



MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST YEAR SECOND TERM EXAMINATION FOR

CERTIFICATE IN BUILDING TECHNOLOGY

APPLIED DRAWING

DATE: 2/9/2021

TIME: 8:30 – 11:30 AM

INSTRUCTIONS:

Answer the following five questions.

1. Fig I show the bottom half of a hexagonal washer. Draw the figure full size and determine the width “W” (20 marks)
2. Construct a regular Nonagon given one side is 38mm. (20 marks)
3. Fig 3 shows the elevation of a kitchen roll holder to be mounted on the wall. Copy the figure full size and by construction, find the largest diameter of the roll that will touch both sides and the bottom. (20 marks)
4. Inscribe a regular heptagon in a circle of diameter 78mm. (20 marks)
5. a) Draw a kite ABCD, given the following data;
 - Diagonal AC = 70, DB = 40
 - The diagonals intersect 30mm C.(5 marks)
- (b) Convert the kite into a square of equivalent area. (15 marks)