



*"Investing in Africa's Future"*

**COLLEGE OF BUSINESS PEACE LEADERSHIP AND GOVERNANCE**

**MAC 201 COST ACCOUNTING**

**END OF FIRST SEMESTER EXAMINATIONS**

**NOVEMBER 2017 (1)**

**LECTURER: I. RARAMI**

**DURATION: (3 HRS)**

**CONVENTIONAL AND PARALLEL**

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### ***INSTRUCTIONS***

Answer all four (4) questions

Start each question on a new page in your answer booklet.

The marks allocated to each question are shown at the end of the question

Show all your workings

Credit will be given for presentations that are neat, logical and grammatically well constructed.



### QUESTION ONE [31 MARKS]

The following is the data for Farai Farai Productions for the six months to 31 June 2016, that relates to the production output and associated production overhead cost.

Month	Units	Production Costs
January	400	1050
February	600	1700
March	550	1600
April	800	2100
May	750	2000
June	900	2300

#### Required:

- a). Calculate using the High -Low method
- i). The variable production overhead cost per unite [2 marks]
- ii). The total fixed costs [2 marks]
- b). Calculate using the simple linear regression analysis method.
- i). The variable production overhead cost per unit. [4 marks]
- ii). The total fixed costs [4 marks]
- c). A.B.C Limited uses between 75 and 90 litres of oil per day. Delivery times vary between 2-3 days. It has set its re-order level at 270 litres, and orders 500 litres each time.

#### You are required to calculate:

- i). The minimum level [2 marks]
- ii). The maximum level [2 marks]
- iii). The re-order level [2 marks]
- iv). The average stock level [2 marks]

d). The following data relate to department A for the latest period of Nice Juice Products Ltd, the producers of Mauyu Ice Lolo Juice.

Budgeted overheads	\$349780
Budgeted machine hours	87445
Actual overheads	\$437225
Actual machine hours	72785

#### Calculate:

- i). The predetermined overhead absorption rate [2 marks]



- ii). The overhead absorbed by actual activity [2 marks]  
 iii). The under/over absorbed overheads [2 marks]

e). Mr Economist is facing storage and ordering problems at his warehouse. As a cost accountant he gave you the following management data material FGH:

Annual demand	1800 units
Cost of placing an order	\$2 per order
Annual holding cost	\$0.32 per unit

**Required:**

- i). Calculate the most economic order quantity for material FGH. [3 marks]  
 ii). The total ordering costs [1 marks]  
 iii). The sum of the ordering and stock holding costs. [1 marks]

**QUESTION TWO [20 MARKS]**

a). Elton, Suzy and Ashy products has two production departments: A and B and two production service departments X and Y. Overhead costs have been attributed to these departments as follows:

Department	\$'000'
A	950
B	880
X	125
Y	<u>500</u>
	<u>2 455</u>

An analysis of the services provided by each service department shows the following percentages of total time spent for the benefit of each department:

Service Dept	Production/Service Departments			
	A	B	X	Y
X	15%	25%	----	60%
Y	40%	35%	25%	-----

Show the apportionment of production service department costs to production departments using the Step Down Method and the Matrix distribution method. [16 marks]

- b). State and explain the other two methods that may be used to reapportion the service cost centres. [4 marks]



### QUESTION THREE [19 MARKS]

Having attended a course on activity based costing (ABC), which was offered by Rais Consultancy, you decide to experiment by applying the principles of ABC to the four products currently made and sold by your company. Details of the four products and relevant information are given below for one period:

Product	A	B	C	D
Units produced & sold	200	160	120	240
Costs per unit	\$	\$	\$	\$
Direct material	60	75	45	90
Direct labour	52	30	21	28
Machine hrs (per unit)	8	6	4	5

The four products are similar and are usually produced in batches of 40 units and sold in batches of 20 units.

The production overhead is currently absorbed by using a machine hour rate, and the total of production overhead for the period has been analysed as follows:

Activity Cost Pool	\$ Cost
Machine Processing	15400
Set up costs	20200
Order Handling	9600
Inspection/quality control	4800
Material handling and dispatch	10000

You have ascertained that the 'cost drivers' to be used are as listed below for the overhead costs shown:

Cost	Cost driver
Set up cost	Number of production runs
Material Handling	Requisitions raised
Inspection/quality control	Number of production runs
Order Processing	Order executed
Machine Processing	Machine hours

The number of requisitions raised on the stores was 40 for each product.



**Required:**

- a). To calculate the total costs for each product if all overhead costs are absorbed on a machine hour basis. **[5 marks]**
- b). To calculate the total costs for each product, using the activity based costing. **[10 marks]**
- c). To calculate and list the unit product costs from figures in (a) and (b) above. **[4 marks].**

**QUESTION FOUR [30 MARKS]**

- a) Handizivi has provided you with the following information, concerning his costs and revenue.

Sales revenue	\$200000
Variable costs	\$100000
Fixed costs	\$ 20000

He asked you Vanoziva to calculate the following for him:

- i). Break-even sales in value **[2 marks]**
- ii). Break-even sales in volume **[2 marks]**
- iii). The contribution sales ratio **[2 marks]**
- iv). The margin of safety in value **[2 marks]**
- v). The margin of safety ratio **[2 marks]**
- vi). The sales volume to required to increase profits to \$120000 **[2 marks]**
- b). State four advantages and four disadvantages of budgetary planning and control. **[4 marks]**
- c). Zero Base Budgeting is a method of budgeting from a zero base, and justifying every item of expenditure in the budget. Managers using zero base budgeting are required to follow certain steps in preparing the budget.  
State the steps followed when preparing the (Z.B.B) Zero Base Budget. **[6 marks]**
- d). State five advantages and three disadvantages of the (Z.B.B) Zero Base Budget. **[8 marks]**

**END OF PAPER**