MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

CITY CAMPUS

CIT 202: COMPUTER AIDED DESIGN

Date: 11th June, 2018   Time: 5.00 - 8.00pm

INSTRUCTIONS:

- Answer Question ONE in Section 1 and any other TWO in Section B.
- Start each question on a new page
- Mobile phones are prohibited in the examination room
- DO NOT WRITE on the question paper.

QUESTION ONE: (30 MARKS)

(a)In AutoCAD there are two available spaces: Model Space and Paper Space. Which of the following statements is true?

a. You draw on Model Space and print from Paper Space.
b. You draw in Paper Space and print from Model Space.
c. There is only one space in AutoCAD.
d. Model Space is only for 3D design.

(b). AutoCAD is one of the few software applications that allows users to:

a. Connect to the Internet.
b. Type commands using the keyboard.
c. Accept Cartesian coordinates.
d. Create positive angles that are CCW.

(c)Which of the following statements are true:

a. Snap will help us control the mouse whereas Grid is complementary toSnap.
b. Ortho and Direct Distance Entry will help us draw exact orthogonal lines.
c. You can use Direct Distance Entry with Dynamic Input, Ortho, andPolar Tracking.
d. All of the above.

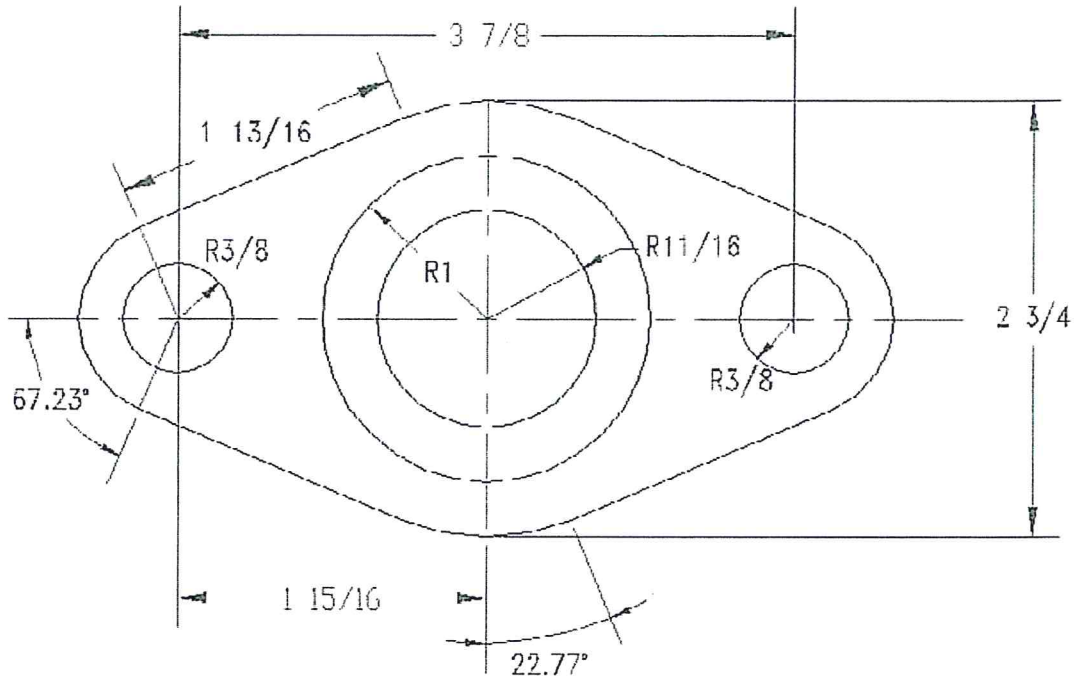(d) Using OTRACK, you can:

a. Specify a point using two existing points.
b. Specify the radius of an arc.
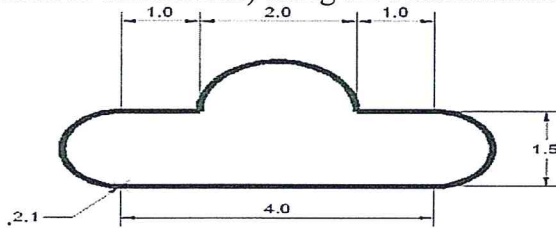c. Specify the end of an existing line.
d. None of the above.

