



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF ENGINEERING AND TECHNOLOGY**

**UNIVERSITY SPECIAL RESIT EXAMINATIONS FOR THE DEGREE IN SCIENCE IN  
RENEWABLE ENERGY TECHNOLOGY AND MANAGEMENT**

**SECOND YEAR RESIT 2020/2021 ACADEMIC YEAR**

**CENTRE: MAIN CAMPUS**

---

**COURSE CODE: TET 3112**

**COURSE TITLE: Engineering Drawing I**

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

**DATE: ../11/2020 EXAM SESSION:**

**DURATION: ...HOURS**

---

### **Instructions**

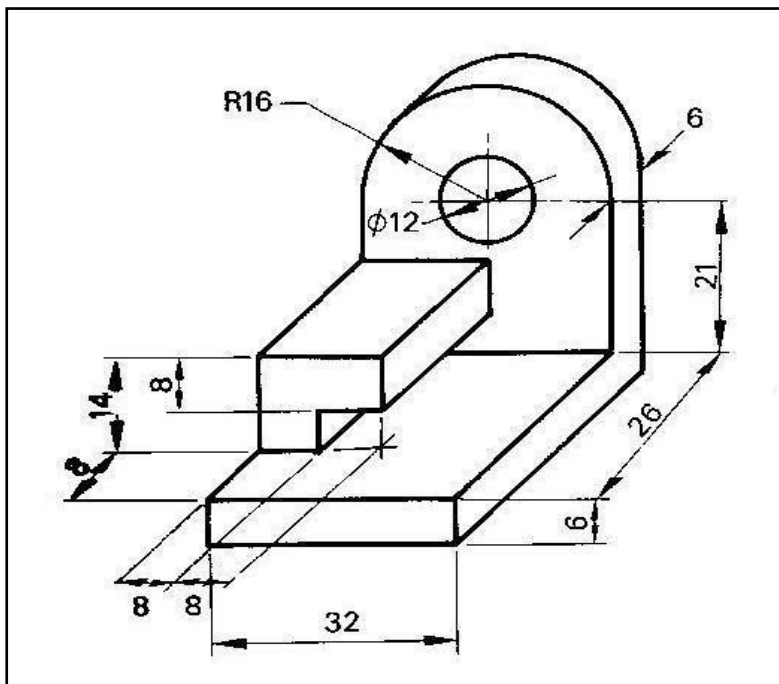
- 1. Answer question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

### QUESTION ONE (20 MARKS)

- i. What is engineering drawing? **(1Mark)**
- ii. How do you expect to apply drawing in your professional field? **(2 Marks)**
- iii. Explain how you can effectively use the following drawing instruments in the production of an engineering drawing
  - a) Tee Square **(2Marks)**
  - b) Squares **(4 Marks)**
- iv. A *scale* is always presented in every engineering drawing
  - a) Explain the purpose of a scale in a drawing **(1Mark)**
  - b) Calculate the corresponding plan/paper distance for a ground distance of 1.20km for a plan whose scale is 1:2500.**(2 Marks)**  
 $2500\text{mm on ground} = 1\text{mm on plan}$
- v. Differentiate between pictorial and orthographic projections as used in engineering drawing.**(8 Marks)**

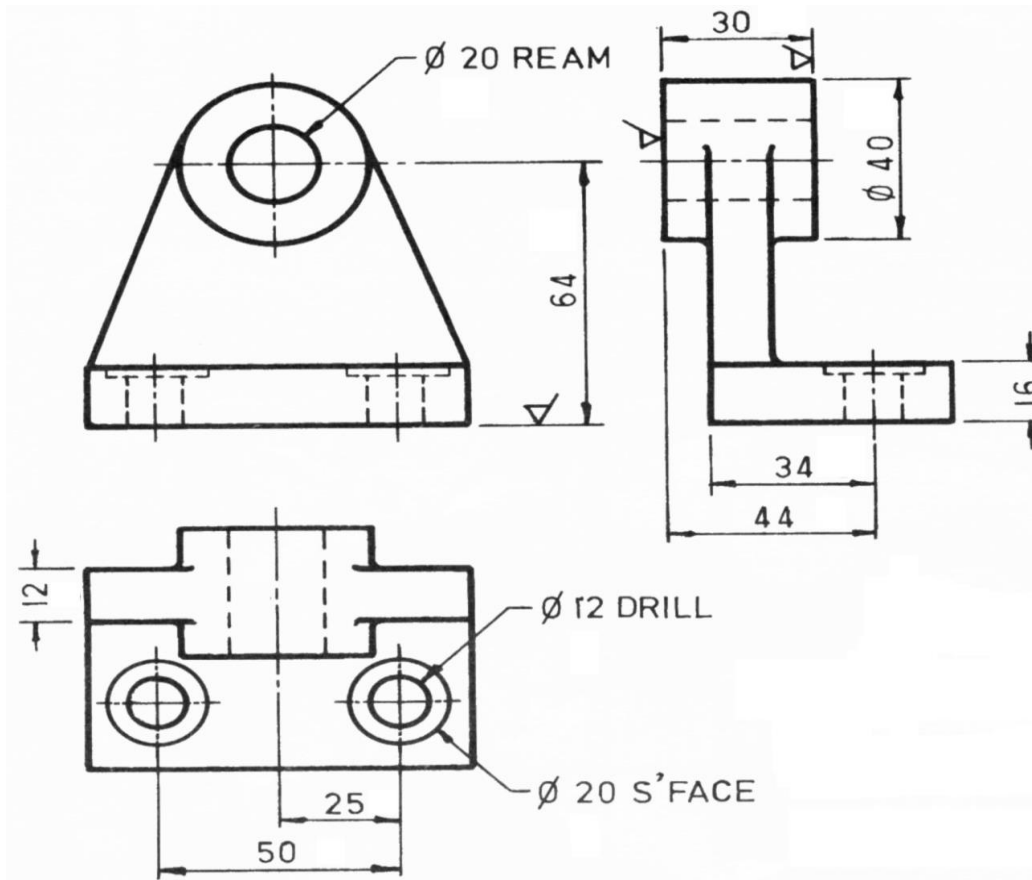
### QUESTION TWO (15 Marks)

Draw orthographic views using first angle method of projection from the pictorial view given below



**QUESTION THREE (15 Marks)**

Given the orthographic multi-views of an object below, develop the pictorial view using the isometric method

**QUESTION FOUR (15 Marks)**

- i. Construct a triangle given Perimeter,  $P=20\text{cm}$ , Altitude,  $L=4\text{cm}$  and vertical angle,  $\Theta=40^\circ$
- ii. Construct a hexagon within a circle of diameter 6cm.
- iii. Draw a regular heptagon with sides 38mm long.

**QUESTION FIVE (15 Marks)**

Draw the isometric view of the orthographic views given in drawing labelled 1 below

## ISOMETRIC PROBLEMS

PROJECTION 