



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION**

**CENTER FOR ENTERPRISE DEVELOPMENT (CED)**

<b>QUALIFICATION: DIPLOMA IN BUSINESS PROCESS MANAGEMENT</b>	
<b>QUALIFICATION CODE: 06DBPM</b>	<b>LEVEL: 6</b>
<b>COURSE CODE: BAC521C</b>	<b>COURSE NAME: BUSINESS ACCOUNTING 1B</b>
<b>SESSION: MAY 2022</b>	<b>PAPER: THEORY AND CALCULATIONS</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 100</b>

**FIRST OPPORTUNITY EXAMINATION QUESTION PAPER**

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**INSTRUCTIONS**

1. This question paper is made up of four (4) questions.
2. Answer **ALL** the questions and in blue or black ink. **NO** pencil
3. Start each question on a new page in your answer booklet and **show all workings**.
4. Work with four (4) decimal places in all your calculations and only round off only final answers to two (2) decimal places unless otherwise stated.
5. Questions relating to this examination 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 & any assumption made by the candidate should be clearly stated.

**PERMISSIBLE MATERIALS**

1. Silent, non-programmable calculators

**THIS QUESTION PAPER CONSISTS OF 8 PAGES** (including this front page)

**QUESTION 1****[25 MARKS]**

For questions 1.1 – 1.25, write the answer only (the correct letter chosen) in your answer sheet/answer book and not on the question paper.

1.1 Which of the following words DOES NOT describe main focus of Management Accounting?

- a) Planning
- b) Control
- c) External
- d) Decision-making

1.2 Which of the following statements are true?

- 1. The main role of the management accountant is to produce financial accounts
  - 2. Management accountants always work within the finance function
  - 3. Management accountants always work in partnership with business managers
- a) 1 and 2 only
  - b) 2 and 3 only
  - c) 1 and 3 only
  - d) None of the above

1.3 The audit fee paid by a manufacturing company would be classified by that company as:

- a) Production overhead cost
- b) Selling and distribution cost
- c) Research and development cost
- d) Administration cost

1.4 A hospital's records show that the cost of carrying out health checks in the last five accounting periods have been as follows:

Period	Number of patients	Total cost (N\$)
1	650	17 125
2	940	17 800
3	1 260	18 650
4	990	17 980
5	1 150	18 360

What is the estimated cost of carrying out health checks on 850 patients in period 6 Using the high-low method?

- a) N\$17 515
- b) N\$17 570
- c) N\$17 625
- d) N\$17 680

1.5 For decision-making purposes, which of the following are relevant costs?

- (i) Avoidable cost
- (ii) Future cost
- (iii) Opportunity cost
- (iv) Differential cost

- a) (i), (ii), (iii) and (iv)
- b) (i) and (ii) only
- c) (ii) and (iii) only
- d) (i) and (iv) only

1.6 Cost centres are

- a) Units of output or service for which costs are ascertained.
- b) Functions or locations for which costs are ascertained.
- c) A segment of the organization for which budgets are prepared
- d) Amounts of expenditure attributable to various activities

1.7 Which ONE of the following costs would NOT be classified as a production overhead cost in a food processing company?

- a) The cost of renting the factory building
- b) The salary of the factory manager
- c) The depreciation of equipment located in the materials store
- d) The cost of ingredients

1.8 In the Formula  $Y = a + bx$ ; b refers to

- a) Slope
- b) Intercept
- c) Dependent variable
- d) Total variable costs

1.9 Advantages of the method of simple regress (least squares) over the high-low method include all of the following EXCEPT

- a) A statistical method is used to mathematically derive the cost function.
- b) Only two points are used to develop the cost function.
- c) The squared differences between actual observations and the line (cost function) are minimized.
- d) All the observations have an effect on the cost function.

1.10 Which of the following is the best definition of a step-fixed cost?

- a) It is a cost that is constant in total over the relevant range.
- b) It is a cost that varies in total in direct proportion to changes in activity.
- c) It is a cost that follows a step-cost behavior with narrow steps.
- d) It is a cost that follows a step-cost behavior with wide steps.

1.11 Which of the following best describes the difference between the high-low method and the scatterplot method?

- a) The high-low method uses all of the activity points; the scatterplot method uses only two points.
- b) The high-low method uses the high activity point and the low activity point; the scatterplot method allows the user to select two points that better represent the relationship between activity and costs.
- c) The high-low method uses the coefficient of correlation; the scatterplot method uses the coefficient of determination.

