MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2013/2014

FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND TECHNOLOGY

(MAIN CAMPUS)

SCS 107: ENGINEERING DRAWING

Date: 21st November, 2013 *Time: 2.30 - 4.30 p.m.*

INSTRUCTIONS:

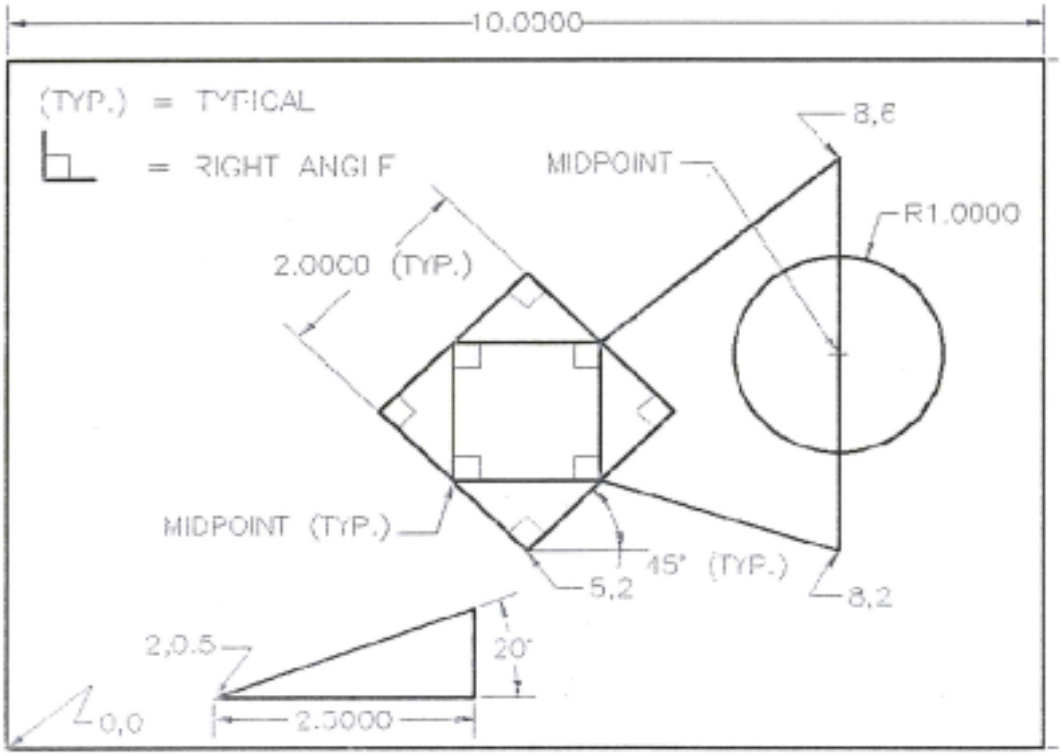
1. **SECTION A: Attempt Question ONE (1) which is COMPULSORY (30 marks).**
2. **SECTION B: Attempt any TWO questions (20 marks each).**
3. **Start a new question on a new page.**
4. **MOBILE PHONES are PROHIBITED in the Examination room.**
5. **DO NOT WRITE on the question paper.**

Answer all Questions

Question 1

In this question you will complete the drawing below that will test your knowledge of drawing accurately using different types of precision input and use of layers.

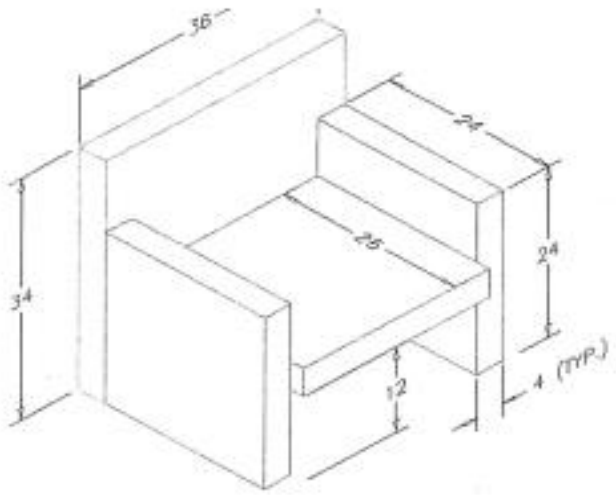
- Start at the bottom left corner. You will have to use a combination of absolute, relative, and polar co-ordinate input.
- Create 2 layers, one for text, red in color, and the graphics layer is blue in color, line weight= 0.3mm.
- Complete the question by drawing it accurately using the dimensions (in inches) as provided.
- If you make an error along the way, remember that you can use your **ENDPOINT** Osnap to begin where you left off.



- Save your drawing as ANSWER 1in your folder. (25 marks)

Question Two

- Use any 3D modeling scheme to create a model of a seat to the dimensions indicated on the figure below. Dimension your model accordingly.

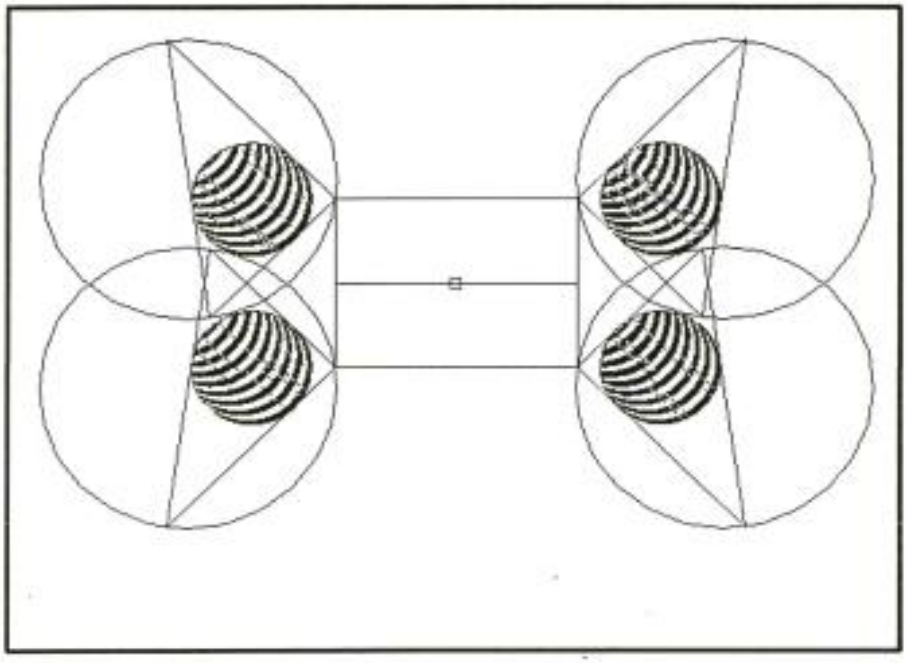


- **Save your drawing as answer 2 in your folder.** **(15 marks)**

Question 3

- Starting with a right angled triangle, of sides **300 X 400 X 500**, and a rectangle of dimensions **400 X 150 mm**, reproduce the 2D model below.

- Use ANSI 137 to hatch.



- **Save the drawing in your folder as answer 3.** **(20 Marks)**

Question 4

- Draw a right angled triangle dimensions 300x400x500. Extend one side of the triangle by 350mm.
  - i) Circumscribe the triangle
  - ii) Inscribe a circle in the triangle
  - iii) Escribe a circle, diameter 200 at the extended side of the triangle.
- Show the radii of all the circles.
- **Save your drawing as answer 4 in your folder.** **(10 Marks)**