THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 BRICKWORK AND MASONRY

(SUPPLEMENTARY)

Time: 3 Hours **Year: 2008**

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. Cellular phones are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

1. (a) Define the term “masonry pier”.

(b) Give three reasons for constructing masonry piers in wall structures.

(c) Describe the correct procedure for building a masonry pier to bond with an existing wall.

2. (a) What is meant by the term “efflorescence” in masonry?

(b) State three causes of efflorescence on brick walls.

(c) Describe three methods to prevent or remove efflorescence from masonry walls.

3. (a) Explain the following terms as used in bricklaying:

(i) Toothing

(ii) Perpend

(iii) Header

(iv) Stretcher

(v) Mortar bed

(b) For each term, state one practical importance in wall construction.

4. (a) What is a brick arch?

(b) Mention four parts of a brick arch.

(c) With the aid of sketches, differentiate between a flat arch and a semi-circular arch.

5. (a) State four reasons why damp-proof courses (DPCs) are used in masonry walls.

(b) Explain two types of materials commonly used for DPCs.

(c) Describe the correct method for installing a DPC in a brick wall foundation.

6. (a) Define the term “scaffolding” in construction.

(b) Give four reasons why scaffolding is necessary in brickwork construction.

(c) Explain three safety precautions that must be observed when erecting and using scaffolding on site.