(e)In Polar Tracking, if the Increment angle option did not fulfill all your needs:

a. Ortho will help.
b. Set the additional angles.
c. The command PolarNewAngles will help.
d. None of the above

(f)Describe how you will draw the above diagram(7 marks)

(g)Describe the steps Using Ortho and Direct Distance Entry of drawing the following shape(without dimensions) using the Plinecommand with width = 0.1.(6 MARKS)

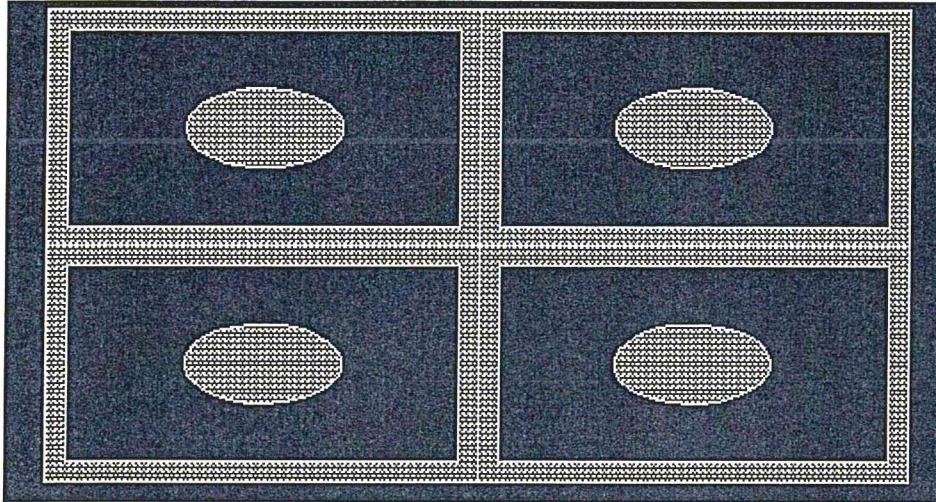(h)Give examples of FOUR different cursor modes in AutoCAD (4 Marks)

(i)Distinguish between models of form of models of structure. (4 marks)

(j)Discuss the AutoCAD functions that have replaced the following traditional design tools.

      i)   Pencils and ink markers.
      ii)   Rulers and protractors
      iii)   Erasers
      iv)   Drawing vaults(4 Marks)

QUESTION TWO: (20 MARKS)

a) Give the step by step procedure to create the drawing below in the shortest time.(10 marks)

b) Discuss any THREE differences between traditional design office and the computer – assisted design office.(6 Marks)

a. List any TWO DIMENSION tools and TWO MODIFY tools in AutoCAD. (4 Marks)

QUESTION THREE: (20 Marks)

a. Describe four functions of the space key in AutoCAD.(4 Marks)
b. Describe and illustrate two conventions for model representation in CAD systems(6 Marks)
c. Distinguish between Windowing and Crossing in AutoCAD.(4 Marks)
d. Discuss the conventions used in CAD systems for linear and angular measurements.(4marks)
e. Describe the functions of the middle mouse button in AutoCAD.(2 Marks)

QUESTION FOUR (20 Marks)

a. During a hatch operation, what is the difference between the following two options when choosing an area to hatch?
   i)   Pick a point
   ii)   Pick objects   (4 Marks)
b. In AutoCAD, how would you convert a line segment drawing of a rectangle into a polyline?(8 Marks)
c. Distinguish between the following commands.

   i.   Rotate and revolve(4Marks)
   ii.   Polyline and Line(4Marks)

QUESTION FIVE (20 MARKS)

(a)Describe the following commands as used in AutoCad(15 marks)

(i)Offset Command
(ii)Fillet Command
(iii) Chamfer Command
(iv) Trim Command
(v) Extend Command
(vi)Lengthen Command
(v)Join Command
(vi)Move Command
(vi) Copy Command
(vii) Rotate Command
(viii) Scale Command
(ix)Array Command
(x) Mirror Command
(xi)Stretch Command
(xi)Break Command

(b)State any FIVE discplines that use AutoCad(5 marks)