



# SNS COLLEGE OF TECHNOLOGY, COIMBATORE-35

## DEPARTMENT OF MECHANICAL ENGINEERING

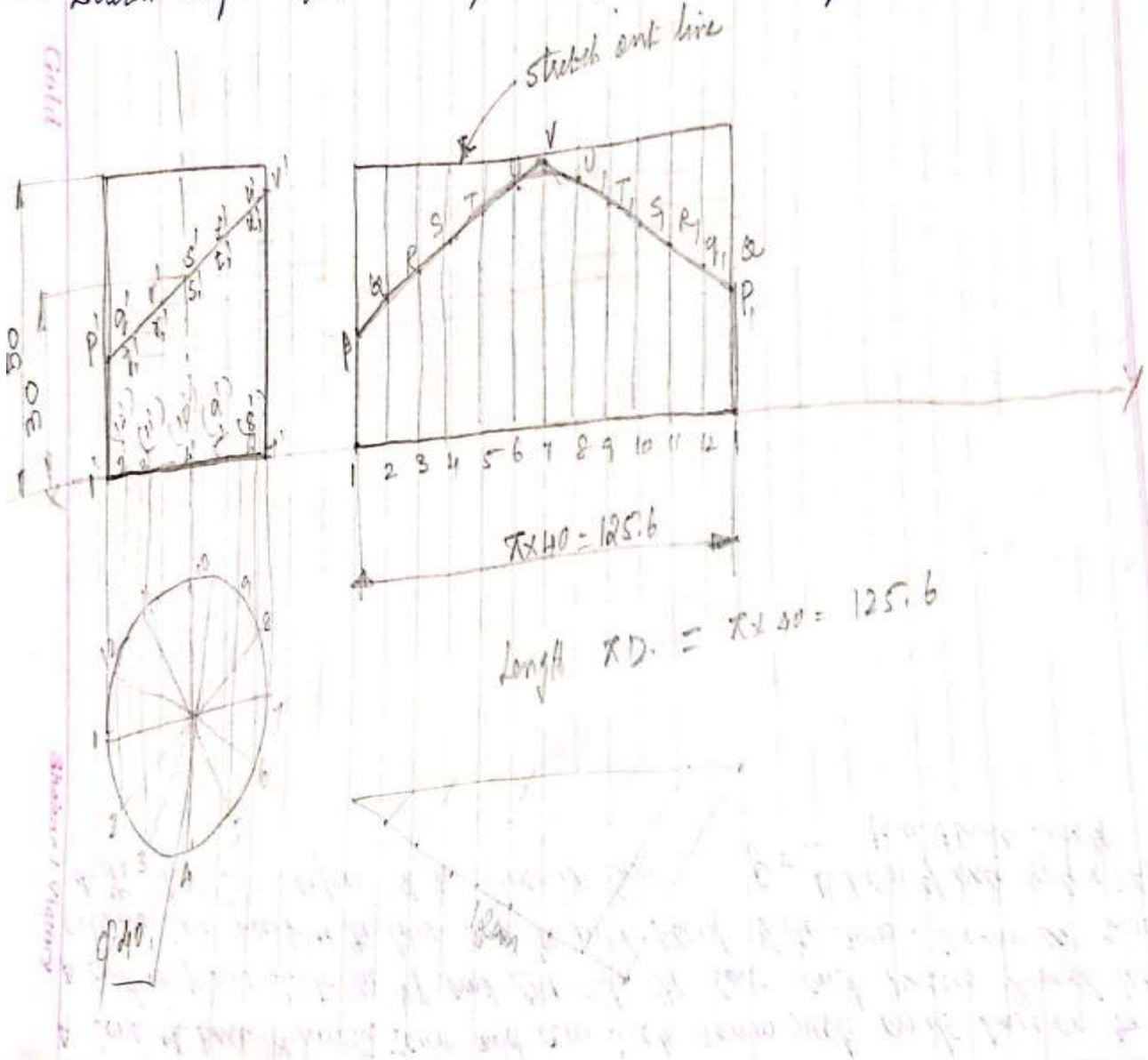
Engineering Drawing –

UNIT III Topic – DEVELOPMENT OF SURFACES

Faculty i/c: C.SENTHILKUMAR, ASP/MECH,



A cylinder of diameter 40mm and height 50mm is resting vertically on one of its ends on the Hp. It is cut by a plane  $L_r$  to the VP and inclined at  $30^\circ$  to the Hp. The plane meets the Axis at a point 30mm from the Base. Draw the Development of the lateral surface of the lower portion of the truncated cylinder.





