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**University Examinations 2014/2015**

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL ENGINEERING AND ELECTRICAL ENGINEERING

**EMC 0201: ENGINEERING DRAWING 1**

**DATE: DECEMBER 2014 TIME: 3 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Using drawings describe 2 dimensioning rules of each of the following categories of technical drawings; (3 marks)
2. Linear plane figures
3. Circular plan figures
4. Linear pictorial drawings
5. Draw two circles radii 25 and 35, and distance 55 centre to centre. Blend the two circles with an external arc radios 75 mm on one side and internal arc radius 52 mm on the other side. (8 marks)
6. Draw an ellipse major diameter 76 mm and minor diameter 52 mm (7 marks)
7. Draw the **front** and **plan** views of the shaped block shown in Fig 1, in third angle projection. (12 marks)

**QUESTION TWO (15 MARKS)**

Draw a heptagon to fit inside a circle diameter 86 mm (15 marks)

**QUESTION THREE (15 MARKS)**

Fig 2 shows a drawing of a casting. Draw the orthographic views of the casting in 3rd angle projection (15 marks)

**QUESTION FOUR (15 MARKS)**

Orthographic views of a casting are shown in Fig 3. Draw an **isometr**ic view of the casting. Insert **three** leading dimensions (15 marks)