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**University Examinations 2015/2016**

FIRST YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN ELECTRICAL ENGINEERING

**EMC 2100: ENGINEERING DRAWING I**

 **DATE: NOVEMBER 2015 TIME: 3HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Using appropriate drawings illustrate any four dimensioning rules. (4 Marks)
2. Describe any three types of lines used in Technical Drawing and state the pencil used for each. (3 Marks)
3. Draw a pentagon of side length 43 mm. (7 Marks)
4. Figure 1 is an elevation of the turning handle of a can opener. Draw this view, twice full size, showing clearly the method of establishing the centres of the arcs. (7 Marks)
5. Figure 2 shows a shaped object. Sketch the orthographic views of the object in first angle projection. (9 Marks)

**QUESTION TWO (15 MARKS)**

1. Figure 3 shows the outlines of three pulley wheels connected by taut belt. Draw the figure full size. (6 Marks)
2. Draw the plan and front elevation of the shaped object shown in figure 4, in the third angle projection. Take the front elevation in the direction of the arrow. (9 Marks)

**QUESTION THREE (15 MARKS)**

Orthographic views of a surface block are shown in figure 5. Draw the isometric view of the block taking x as the lowest point. (15 Marks)

**QUESTION FOUR (15 MARKS)**

1. Draw an ellipse major diameter 87 mm and minor diameter 52 mm. (6 Marks)
2. Draw a heptagon that would fit inside a circle-diameter 130 mm. (9 Marks)