- d) The high-low method uses costs from the accounting records; the scatterplot method uses costs from the operating records.
- 1.12 Which of the following costs remain constant in total when the level of the activity driver varies?
- Conversion costs
  - Direct costs
  - Fixed costs
  - Mixed costs
- 1.13 Managerial Accounting and Financial Accounting differ in the following way:
- Financial Accounting emphasizes forecasts of future performance.
  - Financial Accounting summarizes information for the company as a whole.
  - Financial Accounting is private information for company managers
  - Financial Accounting emphasizes timeliness over precision.
- 1.14 The management function of controlling is carried out through the use of
- A performance report that compares budgeted to actual results.
  - A reconciliation of the beginning and ending retained earnings balances.
  - A schedule of cash collections and cash payments
  - A forecast of next period's production.
- 1.15 Conversion costs include:
- Manufacturing overhead costs
  - Direct material costs
  - Sales commission costs
  - Advertising costs
- 1.16 The following costs were incurred in September 2020:
- |                         |           |
|-------------------------|-----------|
| Direct materials        | N\$39 000 |
| Direct labour           | N\$23 000 |
| Manufacturing overhead  | N\$17 000 |
| Selling expenses        | N\$14 000 |
| Administrative expenses | N\$27 000 |
- Prime costs during the month totalled?**
- N\$79 000
  - N\$120 000
  - N\$62 000
  - N\$40 000
- 1.17 Last month 10 000 units of a product were manufactured, and the total cost per unit was N\$60. At this level of production, the variable cost is N\$30 per unit and the fixed cost is N\$30 per unit. If 10 500 units are manufactured the next month, and the costs remain within the same relevant range:
- Total variable cost will remain unchanged.
  - Fixed costs will increase in total
  - Variable cost per unit will increase
  - Total cost per unit will decrease

- 1.18 Which of the below methods is NOT used to estimate and separate mixed costs?
- High Low method
  - Scatter Graph method
  - Least squares method
  - Contribution method
- 1.19 Which of the following costs is an example of a period rather than a product cost?
- Depreciation on production equipment
  - Salaries of salespersons
  - Wages of production machine operators
  - Insurance on production equipment
- 1.20 Cost can be classified by EXCEPT
- Element
  - Behaviour
  - Importance to the business
  - Timing
- 1.21 Fixed costs that management can decide not to incur at any time are
- Always variable costs
  - Unavoidable costs
  - Controllable costs
  - Discretionary costs
- 1.22 As volume changes, which of these costs could be considered a mixed cost?
- Sales commission expense
  - Assembly line labour
  - Salaries of the accountant
  - Utilities at the manufacturing plant
- 1.23 Within the relevant range
- Total variable costs decrease as production cost increases
  - Fixed costs per unit decreases as production decreases
  - Total fixed costs remain the same when production increases or decreases
  - Total variable costs remain the same when production increases or decreases
- 1.24 The potential benefit of one alternative that is lost by choosing another alternative is known as
- Sunk cost
  - Differential cost
  - Opportunity cost
  - Out-of-pocket cost
- 1.25 Manufacturing costs typically consist of
- Direct materials, direct labour, and manufacturing overhead.
  - Production and shipping costs.
  - Production and marketing costs.
  - Direct materials, direct labour, and administrative costs. e. direct materials, direct labour, marketing and administrative costs.

**QUESTION 2****[25 MARKS]**

Bailey is a Namibian fisherman who works in a newly established organisation called Shimano Manufacturers. This organisation was founded by Mr Sage in late 2012. It specialises in the catching and processing of fresh salmon to manufacture fish cakes for the retail industry across the country. Bailey earns a basic wage rate of N\$60 per hour. Shimano manufacturers operate eight hours a day, five days a week, fifty-two weeks per annum. Employees also work one Saturday every month for five hours which is considered a normal overtime remunerated at 1.5 times the normal rate. The organisation's policy is to award employees a birthday bonus of N\$10 000. Employees are entitled to twelve days annual leave and there are seventeen public holidays a year. Both the employer and employee contribute to the pension fund on a 60:40 basis, and on equal basis for the medical aid fund. Monthly pension fund contribution made by Bailey is N\$1 400. Total weekly medical aid contribution is N\$700. The organisation's annual Unemployment Insurance Fund (UIF) contribution is N\$4 750. Idle time is calculated at a rate of 7% of available hours.

