

QUESTION No. 1

The figure below shows a pictorial view of a **PRECISION BLOCK**

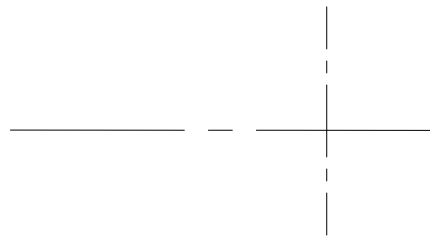
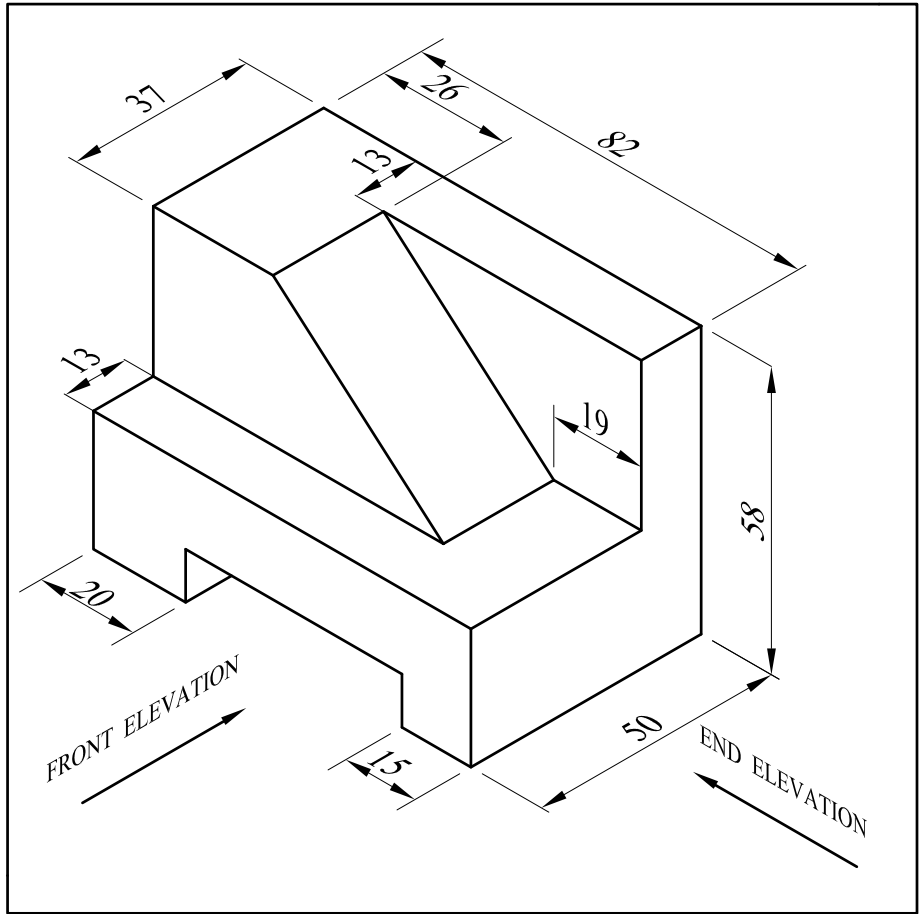
Draw full size in 1st angle projection:

- (a) a plan and
- (b) an end elevation

Include all hidden detail

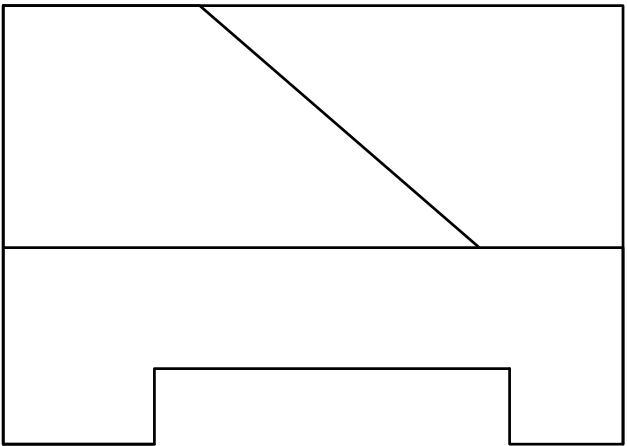
- (c) Show also in your drawing the symbol of projection used
- (d) In the Name Block provided below print in freehand simple block letters the missing items namely:
NAME, DATE, TITLE, SCALE and NAME OF OBJECT

