



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic
SPECIAL/SUPPLEMENTRY EXAMINATION FOR THE DEGREE IN ELECTRICAL
AND ELECTRONICS ENGINEERING
2020/2021
EEE100 ENGINEERING DRAWING I

TIME: 3 HOURS

INSTRUCTIONS:

1. This paper contains **FIVE** questions.
2. Answer Question **One** and any other **two** questions
3. Allow 1½ Hours for question 1 and 45 minutes for each of the other two questions.
4. All dimensions are in millimetres unless otherwise stated.
5. Construction lines should be faint and should not be erased.
6. Accuracy and good line work are essential.

Question 1 (Compulsory) (30 marks)

The **Figure Q1 (a) and (b)** shows isometric views of a **Support Bracket**. Draw, full size, using first angle projection, the following views: **Front, Top and left side views. Front view is indicated by the arrow.** Include all hidden details and show dimensions.

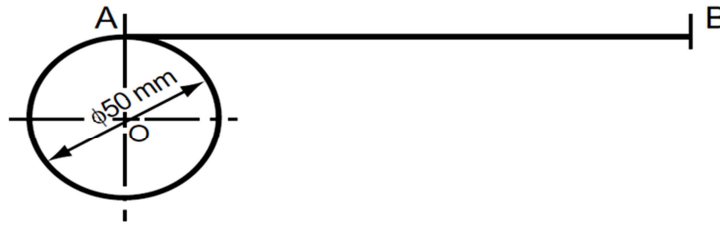


Figure: Q2

Question 3 (20 marks)

Plot the cam profile which meets the following specification:

Shaft diameter	30 mm
Minimum diameter	50 mm
Lift	24 mm
Performance	90° uniform velocity to maximum lift 90° dwell 180° uniform retardation to maximum fall
Rotation	Clockwise

Question 4(20 marks)

Figure Q4 shows a sectional detail of a feed screw for a machine. Draw an elevation of the screw for a length of 192mm, showing the helical threads at both outside and root diameters.

Question 5

The plan and incomplete elevation of two pipes are shown in **Figure Q5**. Copy the three views, full size, and complete the elevations showing all the hidden detail with the curves of intersection. Indicate the dimensions. (**Use first angle projection**). (20 marks)

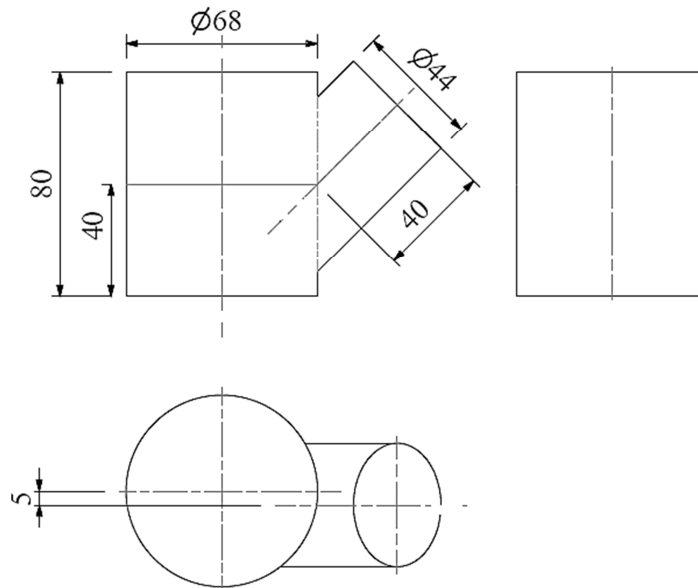


Figure Q5

