higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

PLANT AND EQUIPMENT
NQF LEVEL 2

(12030052)

15 November 2022 (Y-paper)
13:00–16:00

This question paper consists of 5 pages.

341Q1N2215

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TIME: 3 HOURS
MARKS: 100

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. Start each section on a new page.
5. Use only a black or blue pen.
6. Write neatly and legibly.

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QUESTION 1

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (1.1–1.5) in the ANSWER BOOK.

1.1 Our early ancestors in the Stone Age used different kinds of stones to make simple cutting and grinding tools.

1.2 Productivity is the amount of work you can produce in a given time with a certain amount of raw materials.

1.3 Using tools and equipment that are in a good working condition can mean that you take longer to do the job.

1.4 Contracts include the budget for the construction and the timeframe for completing the work.

1.5 Overhead costs are the costs of running a project, such as electricity, labour and rental equipment.

(5 × 1) **[5]**

QUESTION 2

2.1 Good housekeeping at the working site is a legal requirement.

State FIVE consequences of poor housekeeping in the construction industry. (5)

2.2 List any THREE personal protective equipment that an individual can use in the construction industry. (3)

2.3 State any THREE situations of non-compliance in the workplace. (3)

2.4 The safe erection method statement should contain information on certain issues.

State FOUR important points that should be addressed in the safe erection method statement. (4)

[15]

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QUESTION 3

3.1 Name any FIVE emergency services that should appear on the notice board in a workplace. (5)

3.2 Define the term *first aid.* (3)

3.3 State the main reason that would lead a person to faint. (2)

3.4 Define the term *burn* in relation to Plant and Equipment Level 2. (2)

3.5 List THREE vital signs or serious injuries that should take priority in an emergency situation. (3)

[15]

QUESTION 4

4.1 Many different hand tools are used in the construction industry.

State the main purpose of each of the tools below:

4.1.1 Spirit level

4.1.2 Caulking gun

4.1.3 Marking gauge

(2 × 3) (6)

4.2 Explain the procedure for sharpening high-speed steel drill bits using a small bench grinder. (5)

4.3 State FOUR points on how to sharpen a wood chisel and a plane iron with an oil stone. (4)

4.4 State how a trowel can be maintained after usage. (2)

4.5 List THREE trowels that a bricklayer will use to build a face-brick wall. (3)

4.6 State the purpose of inside and outside radius tools used in plastering. (2)

4.7 Explain the procedures to follow when marking out, cutting and assembling plywood to create a simple shutter, used as a concrete mould. (6)

4.8 List any TWO tools you require when manufacturing a shutter/mould from timber. (2)

[30]

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QUESTION 5

5.1 State THREE common causes of accidents during the use of ladders. (3)

5.2 List any THREE types of ladders that could be used in building construction. (3)

5.3 Explain the dangers of overreaching when working on ladders. (4)

[10]

QUESTION 6

6.1 Define the term *scaffold*. (3)

6.2 State TWO advantages of transporting steel trestles. (2)

6.3 State FOUR checks that would be required before erecting a scaffold. (4)

6.4 State FIVE safety factors for a builder's trestle working platform. (5)

6.5 State FIVE guidelines that must be adhered to when moving a mobile tower. (5)

6.6 An independent scaffold is a scaffold that can stand on its own without additional support from the parts that form this type of scaffold.

List any SIX parts of an independent scaffold. (6)

[25]

TOTAL: 100

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