



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**UNIVERSITY EXAMINATIONS FOR THE DEGREE IN SCIENCE IN RENEWABLE**  
**ENERGY TECHNOLOGY AND MANAGMENT**  
**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER EXAMINATION 2023/2024 ACADEMIC YEAR**  
**CENTRE: MAIN CAMPUS**

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**COURSE CODE: TEB 1210**

**COURSE TITLE: CAD DRAFTING FOR ENERGY TECHNOLOGY**

**EXAM VENUE: STREAM: BSc REN TECH & MGT**

**DATE: .../04/2024 EXAM SESSION:**

**DURATION: 2 HOURS**

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**Instructions**

- 1. Answer question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

## QUESTION ONE

- i. Explain the main computer hardware components and specifications that you would be looking for when considering a computer for CAD software. **(6 Marks)**
- ii. Explain the benefits of using CAD in engineering and design as compared to traditional conventional methods. **(5 Marks)**
- iii. With the aid of neat sketches, describe four types of dimensions used in AUTOCAD. **(6 Marks)**
- iv. The figure below displays icons found on an AutoCAD modify toolbar, identify the icons labeled 1-5. **(5 Marks)**



- v. Explain three properties of a line that can be manipulated when working with Layers Properties Manager. **(3 Marks)**
- vi. With the aid of a sketch, show the main components of an AutoCAD drafting environment. **(6 Marks)**
- vii. Explain the importance and use of osnap settings in AutoCAD drafting. **(3 Marks)**
- viii. Describe the procedure of setting drawing limits when drafting with AutoCAD. **(3 Marks)**
- ix. State any three commands executed by a mouse when drafting with AutoCAD. **(3 Marks)**

## QUESTION TWO

- i. Explain the primary uses of the MODEL and LAYOUT tabs in AutoCAD drafting. **(4 Marks)**
- ii. Name and explain the use of the following icons labelled 1 -3 in AUTOCAD 3D Drafting **(6 Marks)**



- iii. Outline the procedure of creating blocks in AUTOCAD Drafting. **(5 Marks)**

### QUESTION THREE

- i. Outline the procedure for composing a drawing block in a 2D AUTOCAD environment. **(5 Marks)**
- ii. Describe the commands that you would use in developing the following drawing in figure Q3 in AUTOCAD 2D environment. **(5 Marks)**

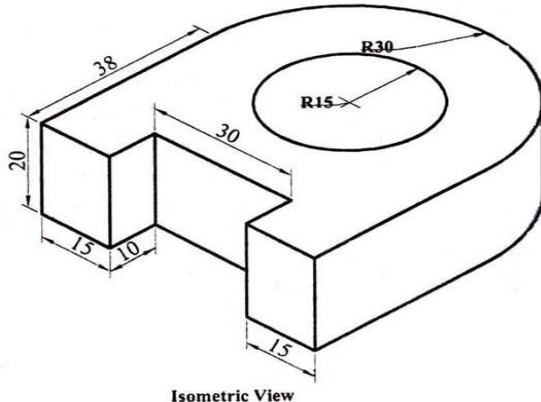
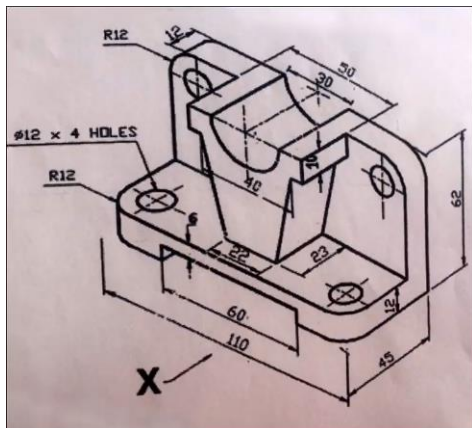


Figure Q3

- iii. Outline the procedure of composing drawing blocks. **(5 Marks)**

### QUESTION FOUR

- i. Describe the procedure and commands you would use to develop the drawing in figure Q3 in AUTOCAD 3D drawing. **(5 Marks)**



- ii. Using neat sketches distinguish between chamfer and fillet commands in AutoCAD elements. **(5 Marks)**
- iii. Outline the procedure of creating groups in AutoCAD. **(5 Marks)**

### QUESTION FIVE

- i. List any three types of dimensions used in AutoCAD. **(3 Marks)**
- ii. Briefly describe how you would apply the hatch command in AUTOCAD drawing. **(2 Marks)**
- iii. Describe five properties of dimension that you would modify under dimension style. **(5 Marks)**
- iv. Briefly explain the procedure of drafting 3d drawings by press pull. **(5 Marks)**