



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION: BACHELOR OF ACCOUNTING	
QUALIFICATION CODE: 07BGAC	LEVEL: 6
COURSE CODE: CMA611S	COURSE NAME: COST & MANAGEMENT ACCOUNTING 201
SESSION: JUNE 2024	PAPER: THEORY AND CALCULATIONS
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINERS	Namwandi, H., Mbangula P., and Sheehama, K.G.H.
MODERATOR	Ms Kangala, H.

INSTRUCTIONS
<ul style="list-style-type: none">• Answer ALL the questions in blue or black ink only. NO PENCIL.• Start each question on a new page, number the answers correctly and clearly.• Write clearly, and neatly showing all your workings/assumptions.• Work with at least four (4) decimal places in all your calculations and only round off only final answers to two (2) decimal places.• Questions relating to this examination may be raised in the initial 30 minutes after the start of the examination. Thereafter, candidates must use their initiative to deal with any perceived errors or ambiguities and any assumptions made by the candidate should be clearly stated.

PERMISSIBLE MATERIALS

- Silent, non-programmable calculators

THIS QUESTION PAPER CONSISTS OF 4 PAGES (excluding this front page)

QUESTION 1**[25 Marks]****PART A****(12 marks)**

Tura-Kazi DIY Ltd has recently started making one type of special juice using watermelon. The product is sold in small bottles and is called "Sweet As It Taste (SAIT)". The following is production and sales information for the month of September 2023:

	<u>N\$</u>
Sales	665 000
Direct material cost	200 000
Direct labour cost	150 000
Variable production overhead	50 000
Variable selling & marketing overhead	19 000
Units sold	9 500
Units produced	10 000

Additional information is as follows:

1. Actual fixed production overhead for the month was N\$130 000.
2. Fixed administration overhead of N\$80 000 were incurred during the month, in line with the budget for the month.
3. The business does not expect to have any inventory as at 1 September 2023.

You are required to:

- (a) Calculate the break-even point in units. (6 marks)
- (b) Calculate the break-even point in sales dollars. (2 marks)
- (c) Compute profit-volume (contribution margin) ratio (2 marks)
- (d) Calculate percentage margin of safety (% MOS) (2 marks)

PART B**(13 marks)**

The industry in which Tura-Kazi DIY Ltd operates is becoming extremely competitive. To keep pace with the technological and maintain market share, the following are being considered:

Acquisition of new machinery, which will increase the current normal operating capacity of 10 000 units by 2 000 units; and increase the variable manufacturing overheads by 15% per unit. The acquisition of the new machinery will also result in an increase in total fixed manufacturing overheads by N\$258 000 from its current cost level and it will also increase the current selling price by 20%. The business expects to sell 100% of production with the new machinery and does not expect to have any opening inventory or closing inventory during the period. It is expected that all other variable costs per unit and other fixed costs will remain unchanged for the foreseeable future.

REQUIREMENT:

Advise the management of Tura Kazi DIY Ltd whether it should continue with its current operation without the acquisition of a new machine or buy the new machine. You should show your calculations to support your recommendations.

QUESTION 2**[25 Marks]**

Having attended a CIMA course on activity-based costing, you decide to experiment by applying the principles of ABC to the three products currently made and sold by your company. Selling prices are determined using cost plus 20% pricing. Total production volumes for products A, B, and C for the current period are 120 units, 100 units and 200 units, respectively. The following information relates to this production period:

Product	A	B	C
Direct material cost per unit	N\$40	N\$50	N\$30
Direct labour per unit	N\$28	N\$21	N\$35
Machine time per unit	4 hours	3 hours	5 hours

The three products are similar and are produced in production runs of 20 units and sold in batches of 10 units.

Total production overhead recorded by the cost accounting system is analysed under the following headings:

Cost Pools	N\$	Cost Drivers
Machine set up Costs	178 500	Number of production runs
Stores receiving costs	225 000	Requisitions raised
Inspection/Quality control	65 625	Number of production runs
Material handling costs	<u>4 620</u>	Orders executed
Total cost	473 745	

These overhead costs are absorbed by products at a machine hour rate, N\$15.

