THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 **BRICKWORK AND MASONRY**

Time: 3 Hour. **Wednesday, 15 May 2013 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) What is meant by the term “wall tie”?

   (b) State four functions of wall ties in cavity wall construction.

   (c) Describe the correct method for placing wall ties during masonry work.

2. (a) Define the term “mortar joint”.

   (b) Mention four types of mortar joints used in brickwork.

   (c) Explain how the choice of joint type affects the appearance and durability of a brick wall.

3. (a) What is a coping on a wall?

   (b) State three purposes of copings in masonry construction.

   (c) With the aid of a sketch, describe the construction of a brick coping with a concrete capping.

4. (a) State four reasons for selecting clay bricks in wall construction.

   (b) Explain the differences between first class and second class clay bricks.

   (c) Describe three methods used to test the quality of bricks on site.

5. (a) What is a pier foundation?

   (b) State three situations where pier foundations are preferred over strip foundations.

   (c) With the aid of a sketch, describe the layout of a brick pier foundation under a load-bearing wall.

6. (a) (i) Define the term “dampness” in buildings.

      (ii) List three sources of dampness in masonry walls.

   (b) Explain four effects of dampness on buildings.

   (c) Describe three methods used to prevent dampness in wall construction.