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| Centre Number | Candidate Number | Candidate Name |
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NAMIBIA SENIOR SECONDARY CERTIFICATE

BUILDING STUDIES ORDINARY LEVEL

6186/1

PAPER 1

2 hours

Marks 100

2022

Additional Materials: A3 answer sheet
 Non-programmable calculator
 Standard drawing equipment

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Write your Centre Number, Candidate Number and Name in the spaces at the top of this page and on all separate answer sheets used.
- Write in dark blue or black pen.
- You may use a soft pencil for any rough work, diagrams or graphs.
- You may use a non-programmable calculator.
- Do not use correction fluids.
- Do not write in the margin *For Examiner's Use*.
- You may use blank pages for working drawings or when answers are crossed out and corrected.
- Sketches and drawings should be done on a separate A3 drawing sheet provided.
- The number of marks is given in brackets [] at the end of each question or part question

| For Examiner's Use | |
|--------------------|--|
| Section A | |
| Section B | |
| Total | |

| | |
|----------------|--|
| <i>Marker</i> | |
| <i>Checker</i> | |

This document consists of **11** printed pages and **1** blank page.



Republic of Namibia
MINISTRY OF EDUCATION, ARTS AND CULTURE

SECTION A

Answer **all** the questions in this section.

1 State the **three** basic pieces of essential protective clothes on a building site.

1.....

2.....

3.....

[3]

2 What is the minimum requirement for a first aid box to contain on a Building site?

.....

.....

.....

.....

[3]

3 Identify the tools in Fig.1 and state **one** use for each.

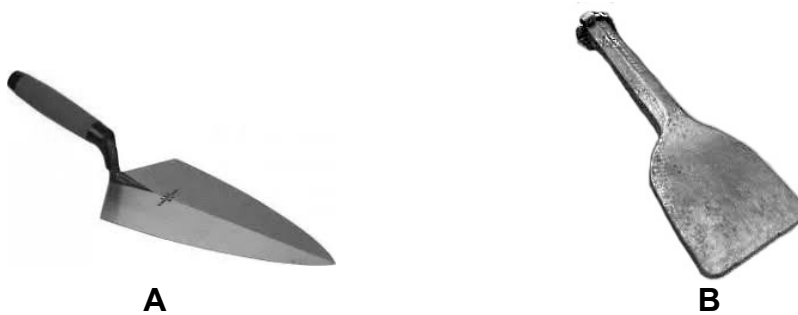


Fig. 1

Tool **A**

Use

.....

[2]

Tool **B**.....

Use

.....

[2]

4 Fig. 2 shows a certain construction labelled with X.

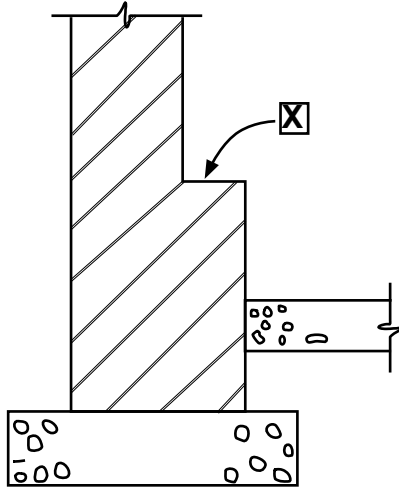


Fig. 2

Name the construction at X and its purpose.

Name:

Purpose:

.....

.....

[2]

5 First class plastering is done in three layers on walls.
Name them and the thickness of each.

.....

.....

.....

.....

.....

.....

[3]

6 Fig. 3 shows bricks closers.

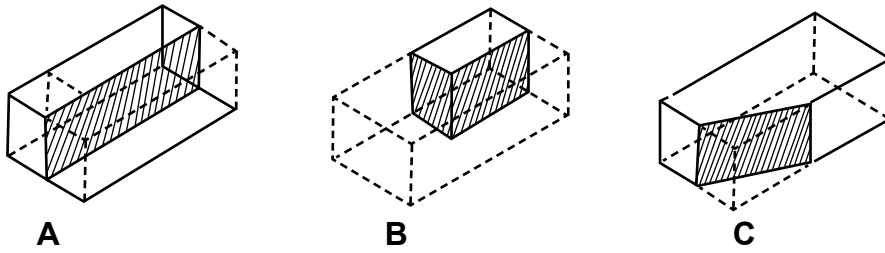


Fig. 3

Identify the brick closers in Fig. 3.

