MAMIBIA UMIVERSITY
OF SCIEПCE AПD TECHПOLOGY

## FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

## DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

| QUALIFICATION: BACHELOR OF ACCOUNTING |  |
| :--- | :--- |
| QUALIFICATION CODE: 07BOAC | LEVEL: 5 |
| COURSE CODE: CMA512S | COURSE NAME: COST \& MANAGEMENT ACCOUNTING 102 |
| SESSION: JANUARY 2024 | PAPER: THEORY AND CALCULATIONS |
| DURATION: 3 HOURS | MARKS: 100 |


| SECOND OPPORTUNITY EXAMINATION QUESTION PAPER |  |
| :--- | :--- |
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| MODERATOR | Helmut Namwandi |

## INSTRUCTIONS

1. This question paper consists of FOUR (4) questions
2. Answer ALL questions in blue or black ink only. NO PENCIL.
3. Start each question on a new page, and number the answers correctly and clearly.
4. Write clearly, and neatly showing all your formulas and workings.
5. 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

For questions 1.1-1.15, just write the answer only (the correct letter chosen) in your answer book and not on the question paper. Do not copy the question again
1.1 Which of the following states how a fixed cost behaves as volume changes?
a) remains constant in total and remains constant per unit
b) remains constant in total and changes per unit
c) changes in total and remains constant per unit
d) changes in total and changes per unit
e) None of the above
1.2 Indirect labour costs are manufacturing overhead because:
a) it is easy to determine how much is used to make one product
b) they are so insignificant that you don't have to use them to make the product
c) they are difficult to track and a necessary cost to make the product
d) they are expensed as incurred
e) None of the above
1.3 The cost of window frames to a homebuilder would be what type of cost?
a) period, direct materials
b) period, indirect materials
c) product, direct materials
d) product, indirect materials
e) None of the above
1.4 Conversion costs would consist of
a) wood in a table and the worker that makes the table
b) the supervisor's wages and the worker who makes the table
c) wood in a table and the cost of utilities at the plant
d) the steel tubing in the table and the worker that makes the table
e) None of the above
1.5 The distinction between direct and indirect costs depends on whether a cost
a) is controllable or non controllable
b) can be conveniently traced to a product
c) is included in manufacturing costs
d) is paid weekly or monthly product, indirect materials
e) None of the above
1.6 A manufacturing company makes cell phones. Conversion costs that change raw materials to become finished products cost $N \$ 669$ 000. The workers on the production line were paid $N \$ 550$ 000. The prime cost at the manufacturing plant cost $\mathrm{N} \$ 730000$. The company had no opening or closing inventories of work-in-progress. What was the cost of goods manufactured for the period?
a) $N \$ 849000$
b) $N \$ 730000$
c) $\mathrm{N} \$ 669000$
d) $\mathrm{N} \$ 550000$
e) None of the above

The following details refer to questions 1.7-1.9:
Vungo Ltd has been using an overhead absorption rate based on direct labour costs. At the beginning of the year, the company estimated that the conversion and direct labour costs would be N\$540 000 and $N \$ 240000$, respectively. During the year, the company incurred $N \$ 500000$ and $N \$ 200000$, in actual conversion and direct labour costs, respectively.
1.7 The amount of budgeted absorption overhead rate during the year was:
a) $125 \%$ of direct labour cost
b) $44 \%$ of direct labour cost
c) $125 \%$ of conversion cost
d) $40 \%$ of conversion cost
e) None of the above
1.8 The amount of applied manufactured overheads for the period was...
a) $N \$ 120000$
b) $N \$ 150000$
c) $N \$ 250000$
d) $\mathrm{N} \$ 220000$
e) None of the above
1.9 The amount of under/over-applied manufactured overheads for the period was....
a) $N \$ 60000$
b) $N \$ 50000$
c) $N \$ 40000$
d) $N \$ 30000$
e) None of the above
-
1.10 Double Quality Company's direct material cost is $40 \%$ of its total prime costs, if conversion is $\mathrm{N} \$ 120000$ and direct labour is $70 \%$ of its total conversion costs.

