THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

783 **BUILDING CONSTRUCTION**

Time: 3 Hours. **Year: 2019**

Instructions

1. This paper consists of **five (5)** questions.

2. Answer all questions.

4. Cellular phones are **not** allowed inside the examination room.

5. Write your **Examination Number** on every page of your answer booklet

1. (a) A roof has span of 6m. Suggest by giving two reasons the suitable type of pitched roof that should be used.

   (b) Draw a well-labeled sketch of the suggested pitched roof in question 1(a).

   (c) Wind is one among the problems affecting roofs. Explain the suitable methods that should be used to safeguard roofs.

2. (a) Explain how the first course of walls can be set out after the concrete slab has been laid and set.

   (b) Sketch an elevation of four courses of a Flemish bond and label its main parts.

   (c) Drainage is very important to be observed in flat roofs. Briefly explain how these operations can be carried out.

3. (a) Briefly explain the preparation and placing of concrete lintel on a door opening by precast method.

   (b) Why admixtures are added into concrete mix?

   (c) Describe the manufacture of ordinary Portland cement by the wet process.

4. (a) A committee of six people was assigned to visit a site at Mnemela village for the purpose of developing it. Suggest six things that should be included in their report.

   (b) Briefly explain how to carry out construction of concrete slab above the hardcore.

   (c) State four safety regulations to be considered when excavating trenches for foundations.

5. (a) Briefly explain the purpose and suitability of framed buildings in modern constructions.

   (b) What four main considerations should be taken by an engineer in order to provide an adequate control of sun rays affecting the residential buildings?

   (c) Differentiate single floors from double floors as used in suspended timber ground floors.