JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

UNIVERSITY EXAMINATIONS   FOR THE DEGREE IN SCIENCE IN CONSTRUCTION MANAGEMENT

1ST YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: TCM 3111

COURSE TITLE: ENGINEERING DRAWING I

EXAM VENUE: STREAM: BSc CONSTRUCTION MGT

DATE: ../12/2018   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.   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**)

     a   b   c   d   e   f   g
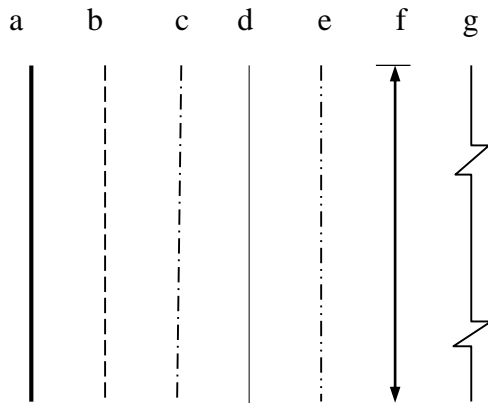
QUESTION TWO (15 MARKS)

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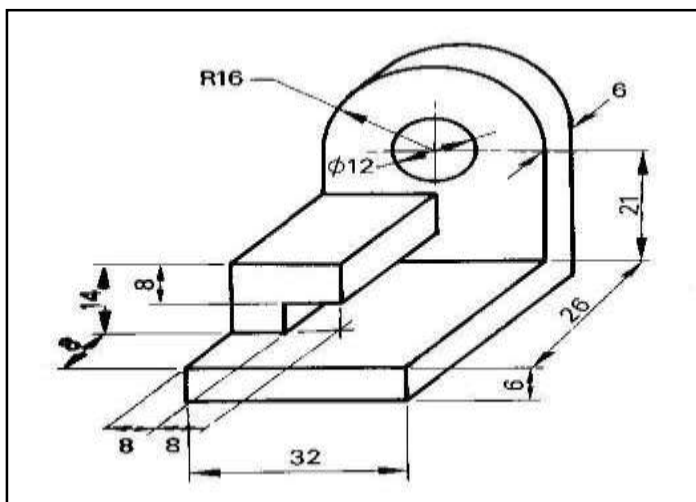

Fig Q2

QUESTION THREE (15 MARKS)

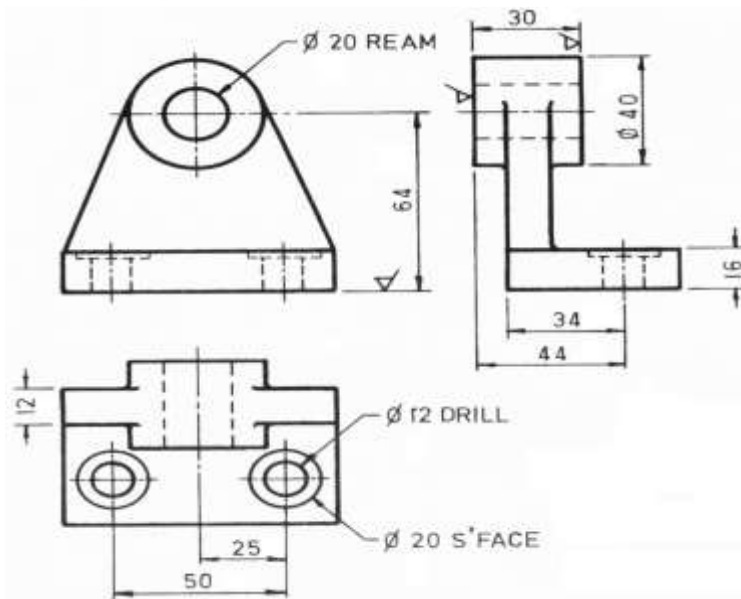Given the orthographic multi-views of an object below, develop the pictorial view using the isometric method

FIG Q3

QUESTION FOUR (15 MARKS)

    i.   Construct a chord scale and use it to construct an angle of 50 degree (**6marks**)

    ii.   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**)

    iii.   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