(30 marks)



ORTHOGRAPHIC PROJECTION SYMBOL

FRONT ELEVATION



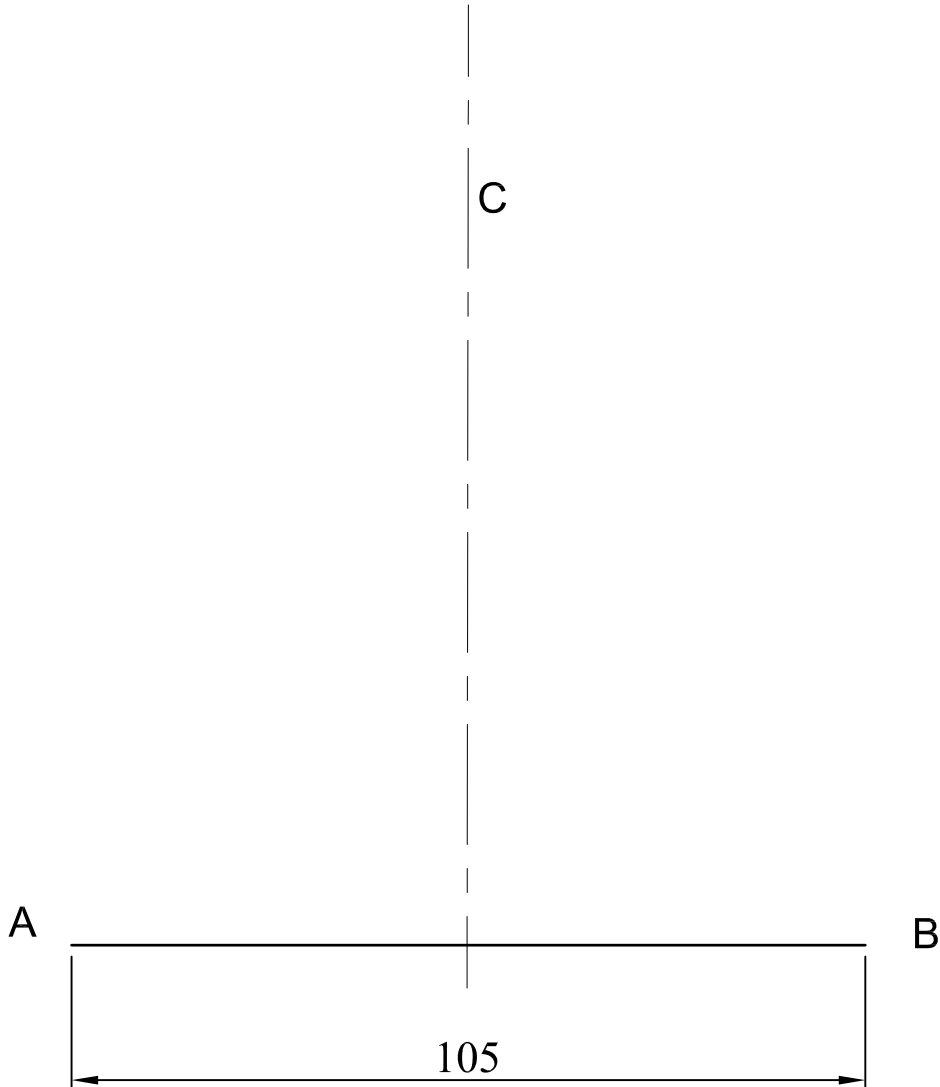
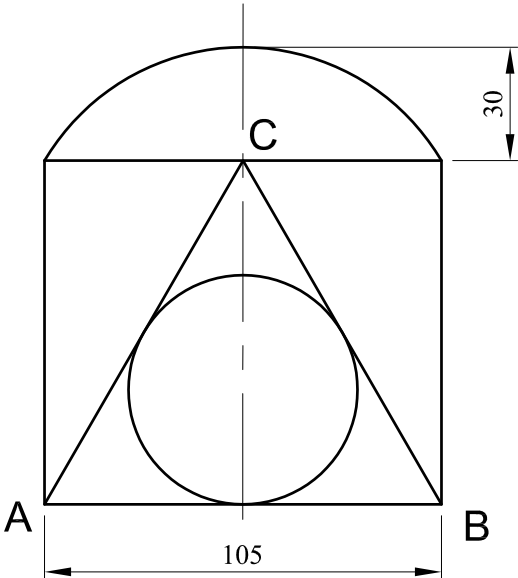
QUESTION No. 2

The drawing shows a wrought iron framework where ABC is an equilateral triangle in which there is an inscribed circle.

