



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN MECHANICAL ENGINEERING (PLANT)

DIPLOMA IN AUTOMOTIVE

ENGINEERING DRAWING, I

DATE: 18/12/2020

TIME: 2:30 – 5:30 PM

INSTRUCTIONS TO CANDIDATES

- *This Examination contains two sections A and B*
 - *Attempt all the questions*
1. Figure 1 shows an orthographic projection of a housing for a steam turbine. Draw **half** size an isometric view of the housing with corner A being the lowest point (20 marks)
 2. Figure 2 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)
 3. Figure 3 shows a truncated cone of height 80 mm. draw the;
 - a) Plan
 - b) Development of the truncated cone
 - c) True profile of the hole (20 marks)
 4. Figure 4 shows a link mechanism pivoted at O and C. A and B are pin joints. Copy the mechanism and construct the locus of point D when the crank OA makes a complete revolution. (20 marks)
 5. Figure 5 shows the front elevation of offset cylinders, with the minor cylinder inclined at 60° . Copy the given views and
 - a) Draw the complete plan view
 - b) Construct the curve of interpenetration
 - c) Draw the development of the major cylinder (20 marks)