



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2016/2017**

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

**MAIN CAMPUS**

**CIT 202: COMPUTER AIDED DESIGN**

Date: 19<sup>th</sup> June, 2017

Time: 12.00 - 3.00pm

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**INSTRUCTIONS:**

- SECTION A: Attempt question ONE which is compulsory (30 marks)
- SECTION B: Attempt any TWO questions (20 marks each)
- Start each question on a new page
- Mobile phones WHETHER ON OR OFF are prohibited in the Examination room
- DO NOT WRITE on the question paper

**QUESTION ONE (30 MARKS)**

1. The toolbar at the top of the AutoCAD 2016 window is:

(a) The Draw toolbar

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(b) The Modify toolbar

(c) The Standard toolbar

(d) The Properties toolbar

2. The Design Center palette can be opened from the:

(a) Layer toolbar

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(b) Properties toolbar

(c) Modify toolbar

(d) Standard toolbar

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3. Press the F9 key of the keyboard for:

(a) Grid on/off

(b) Snap on/off

(c) Ortho on/off

(d) Osnap on/off

4. In the coordinate system of AutoCAD 2016 :

(a) Positive x figures are to the left

(b) Positive x figures are to the right

(c) Positive x figures are in the direction vertically upwards

(d) Positive x figures are in the direction vertically downwards.

5. Drawing templates are held in files with the file extension:

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(a) \*.dwt

(b) -\*.dwg

(c) \*.bmp

(d) \*.dwr.

6. A left-click on a name in a drop-down menu showing three dots (...) appearing after the name means that:

(a) A command name will appear at the command line

(b) A dialog will appear on screen

(c) A sub-menu will appear

(d) A tool will be activated.

7. AutoCAD 2016 can be opened with:

(a) A left-click on the AutoCAD 2016 shortcut icon in the Windows desktop

(b) By typing acad at the keyboard

(c) Automatically when the computer is switched on

(d) By selecting from a list which appears on screen when the computer is switched on.

8. The term dragging means:

(a) Left-click on an item and the item can be moved to another position on screen

(b) Double-click on an item. The item can then be moved to another point on screen;

(c) Holding down the left-hand button of the mouse on an item can be moved to another point on screen

(d) Press the right-hand button of the mouse. This allows an item to be moved anywhere on screen.

9. An arrow appearing after a name in a drop-down menu means that:

(a) A command name will appear at the command line

(b) A dialog will appear on screen

(c) A sub-menu will appear

(d) A tool will be activated.

10. A tool tip is:

(a) The tool name appearing in a rectangle when the cursor is placed on a tool icon

(b) The name given to a tool

(c) The instruction which appears at the left-hand end of the status bar when a tool is chosen

(d) A tip which can be read from the Help screen for a tool.

11. Which of the following statements are true:

a. Snap will help us control the mouse whereas Grid is complementary to Snap.

b. Ortho and Direct Distance Entry will help us draw exact orthogonal lines.

- c. You can use Direct Distance Entry with Dynamic Input, Ortho, and Polar Tracking.
- d. All of the above.

12. The Arc command in AutoCAD will draw a \_\_\_\_\_ arc.

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13. 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.

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14. OTRACK doesn't need OSNAP to work.

- a. True
- b. False

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15. 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.

16. There are \_\_\_\_\_ ways to draw a circle in AutoCAD.

17. To call the Line tool from the command line, the following abbreviation can be entered:

- (a) lin
- b) li
- (c) l
- (d) ln.

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18. When the F6 key of the keyboard is pressed, the following facility is toggled on/off:

- (a) Snap
- (b) Ortho
- (c) DUCS
- (d) DYN.

19. The key F9 toggles on/off:

- (a) Snap
- (b) Ortho
- (c) Grid
- (d) DYN.

20. When entering absolute coordinate numbers at the command line, the coordinates are preceded by:

- (a) The letter a
- (b) The symbol @
- (c) The letters ab
- (d) There is no need to enter anything in front of the coordinate numbers

21. The command line abbreviation for the Circle tool is:

- (a) cir
- (b) c
- (c) ci
- (d) cl.

22. What are the differences between outlines drawn using the Line tool and those drawn using the Polyline tool?

23. The Arc tool can be called by entering the following abbreviation at the command line:

- (a) ar
- (b) a
- (c) ac;
- (d) There is no abbreviation. The name arc must be entered in full.

