higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

# NATIONAL CERTIFICATE (VOCATIONAL)

## PLANT AND EQUIPMENT
### NQF LEVEL 2

(12030052)

**24 November 2023 (Y-paper)**
**13:00–16:00**

**This question paper consists of 7 pages.**



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# DEPARTMENT OF HIGHER EDUCATION AND TRAINING
# REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
PLANT AND EQUIPMENT
NQF LEVEL 2
TIME: 3 HOURS
MARKS: 100

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**INSTRUCTIONS AND INFORMATION**

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Use only a blue or black pen.
5. Write neatly and legibly.

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## QUESTION 1

1.1 Tools mechanisation has resulted in ongoing technical progress.

List TWO mechanised hand tools that led to better and faster ways of working. (2)

1.2 State THREE points to consider when selecting the right construction equipment. (3)
**[5]**

## QUESTION 2

2.1 Health and safety are important considerations for any construction project in order to comply with the law and regulations.

List FIVE main checks that should be done during health and safety audits. (5)

2.2 Construction is a dangerous and risky job.

State THREE problems contributing to a construction site becoming unsafe. (3)

2.3 Documenting incidents helps to identify dangers in the work environment and to avoid situations that could potentially endanger people.

State FIVE core details to consider when documenting an incident report. (5)

2.4 State TWO safety considerations when working on heights. (2)
**[15]**

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**QUESTION**

3.1 Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–G) next to the question number (3.1.1–3.1.5) in the ANSWER BOOK.

| COLUMN A | | COLUMN B | |
|---|---|---|---|
| 3.1.1 | Something that can cause harm | A | pulse |
| 3.1.2 | Damage to your body | B | artificial respiration |
| 3.1.3 | The number of times a heart beats within a certain period | C | injury |
| | | D | shock |
| 3.1.4 | The process of identifying a disease or condition | E | hazard |
| 3.1.5 | A technique for providing air for a person who is not breathing on their own | F | artificial bleeding |
| | | G | diagnose |

(5 × 1) (5)

3.2 First aid is the first and immediate assistance given to a person with a minor or a serious illness or injury.

State FIVE things a first aider should ensure when attending to someone who is injured. (5)

3.3 Burns are grouped into different categories based on how deeply the skin has been harmed.

List THREE degrees of burns. (3)

3.4 Write the full terms for the following abbreviations:

3.4.1 AR

3.4.2 CPR

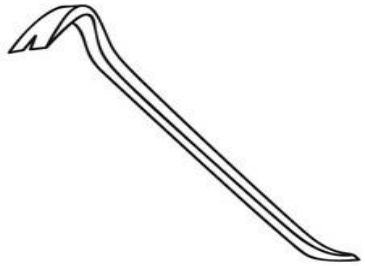
(2 × 1) (2)

**[15]**

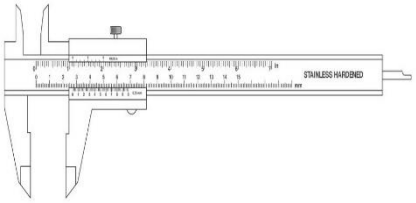
## QUESTION 4

4.1 The diagrams below show general tools. Name the tools and state ONE use of each. Write only the answer next to the question number (4.1.1–4.1.5) in the ANSWER BOOK.

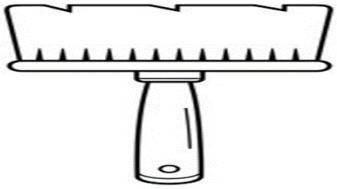
4.1.1



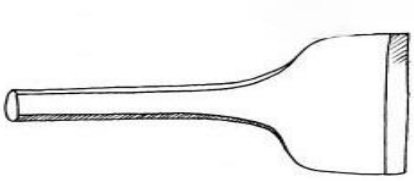
4.1.2



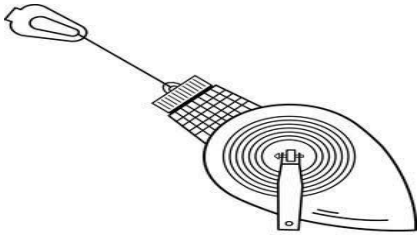

4.1.3



4.1.4



4.1.5



(5 × 2) (10)

4.2 Name THREE specialist plumbing tools that a plumber will use to install the plumbing in a building. (3)

4.3 List THREE forms of polygons. (3)

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4.4 Explain the process to mark out, cut and assemble plywood to create a simple shutter used as a concrete mould. (10)

4.5 A chisel is a tool that is used in fields such as carpentry, masonry and other types of construction work.

State FOUR advantages of using chisels. (4)
**[30]**

## QUESTION 5

5.1 Name the TWO main types of ladders. (2)

5.2 State THREE important points to consider when setting up a straight or an extension ladder. (3)

5.3 Explain the checks to be made during the inspection of ladders before usage. (5)
**[10]**

## QUESTION 6

6.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (6.1.1–6.1.10) in the ANSWER BOOK.

6.1.1 A component is a part or a piece of something.

6.1.2 Access is an important part of the design of scaffolding.

6.1.3 An inspection register is a document that the employer uses to indicate which components of scaffolding are fit for their purpose.

6.1.4 A mobile tower is scaffolding that is erected on the baseplate.

6.1.5 The contractor must appoint a competent person to erect scaffolding.

6.1.6 A sole board is placed above the ground to give the scaffold greater stability.

6.1.7 Every platform more than two metres above the ground must have guardrails of between 900 mm and one metre.

6.1.8 No worker may ride the scaffold when it is being moved from one location to another.

6.1.9 A transom is a vertical pipe that runs at right angles to a building.

6.1.10 A guardrail runs around the edge of the scaffold.

(10 × 1) (10)

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6.2 Explain the process to follow when dismantling scaffolding. (4)

6.3 Write the full terms for the following abbreviations:

6.3.1 SANS

6.3.2 SWL

6.3.3 OHS

6.3.4 PPE

6.3.5 DWL

(5 × 1) (5)

6.4 State the FIVE progressive stages for training of a scaffolding inspector. (5)

6.5 Define the term *standard* as used in scaffolds. (1)

**[25]**

**TOTAL: 100**

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