



ZIMBABWE

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

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL DIPLOMA

IN

ENVIRONMENTAL HEALTH

MODULE: Building Practice

PAPER NO: 605/23/M03

DURATION: 3 Hours

MAY / JUNE 2024 EXAMINATION

REQUIREMENTS

Ruler and pencil

INSTRUCTIONS TO CANDIDATE

- 1. Answer any five (5) questions.**
- 2. Each question carries 20 marks.**
- 3. Do not write your name on the answer booklet.**

This paper consists of 3 printed pages.

QUESTION 1

- a) Outline five (5) different types of buildings. (10 marks)
- b) Explain five (5) environmental health factors to consider in citing a building. (10 marks)

QUESTION 2

- a) Outline three (3) important qualities of aggregates. (6 marks)
- b) Draw a labelled diagram to show the functions of septic tank from water closet to soak away. (14 marks)

QUESTION 3

- a) Explain the following terms in bonding:
 - i) Lap (2 marks)
 - ii) Stopped end (2 marks)
 - iii) Raking (2 marks)
- b) Differentiate plumbing from drainage. (4 marks)
- c) Draw a neat sketch diagram of a builder's trowel and label it fully. (10 marks)

QUESTION 4

- a) Outline any four (4) rules of bonding. (4 marks)
- b) Draw and explain the fire triangle. (6 marks)
- c) Draw a geometrically axed semi-circular arch whose span is 1200mm; rise 600mm and depth of face 200mm (use scale of 1:10 and label all the parts). (10 marks)

QUESTION 5

- a) Define plastering. (2 marks)
- b) Identify any five (5) tools used in plastering. (5 marks)
- c) State any three (3) types of roofs. (3 marks)
- d) Explain the five (5) tests done to test brick strength. (10 marks)

QUESTION 6

- a) Explain the importance of building by-laws in construction. (3 marks)
- b) Outline four (4) types of foundations used in buildings. (8 marks)
- c) Illustrate the following types of roofs using sketch diagrams.
 - i) Hipped roof (3 marks)
 - ii) Dutch gable (3 marks)
 - iii) Butterfly (3 marks)

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