

## TECHNICAL DRAWING DEPARTMENT

S3

### PAPER I (735/1)

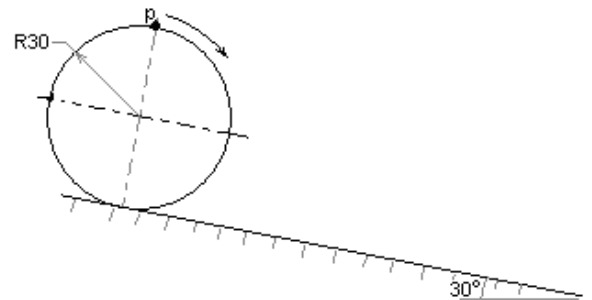
1. Construct a triangle of perimeter 160mm with sides in the ratio of 3:5:6.
  - (b) Inscribe a regular heptagon in a circle of diameter 100mm.
  - (c) Redraw the heptagon and transform it into an isosceles triangle of equal area.

2. The figure shows a point P at the end of a string whose length is equal to the circumference of the given circle. Plot the locus of point P as the string is wound around the circle.

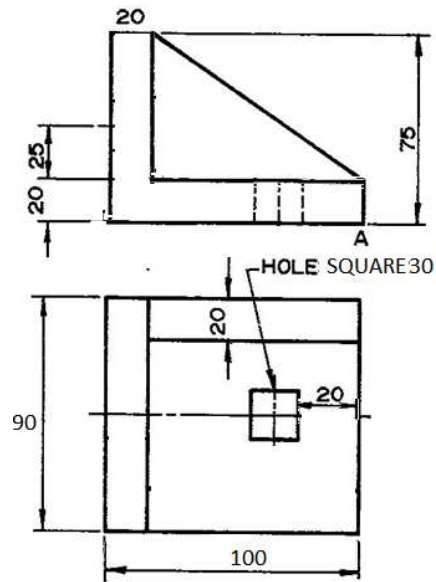


- (i) Name the locus.
  - (b) Trace the locus of a point which moves from the circumference of a circle of diameter 120mm to the center and then back to the circumference when the circle makes a complete revolution in the clockwise direction.
3. The figure below shows a circular disc which rolls down along a straight smooth surface inclined at  $30^\circ$  as shown.

Plot the locus of a point P for one complete revolution starting in the given position.



- (b) Name the locus
4. The figure below shows two views of a block. Draw the isometric views of the block with the A the lowest point.



- 5 The figure below shows a component. Draw the ORTHOGRAPHIC views of the component with the front view seen from direction of arrow P

