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

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## **BUILDING CONSTRUCTION**

Time: 3 Hour. Tuesday, 13<sup>th</sup> May 2003 a.m.

## **Instructions**

- 1. This paper consists of sections five (5) questions.
- 2. Answer all questions.
- 3. Each question carries twenty (20) marks.
- 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 site layout and explain its significance during construction project execution.
  - (b) (i) List three essential facilities that must be provided on a site layout.
    - (ii) Explain two consequences of poor site layout planning.
  - (c) Mention three ways in which site layout contributes to safety on a construction site.
- 2. (a) What is the role of project cost estimation in construction planning?
  - (b) (i) Identify four key components considered when preparing a cost estimate.
    - (ii) State two sources of data used for accurate estimation.
  - (c) Give three challenges encountered during cost estimation in building projects.
- 3. (a) Define curing of concrete and explain why it is important.
  - (b) (i) List four methods of curing concrete used in the field.
    - (ii) State two effects of improper curing on the final strength of concrete.
    - (c) Mention three site conditions that influence the choice of curing method.
- 4. (a) What is a contract document?
  - (b) (i) Name three examples of documents that make up a complete contract package.
    - (ii) Explain two reasons why contract documents must be reviewed before project start.
  - (c) Describe three risks that arise when contract documents are incomplete or misunderstood.
- 5. (a) Define the term "construction waste management."
  - (b) (i) State four common types of construction waste generated on site.
    - (ii) Explain two strategies for reducing construction waste during the building process.
    - (c) Describe three environmental benefits of effective construction waste management.