TECHICAL UNIVERSITY OF MOMBASA
Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

CONSTRUCTION TECHNICIAN PART I (CT I 12II)

EBC 1114: TRUSS ANALYSIS

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: FEBRUARY 2013
TIME: 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 other **TWO** questions
Maximum marks for each part of a question are as shown

This paper consists of **FOUR** printed pages
Question One (Compulsory)

Determine the magnitude and nature of members shown in figure 1. Use method of joint resolution.

(20 marks)

A

Question Two

a) Define the following as applicable to trusses:
   (i)   Ties
   (ii)   Struts   (6 marks)

b) Determine the magnitude and direction of the resultant force system in figure 2.   (14 marks)

Y

Question Three

a) Using method of joint resolution, determine the nature and magnitude of the member force of truss in figure 3.

50KN

b) Define: (i) Resultant of a force system.
          (ii) Equilibriant of a force system   **(6 marks)**

Question Four

Determine the magnitude and nature of the member forces in figure 4. Use method of sections.

A

(20 marks)

Question Five

a) Determine the nature and magnitude of number forces in figure 5. Use method of joint resolution.

Figure 5

b) Obtain the resultant and direction of the force system in figure 6.

X