



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BUILDING AND STRUCTURAL SURVEYING N5

28 June 2022

This marking guideline consists of 5 pages.

SECTION A**QUESTION 1**

- 1.1 False
- 1.2 True
- 1.3 True
- 1.4 False
- 1.5 False

(5 × 2) [10]

QUESTION 2

- 2.1 wood/T-shape
- 2.2 sloping terrain
- 2.3 wrong booking
- 2.4 field book
- 2.5 accumulative

(5 × 2) [10]

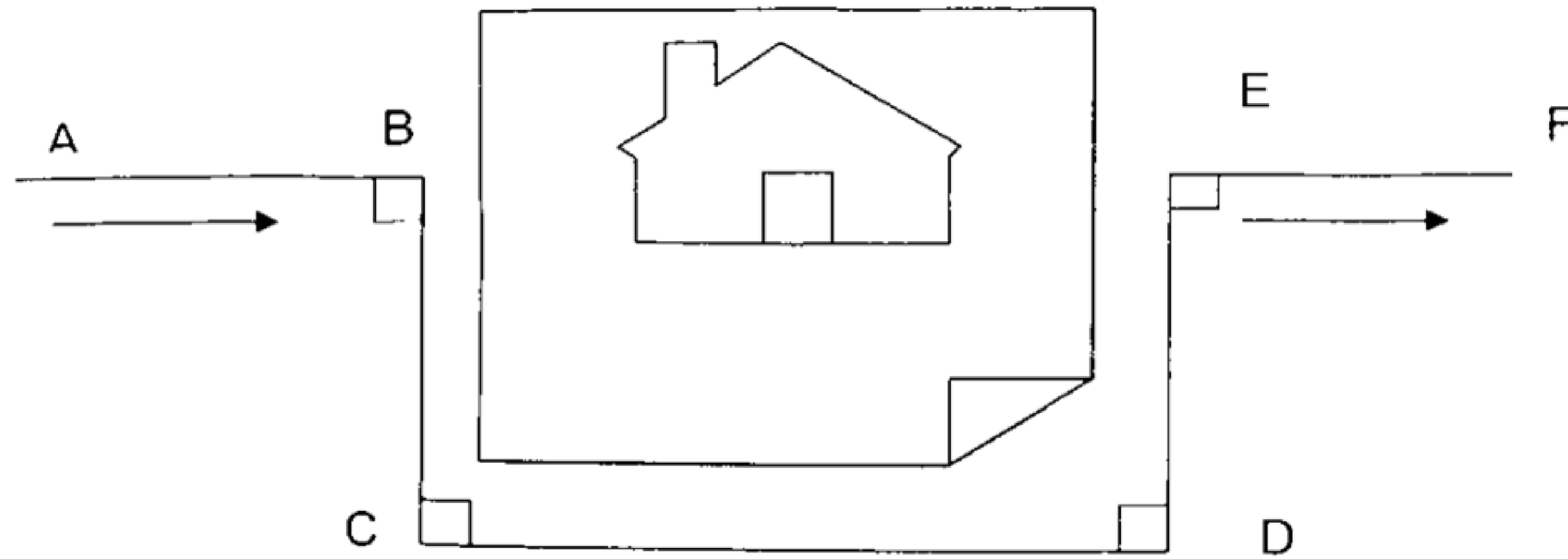
QUESTION 3

- 3.1 An optical square is a hand-held instrument✓ used to set out lines at right angles to each other.✓
- 3.2 Ranging rods are used as sighting marks,✓ intermediate markers or markers for terminal points on a taped line.✓
- 3.3 A levelling instrument is mainly used to find differences in height/elevation✓ on the surface of the earth.✓
- 3.4 A theodolite is used to measure vertical and horizontal angles✓ on the surface of the earth and it can only be used for levelling work.✓
- 3.5 Measuring tape is mainly used to measure horizontal distances✓ on the surface of the earth.✓

(5 × 2) [10]

