



MACHAKOS UNIVERSITY

MECHANICAL ENGINEERING DEPARTMENT

ENGINEERING DRAWING, I

DIPLOMA 1 TERM 2 TIVET

Time 2 hours

INSTRUCTIONS:

- This Examination contains two sections A and B
- Attempt all the questions

Q1 (a) By use of a simple sketch, differentiate between isometric and oblique projection. (6 marks)

(b) Construct a cylinder on a horizontal plane given the diameter 80mm and height 70mm in isometric. (10 marks)

(c) By use of simple sketch, differentiate between first and third angles of projection. (4 marks)

Q2. Figure 1 shows three complete orthographic views in third angle projection. Draw an isometric block fully dimensioned. (20 marks)

Q3. Figure 2 shows a block in isometric projection. Draw in third angle projection the following

- Front view in the direction of the arrow
 - End elevation
 - The plan
- (20 marks)

Q4. Figure 3 shows a block in isometric projection. Draw in first angle projection the following

- Front view in the direction of the arrow
 - End elevation
 - The plan
- (20 marks)

Q5. Construct an Internal tangent to two unequal circles diameter 40 mm and 60mm with centers O, O1 radii R and r, 120mm apart respectively. (10marks)

(c) Construct a nonagon given the diameter of a circle 80 mm.

(10 marks)