THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 **BRICKWORK AND MASONRY**

Time: 3 Hour. **Wednesday, 17 May 2017 a.m**

Instructions

1. This paper consists of sections **six (6)** questions.
2. Answer question number **one (1)** and any other **four (4)** questions.
3. Question 1 carries **thirty-two (32)** marks and the rest carries **seventeen (17)** marks each.
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 "cavity wall".

   (b) State four advantages of using cavity walls in building construction.

   (c) With the aid of a sketch, describe the construction of a cavity wall and indicate the position of wall ties.

2. (a) What is the importance of curing in masonry construction?

   (b) Explain four effects of poor curing of brick or block work.

   (c) Outline the correct procedure for curing a newly constructed wall.

3. (a) Define the term "setting out" in bricklaying.

   (b) State five tools used for setting out and explain their uses.

   (c) Describe the procedure for setting out a rectangular building on site.

4. (a) (i) What is a pier in wall construction?

      (ii) State three functions of a pier in a wall.

   (b) With the aid of a sketch, differentiate between a freestanding wall and a retaining wall.

   (c) State four causes of failure in brick walls.

5. (a) What are the uses of cement in brick and block work?

   (b) State four types of cement used in construction.

   (c) Describe the properties of good quality cement suitable for masonry work.

6. (a) (i) Define the term "foundation".

      (ii) Mention three types of foundations used in masonry construction.

   (b) With the aid of a labeled sketch, describe a typical strip foundation.

   (c) State four factors to be considered before selecting a type of foundation for a building.