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**University Examinations 2023/2024**

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR  
OF COMPUTER TECHNOLOGY**

**CCS 3151: COMPUTER AIDED DESIGN**

**DATE: APRIL 2024**

**TIME: 2 HOURS**

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

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**QUESTION ONE (30 MARKS)**

- a) With reference to AutoCAD user interface, explain what are the functions of the following parts
- i) File Tabs (2 marks)
  - ii) Ribbon area (2 marks)
  - iii) Cube view (2 marks)
- (b) Explain four benefits of AutoCAD in construction industry (4 marks)
- (c) Explain the following terms as used in AutoCAD
- i) Polar tacking (2 marks)
  - ii) Object SNAP tracking (2 marks)
- (d) Below is an isometric view of an object. Draw the orthographic views of the object (6 marks)
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b) Below are orthographic views of an object. Draw the 3D object  
(6 marks)

c) With reference to polar tracking, explain the following

- i. Explain two benefits of polar tracking in engineering drawings (3 marks)
- ii. Outline the steps of setting up polar tracking features (4 marks)

### QUESTION THREE (20 MARKS)

Below is a 3D figure, outline the steps of drawing it using AutoCAD. (Use extract sketches and commands where possible to illustrate your steps) (20 marks)



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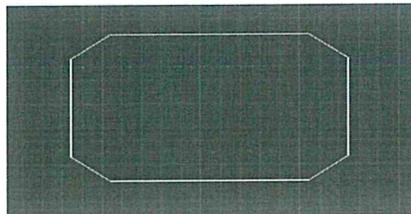
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**QUESTION FOUR (20 MARKS)**

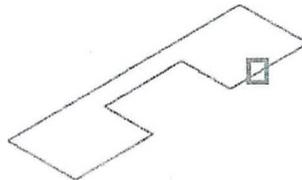
a) Explain the importance of the following in engineering drawings:-

- i) Zooming (2marks)
- ii) Hatchings (2marks)
- iii) Dimensioning (2marks)
- iv) Move command for objects (2marks)
- v) Isometric drawings (2marks)

b) Explain the process of adding a rectangle with slanted corners, such as the one showed below (6 marks)



c) Draw the shape of the diagram below, if it evolves on an angle of 30° (4 marks)



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**QUESTION FIVE (20 MARKS)**

- d) Layers are very important when drawing objects with several features. List five differences that can exist when drawing using layers and without layers (5 marks)
- e) Using sketch diagrams in each case, distinguish between each of the following pair of words as used in AutoCAD.
- i. Trimming vs. annotation (5marks)
  - ii. Hatching vs. block (5marks)
- f) Outline the process of adding polylines in a drawing (5marks)

