

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2016/2017**

FIRST YEAR FIRST SEMESTER EXAMINATION

FOR

CERTIFICATE IN ELECTRICAL INSTALLATION

**EMC 1100: TECHNICAL DRAWING I**

**DATE: DECEMBER 2016 TIME: 1 ½ HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two***questions.

**QUESTION ONE (30 MARKS)**

1. Figure 1 shows the front and top view of equipment. Draw it using a scale of 1 cm rep 10 units (1:10) (8 marks)
2. Construct a pentagon given that the length of the side is 3 cm. (5 marks)
3. Construct the plain figure shown in figure 2 by means of a proportional scale on the base AG. All angles must be constructed geometrically (7 marks)
4. Draw the block drawn in figure 3 showing its isometric projection (10 marks)

**QUESTION TWO (15 MARKS)**

1. Three views of a bearing are shown in figure 4. Make an isometric drawing of the bearing. Corner A should be the lowest point on your drawing. No hidden details are required. (15 marks)

**QUESTION THREE (15 MARKS)**

Figure 5 shows the outline of two pulley wheels connect by a belt of negligible thickness. To a scale of 1:100, draw the figure showing the construction necessary to obtain the points of contact of the belt and pulley. (15 marks)

**QUESTION FOUR (15 MARKS)**

1. Study the isometric view in figure 6 and draw the orthographic views looking in the direction of the arrow and number the surfaces (15 marks)