THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

783 **BUILDING CONSTRUCTION**

Time: 3 Hour. **Tuesday, 20th May 2014 a.m**

Instructions

1. This paper consists of sections **five (5)** questions.
2. Answer all questions.
3. Each question carries **twenty (20)** marks.
4. Non-programmable calculators may be used.
5. Communication devices and any unauthorized materials are **not** allowed in the examination room
6. Write your **Examination Number** on every page of your answer booklet.

1. (a) Define the term "foundation" and explain two reasons why it is necessary in building construction.

   (b) List three types of shallow foundations and briefly describe where each is suitable.

   (c) State three consequences of constructing a foundation on weak or poorly prepared soil.

2. (a) Explain the importance of curing in concrete works and give two common methods used.

   (b) Identify three effects of poor curing on hardened concrete.

   (c) Outline three site conditions that may require longer curing periods.

3. (a) Define the term "building maintenance" and explain two reasons why it is essential in building management.

   (b) Mention three types of building maintenance and briefly explain each.

   (c) State three challenges that may hinder effective maintenance of public buildings.

4. (a) State four functions of a good roof in a residential building.

   (b) Explain three causes of roof failure in low-cost houses.

   (c) List three corrective measures that can be taken to repair leaking roofs.

5. (a) Describe three ways in which fire resistance can be incorporated into a building during design and construction.

   (b) Identify three materials that have good fire-resistant properties and explain where each can be used.

   (c) Give three reasons why fire escape routes must be clearly marked and accessible in public buildings.