



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE BUILDING AND STRUCTURAL SURVEYING N5

(8060045)

**16 April 2021 (X-paper)
09:00–12:00**

Calculators may be used.

This question paper consists of 4 pages, 1 addendum and 1 formula sheet.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
BUILDING AND STRUCTURAL SURVEYING N5
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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SECTION A**QUESTION 1**

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (1.1–1.10) in the ANSWER BOOK. Give ONE reason for each answer.

- 1.1 Never leave the instrument standing on a tripod for over one minute. 
- 1.2 The chainman can manipulate the instrument when necessary.
- 1.3 During transportation, it is safe to subject the instrument to a minimum of rock shock.
- 1.4 Treat the instruments with respect by ensuring clamps are overtightened.
- 1.5 When it is necessary to carry the instrument on a tripod, keep it as horizontal as possible.
- 1.6 Protect the instrument from rain and dust and if unavoidable wipe it with a soft dry cloth.
- 1.7 At least once a month, clean all exposed instrument parts including lenses with a soft cloth, slightly dampened with light oil.
- 1.8 Occasionally polish all exposed parts, including lenses and screw threads with a good quality wax polish. 
- 1.9 At the first signs of growth, send the instrument for thorough cleaning.
- 1.10 Try never to touch the lenses, clean them only with the soft brush provided for this purpose.

(10 × 2)

[20]**QUESTION 2**

Complete the following paragraph by writing only the missing word next to the question number (2.1–2.10) in the ANSWER BOOK.

The position of a point can be (2.1) ... when it is known how far that point is from one or more given points, so that the place of the first point, if lost, can be found again by repeating the (2.2) ... in the opposite direction.

The (2.3) ... which are to be determined in surveying are not mathematical points treated of in geometry, but the (2.4) ... of fences, beacons and the like, which are mere points in comparison with the extensive (2.5) ... and (2.6) ... which they are the means of determining.

The determination of the relative (2.7) ... of points is all that is necessary for the principle objects of surveying. The position of a point may be determined by a variety of (2.8) ... In most types of surveying, the ruling principle is to 'work from the (2.9) ... to the (2.10) ...'



(10 × 1)

[10]