



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

ARTISAN IN FOOD AND BEVEARAGES

ARTISAN IN TEXTILE TECHNOLOGY

ARTISAN IN MOTOR VEHICLE

ARTISAN IN FASHION DESIGN

ARTISAN IN WELDING

ARTISAN IN PLUMBING

APPLIED GEOMETRY

DATE: 15/4/2019

TIME:8.30-11.30 AM

INSTRUCTIONS:

This paper consists of FIVE Questions.

Answer Question ONE (Compulsory) and any other THREE questions.

You need drawing instruments.

QUESTION ONE (40 MARKS)

FIGURE 1 shows Two views in orthographic projection of six objects derived from a cube of 60 mm sides.

Copy the given views then complete the THIRD views.

Sketch each object in a pictorial projection in the spaces indicated. (40 marks)

QUESTION TWO (20 MARKS)

Draw a pentagon given:

- a) Length of one side, 50 mm. (7 marks)
- b) Circumscribing circle, 90 mm. (13 marks)

QUESTION THREE (20 MARKS)

FIGURE 2 shows a machined block drawn isometric projection. Draw orthographic views in FIRST angle projection with Front elevation viewed from direction F

QUESTION FOUR (20 MARKS)

Draw an isometric projection of the block represented by the views in Fig. 3, taking X as the lowest point.

QUESTION FIVE (20 MARKS)

Draw the surface development of:

- a) A cylinder, diameter 60 mm and height 90 mm.
- b) A cone, base circle 60 mm and 75 mm as its height.