NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE

QUALIFICATION : BACHELOR OF ACCOUNTING	
QUALIFICATION CODE: 07BOAC	**LEVEL: 6**
COURSE: COST & MANAGEMENT ACCOUNTING 201	**COURSE CODE:** CMA611S
DATE: JUNE 2022	**SESSION:** THEORY & CALCULATIONS
DURATION: 3 HOURS	**MARKS:** 100

SECOND OPPORTUNITY EXAMINATION	
FIRST EXAMINER:	Ms H. Kangala, Mr G. Sheehama, Mr H. Namwandi
MODERATOR:	Mr K. Tjondu

INSTRUCTIONS

1. This question paper is made up of FIVE (5) questions.
2. Answer All the questions and in blue or black ink.
3. You are advised to pay due attention to expression and presentation. Failure to do so will cost you marks.
4. Start each question on a new page in your answer booklet and show all your workings.
5. Questions relating to this paper may be raised in the initial 30 minutes after the start of the paper. Thereafter, candidates must use their initiative to deal with any perceived error or ambiguities and any assumption made by the candidate should be clearly stated.

PERMISSIBLE MATERIALS

Non-programmable calculator/financial calculator

THIS QUESTION PAPER CONSISTS OF 7 PAGES (Including this front page)

Question 1 **20 Marks**

Sonny Limited manufactures a single product that is sold to retailers at N$40 per unit. Fixed manufacturing overheads are allocated as a percentage of direct material cost. The budgeted fixed manufacturing overheads amount to N$75 000 and are based on a budgeted direct material cost of N$50 000.

The total actual production and other costs for 2020 are as follows:

Direct material	N$ 44 800
Direct labour	N$ 90 400
Variable manufacturing overheads	N$ 31 200
Variable selling and admin cost	N$ 1 500
Fixed marketing cost	N$ 30 000
Fixed manufacturing overheads	N$ 70 000
Fixed manufacturing overheads recovery rate	150% of direct material cost

Sonny Limited produced 8 000 units in 2020. There were 3 000 units in opening inventory and 10 000 units were sold. Production was 20% more in 2021 than in 2020 and there were 1 300 units in closing inventory. Direct material, direct labour and variable manufacturing costs increased by 10% in 2021. Fixed marketing costs increased by 5% in 2021. The actual fixed manufacturing overhead cost for 2021 amounted to R85 000.

Requirement:		**(20)**
a)	Determine the flow of units for 2020 and 2021.	(2)
b)	Calculate the unit cost using the absorption costing method for 2020 and 2021.	(4)
c)	Compile the statement of comprehensive income for 2021 if we use the direct costing methods.	(9)
d)	The net income for the statement of comprehensive income using the absorption costing method is N$34 458. Reconcile the difference in profit (if any) between the two methods for 2021.	(5)

Question 2 **20 Marks**

Triple Limited makes three types of gold watch, the Diva (D), the classic (C) and the Poser (P). A traditional product costing system is used at present, although and activity-based costing (ABC) system is being considered. Details of the three products for a typical period are:

	Hours per unit		Material	Production unit
	Labour hours	Machine hours	Cost per unit (N$)	
Product D	½	1½	20	750
Product C	1½	1	12	1 250
Product P	1	3	25	7 000

Direct labour cost N$6 per hour and production overheads are absorbed on a machine hour basis. The overhead absorption rate for the period is N$28 per machine hour.

Total production overheads are N$654 500 and further analysis shows that the total production overheads can be divided as follows:

	%
Cost relating to set-ups	35
Cost related to machinery	20
Cost relating to materials handling	15
Costs relating to inspection	30
Total production overhead	**100**

The following total activity volumes are associated with each product line for the period as a whole:

	Number of set-ups	Number of movements of materials	Number of inspections
Product D	75	12	150
Product C	115	21	180
Product P	480	87	670
	670	**120**	**1 000**

Requirement:		(20)
a)	Calculate the cost per unit for each product using traditional methods, absorbing overheads based on machine hours.	(3)
b)	Calculate the cost per unit for each product using ABC principles (work to two decimal places).	(12)
c)	Explain why costs per unit calculated under ABC are often very different to costs per unit calculated under more traditional methods. Use the information from Triple Limited to illustrate.	(5)