The amount of direct material cost incurred during the period was...
a) $\mathrm{N} \$ 84000$
b) $\mathrm{N} \$ 48000$
c) $\mathrm{N} \$ 56000$
d) $\mathrm{N} \$ 36000$
e) None of the above

## The following information refers to questions 1.11 to 1.13

Overton Ltd uses predetermined overhead cost rates in its job costing system. The cost rate is calculated as a cost per labour hour. The following information relates to one month of operations.

| Estimated direct labour hours for normal activity | 20000 hours |
| :--- | :--- |
| Estimated factory overhead cost in total | N\$100 000 |
| Actual hours worked on jobs in the month | 19000 hours |
| Actual factory overhead cost incurred | N\$96000 |

1.11 What is the amount of Absorption overhead rate?
a) $\mathrm{N} \$ 5$ per machine hour
b) $\mathrm{N} \$ 5$ per labour hour
c) $\mathrm{N} \$ 4$ per machine hour
d) $\mathrm{N} \$ 4$ per labour hour
e) None of the above
1.12 What is the amount of applied factory overhead?
a) $N \$ 95000$
b) $N \$ 96000$
c) $N \$ 97000$
d) $N \$ 98000$
e) None of the above
1.13 What is the amount of under-applied or over-applied overhead?
a) $\mathrm{N} \$ 1000$ over-applied
b) $\mathrm{N} \$ 1000$ under-applied
c) $\mathrm{N} \$ 4000$ over-applied
d) N\$4000 under-applied
e) None of the above

The following information refers to Questions 1.14 and 1.15:

| Details | Production cost centres |  |  | Service cost centre |
| :--- | :---: | :---: | :---: | :---: |
|  | Cost <br> centre 1 | Cost <br> centre 2 | Cost <br> centre 3 | Human <br> Resources |
| Budgeted overheads | $\mathrm{N} \$ 150500$ | $\mathrm{~N} \$ 56000$ | $\mathrm{~N} \$ 108620$ | $\mathrm{~N} \$ 40000$ |
| Number of employees | 40 | 45 | 55 | 20 |
| Number of machine hours | 15000 | 10000 | 11000 | - |

1.14 When the secondary apportionment of the overheads of the service cost centre is done, the amount to be apportioned to Cost Centre 2 is ......
a) $N \$ 10000$
b) $N \$ 11000$
c) $N \$ 12000$
d) $N \$ 13000$
e) None of the above
1.15 The manufacturing overhead absorption rate for Cost Centre 2 is .....
a) $N \$ 6.20$
b) $N \$ 6.40$
c) $N \$ 6.60$
d) $N \$ 6.80$
e) None of the above

## QUESTION 2

August Twenty-Six Manufacturing (Pty) Ltd is a manufacturer of Specialised Garments, Footwear and Leather products such as Personal Protective Wear, Corporate wear, School Uniforms and Shoes. August Twenty-Six has two manufacturing departments and two service departments. Manufacturing Department 1 is labour-intensive while Department 2 is machine-intensive. The following information relates to August Twenty-Six Manufacturing (Pty) Ltd:

|  |  | Manufacturing Departments |  | Service Departments |  |
| :--- | ---: | :---: | :---: | :---: | :---: |
|  | TOTAL | Dept 1 | Dept 2 | Dept A | Dept B |
|  | N\$ | N\$ | N\$ | N\$ | N\$ |
| Allocated Overheads | 86850 | 32400 | 29200 | 12400 | 12850 |
| General Overheads |  |  |  |  |  |
| Indirect Labour | 32000 |  |  |  |  |
| Heat and Light | 48600 |  |  |  |  |
| Repairs and Maintenance | 34700 |  |  |  |  |
| Canteen Subsidy | 5100 |  |  |  |  |
| Machine Depreciation | 10400 |  |  |  |  |
| Machine Insurance | 6250 |  |  |  |  |
| TOTAL | 223900 |  |  |  |  |

The following additional was extracted from the company's management accounting records

|  | Manufacturing Departments |  | Service Departments |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Dept 1 | Dept 2 | Dept A | Dept B |
|  | N\$ | N\$ | N\$ | N\$ |
| Floor area m ${ }^{2}$ | 2500 | 4000 | 1000 | 500 |
| Direct labour hours | 30000 | 5000 | - | - |
| Indirect labour hours | 30000 | 5000 | - | - |
| Direct labour rate per hour (N\$) | 12 | 8 | - | - |
| Number of staff | 30 | 5 | - | - |
| Machine hours | 2500 | 25000 |  |  |
| Machine value (N\$) | 40000 | 200000 | 10000 |  |