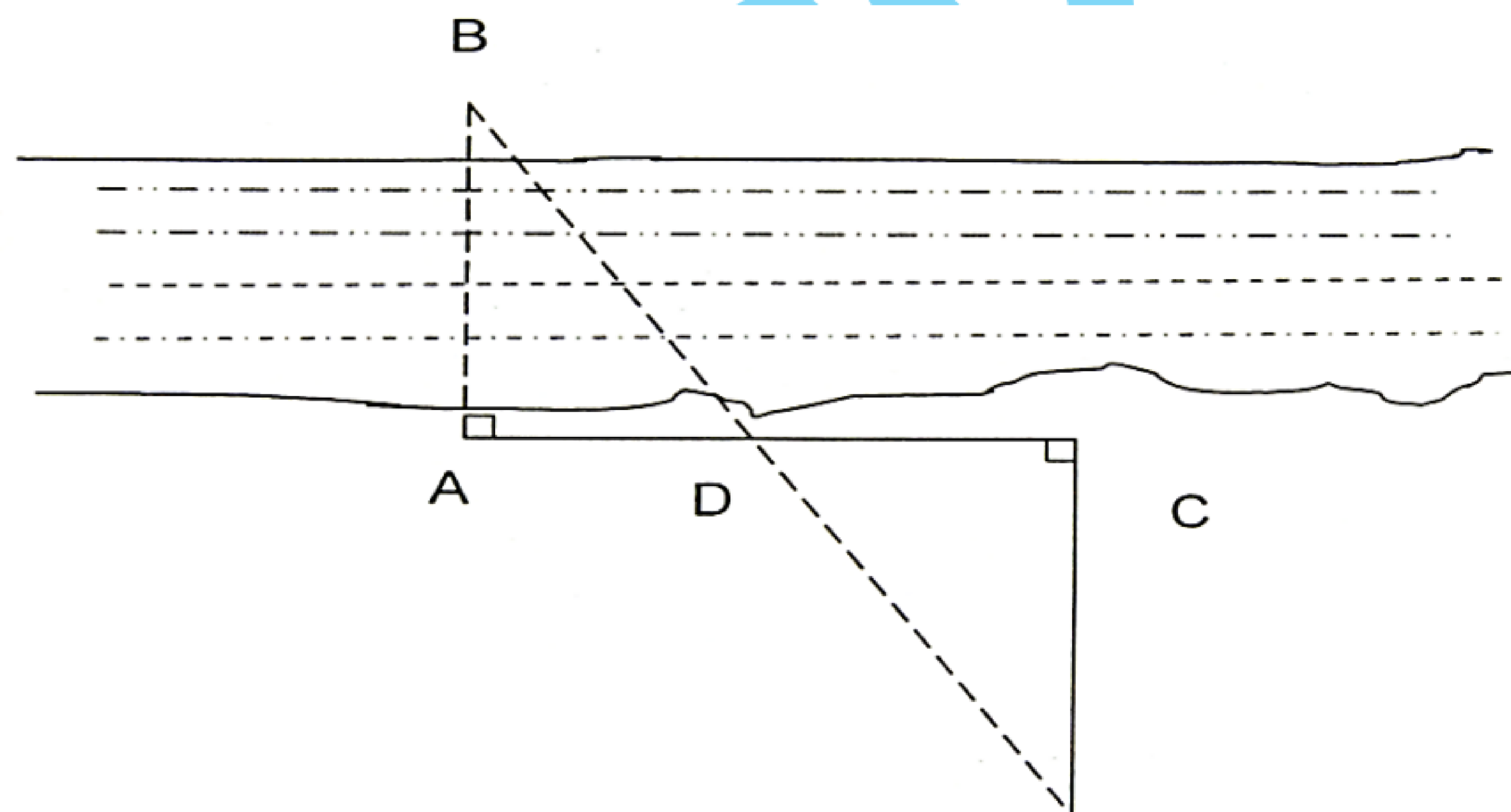
QUESTION 4

4.1 4.1.1



At two points A and B erect a perpendicular line BC.✓ At line BC erect another perpendicular line CD✓ to clear the obstacle. At CD erect a perpendicular line DE and equal in length✓ to BC and DE set off a right angle EF.✓ The direction EF is the extension of the survey line and distance $CD = BE$.✓

4.1.2



Erect line AC at a right angle to AB,✓ measure AD equal to DC.✓ Locate point E by sighting✓ from E through D to B,✓ thus CE is equal to AB.✓

(2 × 10) (20)

4.2

From the site boundaries measure or set out the proposed building increasing the area by ± 1 m.✓✓ Punch in two ± 2 m long pegs✓✓ 1 m away from each corner in line with the building line in all four corners.✓✓ Because of the length of the pegs a traveller of 1,5 m would be appropriate.✓✓ The formation level plus or minus the benchmark, plus the length of the traveller will give the staff reading on all eight peg sight rails.✓✓

(10)
[30]

TOTAL SECTION A: 60