A

[1]

B

[1]

C

[1]

7 Define the following terms which have a general application to brickwork.
(brick sizes not a requirement)

(a) *Arris*

[1]

(b) *Bed*

[1]

(c) *Header*

[1]

(d) *Stretcher*

[1]

8 (a) What is understood by the term 'jamb's' ?

.....
.....

[1]

(b) Name the **three** forms of jamb's.

1.....
2.....
3.....

[3]

9 What is the main function of a foundation?

.....
.....
.....
.....
.....
.....
.....

[2]

10 Fig. 4 shows an arch.

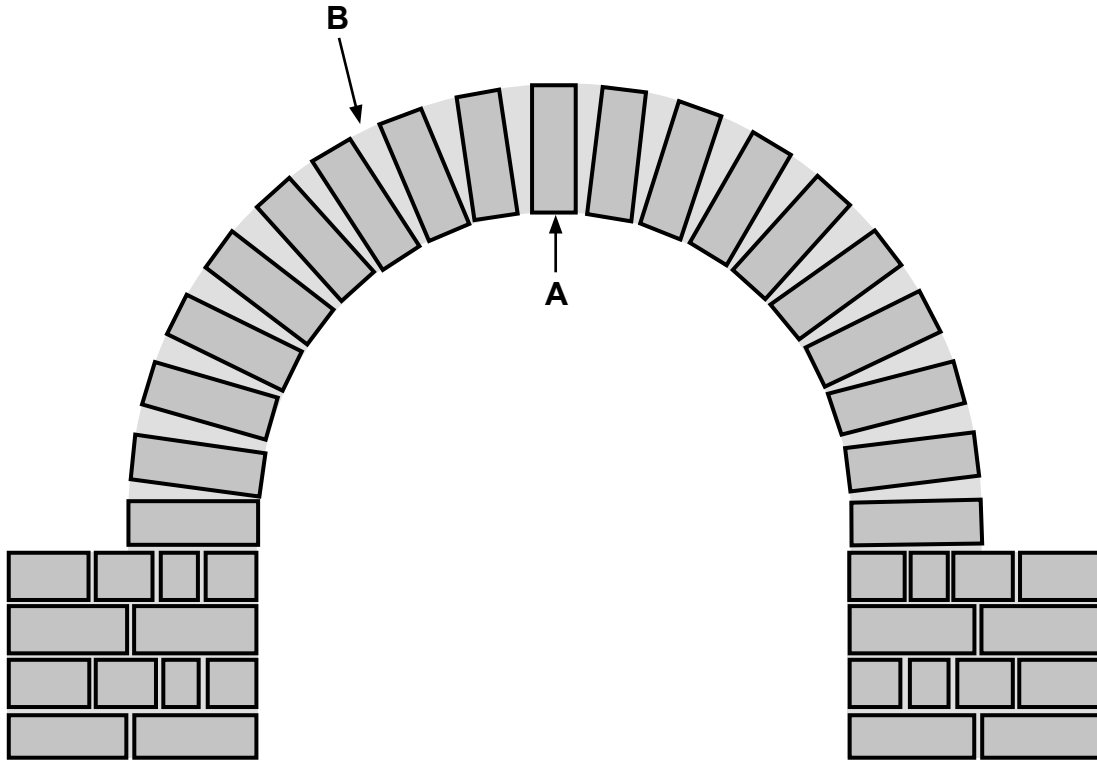


Fig. 4

Identify the parts **A** and **B**.

A

B

[2]

[30]

SECTION B

Answer **all** the questions in this section.

(The drawings and sketches should be done on the A3 drawing paper provided)

