

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA  
DIPLOMA IN TECHNICAL EDUCATION EXAMINATION**

**784**

**BRICKWORK AND MASONRY**

**Time: 3 Hours**

**Wednesday, 15<sup>th</sup> May 2019 a.m.**

**Instructions**

1. This paper consists of **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 any unauthorized materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).



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1. (a) What is meant by septic tank?  
(b) Draw a longitudinal section of a septic tank and show five important parts.  
(c) With the aid of sketches, explain the following tools as used in the construction works:
  - (i) Wooden float
  - (ii) Laying trowel
  - (iii) Bat and closer gauge
2. (a) With the aid of sketches, differentiate between traditional strip foundation and deep strip foundation.  
(b) Mention five causes of accidents in the construction works.  
(c) How can the accidents be prevented?
3. (a) Elaborate four requirements of scaffolds.  
(b) Use sketches to show how independent and dependent scaffolds are erected.
4. (a) What is the function of stairs?  
(b) Use sketch to show elevation of stair and label all parts.  
(c) Draw the plan views of the following stairs.
  - (i) Straight flight
  - (ii) Dog leg
  - (iii) Quarter turn.
5. (a) What are the advantages of constructing flat roofs in buildings?  
(b) State four requirements of a good solid floor surface finishes.  
(c) Draw a sketch of a framed ledged and battern door.
6. (a) (i) Define the term 'workshop' as applied in the construction industry.  
(ii) Mention two major types of workshops and state its four differences.  
(b) With the aid of diagrams, explain the different types of pointing.  
(c) (i) What is the meaning of concrete as applied in the building construction?  
(ii) Mention four factors which influence the strength of concrete.