



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY
Department of BUILDING & Civil engineering
UNIVERSITY EXAMINATION FOR:

CERTIFICATE IN BUILDING AND CIVIL ENGINEERING
EME 1101: ENGINEERING DRAWING
END OF SEMESTER EXAMINATION
SERIES: AUGUST 2024
TIME: 3 HOURS

Instructions to Candidates

You should have the following for this examination

- Drawing paper size A₂ examination pass and student ID
- A set of drawing instruments
- Marks will be awarded for:
 - Accuracy, printing, dimensioning, neatness, correct projection, correct interpretation and line-work.
 - At the end of the examination fold your drawing paper to size A4 for posting.

This paper consists of **five** questions.

Attempt any **THREE** questions.

Keep the drawing neat.

QUESTION ONE (20 Marks)

Fig 1 shows a truncated pyramid of diameter 50mm and a height of 80mm. Drawing the following under **1st Angle** Projection.

- | | | |
|-------|----------------------------------|-----------|
| (i) | True shape of the truncated part | (8 Marks) |
| (ii) | Side Elevation | (6 Marks) |
| (iii) | Plan | (6 Marks) |

QUESTION TWO (20 Marks)

- (a) Draw a tangent to a circle from point A which is 80mm from the center of the circle 50mm diameter. (6 Marks)
- (b) Draw a hexagon in a circle of radius 35mm. (6 Marks)
- (c) Draw a Pentagon and heptagon given one side as 30 mm. (8 marks)

QUESTION THREE (20 Marks)

- (a) With an aid of a diagram outline what a drawing board is (10 Marks)
- (b) With an aid of an explanatory diagram of the first angle projection outline the relationship among the front , plan and the side views (10 Marks)

QUESTION FOUR (20 Marks)

Fig 2 below is a support block. Under 3rd Angle projection draw the following:

- (i) Orthographic views (10 Marks)
- (ii) In Isometric with all dimensions as shown (10 Marks)

QUESTION FIVE (20 Marks)

- (i) Draw a triangle, given the three sides as 65mm, 60mm and 55mm (4 Marks).
- (ii) Inscribe a circle in the triangle drawn in Q5 (i) above (7 Marks)
- (iii) Circumscribe a circle in the triangle drawn in Q5 (i) above (7 Marks)

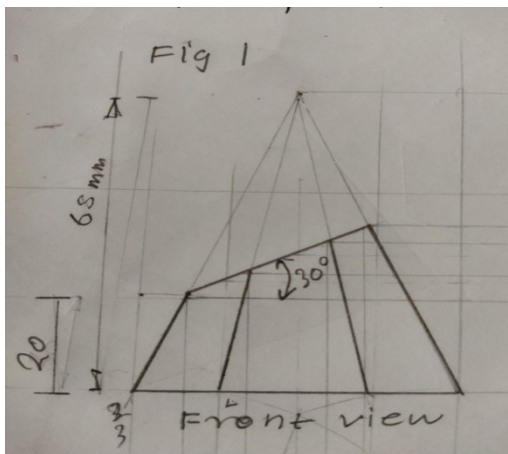


Fig 1

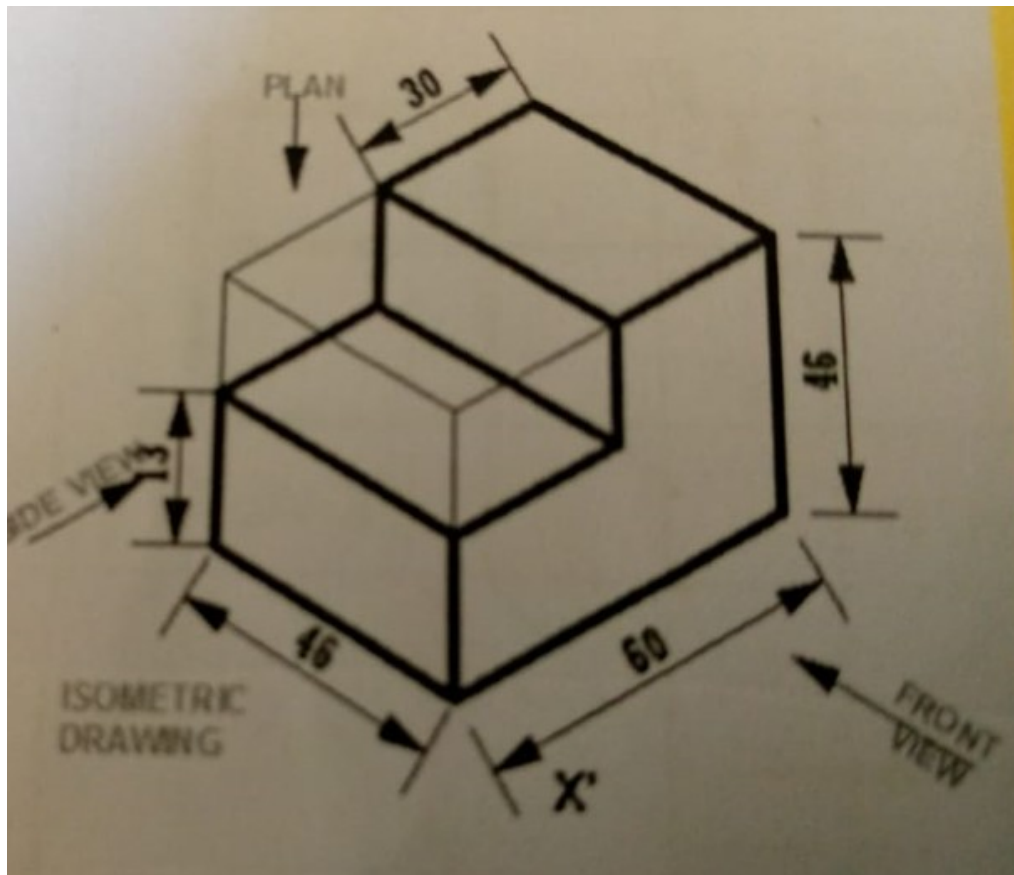


Fig 2