WOMEN'S UNIVERSITY IN AFRICA

Addressing gender disparity and fostering equity in University Education

FACULTY OF MANAGEMENT AND ENTREPRENEURIAL SCIENCES

BACHELOR OF ACCOUNTING HONOURS DEGREE

BACHELOR OF SCIENCE HONOURS DEGREE IN PURCHASING AND SUPPLY CHAIN MANAGEMENT

MAIN PAPER

BAS 222: **ADVANCED MANAGEMENT ACCOUNTING/ ADVANCED COST MANAGEMENT TECHNIQUES**

INTAKE 10: **SECOND YEAR SECOND SEMESTER**

INTAKE 9: **FOURTH YEAR FIRST SEMESTER**

DATE: **TIME: 2 HOURS**

INSTRUCTIONS TO CANDIDATES

Answer any other **three** questions.

Question 1

Zamazama ltd manufactures two product Q and M. Details of the two products are given as follows.

	Q	**M**
Selling price per unit	$200	$109
Labour required per unit	20 hours	8 hours
Direct materials required per unit	4 kgs	5 kgs
Variable overheads per unit	$20	$15
Maximum annual demand	1 000 units	4 000 units

Both products require the same grade of labour (costing $5 per hour) and the same type of direct materials (costing $10 per kg.)

In the coming year, Zama zama Ltd expects to have available a maximum of 45 000 labour hours and 35 000 kilograms of direct materials. The company has no stocks of Q and neither M and does not wish to have any stocks in the coming year.

The company's fixed costs are $100 000

Required:

a) Determine the limiting factor. [5]

b) Prepare the calculations to show the quantities of Q and M that should be manufactured and sold in the coming year in order to maximize the profit of Zamazama. [10]

c) Calculate the maximum profit that Zamazama would realize from the production plan that you calculated from question (b) above. [5]

d) Discuss any limitations of the limiting factor analysis. [5]

Question 2

(a)

An organization makes and sells three products, W, X and Y. The products are sold in the proportions 2:1:3 respectively. The organization's fixed costs are $80,000 per month and details of the products are as follows.

Product	Selling price/ unit	Variable cost/unit
	$	$
A	32	22
B	24	14
C	28	16

Required:

Calculate the breakeven point in terms of;

a) Number of units of each product and; [8]
b) Sales value of each product. [7]

(b)

Kimba sells two products, K and M. the company expects to sell the 1 K for every 3 Ms sold and have a monthly sales revenue budget of $150 000. The K has a contribution sales ratio of 20% and the M has contribution sales ratio of 40%. The budgeted monthly fixed cost stand at $30 000.

Required:

Calculate the budgeted breakeven sales revenue. [10]

Question 3

SC plc is establishing a revised standard cost for one of its products. The product was introduced at the start of 2020 when the standard variable cost for the first unit was as follows:

- Direct material: 10kg at $2 per kg.
- Direct labour: 10 hours at $8 per hour.
- Variable overhead: 10 hours at $4 per hour.
- Total variable cost per unit: $140.

During the year a 90 per cent learning curve was observed. The cumulative production at the end of the third quarter was 50 units. The budgeted production for the fourth quarter is 10 units.

Required to calculate the following:

a) Total time taken to produce first 5 units. [5]

b) Total cost of the first unit. [5]

c) The total cost of the first 5 units. [5]

d) The total cost per unit for the four units from the 7^{th} to the 10 unit. [7]

e) Explain the assumptions underlying the learning curve theory. [3]

Question 4

Jason Moyo Limited is medium sized company specializing in the manufacture of electronic components used by car makers both small and big trucks. One of the big truck manufacturers has offered a contract to Jason Moyo Limited for the supply, over a period of one year, of 400 identical components.

The data relating to the production of each component is as follows:

1. Materials requirements:
   3 kg material M1- see note 1 below
   2 kg material P – see note 2 below
   1 Part No.678 – see note 3 below

   Note 1. Material M1 is in continuous use by the company. 1 000 kg are currently held in stock at book value of $4.70 per kg but it is known that future purchases will cost $5.50 per kg.

2. ***Note 2***. 1 200 kg of material P2are held in stock. The original cost of this material was $4.30 per kg but as the material has not been required been required for the last two it has been written down to $1.50 per kg scrap value. The only foreseeable alternative use is as a substitute for material P4 (in current use) but this would involve further processing costs of $1.60 per kg. The current cost of material P4 is $3.60 per kg.

3. ***Note 3.*** It is estimated that the Part No.678 could be bought for $50 each.

4. Labour requirements: Each component would require five hours of skilled labour and five hours of semi-skilled labour. An employee possessing the necessary skilled is available and is currently paid $5 per hour. A replacement would, however would have to be obtained

at a rate of $4 per hour for the work which would otherwise be done by the skilled worker. The current rate of the semi-skilled work is $3 per hour and additional employee could be appointed for this work.

5. Overheads: Jason Moyo Limited absorbs overhead by a machine hour rate, currently $20 per hour of which $7 is for variable overhead and $13 for fixed overhead. If the contract is undertaken it is estimated fixed costs will increase for the duration of the contract by $3200. Spare machine capacity is available and each component would require four machine hours.
6. A price of $145 per component has been suggested by the large that makes the large trucks.

Required:

a) With the support appropriate relevant cost figures, advise whether or not the contract should be accepted. [20]

b) Examine three factors that management ought to consider and which may influence their decision. [5]

Question 5

Mundiel Co makes and sells a single product, called Z308. The company's financial results for last month showed the following:

Product Z308

5 200 units produced and sold for $12.75 per unit.

Direct material A	2 625 kg costing $3 850
Direct material B	3 675 kg costing $6 750
Direct wages	1 320 hours costing $11 550
Variable production overhead	$3 150
Fixed production overhead	$11 800

The budgeted production for the month was for 5 325 units. Mundiel Co does not keep inventories of either direct materials or the finished product.

The standard selling price and cost information for product Z308 is as follows:

Selling price	$13 per unit
Direct material A	0.5 kg at $1.40 per kg
Direct material B	0.75 kg at $2.00 per kg
Direct wages	15 minutes at $8.80 per labour hour
Variable production overhead	$3.00 per direct labour hour
Fixed production overhead	$8.20 per direct labour hour

Required:

Calculate the budgeted profit for last month.

Calculate the following variances:

a. Direct materials price variance; [4]

b. Direct materials usage variance; [4]

c. Direct Materials total variance; [1]

d. Direct labour rate variance; [4]

e. Direct labour Efficiency Variance; [4]

f. Fixed overhead expenditure variance and; [4]

g. Variable overhead expenditure variance. [4]

Question 6

a) Discuss the principles underlying the Business Process Re-engineering as cost management approach. [15]

b) Explore the benefits and disadvantages of Business Process Re-engineering. [10]

END