



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (CIVIL ENGINEERING)

ECV 100: ENGINEERING DRAWING I

DATE: 14/6/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS

- This paper comprises of four questions. Answer **two** questions
- Question one is **compulsory** and carry 30 marks
- Answer any other **one** question

QUESTION ONE (30 MARKS)

- a) Visitors must stand at least 2 m away from the walls of a monkey enclosure at the zoo. The closure is rectangular in shape ABCD. The length and width is 10m by 5m respectively. Draw an accurate diagram to show where the visitors must not stand, using a scale of 1 cm: 1 m? (7 marks)
- b) Draw the first angle projection of the isometric view in figure 1. (15 marks)

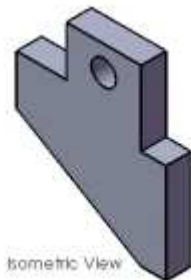


Figure1

- c) Draw full size (scale 1:1) the isometric view from the orthographic projections given in figure 2. Dimensions are in mm (8 marks)

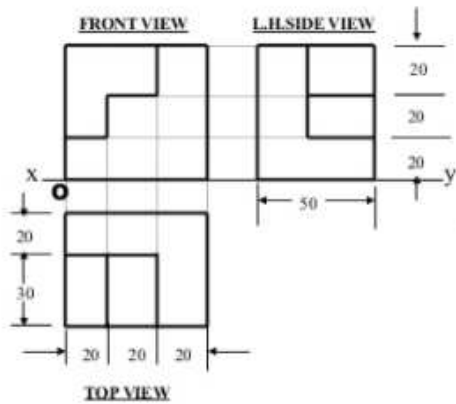


Figure 2

QUESTION TWO (20 MARKS)

Construct an ellipse given the distance of the focus from directrix is 50mm with an eccentricity of $\frac{2}{3}$.

QUESTION THREE (20 MARKS)

Draw the front side auxiliary view at an angle of 90° of the object shown in figure 4

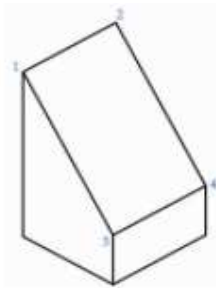


Figure 3

QUESTION FOUR (20 MARKS)

Draw the third angle orthographic projection of the object in figure 5. Dimensions are in mm.

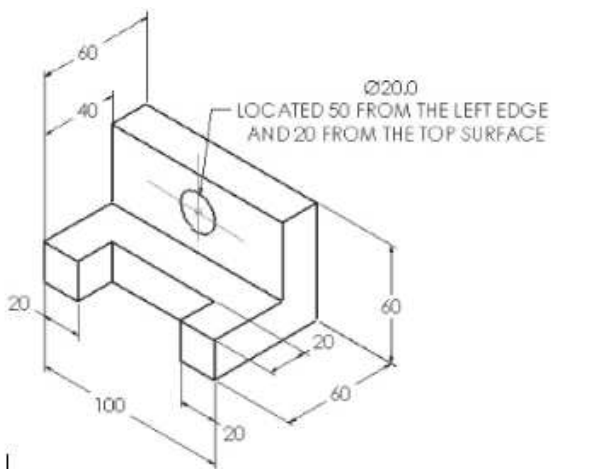


Figure 4