



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

ECV 100: ENGINEERING DRAWING I

DATE: 19/6/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

- *This paper comprises five questions*
- *Question **one** is **compulsory** and carries 30 marks*
- *All other questions carry 20 marks each*
- *Answer question **one** and any other **two** questions* **TOTAL: 70 MARKS**

QUESTION ONE (30 MARKS)

- Explain the use of at least FOUR type of different drawing equipment (8 marks)
- Discuss with examples the FOUR main classification of letter styles (8 marks)
- Draw a regular hexagon having 60mm long sides, using general method. (6 marks)

QUESTION TWO (20 MARKS)

- Figure 1 shows the pictorial view of an object. Draw the following views.
 - Front view in direction of arrow,
 - Top view, and
 - Sideview from right. (20 marks)

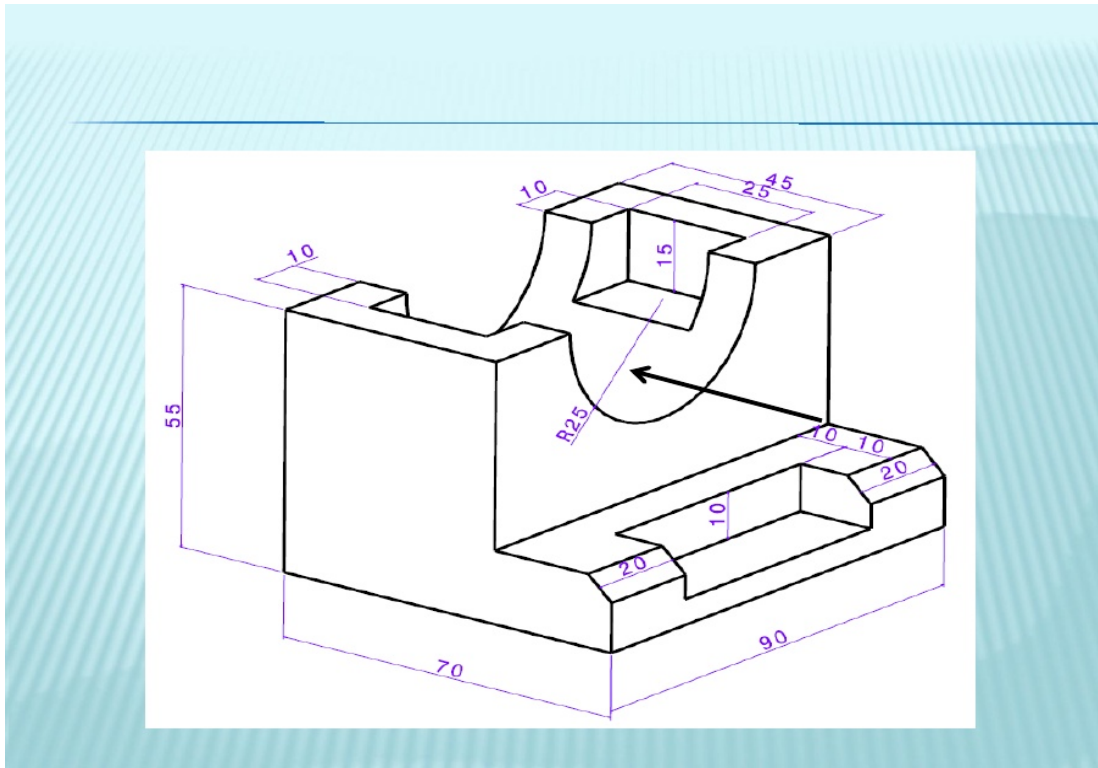


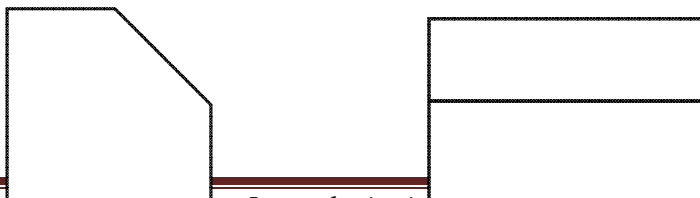
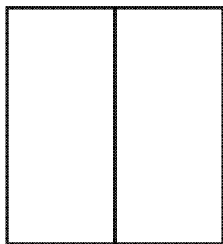
Figure 1.

QUESTION THREE (20 MARKS)

- Give the symbolic representation of FIRST and THIRD ANGLE projection (10 marks)
- Inscribe a regular octagon in a circle having a 80mm side (10 marks)

QUESTION FOUR (20 MARKS)

The orthographic view of an object is shown in the figure below. Draw the true shape of the inclined surface on an auxiliary plane. (20 marks)



QUESTION FIVE (20 MARKS)

A cylinder with a 80mm base diameter is resting on its base on the H.P. It is penetrated by another cylinder with a 50mm base diameter, the axes of which is parallel to both the principal planes. The two axes intersect each other at right angles. Draw the projections of the combination and show the curves of intersection. (20 marks)