24. When saving an AutoCAD 2008 drawing it is filed with the extension:

- (a) \*.drw
- (b) \*.dwg
- (c) \*.dwt
- (d) \*dg.

25. When using the Rotate tool the angle of rotation is in the following direction:

- (a) Clockwise

- (b) Anticlockwise
  - (c) The direction in which the cursor is moved
  - (d) There is no fixed rotation direction.
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26. When using the Stretch tool:

- (a) Circles can be stretched into ellipses
  - (b) The tool has no effect upon circles
  - (c) Be careful because circles can be erased
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- (d) Treat circles like any other part of the drawing being stretched.

27. When using the Break tool on circles and/or arcs:

- (a) Breaks can be made in any direction
- (b) Breaks can only be made in a clockwise direction
- (c) Breaks can only be made in an anticlockwise direction
- (d) Break cannot be made in circles or arcs.

28. The Join tool can be used for joining:

- (a) Any two arcs
- (b) Only arcs or lines in line with each other
- (c) Any two lines or plines
- (d) Any objects can be joined to each other.

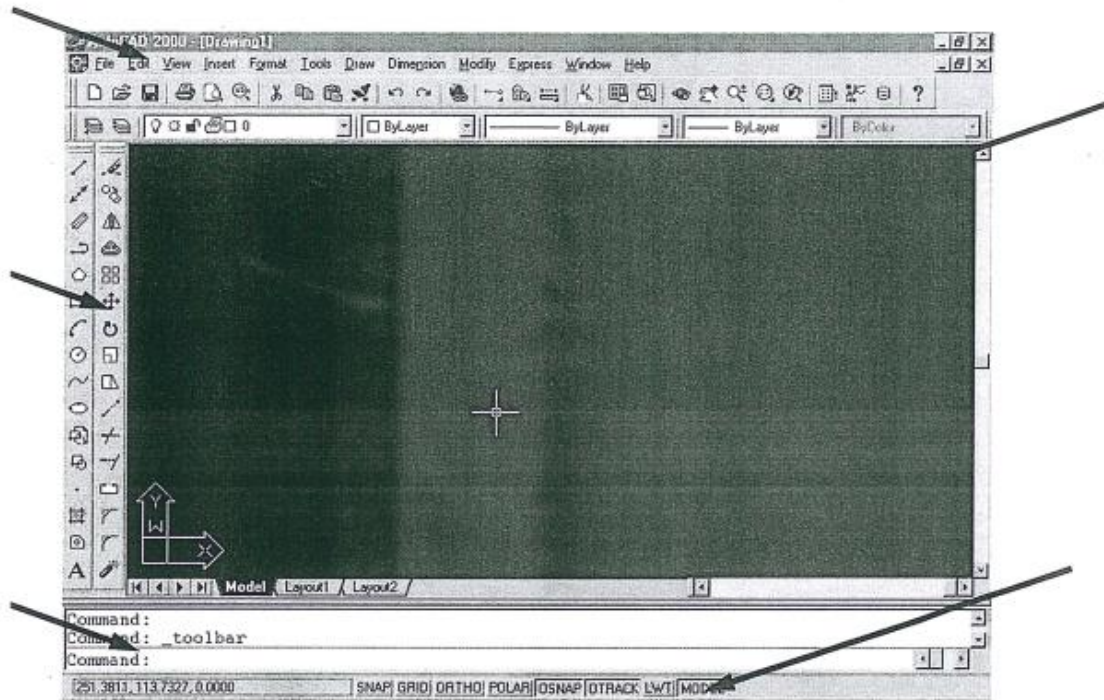


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29. State any TWO functions of the quick Access bar(2 marks)

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**QUESTION TWO (20 MARKS)**



(a) State and Explain the functions of the parts of the AutoCAD window above(20 marks)

### QUESTION THREE(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 disciplines that use AutoCAD (5 marks)

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**QUESTION FOUR (20 MARKS)**

(a) Define the OSNAP command (2 marks)

(b) State and Explain any NINE types of OSNAPS (18 marks)

**QUESTION FIVE (20 MARKS)**

(a) State and Explain the THREE methods of input in AutoCAD (6 marks)

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(b) Describe the information that AutoCAD recognizes about the arc command (6 marks)

(c) State and Explain any SIX methods of drawing a circle in AutoCAD (6 marks)

(d) In AutoCAD there are two available spaces: Model Space and Paper Space. Differentiate between the TWO (2 marks)

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