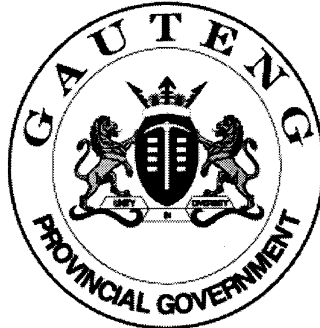


# SENIOR CERTIFICATE EXAMINATION



FEBRUARY / MARCH

2007

BRICKLAYING AND  
PLASTERING

**SG**

701-2/0 E

BRICKLAYING AND PLASTERING SG  
Question Paper & Drawing Answer Book



701 2 0E

SG

6 pages

X05



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**GAUTENG DEPARTMENT OF EDUCATION  
SENIOR CERTIFICATE EXAMINATION**

**BRICKLAYING AND PLASTERING SG**

**TIME: 3 hours**

**MARKS: 300**

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**REQUIREMENTS:**

- Answer book
- A3-size Drawing Answer Book 701-2/X
- Calculator

**INSTRUCTIONS:**

- Answer ALL questions.
- All drawings must be done in pencil.
- Number all your answers correctly.
- Assume the dimensions of a brick to be:

Length: 220 mm

Width: 110 mm

Height: 75 mm

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**QUESTION 1**

- 1.1 Name FIVE qualities of good bricks. (10)
- 1.2 State FIVE examples of each of the following:
- 1.2.1 Unsafe acts (10)
- 1.2.2 Unsafe conditions (10)
- 1.3 Name FIVE types of safety protective apparel to wear in the workshop. (10)
- 1.4 Name THREE types of damp-proof course. (6)

- 1.5 Mention FIVE factors that can cause a chimney to smoke. (10)
- 1.6 Give TWO examples of brick arches. (4)
- [60]**

### QUESTION 2

- 2.1 Show, with the aid of a neat drawing, the difference between the following:
- 2.1.1 Transom and putlog
  - 2.1.2 Guard rail and toe board
  - 2.1.3 Sole plate and base plate
  - 2.1.4 Ledger and standard
  - 2.1.5 Swivel coupler and double coupler (20)
- 2.2 You are appointed as the new safety officer for a construction company. One of your responsibilities is to ensure safety practice on building sites. Describe in detail SIX checks you would carry out to ensure that the site is safe in all respects. (12)
- [32]**

### QUESTION 3

- 3.1 Explain the term **plaster**. (4)
- 3.2 Briefly describe the following:
- 3.2.1 The procedure followed to plaster a blank wall to a steel-float finish (14)
  - 3.2.2 How to mix mortar by hand (12)
- 3.3 Explain by means of a flow chart, the main phases in the manufacturing of ordinary Portland cement. (10)
- [40]**

#### QUESTION 4

- 4.1 Explain the term **foundation** in your own words. (4)
- 4.2 Draw a large, neat, vertical section sketch through a compressed or expanded pile showing:
- 4.2.1 Expanded pile
  - 4.2.2 Expanded bulb
  - 4.2.3 The shaft / tube
  - 4.2.4 Position of reinforcement
  - 4.2.5 Natural ground level (10)
- 4.3 Name FOUR components of concrete. (8)
- 4.4 Name TWO common concrete tests used in the building industry. (4)
- [26]**

#### QUESTION 5

- 5.1 Draw to a scale of 1:10 a vertical section of an inspection chamber. It consists of a 150 mm concrete foundation. The one-brick wall is plastered internally with corbelling to accommodate a 730 mm x 730 mm manhole cover embedded in grano. The depth of the chamber is  $\pm 1\ 250$  mm. Label your drawing. (30)
- 5.2 State EIGHT regulations in relation to drainage. (16)
- 5.3 Identify the following symbols which appear as standard abbreviations on a sewage plan.
- 5.3.1 V.P.
  - 5.3.2 M.H.
  - 5.3.3 G.
  - 5.3.4 H.W.B.
  - 5.3.5 I.E.
  - 5.3.6 C.E.

5.3.7 Con.

5.3.8 W.C.

5.3.9 W.W.P.

5.3.10 S.W.P.

(20)  
[66]

### QUESTION 6

A roof with a pitch of 30 degrees and an overhang of 400 mm is supported by one-brick external walls and is covered with cement tiles.

