



**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**

**1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019 ACADEMIC YEAR**

**CENTRE: MAIN CAMPUS**

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**COURSE CODE: TET 3112**

**COURSE TITLE: ENGINEERING DRAWING I**

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

**DATE: ../12/2018 EXAM SESSION:**

**DURATION: 2 HOURS**

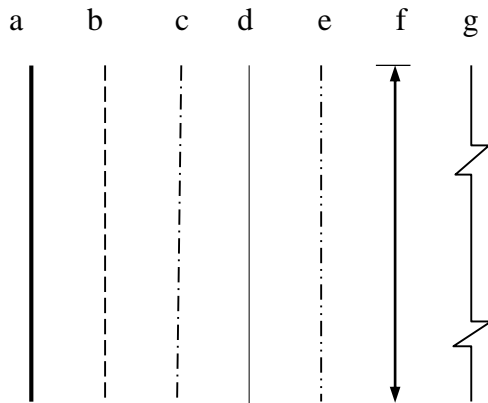
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### **Instructions**

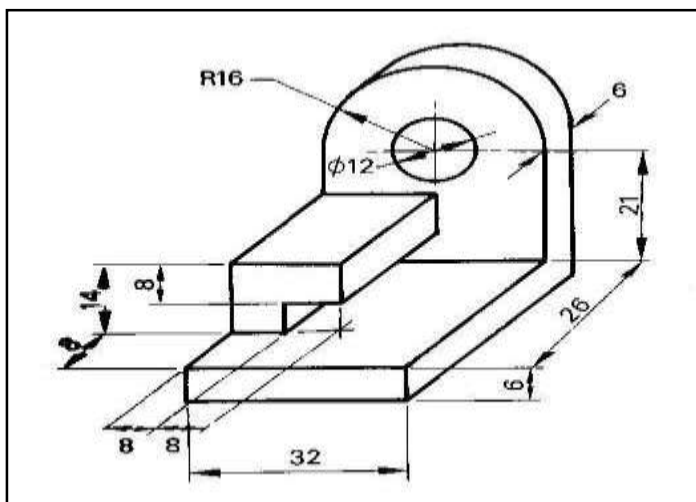
- 1. Answer question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

**QUESTION ONE (20 MARKS)**

- i. Define engineering drawing based on how you understand it **(1marks)**
- 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 **(4marks)**
- iv. A *scale* is always presented in every engineering drawing
  - a) Explain the purpose of a scale in a drawing **(1marks)**
  - b) Calculate the corresponding plan/paper distance for a ground distance of 1.20km for a plan whose scale is 1:2500.**(2marks)**
- v. Differentiate between pictorial and orthographic projections as used in engineering drawing. Which of the two would you recommend for use in working/design drawings and why?**(4marks)**
- vi. Below are various types of lines used in engineering drawing. Name the lines represented by the letters b, c, e and g stating also how they are used**(4 marks)**

**QUESTION TWO (15 MARKS)**

Draw orthographic views using first angle method of projection from the pictorial view given below. Take the part directly facing use as the front.



**Fig Q2**

**QUESTION THREE (15 MARKS)**

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

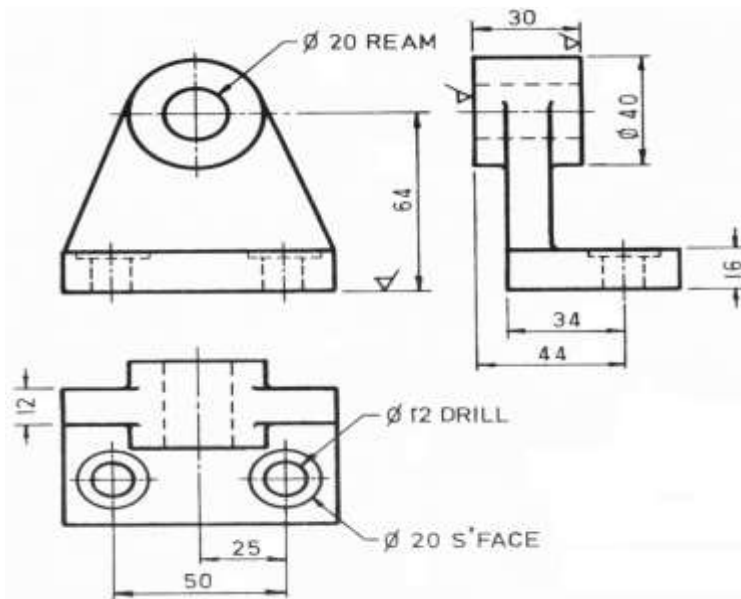


FIG Q3

**QUESTION FOUR (15 MARKS)**

- Construct a chord scale and use it to construct an angle of 50 degree (6marks)
- Construct a diagonal scale and show how you would use it to measure the length of a tarmac road joining two towns. Assume the road measures 35.36km. (5marks)
- Draw a regular heptagon with sides 38mm long. (4marks)

**QUESTION FIVE (15marks)**

Draw the isometric views of the orthographic views given in drawings labelled 1 below