On the given start line AB copy the diagram using proper construction for the:

- a. Equilateral triangle
- b. inscribed circle
- c. locating the centre of the arc (maximum height 30mm) above the quadrilateral.

(17 marks)



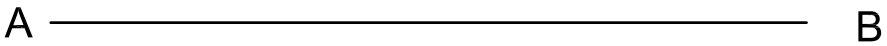
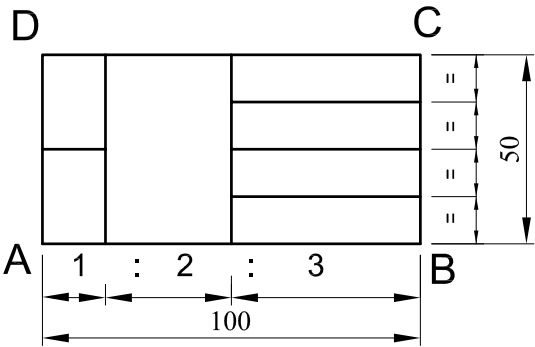
QUESTION No. 3

The figure shows a shelving unit. On line AB below draw the unit.

- (a) Line AB is divided in the ratio of 1:2:3
- (b) Line BC is divided into 4 equal parts
- (c) Line DA is bisected in 2

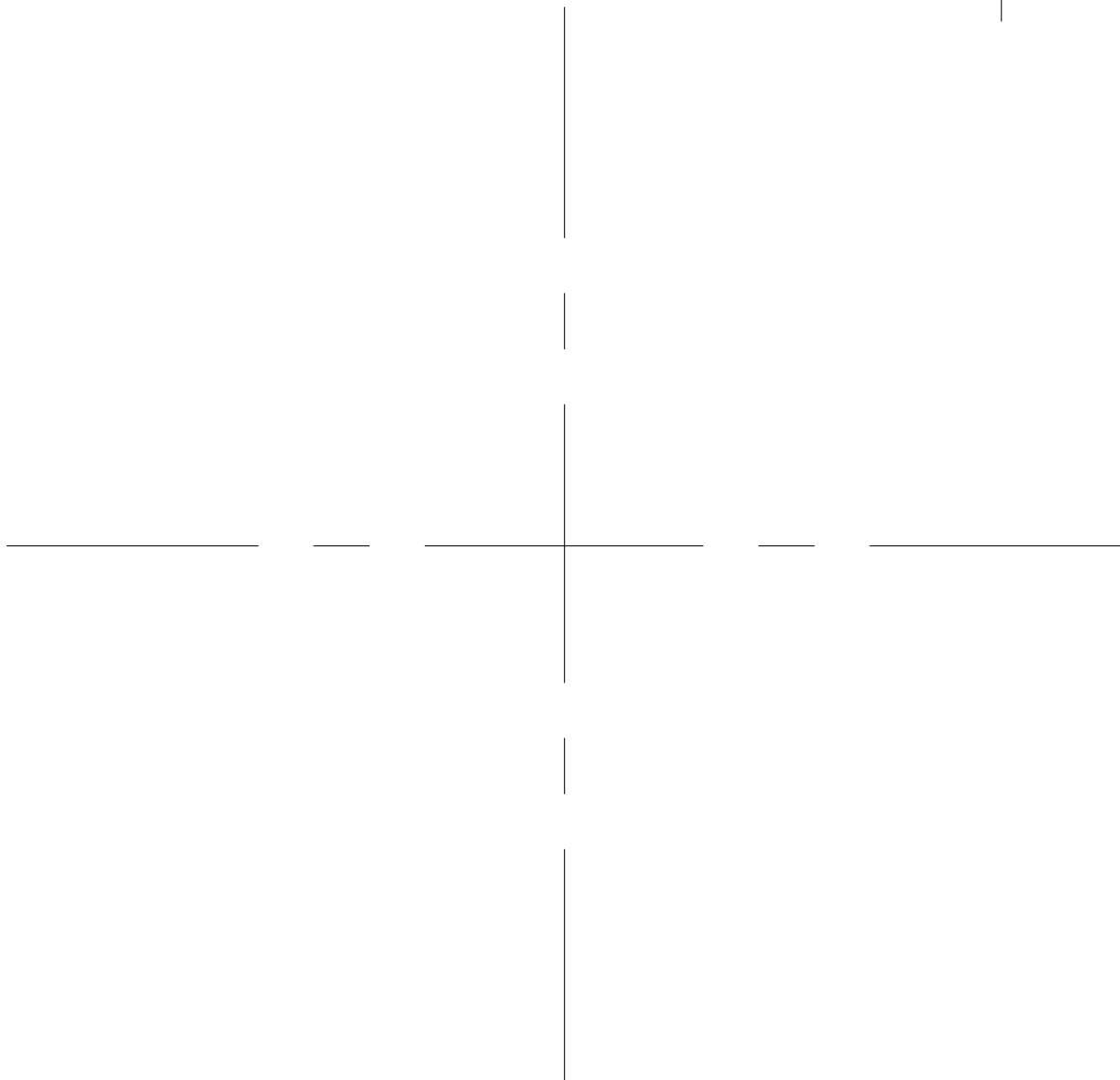
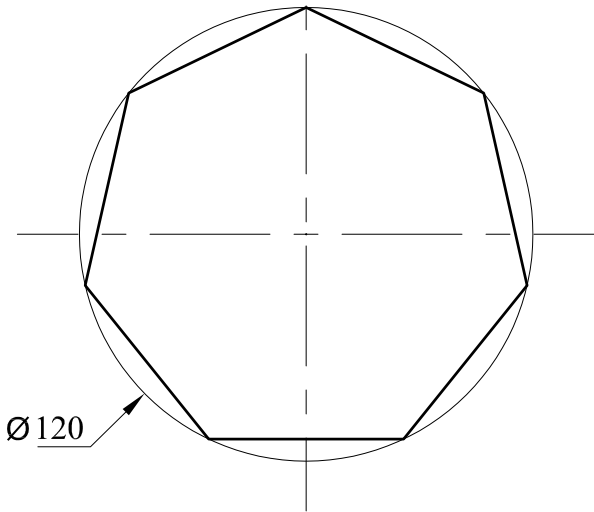
Full construction for questions a, b, and c above must be shown.

(14 marks)