11 Fig. 5 shows a sketch to set out a column.

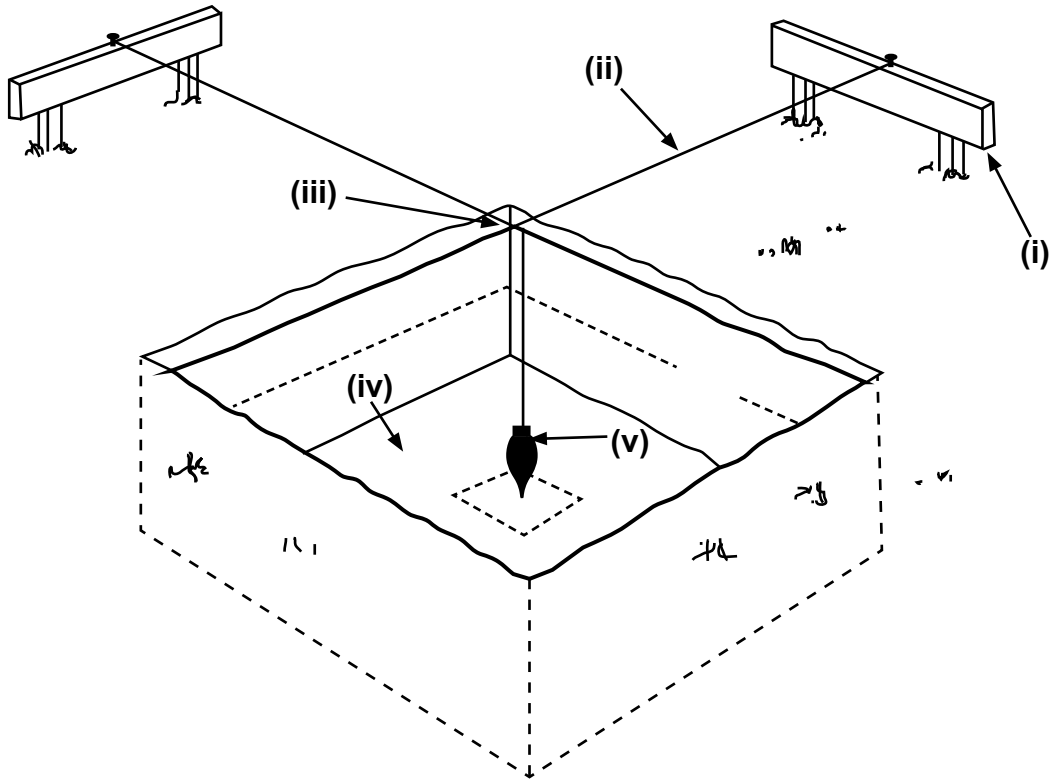


Fig. 5

(a) Label the parts marked (i) to (v)

- (i).....
- (ii).....
- (iii).....
- (iv).....
- (v).....

[5]

12 Fig. 6 shows a ground plan of a single garage with one brick walls and a height of 2.7 m.

Calculate the number of brick required to build the garage.

- The size of a brick is $200 \times 100 \times 100$
- Show all your workings.

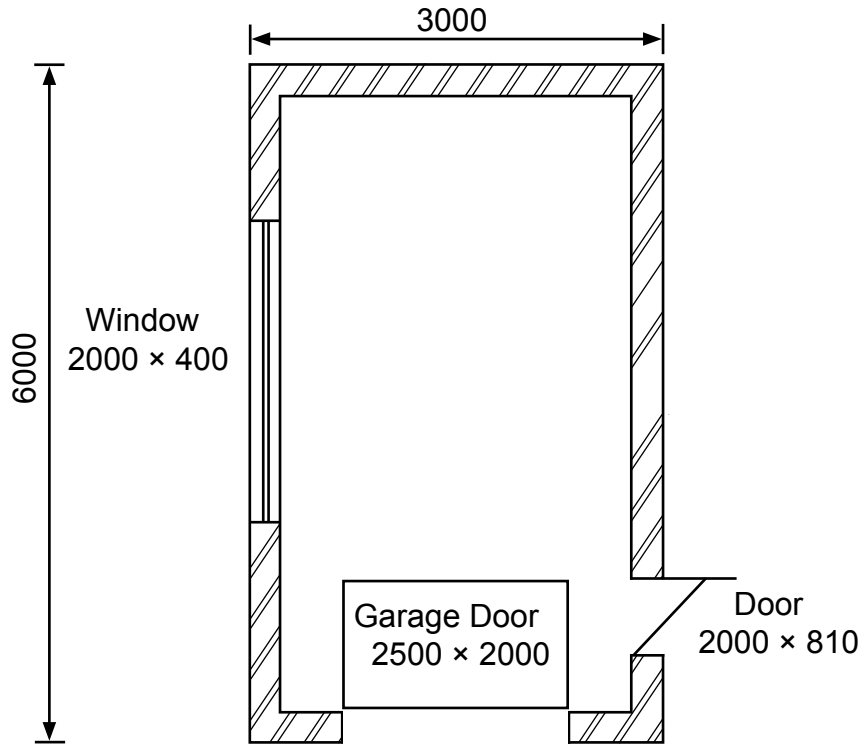


Fig. 6

Calculations:

