higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

DRAWING OFFICE PROCEDURES AND TECHNIQUES

NQF LEVEL 3

(First paper)

(12050713)

21 November 2024 (X-paper)
09:00–12:00

This question paper consists of 5 pages.

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REPUBLIC OF SOUTH AFRICA

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DRAWING OFFICE PROCEDURES AND TECHNIQUES
NQF LEVEL 3
(First paper)
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: PLANNING AND DESIGN SPECIFICATIONS

1.1 Choose an item from COLUMN B that matches a description in COLUMN A. Write only the letter (A–F) next to the question number (1.1.1–1.1.4) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.1.1	Measurements of humans	A	height
1.1.2	The science of designing a space to suit people	B	anthropometrics
1.1.3	Measure from the back of the skull to the forehead	C	arm length
1.1.4	The length of the body from head to toe	D	ergonomics
		E	depth of head
		F	head

(4 × 1) (4)

1.2 State the FOUR main areas of anthropometric data. (4 × 1) (4)

1.3 With the aid of a graph, show comfortable worktop heights for men and women. (8)

1.4 The breadth of the heads of SIX male workers are as follows:
161, 160, 162, 161, 159, and 158.

What is the mean head breadth of the workers? (3)

1.5 What is the worktop height that will be suitable for somebody in a wheelchair? (2)

1.6 List FOUR types/ways of service access. (4)

[25]

QUESTION 2: DRAWING-OFFICE ORGANISATION

2.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1.1–2.1.4) in the ANSWER BOOK.

2.1.1 Unhappy and disillusioned staff is an effect of work overload in a drawing office.

2.1.2 Securing up-to-date information depends on each staff member.

2.1.3 The size of the drawing office is not a factor in deciding on the most suitable form of organisation.

2.1.4 A trainee draughtsperson can be a checker at a drawing office.

(4 × 1) (4)

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2.2 Draw a freehand sketch of a simplified drawing-office organisational flow chart, from the drawing office manager at the top, down to the learner/trainee at the bottom. The drawing must be in good proportion, illustrated and labelled. (11)

2.3 List FIVE benefits of staff-to-staff communication at the drawing office organisation. (5)

2.4 You are the human resource manager of a drawing office.

List FIVE criteria that you will use to select a good drawing office manager. (5)
[25]

QUESTION 3: HEALTH AND SAFETY FOR A DRAUGHTSPERSON

3.1 Define the term, *housekeeping*. (4)

3.2 What does the acronym NOSA stand for? (4)

3.3 In tabular form, illustrate NOSA's the star rating. (5)

3.4 List THREE elements of fire. (4)

3.5 Make freehand drawings in good proportion to illustrate each of the following common basic safety signs:

3.5.1 Caution

3.5.2 Prohibition

3.5.3 Safe condition

3.5.4 Mandatory

(4 × 2) (8)
[25]

QUESTION 4: MEASURING INSTRUMENTS AND EQUIPMENT

4.1 Name FOUR ways in which a vernier calliper can be used for measurement. (4 × 1) (4)

4.2 Refer to FIGURE 1 below and answer the questions that follow.

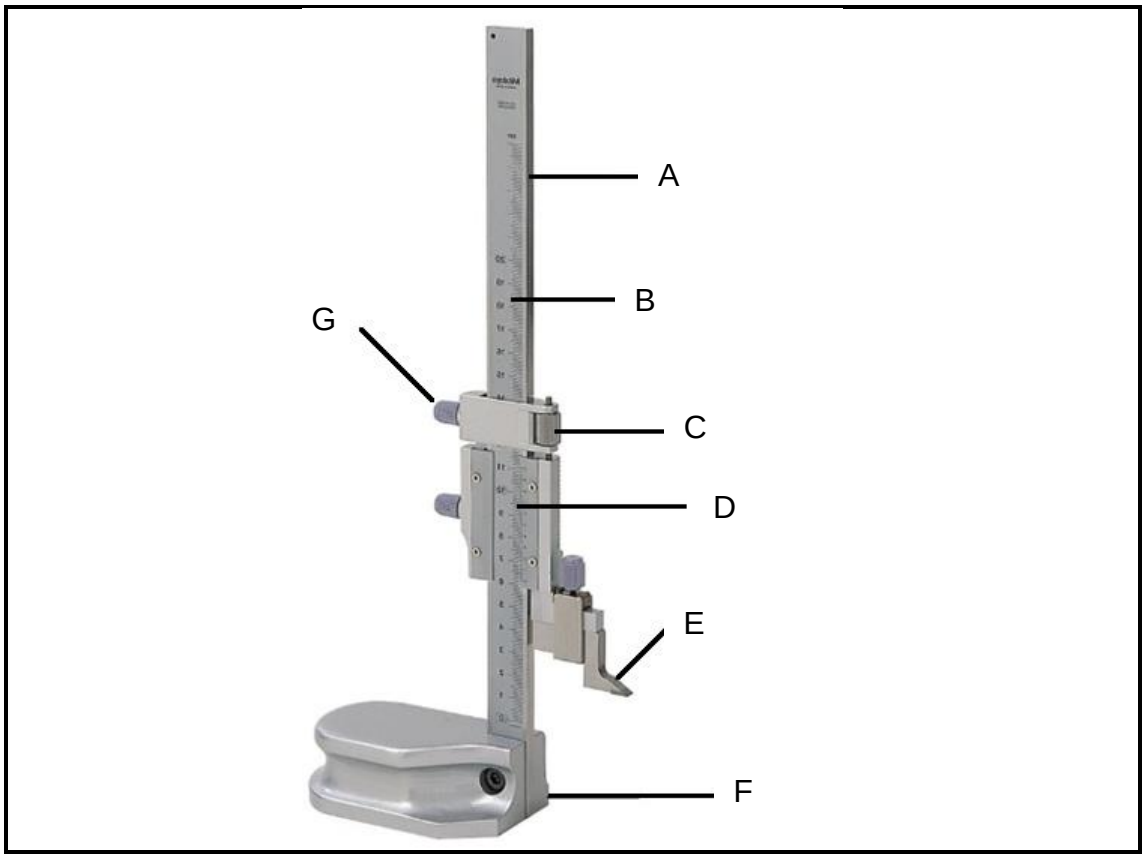


FIGURE 1

4.2.1 Name the measuring tool in FIGURE 1. (1)

4.2.2 Name the parts of the precision measuring tool by writing only the answer next to the letter (A–G) in the ANSWER BOOK. (7 × 1) (7)

4.2.3 List THREE uses of the measuring tool in FIGURE 1. (3)

4.3 List FOUR ways of storing and packing measuring instruments. (4 × 2) (8)

4.4 State TWO ways of caring for, maintaining, and storing clock gauges. (2 × 1) (2)

[25]

TOTAL: 100

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