THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 **BRICKWORK AND MASONRY**

Time: 3 Hour. **Wednesday, 18 May 2011 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 “bond beam” in masonry.

   (b) State three uses of bond beams in wall construction.

   (c) With the help of a sketch, describe the construction of a reinforced concrete bond beam in a block wall.

2. (a) What is meant by the term “wall thickness”?

   (b) State four factors that influence the choice of wall thickness in buildings.

   (c) Describe two disadvantages of using walls that are too thin in construction.

3. (a) Define the term “plastering” in relation to masonry walls.

   (b) State four differences between plastering and rendering.

   (c) Outline the procedure for plastering an internal brick wall.

4. (a) What is the purpose of using expansion joints in walls?

   (b) Mention four materials used to fill expansion joints.

   (c) Describe the correct location and spacing of expansion joints in long concrete block walls.

5. (a) Mention four tools used in pointing of mortar joints.

   (b) Describe the function of each tool mentioned in 5(a).

   (c) Explain three important points to consider when carrying out pointing in masonry work.

6. (a) (i) Define the term “curtain wall”.

      (ii) Mention three materials used in the construction of curtain walls.

   (b) State four differences between a curtain wall and a load-bearing wall.

   (c) Describe one advantage and one disadvantage of using curtain walls in high-rise buildings.