THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 **BRICKWORK AND MASONRY**

Time: 3 Hour. **Wednesday, 12 May 2010 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 “fireplace” in masonry construction.

   (b) State four components of a typical brick fireplace.

   (c) Describe how a brick fireplace is constructed in an external wall of a house.

2. (a) What is a retaining wall?

   (b) Mention three types of retaining walls used in construction.

   (c) With the aid of a sketch, describe how a gravity retaining wall resists soil pressure.

3. (a) Define the term “threshold” as used in door construction.

   (b) State three functions of a door threshold.

   (c) Explain how a concrete threshold is constructed and finished during floor work.

4. (a) Mention four factors to consider when choosing materials for masonry walls.

   (b) Describe how poor selection of materials can affect the strength and durability of walls.

   (c) Suggest three ways to ensure quality control when sourcing masonry materials.

5. (a) What is a reveal in wall construction?

   (b) Explain three purposes of providing reveals in windows and door openings.

   (c) With the aid of a sketch, describe how a reveal is formed in a wall.

6. (a) (i) Define the term “load transfer” in relation to masonry walls.

      (ii) State three mechanisms by which masonry walls transfer load.

   (b) Explain three consequences of poor load transfer in wall construction.

   (c) Suggest three measures to improve load transfer in multi-storey masonry buildings.