for the year to December 31, to show the Gross Profit calculation using the **LIFO** method of inventory valuation. **(7 marks)**



Question 4

(20 marks)

**Glass Varieties** operates a wholesale outlet. The company's summarized balance sheet as at August 31, 2010 was as follows.

<b>Assets</b>	<b>\$</b>	<b>\$</b>
<u>Non Current Assets</u>		
Fixed Assets (NBV)	257,500	
Long term Investments	<u>160,200</u>	417,700
 <u>Current Assets</u>		
Inventory	314,140	
Accounts Receivable (July \$14 840; August \$71 400)	<u>86,240</u>	<u>400,380</u>
		818,080
		=====
 <b>Liabilities and Owners' Equity</b>		
<u>Current Liabilities</u>		
Accounts Payable [July - \$75,100; August - \$41,900]	117,000	
Accrued variable overhead expenses	7,600	
Bank overdraft	<u>22,000</u>	146,600
 <u>Share Capital &amp; Reserves</u>		
450,000 \$1 Common Stock		450,000
Retained Earnings		<u>5,480</u>
		818,080
		=====

*Additional information:*

- Thirty percent of all sales are expected to be for cash. Of the remainder, eighty percent are usually collected in the month following the sale and the balance in the second month following the sale.

Sales data are as follows:

Jul	Aug	Sep	Oct	Nov	Dec
\$106,000	\$102,000	\$86,400	\$95,000	\$75,500	\$99,500

- The company who receives a 5% discount pays suppliers as follows. 60% in the month of purchase, the balance net in the month after the inventory is purchased.

Purchases data are as follow:

Sep	Oct	Nov	Dec
\$64,300	\$41,000	\$46,000	\$41,800

- Dividends of \$ 9, 800 are expected to be received from investments in December.
- The company incurs \$15, 000 of fixed overhead monthly. This figure is inclusive of \$5, 000 for depreciation. Fixed overheads are paid in full in the month incurred.
- Variable overhead expenses are paid in full in the month following the month they are incurred. Forecasted amounts are as follows:

Sep	Oct	Nov	Dec
\$5,100	\$6,100	\$7,100	\$6,900

- Wages and salaries will be paid each month as follows:

Sep	Oct	Nov	Dec
\$27,000	\$29,000	\$23,000	\$22,000

- Some of the equipment will be sold in November for \$30, 500 cash.

**Required:**

- Prepare a **cash budget** by month and in total, for the first four months (September to December 2010) of the financial year ending August 31, 2011. **(18 marks)**
- Calculate **one** of the following balances at December 31, 2010:
 

- Accounts Receivable;	- Accrued Variable Overheads;
- Accounts Payable;	- Discounts Received <span style="float: right;"><b>(2 marks)</b></span>

Question 5

(20 marks)

A) Pacific Products Inc. which produces customized furniture uses a job order costing system to accumulate costs in its factory.

During the year the following transactions were completed with respect to the various jobs undertaken:

- a) Purchased raw material on account \$170,000.
- b) Raw materials were issued from the storeroom for use in production \$160,000 (80 percent direct and 20 percent indirect).
- c) Factory labour costs incurred were \$372,000. Time tickets indicated that \$290,000 was direct labour and \$82,000 was indirect labour.
- d) Overhead costs incurred on account were \$265,000.
- e) Manufacturing overhead was applied at a rate of 175% of direct labour cost.
- f) Furniture costing \$550,000 to complete were transferred to the finished goods warehouse.
- g) 900 jobs were sold for the year (all on account) totaling \$600,000. These furniture had cost \$420,000 to produce.

**Required:**

- i) Prepare journal entries to record the above transactions. **(9 marks)**
- ii) Prepare the T-accounts for work-in-process and manufacturing overhead. **(5 marks)**
- iii) Prepare the journal entry to close manufacturing overhead assuming that any under or overapplied overhead is immaterial. **(1 mark)**

B) On-The-Move Transport Company has three operating departments (Local Collections and Deliveries, Long Distance Trunk Services and Contract Hire) and two service departments (Engineering Services and Building Maintenance). The service departments provide reciprocal services to each other.

The overheads of the company for the coming year are estimated to be \$1,035,500 and are broken down as follows:

Local Collections	\$400,000
Long Distance	300,000
Contract Hire	100,000
Engineering Services	144,000
Building Services	91,500

Additional information:

	Ave. # of Vehicles Served per year	Est. # of Building Maintenance Orders
Local Collections	180	300
Long Distance	30	210
Contract Hire	20	30
Engineering Services	7	70
Building Services	10	-

- Engineering services overhead is apportioned to other departments on the basis of average number of vehicles serviced for the year.
- Building maintenance overhead is apportioned to other departments on the basis of estimated number of building maintenance orders.
- Benefits-provided ranking between the service departments is in the order listed above.
- Service department cost less than or equal to \$100 is to be considered immaterial.

**Required:**

Show how the service departments' overhead should be apportioned to the operating departments and the resulting total overheads of the operating department. The company uses the **elimination** method to apportion overhead. **(5 marks)**

Question 6

(20 marks)

**Product X** is obtained after it passes through two distinct processes. The following cost information is available for the operation:

	TOTAL	PROCESS 1	PROCESS 2	PROCESS 3
	\$	\$	\$	\$
Materials	7 625	4 600	2 000	1 025
Direct wages	7 330	2 250	3 680	1 400
Production O/Hs	7 330			
Output unit		450	340	270
Value of scrap per unit (\$)		2	4	5
Normal loss on input		10%	20%	25%

Five hundred units were introduced in Process 1. Production overheads are to be distributed as 100% of direct wages. There was no work in process at the beginning or end of the period.

**Required:**

- i) Process accounts (17 marks)
- ii) Abnormal loss and/or abnormal gain account(s) (3 marks)



Question 7

(20 marks)

G and D Company bottles and distributes 'POP' a fruit drink in 8 oz. bottles. The beverage is sold for \$10.00 per bottle to retailers. At full capacity (100%) management estimates the revenues and costs for 2011 as follows:

	\$
Net Sales	2 000 000
Direct Materials	360 000
Direct Labour	450 000
Manufacturing Overheads:	
Variable	270 000
Fixed	280 000
Selling expenses:	
Variable	90 000
Fixed	150 000
Administrative expenses	
Variable	30 000
Fixed	70 000

**Required:**

- i) Prepare a C-V-P income statement for the year 2011 based on the management's estimates. **(8 marks)**
- ii) Compute the break-even point in units and dollars. **(3 marks)**
- iii) Compute the contribution margin ratio and the margin of safety ratio. **(3 marks)**
- iv) Determine the net income at 80% capacity. **(3 marks)**
- v) Determine the net sales required to earn net income of \$220 000. **(3 marks)**

**END OF EXAMINATION**