	<b>REQUIREMENT</b>	<b>MARKS</b>
a)	Determine the total annual labour cost for Shimano Manufacturers.	<b>11</b>
b)	Determine the total annual productive hours for Shimano Manufacturers.	<b>7</b>
c)	Explain the term "labour recovery rate" and compute the labour recovery rate for Shimano Manufacturers.	<b>3</b>
d)	Differentiate idle time from overtime	<b>4</b>
<b>TOTAL</b>		<b>25</b>

**QUESTION 3****[25 MARKS]**

Steel Works Ltd is a steel company based in Windhoek that produces various models of steel for the construction industry. Steel Works services its customers through a job costing system. Steel Works operates three production departments namely: Cutting, Assembly and Finishing. Work begins in the Cutting department where customers request different cuts depending on what they want to use the steel for. As a result, the Cutting department is labour intensive requiring employees to pay attention to the design required by the customer. Once the cutting has been done, the machines in the Assembly department are able to put together the different pieces and the machines in the Finishing department will polish the final product to be ready either for customer collection or delivery. For smooth flow of production, the three production departments require the support of two service departments: Maintenance and Materials Handling. For the forthcoming year, Steel Works has budgeted to incur the following overheads in the specific departments:

	<b>N\$</b>
Cutting	268 100
Assembly	248 810
Finishing	187 090
Maintenance	112 000
Materials Handling	104 000

The above departments will also concurrently incur the following costs:

	<b>N\$</b>
Machine depreciation	160 000
Power for machines	320 000
Rent and rates	288 000

Additional information regarding the operations of Steel Works is also detailed as below:

	<b>Cutting</b>	<b>Assembly</b>	<b>Finishing</b>	<b>Maintenance</b>	<b>Materials Handling</b>	<b>Total</b>
Machine value	N\$600 000	N\$420 000	N\$240 000	N\$135 000	N\$105 000	N\$1 500 000
Floor area (m2)	9 000	5 400	1 800	1 200	1 800	19 200
Estimated power usage	22%	40%	26%	6%	6%	100%
Machine hours	2 000	6 000	2 000			10 000
Direct labour hours	4 000	3 000	1 000			8 000
Maintenance hours	500	250	250			1 000
Direct labour hour rate	N\$100	N\$90	N\$110			n/a
Requisition requests to Materials Handling	1 000	700	300			2 000

	REQUIREMENT	25
a)	Using the information provided, prepare a schedule that analyses the above overheads into specific departments clearly showing the basis used for apportionment.	14
b)	Using the direct method, re-apportion the service department costs to the three production departments and determine the total overheads in each of the production departments.	6
c)	Compute the predetermined overhead absorption rates for each of the production departments.	5

#### QUESTION 4

[25 MARKS]

Shilongo & Shikongo company Ltd has just opened a bookshop. They buy management accounting textbooks from Van Schaik publishers and sell them to the students who are studying towards accounting qualifications at institutions of higher learning in Namibia. You have been appointed as inventory accountant at the bookshop, where inventory is a major problem because of high storage costs. The company also experiences a serious problem because it does not have a record about when the books are bought or sold. Now, Shilongo and Shikongo company Ltd wants to install an efficient inventory control and pricing system within the company and seeks your advice on a number of issues. Shilongo & Shikongo company Ltd uses First-In- First Out (FIFO) method for inventory valuation.

The textbook price has fluctuated over the period since June 2021. You are given the following information:

1 July:	Textbooks on hand: 500 @ total of N\$225 000.
2 July:	Cash purchases from Van Schaik Publishers: 150 textbooks @ N\$500 per textbook.
10 July:	Credit purchases from Van Schaik Publishers: 50 textbooks @ total of N\$27 500.
12 July:	Returns to Van Schaik Publishers 50 textbooks that was purchased on the 2 July because the box was damaged when bought.
13 July:	550 textbooks were sold @ N\$800 per textbook.
20 July:	Textbooks returned to Van Schaik Publishers on the 12 July were replaced.
25 July:	Administrative and selling expenses of N\$90 000 was paid with credit card.



**Additional information:**

- The costs to place an order consist of telephone and stationery which amounts to N\$250 and N\$300, respectively.
- It takes Van Schaik Publishers 15 days to effect delivery from the date the order is placed online.
- Annual storage cost per unit is N\$75.
- The company's annual average demand for the textbooks is 49 680 books.
- The company operates for 345 days a year.
- The company has decided not to keep minimum inventory of textbooks because the supplier always delivers on time.
- The company has also changed its policy of applying FIFO in measuring inventory and it has opted for the Weighted Average method of measuring inventory.

	<b>REQUIREMENT</b>	<b>MARKS</b>
a)	Calculate the level at which Shilongo & Shikongo company Ltd needs to procure additional textbooks from Van Schaik Publishers to avoid stockouts.	<b>3</b>
b)	Calculate the size of order that will result in minimisation of ordering and holding costs for the company.	<b>4</b>
c)	Determine annual ordering costs.	<b>3</b>
d)	Calculate average inventory.	<b>3</b>
e)	Compile an inventory ledger card to determine the value of the textbooks in closing inventory for July 2021.	<b>7</b>
f)	Determine how much profit or loss was made during the month of July.	<b>5</b>
<b>TOTAL</b>		<b>25</b>

**END OF EXAMINATION QUESTION PAPER**

