



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

DIPLOMA IN BUILDING AND CIVIL ENGINEERING

EBC 2303: SPECIFICATIONS BUILDING AND CIVIL ENGINEERING WORKS

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination

- Answer booklet
- Calculator
- Drawing instruments

This paper consists of **FIVE** questions

Answer any other **THREE** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed papers.



SGS ISO 9001:2008 Certified

QUESTION ONE

- a) Describe the Main components in civil engineering specification writing. **(6 marks)**
- b) Write Specification notes for construction of a typical deep Manhole under the following headings
- i) Excavation of Pit
 - ii) Plucking and strutting
 - iii) Concrete bottom slab
 - iv) Masonry walling
 - v) Manhole internal finishes
 - vi) Concrete top cover slab
 - vii) Manhole cover and frame
- (14 marks)**

QUESTION TWO

- a) Describe the **FIVE** main types of specifications in Civil Engineering Construction. **(8 marks)**
- b) Write specification notes for construction of a concrete storm water drainage system to a new road project. **(12 marks)**

QUESTION THREE

- a) Describe a Step by Step process of ISO certification to an Institution. **(10 marks)**
- b) Write general specification notes for construction of an all-weather site access road. **(10 marks)**

QUESTION FOUR

- a) Write specification notes for construction of a stone masonry wall in foundation works. **(10 marks)**
- b) Write Specification notes for general concrete structural works under the following headings
- i) Concrete materials
 - ii) Batching and Mixing
 - iii) Transportation and Placing
 - iv) Compaction
 - v) Curing
- (10 marks)**



QUESTION FIVE

- a) Describe the duties of the Civil Engineer in specification writing in the following stages of construction
- i) Preliminary stage
 - ii) Design stage
 - iii) Tendering stage
 - iv) Construction stage
 - v) Maintenance stage
- (10 marks)**
- b) Under appropriate headings write Specification notes for cement plaster work finish on a concrete block wall surface.
- (10 marks)**