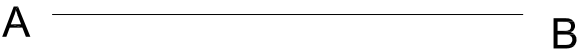
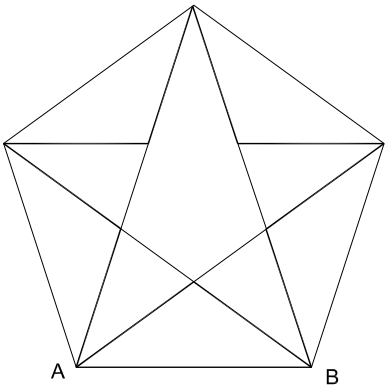
QUESTION No. 4

Construct a regular **heptagon in a circle** Ø120mm. Use the centre lines below as start lines.
(12 marks)



QUESTION No. 5

Construct a regular pentagon on line AB below. Then draw the five pointed star as shown in the figure.
(13 marks)



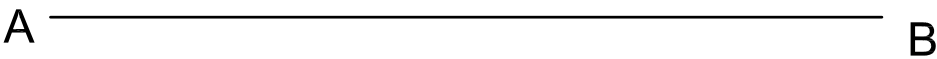
QUESTION No. 6

Construct a right angled triangle ABC with

- Base AB which is 110mm long and
- Side AC 70mm long

Line AB is the hypotenuse and base of the triangle.

(7 marks)



QUESTION No. 7

Construct an isosceles triangle ABC with

- Base AB which is 80mm long
- Altitude (height) 75mm

(7 marks)

