



# MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING  
FIRST YEAR SEMESTER TWO EXAMINATION FOR  
CRAFT CERTIFICATE IN BUILDING TECHNOLOGY  
CRAFT CERTIFICATE IN PLUMBING MODULE ONE

1704/103: TECHNICAL DRAWING

DATE: 15/4/2019

TIME: 2: 30 – 5:30 AM

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## INSTRUCTIONS:

Answer the following five questions

Maximum marks for each part are as indicated

1.
  - a) **Fig 5a** shows a rectangle of sides 65mm and 38mm. copy the rectangle and convert it into a square of equivalent area using geometrical method. (5 marks)
  - b) Construct a regular pentagon of sides 42mm. (5 marks)
  - c) **Fig 5b** shows the layout of a crank mechanism in which **OB** rotates about **O** and **A** slides as shown. Draw the locus of point **C** for one revolution of the crank pin. (10 marks)
2. **Fig 6** shows orthographic views of a block. Assemble the views and draw in isometric projection, making corner **C** the lowest point. (20 marks)
3. **Fig 7** shows a pictorial view of a cast iron block. Draw the following views in **FIRST ANGLE** projection;
  - i) A front elevation in the direction of arrow F,
  - ii) Right end elevation,
  - iii) Plan (20 marks)

4. **Fig 9** shows a pictorial view of a machine part. Draw the following views in **THIRD ANGLE** projection;
- i) Front elevation in the direction of arrow “**F**”
  - ii) End elevation in the direction of arrow “**E**”
  - iii) Plan
- (20 marks)
5. **Fig 8** shows two views of a wooden block and its perspective layout. Copy the given layout and draw the block in one point perspective. (20 marks)