



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN MECHANICAL ENGINEERING (TVET)

ENGINEERING DRAWING I

DATE: 15/4/2019

TIME: 2.30-5.30 PM

INSTRUCTIONS:

Attempt all the questions

QUESTION ONE (20 MARKS)

- 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)

QUESTION TWO (20 MARKS)

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

QUESTION THREE (20 MARKS)

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

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

QUESTION FOUR (20 MARKS)

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

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

QUESTION FIVE (20 MARKS)

- a) Construct an Internal tangent to two unequal circles diameter 40 mm and 60mm with centers O, O1 radii R and r, 120mm apart respectively. (10 marks)
- b) Construct a nonagon given the diameter of a circle 80 mm. (10 marks)