JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR THE DEGREE OF SCIENCE IN:

RENEWABLE ENERGY TECHNOLOGY AND MANAGEMENT

1ST YEAR 1ST SEMESTER 2015/2016 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: TET 3112

COURSE TITLE: ENGINEERING DRAWING I

EXAM VENUE: W/S **STREAM: BSc RE. ENERGY TECH AND MGT**

DATE: 19/4/16 **EXAM SESSION: 9.00 – 11.00AM**

TIME: 2 HOURS

Instructions

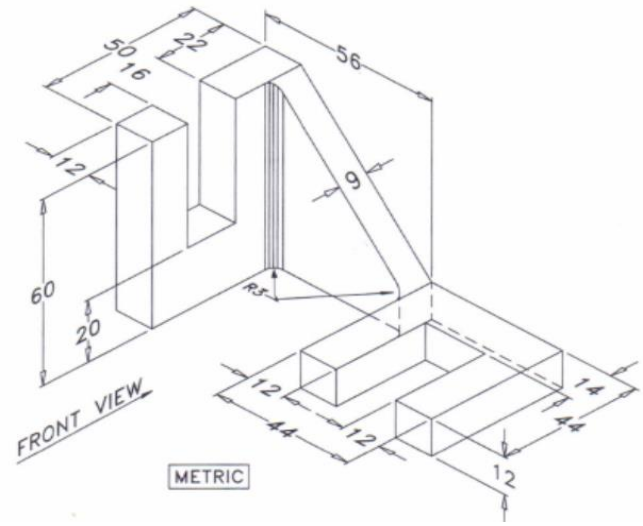
1. **Answer Question 1 (compulsory) and ANY other two questions**
2. **Candidates are advised not to write on question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE (20 MARKS)

i. In line with your profession how do you expect to apply engineering drawing in future? (**2 MARKS**)
ii. Orthographic projections may be classified as first angle and third angle projections. Explain the concept under which this classification is based. You may use illustrations where possible. (**3Marks**)
iii. Outline the procedure of using an isometric box to draw an object with one or more non-isometric lines (**3Marks**)
iv. Outline the procedure for drawing a large circle while using free hand sketching techniques (**4Marks)**
v. Clearly outline the differences between pictorial drawing and orthographic drawing (**5 MARKS**)
vi. One may classify pictorial drawings as axonometric (isometric and others), perspective and oblique. Under what circumstance would oblique have an advantage over isometric (**3 Marks**)

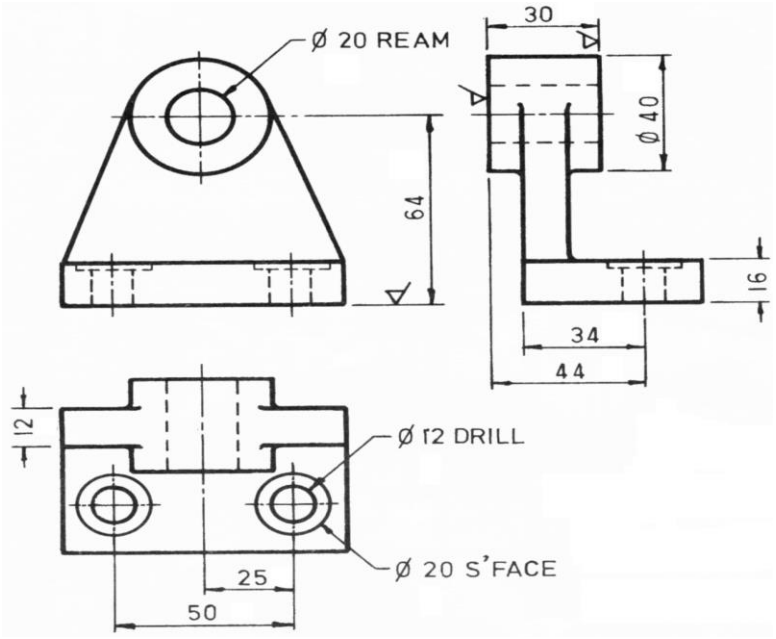
QUESTION TWO (15 MARKS)

Develop sufficient orthographic views of the given object to give sufficient details for its fabrication (use first angle method of projection).



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)

Draw an oblique view of the object given in the orthographic views below

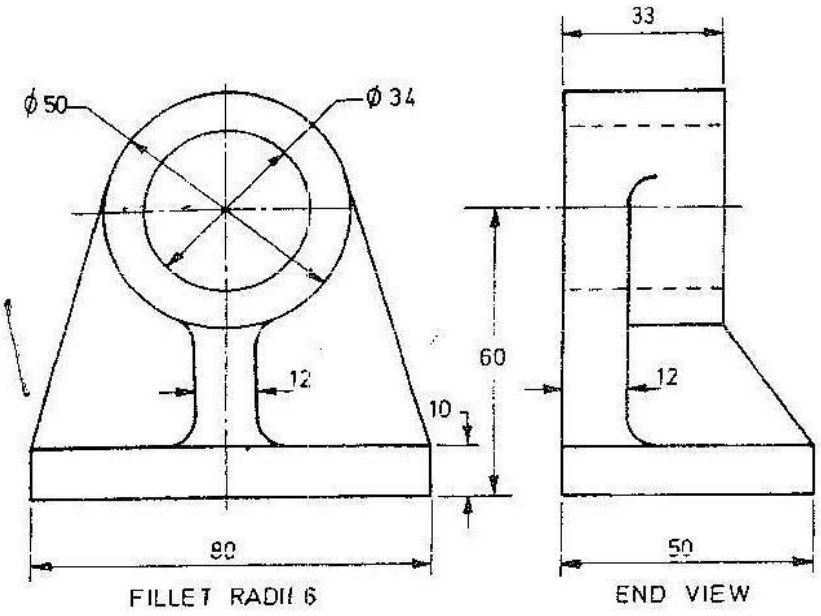


Figure 2

QUESTION FIVE (15 MARKS)

i. Draw a true ellipse given the minor diameter as 60mm and the major diameter as 100mm (**9 Marks**)

ii. Construct a hexagon within a circle of diameter 6cm (**6Marks**)