



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

**UNIVERSITY SPECIAL RESIT EXAMINATIONS FOR THE DEGREE IN SCIENCE IN
CONSTRUCTION MANAGEMENT**

SECOND YEAR RESIT 2020/2021 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: TCM 3111

COURSE TITLE: Engineering Drawing I

EXAM VENUE: STREAM: BSc CONSTRUCTION MGT

DATE: ../11/2020 EXAM SESSION:

DURATION: ...HOURS

Instructions

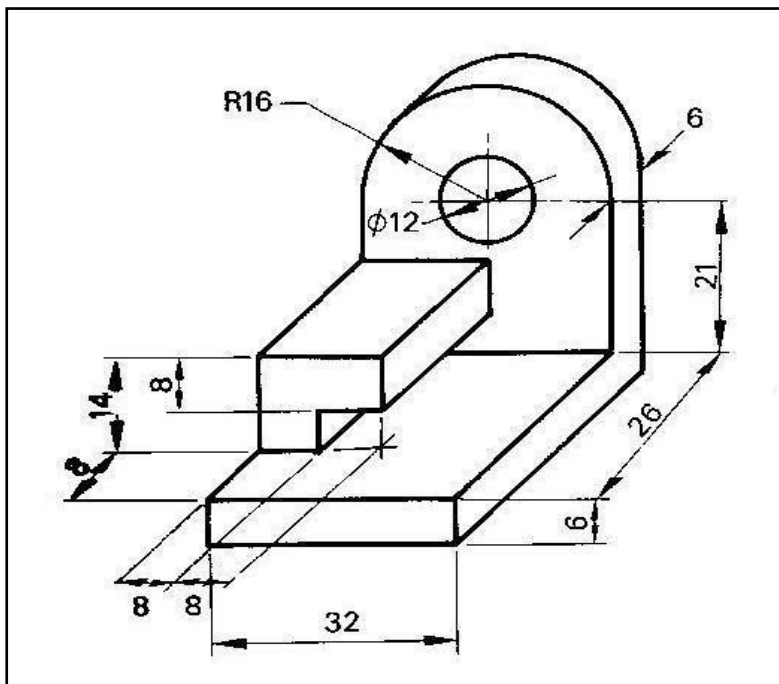
- 1. Answer question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE (20 MARKS)

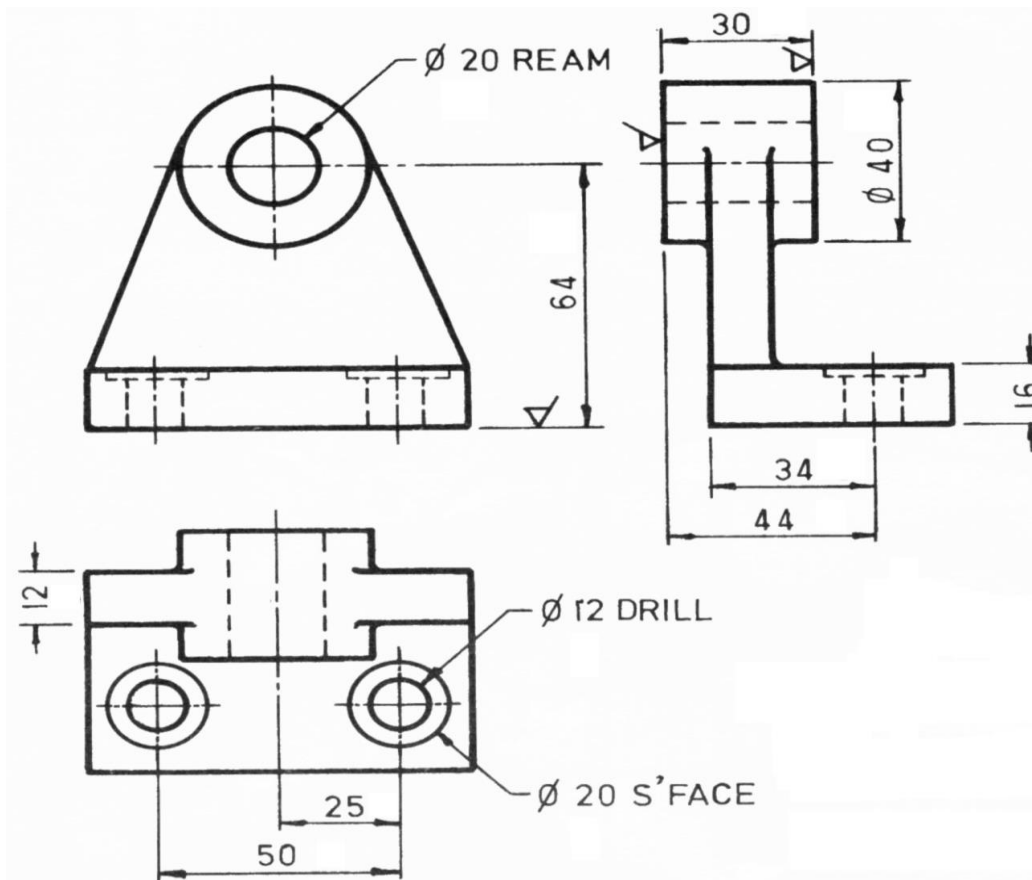
- i. What is engineering drawing? **(1Mark)**
- ii. How do you expect to apply drawing in your professional field? **(2 Marks)**
- iii. Explain how you can effectively use the following drawing instruments in the production of an engineering drawing
 - a) Tee Square **(2Marks)**
 - b) Squares **(4 Marks)**
- 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 