



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN CIVIL
ENGINEERING (BSCE)

ECE 2202: ENGINEERING DRAWING III

END OF SEMESTER EXAMINATION

SERIES: APRIL 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Answer question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions from section **B**

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

SECTION A

Question One (Compulsory)

The plan, section and tabulated standard dimensions for a typical septic tank are given in figure 1. Using the standard dimensions given the table, draw the views mentioned below for a septic tank of 9000 litres capacity at a scale of 1:50

a) The plan

(15 marks)

b) Section X-X

(15 marks)

SECTION B (Attempt any TWO questions)

Question Two

Using freehand sketching, show the following trussed rafters.

- a) Double W (5 marks)
- b) Raised tie (5 marks)
- c) Queen post (5 marks)
- d) Cantilever (5 marks)

Question Three

Draw the following timber joints using 50 x 100 timber pieces and state where each is recommended for use:

- a) Through housing joint (5 marks)
- b) Stopped housing joint (5 marks)
- c) Cross halving joint (5 marks)
- d) Stopped halving joint (5 marks)

Question Four

The plan and section for a standard manhole are given in the figure below. Using the dimensions given, draw the views mentioned below:

- a) The plan (10 marks)
- b) Section B – B (10 marks)

Question Five

Draw the structural steel framework connection detail for the following:

- a) Stanchion with slab riveted on (6 marks)
- b) Stanchion with welded plate base (6 marks)
- c) Stanchion splices for equal sections (8 marks)