TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN CIVIL ENGINEERING

ECE 2103: ENGINEERING DRAWING III

END OF SEMESTER EXAMINATION
SERIES: DECEMBER 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)** and any **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One (Compulsory)

Figure 1(a) shows a queen post timber truss. Draw to scale the details 1, 2, 3, 4 and 5 as shown on figure 1 (b) clearly indicating the dimensions and the scale used. **(30 marks)**

Question Two

Draw the following roof trusses: **(20 marks)**

(i) W.W. Double fink
(ii) Shed
(iii) Mansard
(iv) Queen
(v) Howe truss

Question Three

Draw the following steel structure connections:

a) Column spices of equal sections
b) Riveted plate and angle base for small column
c) Beam to column joint with a simple welded and bolted detail
d) Beam to beam joints of a secondary beam with welded end plates bolted to main beam

(20 marks)

Question Four

Figure 2 shows a cross-section through asphalt on granular base pavement and drainage system. Draw the section to scale and clearly label, dimension and indicate the scale. **(20 marks)**

Question Five

Figure 3 shows an indirect water system. Sketch the figure and clearly indicate the flow of water, clearly labeling the various sanitary appliance **(20 marks)**