ZIMBABWE

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

HIGHER EDUCATION EXAMINATIONS COUNCIL (HEXCO)

NATIONAL DIPLOMA

IN

ENVIRONMENTAL HEALTH

SUBJECT: Building Practice **PAPER NO: 605/21/S19**

DURATION: 3 Hours

MARCH/APRIL 2023 EXAMINATION

REQUIREMENTS

Blank papers, pencil, ruler and rubber.

INSTRUCTIONS TO CANDIDATE

Answer ANY FIVE (5) questions.

This paper consists of 3 printed pages.

PAPER NO: 605/21/S19 – BUILDING PRACTICE

QUESTION 1

(a) List the seven (7) classes in which building tools may fall and under class give 2 examples. (14 marks)

(b) Explain how cement should be stocked at a building site. (4 marks)

(c) Explain why sand used in building should be clean. (2 marks)

QUESTION 2

(a) Draw a king post truss and label it fully. (10 marks)

(b) Differentiate between first angle projection and third angle projection. (4 marks)

(c) List and explain the methods that can be used in rodent proofing. (6 marks)

QUESTION 3

(a) With the aid of a diagram differentiate between a stretcher bond and a Flemish bond. (10 marks)

(b) Explain the three (3) methods which can be used in the transfer of heat in a building. (6 marks)

(c) How can a sloping site be improved. (4 marks)

QUESTION 4

(a) List the steps to be followed in laying a solid ground floor. (12 marks)

(b) Draw and label fully a spirit level. (8 marks)

QUESTION 5

(a) Using diagrams show how the following symbols are represented on working drawings:

(i) Screed (1 mark)

(ii) North point (1 mark)

(iii) Hard core (1 mark)

(iv) Door (1 mark)

(v) Water closet (1 mark)

(b) Explain how a Local Exhaust Ventilator operates. (5 marks)

(c) Explain the manufacture of a Zimbabwean standard. brick (10 marks)

QUESTION 6

(a) What are the environmental health factors to consider in siting a building. (8 marks)

(b) What are the responsibilities of the following people in building practice:

(i) Architect (1 mark)

(ii) Surveyor (1 mark)

(iii) Structural engineer (1 mark)

(c) Diagrammatically show how profiles can be presented on a foundation. (6 marks)

(d) Explain the term 'Dry bonding' and why it is practised in building Practices. (3 marks)

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