Service department overheads are to be re-apportioned as follows:

|  | Manufacturing Departments |  |
| :--- | :---: | :---: |
|  | Dept 1 | Dept 2 |
| Service dept A overheads | $20 \%$ | $80 \%$ |
| Service dept B overheads | $50 \%$ | $50 \%$ |

Data on two jobs being undertaken by the company is as follows:


QUESTION 3 (This question consists of two unrelated parts)

## PART A

Steve Jobs is an intern at the Pupkewitz Toyota manufacturing plant. He wants to buy a motor vehicle and is therefore trying to determine his affordability. Mr Jobs is remunerated at $\mathrm{N} \$ 50$ per hour. He works on average 40 hours per week. The following information is in respect of medical aid and pension fund contributions, by employees and employer:

| Medical aid (taxable) | $5 \%$ of basic/normal wage per week for employer and <br> employee |
| :--- | :--- |
| Pension fund (non-taxable) | $8 \%$ of basic/normal wage per week for both employer and <br> employee |
| Pay As You Earn (PAYE) | $33 \%$ of taxable income |
| Social Security Commission (SSC) | Both contribute N\$20 per week |

Mr Jobs worked as follows for the week ending 7 October 2023:

|  | Hours |
| :--- | :---: |
| Monday | 10 |
| Tuesday | $101 / 2$ |
| Wednesday | 8 |
| Thursday | $91 / 2$ |
| Friday | 8 |
| Saturday | 3 |

Overtime is remunerated as follows:

- Normal overtime: $11 / 2$ times normal time
- Sundays and public holidays: twice the normal time

| REQUIRED | MARKS |
| :--- | :---: |
| Calculate the net wage for Steve Jobs for the week ended 7 October 2023 to the nearest <br> dollar | $\mathbf{9}$ |

PART B
The following information relates to Mr. B Dlamini, an employee of Strictly Signs (PTY) LTD.

| Basic Salary | N\$ 6 500 per month |
| :--- | :--- |
| Telephone Allowance | N\$ 250 per month |
| Travel Allowance | N\$ 800 per month |
| Bonus | $10 \%$ of the basic salary |
| Pension contributions (Employer) | $7.5 \%$ of the basic salary |
| Medical contributions (Employer) | $2.5 \%$ of the basic salary |
| Social Security Commission contributions (Employer) | N\$81 per month |
| Annual leave | 3 weeks per year |
| Public holidays | 11 days |
| Idle time | $5 \%$ of available time |
| Normal working hours | 40 hours (5-day week) |
|  |  |


| REQUIRED: Using 52 weeks in a year |  | MARKS |
| ---: | :--- | :---: |
| a) | Calculate the annual labour cost for Mr B Dlamini | $\mathbf{9}$ |
| b) | Calculate the actual production hours for Mr B Dlamini | $\mathbf{6}$ |
| c) | Calculate the hourly recovery rate for Strictly Signs (PTY) LTD | $\mathbf{1}$ |

## QUESTION 4

[20 MARKS]
At the beginning of 2022, Vavi Ltd budgeted their manufacturing overheads to be $N \$ 460000$ for the year. They also estimated direct labour hours for the year at 115,000 . By the end of the year, the following information was recorded:

| Actual direct labour hours worked | 20600 |
| :--- | ---: |
| Inventory (1 January 2022): | NS |
| Raw material |  |
| Work in progress | 42000 |
| Completed goods | 28000 |
| Raw material purchased | 22000 |
| Payroll summary: Direct labour | 184000 |
| Indirect labour | 150000 |
| Factory cleaning material | 30000 |
| Finance charges | 6600 |
| Depreciation: Factory plant | 1600 |
| Office equipment | 12000 |
| Salaries of sales staff | 6000 |
| Sales | 36000 |
| Inventory (31 December 2022): | 628000 |
| Raw material | 50000 |
| Work in progress | 18000 |
| Completed goods | 30000 |


| REQUIRED: Using 52 weeks in a year | MARKS |
| :--- | :---: |
| Prepare the production statements for the year ended 31 December 2022; and prepare <br> the statement of adjusted cost of goods manufactured and sold (cost of sales). | $\mathbf{2 0}$ |

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