Question 3 **15 Marks**

AXC Limited produces joint products X, Y, Z and by-product XZ. The products are manufactured in a common process, after which they are separated and processed further. Joint costs are allocated using the sales value at split-off method, while the proceeds of the by-product are treated as a reduction of the joint production cost of N$330 000. It is not possible to sell product XZ without an additional production process after the split-off point. Inventory is valued on a first-in-first-out (FIFO) basis. The following information relates to AXC's joint process:

	Product X	**Product Y**	**Product Z**	**Product XZ**
Selling price at split-off point	N$50	N$90	N$34	N$12
Selling price after further processing	N$90	N$150	N$70	-
Further processing cost (total)	N$200 000	N$150 000	N$270 000	N$12 000
Unit produced	5 000	2 000	5 000	3 500
Unit in opening inventory	800	700	600	-
Units in closing inventory	1 000	500	2 000	-
Unit cost of opening inventory	N$60	N$66	N$45	-

Required:

a) Calculate the gross profit per product and in total. **(15)**

Question 4 **35 Marks**

PART A **(12 marks)**

Hemco Limited uses a process costing system to manufacture a range of automotive paints. The final product (paint) passes through two processes, the mixing process where the paint is essentially manufactured from mixing different ingredients and the thinning process where the manufactured paint is then mixed with a liquid that gives it the correct thickness. Raw materials are added at the beginning of each process and conversion cost (labour and overheads) are incurred evenly throughout both processes.

The company has just introduced a new metallic high gloss paint and the following details relate to the mixing process for the month of April 2022:

Inputs in the period	10 000 litres
- Materials	N$25 per litre
- Conversion cost	N$362 700
Normal loss	2%
Scrap value	N$10 per litre
Actual loss in process	220 litres
Closing WIP	Nil

All losses from Process 1 were sold at N$15 per unit.

Requirement:		**(12)**
a)	Prepare the following completed accounts for the most recent financial period (show all workings): i) Mixing process account (6) ii) Normal loss account (2) iii) Abnormal loss/Abnormal gain account (2)	(10)
b)	In relation to process costing, explain the difference between the FIFO and Average (Weighted Average) methods for valuing inventory.	(2)

Note: round off to three numbers after decimal.

PART B **(23 marks)**

Based on the information provided in this question Part A above, assuming 97 800 litres at a cost of N$609 340 were transferred from Mixing process during the month of April 2022. You are also provided with the following details relate to the Thinning process for the month of April 2022:

	Thinning
Opening WIP	3 000 litres
Materials % completed	100%
Conversion cost % completed:	50%
- Materials	N$42 000
- Conversion cost	N$55 750
Inputs in the period	
- Materials	N$132 000
- Conversion cost	N$315 250
Closing WIP	4 000 litres
Materials % completed	100%
Conversion costs % completed	40%

Requirement:		**(23)**
a)	Briefly outline the circumstances where process costing may be suitable as a method of valuing production and provide two examples.	(4)
b)	Determine the value of equivalent production units completed as well as the value of closing work-in-progress (WIP) using: (i) The first in first out (FIFO) method of valuing inventory. (10) (ii) The weighted average method of valuing inventory. (9)	(19)

Note: round off to four numbers after decimal.

Question 5 **(10 Marks)**

Shona Ltd manufactures and sells a single product. Due to adverse events in the social and political climate, the company has experienced a decline in their profits over the past three years. The management accountant has therefore decided to investigate a proposal to increase profitability, offered by the marketing department.

The following budgeted income statement has been prepared for next year.

Sales		12 000 000
Less: Total costs		10 500 000
Direct materials	3 600 000	
Direct labour	3 000 000	
Variable overheads	1 200 000	
Fixed overheads	2 700 000	
Net profit		1 500 000

The budgeted figures provided above exclude the following cost increases foreseen in the next year: The material price is expected to increase by 5%; the labour rates are expected to increase by 3%; and the fixed overhead is expected to increase by N$300 000.

The marketing department has proposed a reduction in the selling price of the single product by 5%. It is expected that this reduction in the selling price will increase the number of units sold by 20%.

Required:

Prepare Shona Ltd.'s income statement considering the changes predicted by the proposal.

(10)

END OF QUESTION PAPER