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Engineering Drawing –

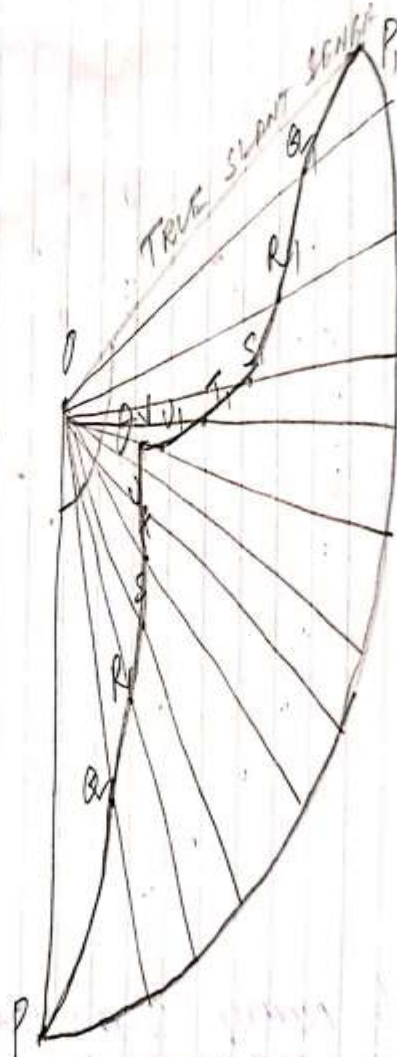
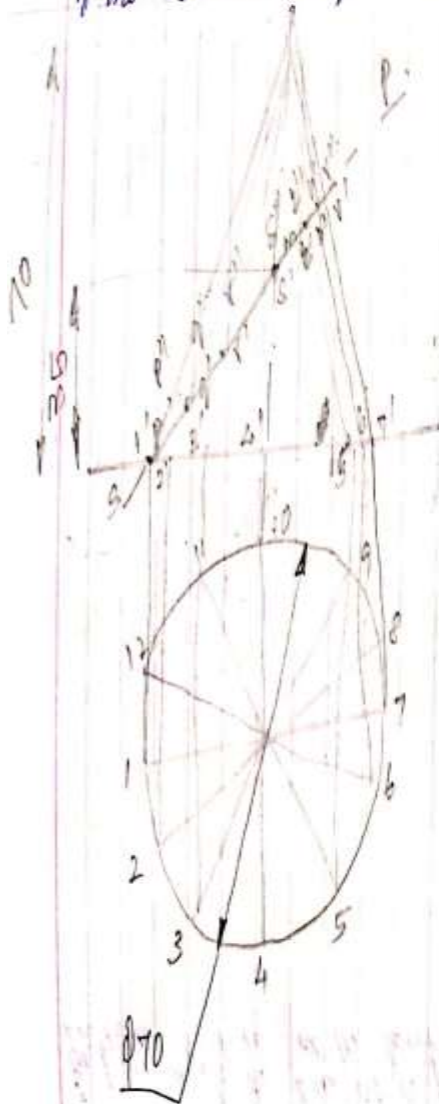
**UNIT III Topic – DEVELOPMENT OF SURFACES**

Faculty i/c: C.SENTHILKUMAR, ASP/MECH,



A cone of base diameter 70mm and axis length 90mm rests on its base on the HP.  
A cutting plane  $\perp$  to the VP and LHP cuts the cone and passes through left extreme base point of the cone and the mid point of the axis. Draw the development of the lateral surface of the truncated cone

$$\theta = \frac{\text{Radius of base circle} \times 360^\circ}{\text{True slant length}}$$



