TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING &CIVIL ENGINEERING

CERTIFICATE IN BUILDING & CIVIL ENGINEERING

ECE 1101: ENGINEERING DRAWING 1

Series: August 2019

Time allowed: 2 hours

Instructions to Candidates

You should have the following for this examination:

- Answer booklet
- A set of drawing instruments
- Cartridge drawing paper size A 2

This paper consists of **FIVE** questions. Answer any **THREE** of the **FIVE** questions.

All questions carry equal marks.

Maximum marks for each part of a question are as shown

This paper consists of **FOUR** printed pages

QUESTION 1

Shown in fig 1 are the elevation and an in-complete plan of a right truncated prism. Draw the following for the prism:

(a) Complete plan
(b) The given front view
(c) Side elevation
(d) Surface development of the prism

(20 marks)

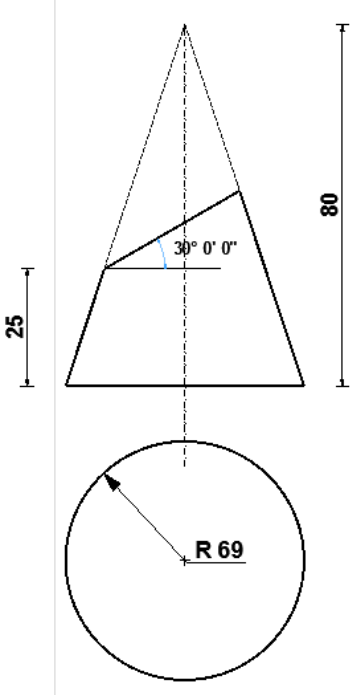
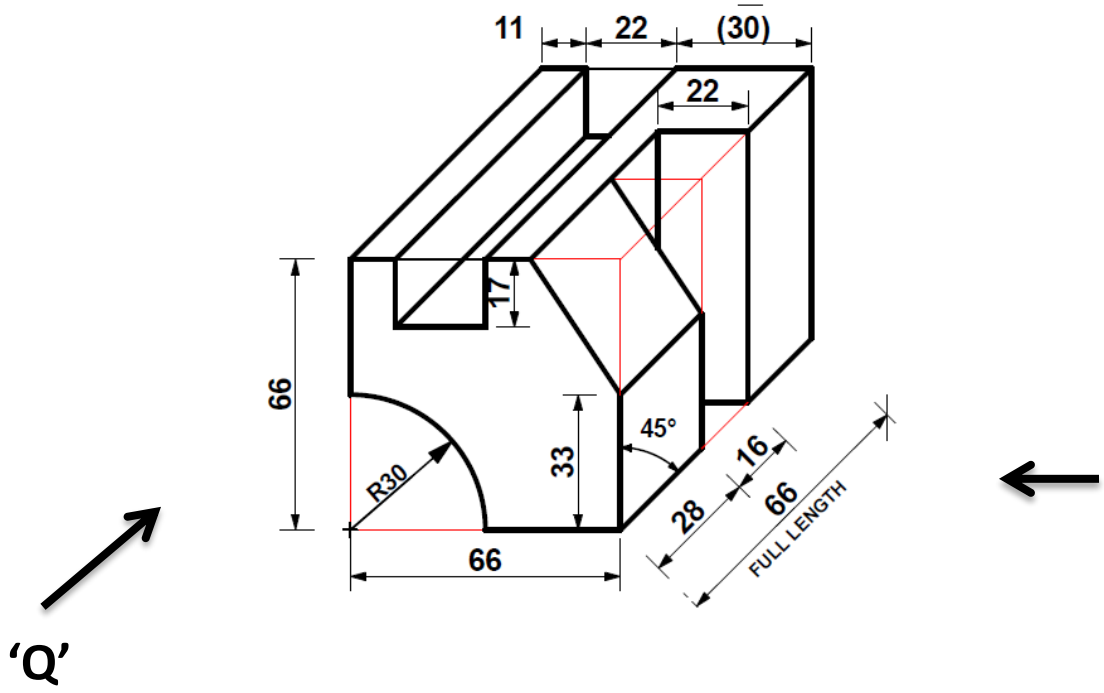


Fig 1

Question 2

Fig. 2 shows a support block in caverliar oblique drawing . Draw, in 'FIRST ANGLE 'and in full size scale. the following for the block.:

a. A front elevation in direction ' P'
b. An end elevation in direction 'Q '
c. Plan



(20 marks)

QUESTION 3

(a) Construct a cycloid to a point on the circumference of a circle 21mm radius .

(10 marks)

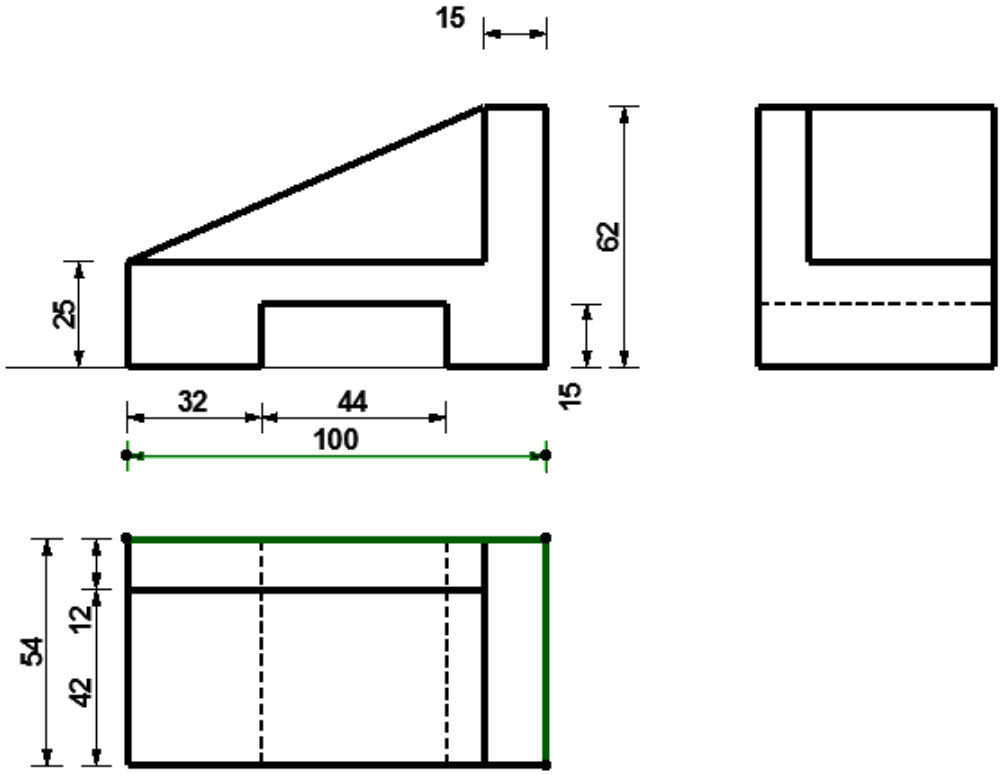
(b) Draw an involute to a square 19 mm sides.

(10 MARKS)

QUESTION 4

Fig 3 shows the three views of bearing bracket stone. Draw ,to a scale of 1:1 , an isometric drawing of the stone, with 'X' as the lowest point.

(20 marks)



'X'

Fig 3

QUESTION 5

. (a) Construct an ellipse by the concentric circles method given the major and minor axes as 126 and 82 mm respectively.

(9 Marks)

(c) Draw a hyperbola having the eccentricity as 3: 2 and that the diretrix is 28 mm from the focus..

(11 Marks)