



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

**((A Constituent College of JKUAT)**

(A Centre of Excellence)

**Faculty of Engineering  
& Technology in Conjunction with  
Kenya Institute of Highways and  
Building & Technology (KIHBT)**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

**HIGHER DIPLOMA IN BUILDING ECONOMICS**

EBE 3111: SPECIFICATIONS & QUANTITIES I

**END OF SEMESTER EXAMINATION**

**SERIES: AUGUST 2012**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*
- *Calculator*
- *Drawing Instrument*

This paper consists of **FIVE** questions

Answer any **THREE** questions

All questions carry equal marks  
This paper consists of **THREE** printed pages

**Question One (20 Marks)**

- a) Briefly describe the following types of specifications in civil engineering construction.
- i) General specifications
  - ii) Project specifications
  - iii) Manufacturers specifications
  - iv) Standard specifications. **(8 marks)**
- b) State the **FOUR** main sources of information in civil engineering specifications writing. **(6 marks)**
- c) Briefly describe the **THREE** main components of specifications. **(6 marks)**

**Question Two (20 marks)**

- a) State the role of the civil engineer in specifications writing in the various stages of construction. **(10 marks)**
- b) A new site in an urban settlement is to be cleared for a new proposed construction. Under appropriate headings write specification notes for the works. **(10 marks)**

**Question Three (20 marks)**

- a) State **FOUR** roles of specifications in civil engineering construction. **(8 marks)**
- b) A Trench is to be excavated for construction of a foundation for a proposed new building. Write specification notes on timbering to sides of excavations under the following headings.
- i) Formwork material
  - ii) Preparation of works
  - iii) Setting up
  - iv) Striking off. **(12 marks)**

**Question Four (20 marks)**

- a) Write specification notes on concrete block walling in foundations under the following headings.
- i) Walling material
  - ii) Setting up
  - iii) Bonding
  - iv) Wall protection
  - v) Curing **(10 marks)**
- b) A newly cast concrete slab is to be finished with current sand screed preparation for tiling. Under **FOUR** appropriate heading, write specification notes for the works. **(10 marks)**

**Question Five (20 marks)**

- a) A timber roof is to be finished with pre-painted corrugated iron sheeting. Write specifications notes for the work under the following headings:
- i) Fabrication of truss
  - ii) Roofing materials
  - iii) Fixing of sheeting
  - iv) Roof drainage. **(10marks)**

- b) A hardwood external door is to be fixed in a masonry walling. Write specification notes for the work under the following headings.
- i) Preparation of opening
  - ii) Fixing of frame
  - iii) Fixing of shutter
  - iv) Iron mongery
  - v) Surface finish
- (10 marks)**