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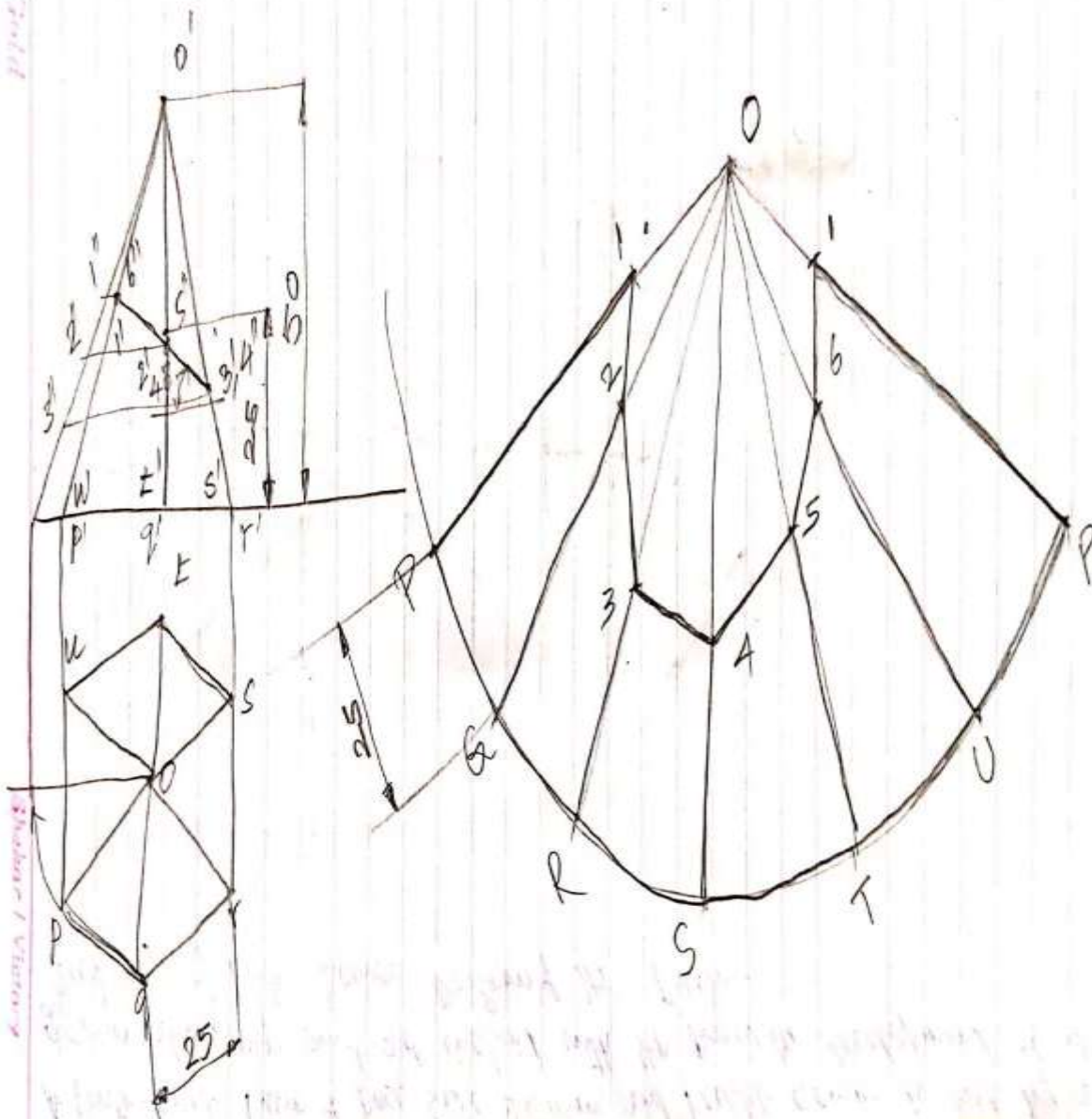
$$\theta = \frac{35 \times 360}{70}$$

$$\theta = 180^\circ$$

$$\frac{180}{12} = 15^\circ \text{ each}$$



A hexagonal pyramid of base of side 25 mm and altitude 50 mm is resting vertically on its base on the ground with two of the sides of the base  $\perp$  to the VP. It is cut by a plane  $\perp$  to the VP and inclined at  $40^\circ$  to the HP. The plane bisects the axis of the pyramid. Draw the development of the lateral surface of the pyramid.







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Engineering Drawing –

### UNIT III Topic – DEVELOPMENT OF SURFACES

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A Pentagonal Prism of base side 25mm and height 50mm is cut by a plane  $\phi P$  25mm above HP and  $30^\circ$  inclined with HP. Draw the development of all the surface of both lower portion of the Prism.