Draw to a scale of 1:10, a vertical section through only one of the eaves.

The drawing must include the following:

- The eaves construction and part of the roof
- Rain-water goods
- Internal plastering construction
- Ceiling construction

[40]

### QUESTION 7

Study the plan in **Figure 1** and calculate the total (external and internal) number of bricks needed to build the following small building.

Specifications:

Opening in the internal wall: 1 m x 2 m

Door: 1 m x 2 m

Window A: 3 m x 2 m

Window B: 2 m x 1 m

Height of the wall: 2,7 m

Given: 120 bricks per square metre for external walls

[36]

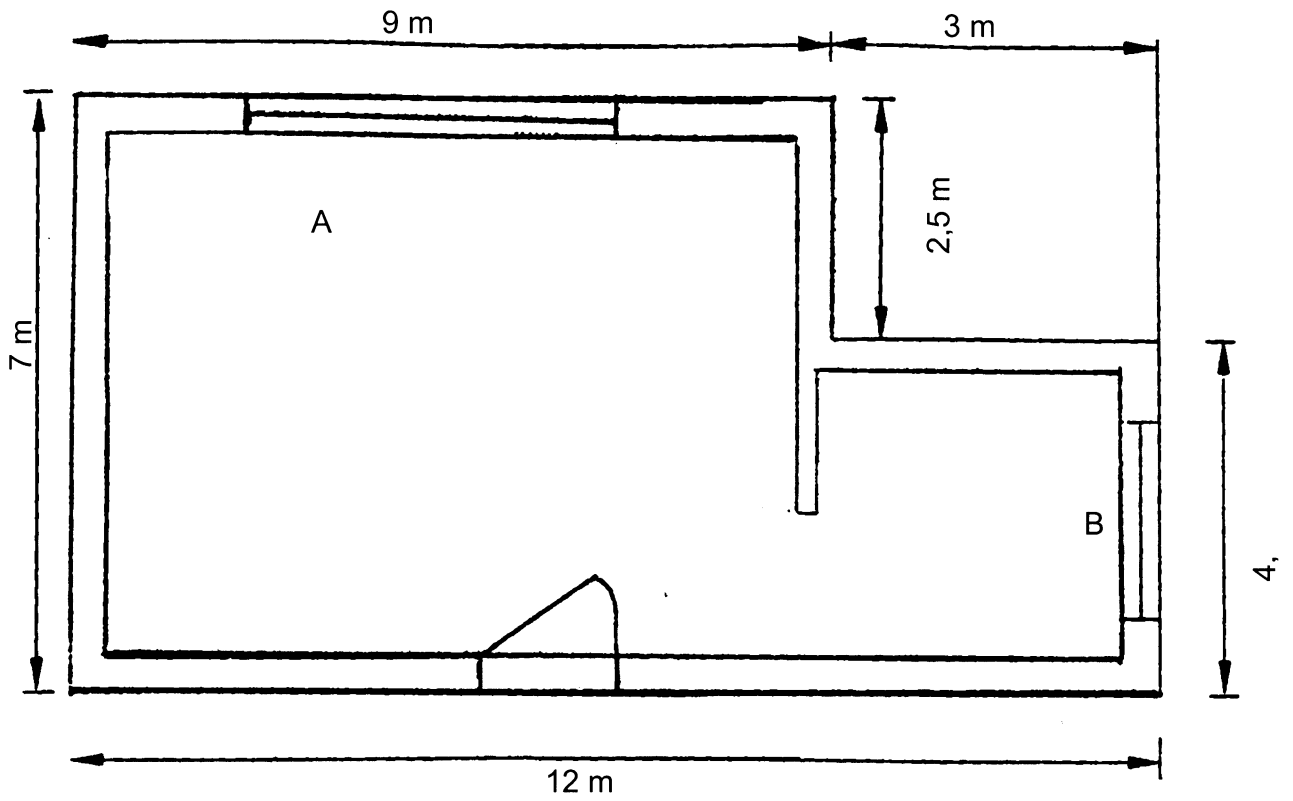


Figure 1

TOTAL: 300

END