



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2013/2014

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

Examination for Certificate in construction technology I

Engineering drawing I

Date:

Time:

Instructions

*This paper consists of **two** sections A & B*

Answer all questions in section A and any other two questions in section B

Maximum marks for each part of a question are as shown

All measurements are in millimeters.

SECTION A: COMPULSORY

1. Explain the uses of the following instruments:

- i. Tee- square
- ii. Set square
- iii. Protractor
- iv. Pair of compasses
- v. Divider

(10 marks)

2. Draw the following types of lines

- i. Outline
- ii. Construction line
- iii. Break line
- iv. Boundary line
- v. Centre line

(10 marks)

3. Print the following paragraph in upper case letter using medium height letters.

“Good lettering and neat line work are very pleasing to look at on a drawing. Constant practice is aimed at producing plain clear figures. This will eventually result in attainment of a good standard. Always print between two construction lines. In the early stages, it is advantageous to pencil in the letters lightly with aid of a ruler and then line in by use of hand.”

(10 marks)

SECTION B: ANSWER ANY TWO QUESTIONS FROM THIS SECTION

4. a) Construct a line 140mm long and divide it into eleven parts. (5 marks)

b) Construct a line 125mm long and divide it into a ratio of 2:3:4. (5 marks)

5. a) Construct the following angles using a pair of compasses

i. 45°

ii. 165°

iii. 30°

iv. 75°

v. 105°

(5 marks)

b) Construct a rectangle 50mm high on a given line 85mm long. (5 marks)

6. Construct a circle of radius 30mm and show the following:

i. Chord

ii. Segment

iii. Sector

iv. tangent

v. arc

(10 marks)