THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN TECHNICAL EDUCATION EXAMINATION

784 BRICKWORK AND MASONRY

(SUPPLEMENTARY)

Time: 3 Hours **Year: 2005**

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 “pier in masonry”.

   (b) State four functions of masonry piers.

   (c) Describe the construction process of an isolated brick pier foundation.

2. (a) What is meant by the term “groined vault”?

   (i) Mention two advantages of groined vaults.

   (ii) With sketches, describe the construction of a groined vault.

3. (a) Define “jointing in stone masonry”.

   (b) Mention three types of joints.

   (c) Explain how joints affect strength and appearance.

4. (a) List four factors affecting mortar setting.

   (b) Explain two practices to ensure proper setting.

5. (a) What is meant by the term “arch ring”?

   (b) State two functions of an arch ring.

6. (a) Differentiate between shallow and deep foundations.

   (b) Suggest two cases where deep foundations are more appropriate.