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**University Examinations 2015/2016**

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

**CIT 3151: COMPUTER AIDED DESIGN**

 **DATE: AUGUST 2016 TIME: 2HOURS**

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

**QUESTION ONE (30MARKS)**

1. What is the value of C in the following image? (2 Marks)

1. Outline five problems associated with CAD software. (5 Marks)
2. Outline three output devices used in a CAD system. (3 Marks)
3. What is a ribbon in AutoCAD interface? (3 Marks)
4. Which command do you type to display the text screen? In AutoCAD 13. (2 Marks)
5. What is a dynamic input and how do you activate dynamic input in AutoCAD? (5 Marks)
6. Given the following AutoCAD commands:

 Command: LINE

 Specify first point: 1,1

 Specify next point or [Undo]: @0,1

 Specify next point or [Undo]: @1,0

 Specify next point or [Close/Undo]: @0,-1

 Specify next point or [Close/Undo]: @-1,0

1. Discuss the Cartesian coordinate system used to draw the above object. (4 Marks)
2. Draw the object drawn using the above AutoCAD 13 commands. (6 Marks)

**QUESTION TWO (20 MARKS)**

1. Discuss three benefits that an engineering firm might realize by adopting CAD software in their drafting process. (6 Marks)
2. If the following actions are taken (Dynamic input turned OFF)

Write CIRCLE and hit Enter

Write 0,0 and hit Enter

Write D and hit Enter

Write 20 and hit Enter

What will happen? (8 Marks)

1. Discuss three different ways of drawing a circle in AutoCAD13. (6 Marks)

**QUESTION THREE (20 MARKS)**

1. What is the keyboard shortcut to turn ON/OFF the Object Snap (OSNAP) in AutoCAD?(3 Marks)
2. What is the keyboard shortcut to turn ON/OFF the ORTHO mode in AutoCAD? (3 Marks)
3. What shortcut-keys do you use to activate the TEXT command? (2 Marks)
4. Write AutoCAD commands to draw the following design. (8 Marks)

1. Discuss the following edit commands in AutoCAD:
2. Trim
3. Extend (4 Marks)

**QUESTION FOUR (20 MARKS)**

1. Discuss the following drawing aids commands:
2. SNAP
3. GRID
4. DDOSNAP (6 Marks)
5. Write AutoCAD commands to draw the following design. (8 Marks)

1. How do you set a drawing limit in AutoCAD? (3 Marks)
2. Explain the use of TEXT command in AutoCAD (3 Marks)

**QUESTION FIVE (20 MARKS)**

1. Discuss the following length unit systems in AutoCAD:
2. Architectural
3. Engineering
4. Scientific
5. Fractional (8 Marks)
6. Explain how BREAK command is used in AutoCAD. (2 Marks)
7. What is polyline in AutoCAD? (2 Marks)
8. Draw an object being drawn using the following AutoCAD commands: (8 Marks)

Command:L LINE

From point: 1,1

Specify next point or [Undo]:4.1,1

Specify next point or [Close/Undo]:4.5,2,2

Specify next point or [Close/Undo]:@2.3,0

Specify next point or [Close/Undo]:@1.4<30

Specify next point or [Close/Undo]:@0,2.1

Specify next point or [Close/Undo]:@1.6<120

Specify next point or [Close/Undo]:@-1.3,0

Specify next point or [Close/Undo]:@0,-1.4

Specify next point or [Close/Undo]:@2.2<135

Specify next point or [Close/Undo]:@-1,0

Specify next point or [Close/Undo]:@-1.5<225

Specify next point or [Close/Undo]:@-1,0

Specify next point or [Close/Undo]:@2.3<-60

Specify next point or [Close/Undo]:@1,1