[15]

- 13** Draw to a scale 1:5 a part section through a concrete floor, showing the following:
- screed 10 mm
 - concrete slab 100 mm
 - backfill
 - strip foundation
 - one brick wall
 - DPC

- Neatly label all the parts on your drawing in print write.
- Do the necessary enhancement on your drawing.
- Indicate the height from the foundation to the concrete slab.
- Print write the scale 1:5 in the centre beneath your drawing.

[15]

- 14** Draw to a scale 1:5 the end part of a pitch roof at 30° with an over hang of 600 mm. Close the eave with 80 × 20 tongue and groove board.

Show the following in your drawing:

- Roof covering
- Purlins 75 × 50
- Rafter 114 × 38
- Tie beam 114 × 38
- One brick wall
- Close eave
- Brandering 50 × 50
- Ceiling board

Label the parts on your drawing in print write.

[15]

15 Fig. 7 shows an overview of the discharge of waste from a house to a public sewer.

Study Fig. 7 and label the parts A to J.

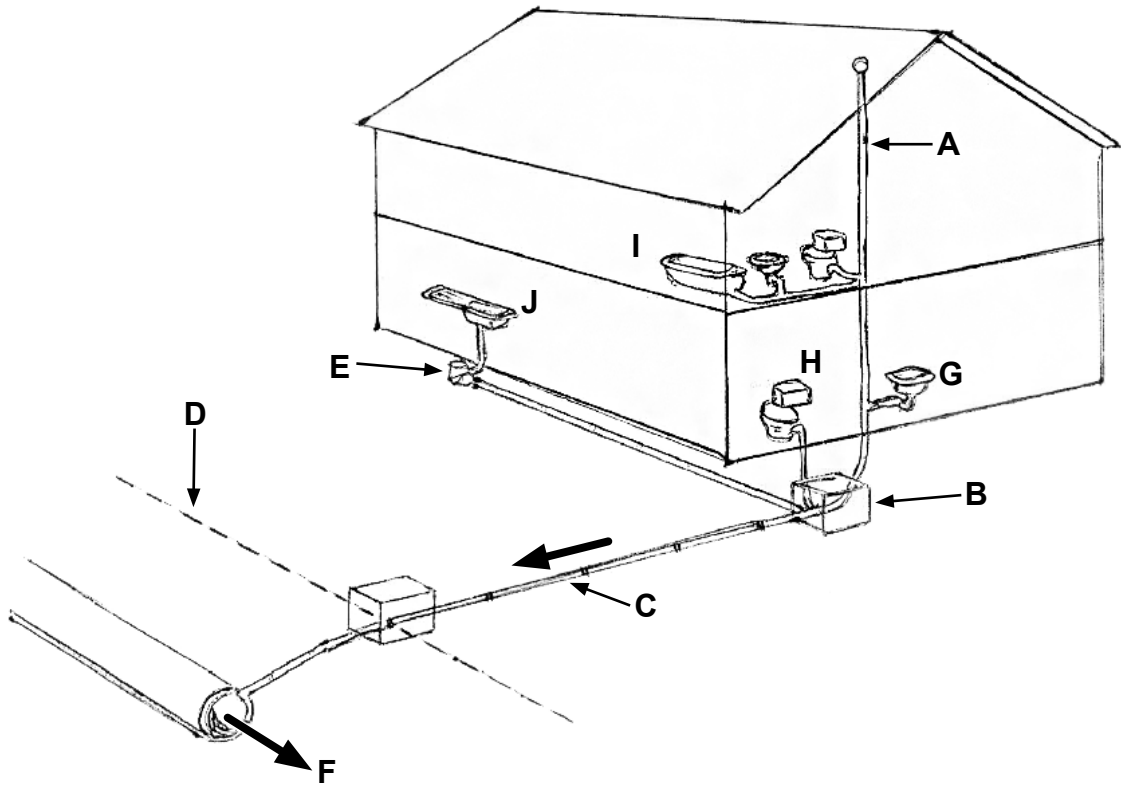


Fig. 7

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

[10]

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