



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING

EBC 2303: BUILDING & CIVIL ENGINEERING WORKS - SPECIFICATIONS

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Answer any **THREE** questions of the **FIVE** questions

Maximum marks for each part of a question are as shown

Use neat, large and well labeled diagrams where required

This paper consists of **THREE** printed pages

Question One

- a) Describe the main contract documents in civil engineering construction **(8 marks)**
- b) State the importance of ISO Standards to the following parties:
(i) Company/institution
(ii) Workers
(iii) Customers **(12 marks)**

Question Two

- a) Under preliminary site works write specification notes for supply of water to a construction site. **(10 marks)**
- b) State the main specification consideration in the provision of site security **(10 marks)**

Question Three

- a) Write general specifications notes for steel reinforcement work in structural concrete beams **(10 marks)**
- b) Write general specification notes for concrete works under the following headings: **(10 marks)**
(i) Materials
(ii) Batching and mixing
(iii) Transportation and placing
(iv) Compaction
(v) Cooling **(10 marks)**

Question Four

- a) Under appropriate headings write specification notes for site accommodation camps . **(10 marks)**
- b) Write specification notes for construction of a rigid concrete pavement under the following headings:
(i) Sub grade
(ii) Water proof underling
(iii) Road base
(iv) Reinforcement work
(v) Concrete works **(10 marks)**

Question Five

- a) Write specification notes for the construction works of a Railway track formation under the following headings:
(i) Preliminary works
(ii) Topographical layout
(iii) Earthworks
(iv) Compaction of formation
(v) Surface drainage **(10 marks)**

- b) A precast concrete storm water drainage system is to be laid in a New Highway Project. Write specification notes for the works under the following headings:
- (i) Loading and unloading of pipes
 - (ii) Excavation and leveling
 - (iii) Laying and building in pipes
 - (iv) Concrete surround to pipeline
 - (v) Backfilling of trenches
- (10 marks)**