For the period, the number of requisitions raised was 20 requisitions for each product, while a total of 42 orders were executed, at 10 units per order.

The company wants to boost sales revenue to increase profits but has a limited capacity to utilize the option of increased volume. The finance manager suggested a move towards activity-based costing (ABC), away from full absorption costing. It is believed that this will alter the cost of the products, which may in turn result in different prices and hopefully increased profits.

You are required to:

- a) Calculate sales price per unit of each product using the current method of absorption costing. (6 marks)
- b) Calculate the full production cost per unit of each product using activity-based costing. (14 marks)
- c) Explain the terms "Activity-based costing", and "cost drivers" and state two examples of cost drivers. (5 marks)

QUESTION 3

[25 marks]

Tura'Ts is a Windhoek-based company that produces and sells t-shirts. The firm uses variable costing for internal purposes and absorption costing for external purposes. At year-end, financial information must be converted from variable costing to absorption costing to satisfy external requirements.

Company management decided to apply fixed manufacturing overhead to products using units of production. The selling price per t-shirt is N\$200.

The following are some data for 2019 and 2020:

	2019		2020
	Budget	Actual	Actual
Sales (units)	40 000	40 000	35 000
Opening inventory (units)	5 000	4 000	4 000
Production (units)	???	44 000	40 000
Closing inventory (units)	25 000	???	4 000
Variable manufacturing cost (total)	N\$500 000	N\$440 000	N\$400 000
Variable selling cost per unit	N\$2.25	N\$2.50	N\$2.50
Fixed production overhead	N\$120 000	118 000	130 000
Fixed selling costs	N\$130 000	75 000	75 000

REQUIRED:

Calculate the actual net profit for the year 2019 that would be reported under marginal and absorption costing. (25 Marks)

QUESTION 4**(25 MARKS)**

Muti Chemicals Ltd is a company that was established in Otjiwarongo in 2012 to answer the call from the President of Namibia for young entrepreneurs to start their own businesses. The president encouraged more Namibians to focus on Science Technology Engineering and Mathematics (STEM) fields so that the country can produce more products internally instead of relying on expensive imports from other countries.

In 2011, Hunga and his friends decided to put their knowledge, funds, and expertise together to establish a company that specializes in producing household cleaning chemicals. One of the best-selling Chemicals is the All-In-One Chemical which passes through three processes.

The cost records of Muti Chemicals Ltd show the following information for the year ended 31st December 2020 in relation to the All-In-One Chemical:

Particulars	Process A N\$	Process B N\$	Process C N\$
Additional Materials	48,620	108,259	103,345
Labour	32,865	84,553	77,180
Overheads	2,515	10,588	16,275
Normal Loss	20%	15%	10%
Scrap value (per unit)	1	2	3
Actual Output (in Units)	18,000	16,000	15,000

Input to the process at the beginning was 20,000 units @ N\$28 per unit.

Mr. Tsibeb a dedicated teacher at Outjo High School decided to take his Grade 12 accounting and business studies pupils on a school trip to visit a number of businesses in Otjiwarongo. One of the companies that were visited was Muti Chemicals Ltd where the pupils were introduced to process costing for the very first time. The pupils visited the factory and saw how different chemicals are produced. During the visit, the pupils were given a PowerPoint presentation by one of the accountants explaining how process accounts are prepared.

At the end of the visit, one of the brightest students Dawid Bengé made the following comment:

“Process costing is wonderful, and I think all the manufacturing companies in Namibia should adopt process costing”.

REQUIRED:

- Prepare the process accounts for the **3 processes** and show the cost per unit for each process (T-Account). (21 marks)
- State whether you agree or disagree with the statement that was made by the high school pupil and explain when the use of Process Costing is appropriate. (4 marks)

End of Question Paper