higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

WOODWORKER'S THEORY N1

(11022171)

23 November 2022 (X-paper)
09:00–12:00

Nonprogrammable calculators may be used.

This question paper consists of 6 pages.

183Q1E2223

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
WOODWORKER'S THEORY N1
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. Drawings must be neat, reasonably large and must be done in pencil.
5. Clearly cross out all work you do not want to be marked.
6. Start each section on a new page.
7. Use only a black or blue pen.
8. Write neatly and legibly.

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QUESTION 1

1.1 Indicate whether the following duties are done by a PLASTERER or a PAINTER by writing only 'Plasterer' or 'Painter' next to the question number (1.1.1–1.1.8) in the ANSWER BOOK.

1.1.1 See that all the dust is swept up beforehand.

1.1.2 Make sure that all nails are punched home and sealed.

1.1.3 Make sure that all knots are treated.

1.1.4 Make sure that the backs of timber frames are primed before fixing.

1.1.5 Make sure that plastering is carried out to the full height behind skirting.

1.1.6 Check that all surfaces are properly keyed.

1.1.7 Make sure that the key joints are supplied between different materials.

1.1.8 Make sure that all finishes are true and smooth.

(8 × 1) (8)

1.2 Describe the difference between *expenditure* and *profit*. (2)

1.3 Name FIVE technological components that a good supervisor might use to boost productivity. (5)

[15]

QUESTION 2

2.1 In the event that an accident does occur, the supervisor must be involved in controlling the accident.

State THREE phases of accident control.

2.1.1 Phase 1:

2.1.2 Phase 2:

2.1.3 Phase 3:

(3 × 1) (3)

2.2 Every employer is responsible for ensuring a secure and risk-free working environment.

List the FOUR general responsibilities of employers to their employees. (4)

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2.3 Describe how unsafe acts in the workplace occur. (3)

2.4 State FIVE safety measures to take before using portable electrical equipment. (5)

[15]

QUESTION 3

3.1 Make a neat cross-sectional drawing of a tree trunk and clearly label the different parts.

NOTE: Ensure that your sketch is of a reasonable size. (11)

3.2 Both natural and artificial seasoning work well to dry out wood to the appropriate moisture content.

List FOUR benefits of natural seasoning. (4)

3.3 Name THREE uses of high-carbon steel. (3)

3.4 Write down the abbreviations for the plastics listed below:

3.4.1 Damp-proof course

3.4.2 Polyvinyl chloride

(2 × 1) (2)

[20]

QUESTION 4

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (4.1.1–4.1.5) in the ANSWER BOOK.

4.1 4.1.1 Cutting pliers are used for gripping and bending metal, and cutting wire and nails.

4.1.2 A spirit level is used for marking and testing level or vertical surfaces.

4.1.3 A jack plane is the smallest of the bench planes and is used for finishing off.

4.1.4 A claw hammer is used for driving medium to large nails and is capable of drawing them out with the claw.

4.1.5 A cutting gauge is used to cut deep lines into timber.

(5 × 1) (5)

4.2 What is a golden rule of measuring? (1)

4.3 Name FOUR portable, electrically driven tools that are used by carpenters. (4)

4.4 State FIVE safety precautions to take when using a saw. (5)
[15]

QUESTION 5

5.1 Name TWO different types of pivot hinges with which you are familiar. (2)

5.2 Give THREE disadvantages of epoxy resin. (3)

5.3 Identify the following tools by writing only the name of each tool next to the question number (5.3.1–5.3.10) in the ANSWER BOOK.



5.3.1



5.3.2



5.3.3



5.3.4



5.3.5



5.3.6



5.3.7



5.3.8



5.3.9



5.3.10

(10 ×1) (10)
[15]

QUESTION 6

6.1 Complete the following sentence by writing only the missing word or words next to the question number (6.1.1–6.1.2) in the ANSWER BOOK.

Housing joints are used to construct the framework for drywall (6.1.1) … and joining cross pieces for timber (6.1.2) … .

(2 × 1) (2)

6.2 Draw the difference between the following joints.

NOTE: Ensure that your sketch is of a reasonable size.

6.2.1 Tongue and groove joint

6.2.2 Edge-to-edge biscuit joint

(4 × 2) (8)

[10]

QUESTION 7

The woodwork lecturer has been asked to build an oak cabinet in a staff room. The cabinet consists of four doors and six drawers.

Calculate what the final price will be to build the cabinet by using the following:

7.1 The price of oak is R120,00 per m^2 and 10 m^2 is needed to build the cabinet.

Calculate the cost of the oak needed to build the cabinet. (2)

7.2 The artisan (woodwork lecturer) earns R50,00 per hour and his/her labour (students) earns R16,50 per hour.

Calculate the labour cost (of the students) if the cabinet takes 18 hours to complete. (4)

7.3 The artisan (woodwork lecturer) also needs to buy handles, hinges, and fittings for the cabinet, which amount to R34,50.

Calculate the final price of the oak cabinet if a profit of 16% is added to the total.

(4)

[10]

TOTAL: 100

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