



ZIMBABWE

**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY
DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

IN

BUILDING TECHNOLOGY

MODULE: Brick and Blocklaying

PAPER NO: 308/24/M03

308/22/M03

308/25/M03

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

1. Answer booklet
2. Scientific calculator
3. A4 drawing paper

INSTRUCTIONS TO CANDIDATE

1. Section A: Answer all questions.
2. Section B: Choose any three (3) questions.

PAPER NO: 308/24/M03

308/22/M03

308/25/M03 – BRICK AND BLOCKLAYING

SECTION A

Answer all questions.

QUESTION 1

- a) State four (4) functions of foundations. (4 marks)
- b) Briefly explain the following terms:
 - i) Dead load (2 marks)
 - ii) Live load (2 marks)
 - iii) Settlement (2 marks)

QUESTION 2

- a) Use a live diagram to explain the manufacture of clay bricks. (8 marks)
- b) A brick layer lays an average of 10 bricks every 5 minutes. How many bricks does the brick layer lay in 9 hours. (2 marks)

QUESTION 3

- a) List four (4) factors that determine the choice of a floor finish. (4 marks)
- b) Give three (3) purposes of hardcore. (3 marks)
- c) List three (3) protective clothing required when offloading bricks. (3 marks)

QUESTION 4

- a) Define the following terms and give one (1) example of each:
 - i) Primary elements (3 marks)
 - ii) Secondary elements (3 marks)
 - iii) Finishing elements (3 marks)
- b) State the duties of a sheet metal worker. (1 mark)

SECTION C

Choose any three (questions)

QUESTION 5

- a) Using an isometric view of a well labelled diagram, show how a door frame or window frame is fixed onto a wall during construction. (12 marks)
- b) Explain why the following operations are carried out.
- i) Erecting a scaffold (2 marks)
 - ii) Stacking bricks on edges (2 marks)
 - iii) Jogging and furrowing (2 marks)
 - iv) Beam felling (2 marks)

QUESTION 6

- a) Draw a section through a solid, ground floor and label the following dpc, brickwork, blinding, dpm, floor screed, floor finish, foundation concrete, natural ground level. (12 marks)
- b) Describe three (3) regulations that govern the construction of strip foundations. (6 marks)
- c) List any two (2) defects on bricks. (2 marks)

QUESTION 7

- a) Draw an axed segmental arch and label the following;
key brick; striking point, springing line, rise, span run, extrados, intrados, haunch, voussoirs, springer (15 marks)
- b) Briefly explain how a gauge rod is made on site. (5 marks)

QUESTION 8

Fig 1 is an floor plan of a room and Section A – A.

- Calculate mean girth using the centre-line method. (4 marks)
- Calculate the volume of foundation concrete needed of yield is $\frac{2}{3}$ of dry mix. (5 marks)
- Calculate the number of bricks required to build the wall up to dpc level of there are 104 bricks / m^2 . (5 marks)
- Calculate the number of brick courses of a gauge of 90mm has been used. (3 marks)
- Calculate volume of external backfill. (3 marks)

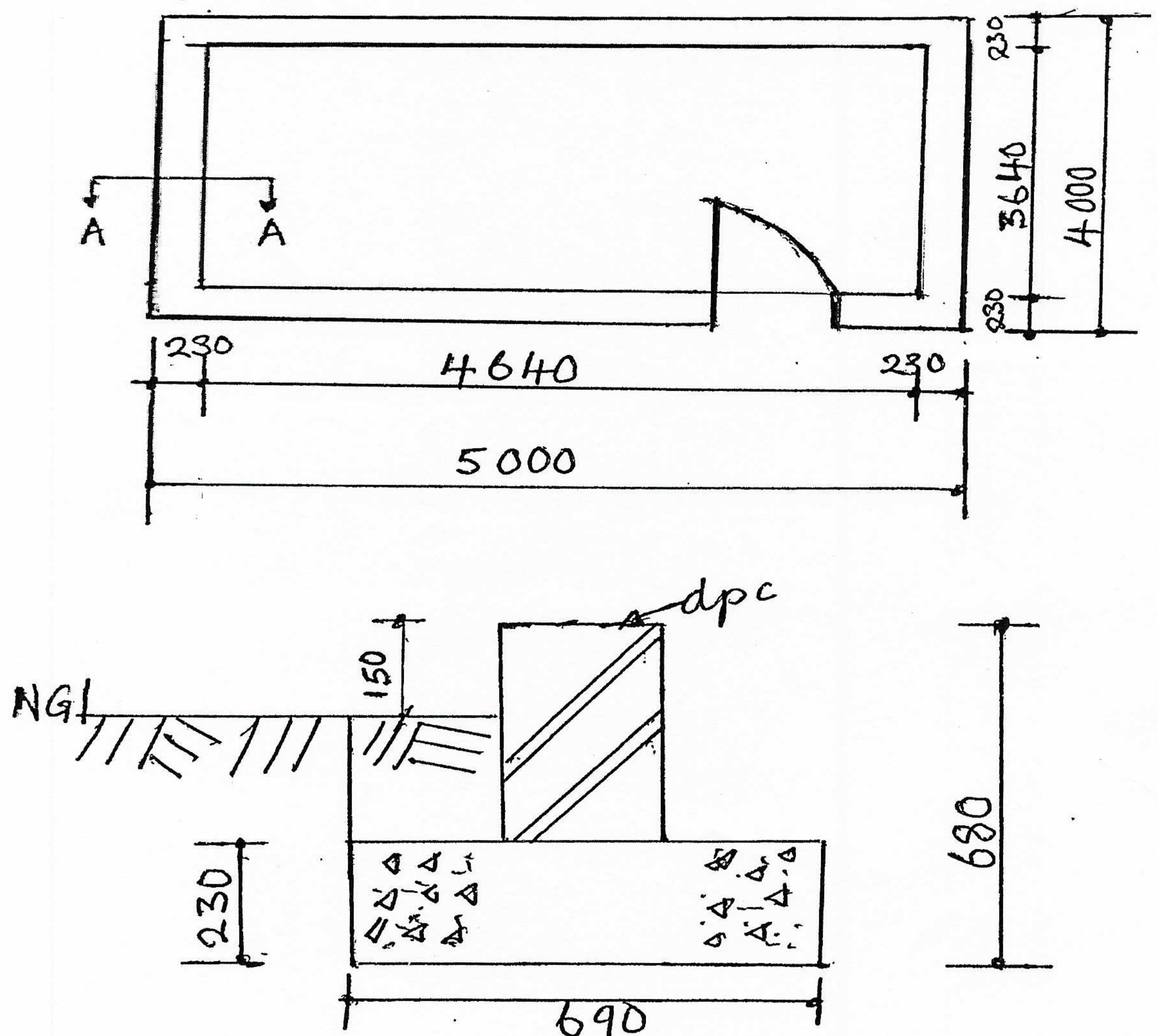


Fig 1

...../pm