



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF ENGINEERING AND TECHNOLOGY
UNIVERSITY EXAMINATIONS FOR THE DEGREE OF SCIENCE IN:
BUILDING CONSTRUCTION AND MANAGEMENT
1ST YEAR 1ST SEMESTER 2015/2016 ACADEMIC YEAR
CENTRE: MAIN CAMPUS

COURSE CODE: TCM 3111

COURSE TITLE: ENGINEERING DRAWING 1

EXAM VENUE: CR

STREAM: BSc IN CONSTRUCTION

DATE: 19/4/16

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2 HOURS

Instructions

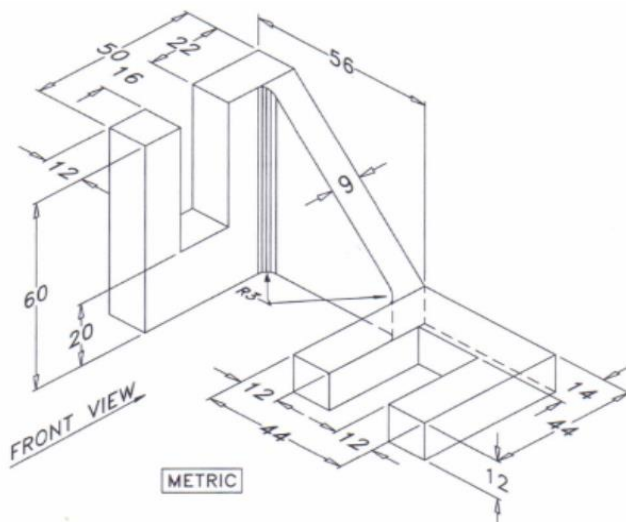
- 1. Answer Question 1 (compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE (20 MARKS)

- i. What do you understand by the term **engineering drawing**? **(1MARKS)**
- ii. In line with your profession how do you expect to apply engineering drawing in future? **(2 MARKS)**
- iii. How can you use the following instruments effectively in the process of making a technical drawing **(6Marks)**
 - a) French curve / Irregular curves
 - b) Erasing shield
 - c) Scale rule
- iv. Outline the procedure for drawing a large circle while using free hand sketching techniques **(5 Marks)**
- v. A **scale** is always presented in every engineering drawing
 - a) Explain what the term means to you **(1.5 Marks)**
 - b) Explain the purpose of a scale in a drawing **(1.5Marks)**
 - c) Calculate the corresponding plan/paper distance for a ground distance of 2.25km for a plan whose scale is 1:2500.**(2 MARKS)**
- vi. Differentiate between pictorial and orthographic projections as used in engineering drawing **(8 MARKS)**
- vii. One may classify pictorial drawings as axonometric (isometric and others), perspective and oblique. Understand what circumstance would oblique have an advantage over isometric **(3 Marks)**

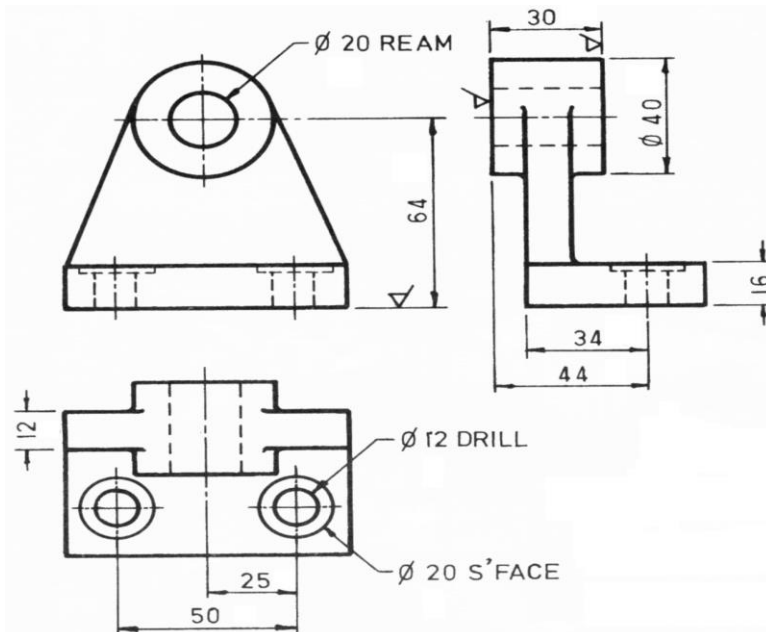
QUESTION TWO (15 MARKS)

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

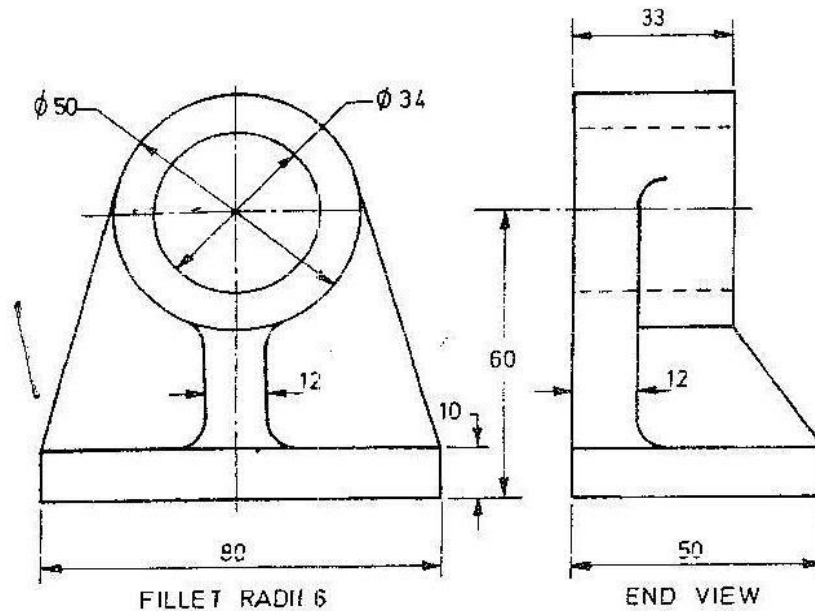


Figure 2

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)**