



## TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF BUILDING & CIVIL ENGINEERING

### UNIVERSITY EXAMINATION FOR:

DIPLOMA IN BUILDING AND CIVIL ENGINEERING

EBC 2303 SPECIFICATIONS FOR BUILDING  
AND CIVIL ENGINEERING WORKS

### END OF SEMESTER EXAMINATION

**SERIES:** SEPT. 2017

**TIME:** 2 HOURS

**DATE:** SEPT. 2017

#### Instructions to Candidates

You should have the following for this examination

- Answer Booklet, examination pass and student ID
- Drawing instruments.
- Scientific calculator

This paper consists of **FIVE** questions. Attempt any **THREE** questions

**Do not write on the question paper**

**Mobile Phones are NOT allowed inside the examination room**

#### QUESTION 1

- a) State the **FOUR** main sources of information in civil engineering specifications writing. **(6 marks)**
- b) Briefly describe the general considerations in writing specifications for  
Concrete works. **(4 marks)**

- c) A deep trench is to be excavated for laying water pipe line in medium dense sub soil. Write specification notes on formwork to the sides of excavation under following headings:
- i) Materials
  - ii) Setting up
  - iii) Fixing of Members
  - iv) Safety Precautions
  - v) Striking off
- (10 marks)**

## QUESTION 2

- a) Write brief specification notes on construction of roofing work in corrugated iron sheeting on timber truss under the following headings
- i) Fabrication of Truss members
  - ii) Surface treatment
  - iii) Fixing of roof sheeting
  - iv) Roof drainage
- (10 marks)**
- b) Under appropriate headings write specification notes for fixing an internal door to a wall opening.
- (10 marks)**

## QUESTION 3

- a) Write specification notes for construction of a 200 mm thick concrete walling  
Under the following headings
- i) Walling Materials
  - ii) Batching and mixing
  - iii) Reinforcement
  - iv) Formwork
  - v) Casting and compaction
  - vi) Curing
- (12 marks)**
- b) Write specification notes for application of cement sand plaster to a masonry wall surface.
- (8 marks)**

#### **QUESTION 4**

- a) Under appropriate headings write specification notes for provision of Storage Compounds under preliminary site works. **(10 marks)**
- b) Terrazzo floor finish is to be laid on a concrete floor slab. Under appropriate headings write brief specifications for the works. **(10 marks)**

#### **QUESTION 5**

- a) Write specification notes on roofing work in interlocking clay tiles on timber truss under the following headings

- i) Fabrication of Truss
- ii) Damp proofing decking
- iii) Batten fixing
- iv) Tiling process
- v) Roof drainage

**(10 marks)**

- (b) Write specification notes for formwork to soffit of slab of a suspended reinforced

Concrete floor slab under the following headings:

- i) Materials
- ii) Setting up
- iii) Fabrication
- iv) Safety
- v) Striking off

**(10 marks)**