



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

ECV 100: ENGINEERING DRAWING I

DATE: 24/3/2021

TIME: 2.00-4.00 PM

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## INSTRUCTIONS

*Answer Question One and Any Other Two Questions*

1. a) Draw the Plan, Front view and Right side view in first angle orthographic projection of fig 1 (15 marks)

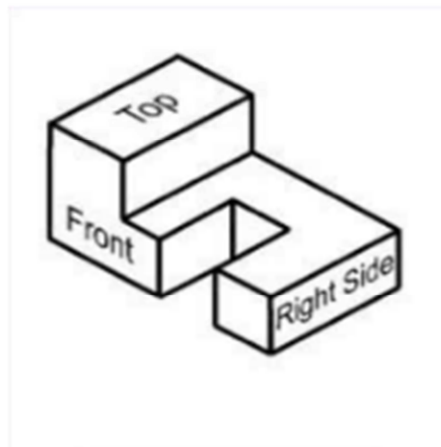


fig 1

- b) Given the line AB, and point Q, find one or more points that are 3cm from AB and 5cm from point Q. (7 marks)
- c) Draw the Plan, front and side views in first angle orthographic projection (8 marks)

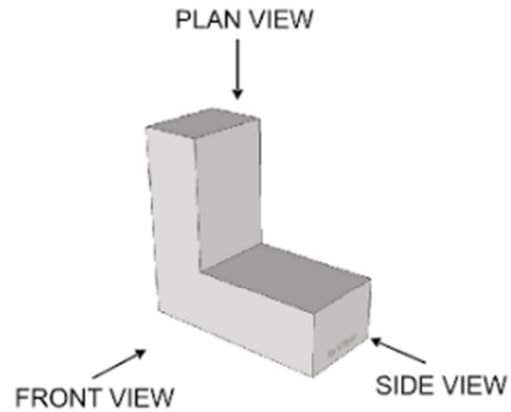


fig 2

2. Draw an ellipse if the distance of focus from the directrix is 70 mm and the eccentricity is  $\frac{3}{4}$ . (20 marks)
3. Draw in 3<sup>rd</sup> angle orthographic projection the plan, front and side angle projections of the figure given in fig 3 (20 marks)

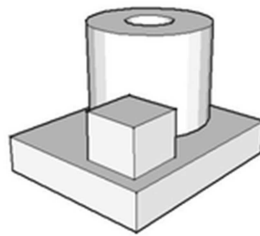


fig 3

4. Draw the isometric view of the orthographic projections given in fig 4 (20 marks)

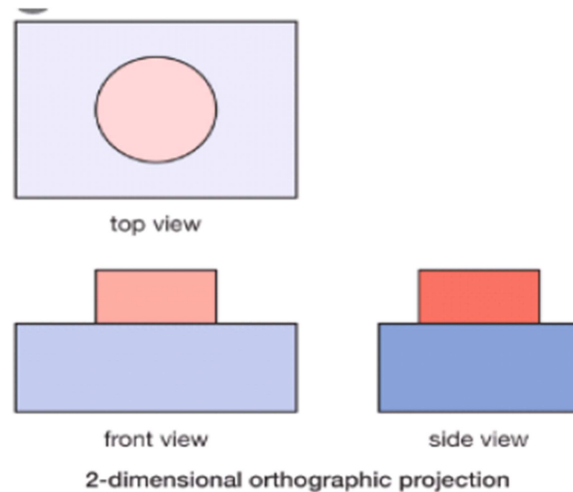


fig 4

5. Draw a parabola if the distance of the focus from the directrix is 60mm (20 marks)