



MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

SECOND YEAR SECOND TERM EXAMINATION FOR

DIPLOMA IN PLANT ENGINEERING.

ENGINEERING DRAWING (PLANT)

DATE: 3/9/2021

TIME: 8:30 – 11:30 AM

INSTRUCTIONS:

ANSWER ALL THE QUESTIONS.

1. With the aid of a sketch, illustrate the parts of a screw thread. (20 marks)
2. Sketch the following thread forms,
 - (a) Unified course
 - (b) Square
 - (c) Buttress
 - (d) ACME (20 marks)
3. Construct THREE turns of a double start VEE thread with a crest diameter of 110 mm and a pitch of 60 mm. (20 marks)
4. With the aid of a diagram, show the following features as used in spur gear designing,
 - (a) PCD
 - (b) Pressure Angle
 - (c) Addendum
 - (d) Dedendum
 - (e) Clearance (20 marks)
5. Construct THREE turns of a clockwise single start SQUARE thread with crest diameter of 140 mm and a pitch of 60 mm (20 marks)