

Agnihotri Engineering & GATE Classes

Scripting success stories

DEVELOPMENT OF SURFACES

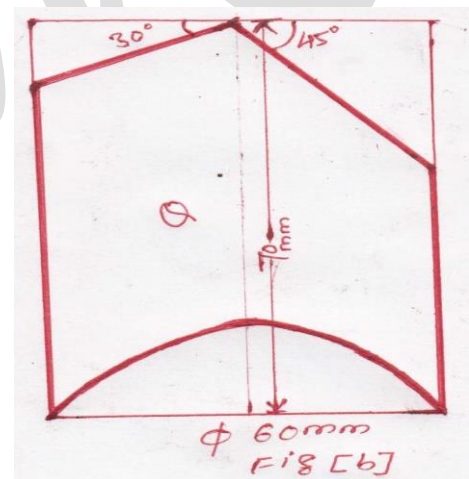
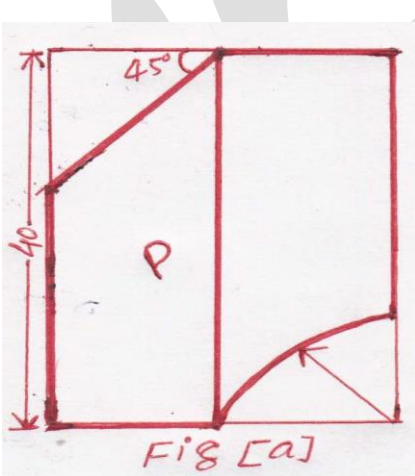
Q.1) A hexagonal prism having side 30 mm and axis 70 mm long resting on its base on HP with an edge parallel to VP. It is cut by a section plane perpendicular to VP inclined at 45° to HP and bisecting the axis. Draw its front view, sectional top view and true shape of the section?

Q.2) A square prism, having side 40 mm and axis 70 mm long resting on its base on HP and vertical faces of the square are equally inclined to VP. A horizontal hole of 30 mm diameter is drilled centrally through the prism in such a way that the axis of the hole bisects the axis of the prism. Draw the development of the surface of the prism and the hole?

Q.3) A cube having side 40 mm resting on its base on HP and vertical faces of the square are equally inclined to VP. It is cut by a section plane which makes an angle of 45° with the ground and passing through a distance of 20 mm from the base on the axis. Draw its front view, Sectional top view and development of its lateral surface?

Q.4) A cylinder having diameter 60 mm and Axis 70 mm long resting on its base on HP. It is cut by a section plane inclined at 45° to HP and passing through the mid point of the axis. Draw the development of its lateral surface?

Q.5) Draw the development of cylinder for the surface of part 'P', the front view of which is shown in figure [a]?



Q.6) Draw the development of cylinder for the surface of part 'Q', the front view of which is shown in figure [b]?

Q.7) Draw the development of the lateral surface of the cylinder of diameter 60 mm and axis 70 mm long resting on its base on HP. A horizontal square hole of 25 mm side is drilled centrally through the cylinder in such a way that the axis of the hole bisect the axis of the cylinder and all the edges of the square are equally inclined to HP. Draw the development of the cylinder and the square hole?

Q.8) A square pyramid having side 40 mm and axis 70 mm long resting on its base on HP and all the edges of the base are equally inclined to VP. It is cut by a section plane perpendicular to VP and inclined at 45° to HP and bisecting the axis. Draw its front view, sectional top view and development of its lateral surfaces.

Q.9) A square pyramid having side 40 mm and axis 70 mm long resting on its base on HP with an edge perpendicular to VP. It is cut by a section plane inclined at 45° and intersecting the axis 40 mm above the base. Draw its front view, sectional top view and development of its lateral surface?

Q.10) A frustum of square pyramid has its base of 50 mm side , top 25 mm side and height 75 mm , its axis is vertical and a side of its base is parallel to VP then ...

a) Draw the development of its lateral surface?

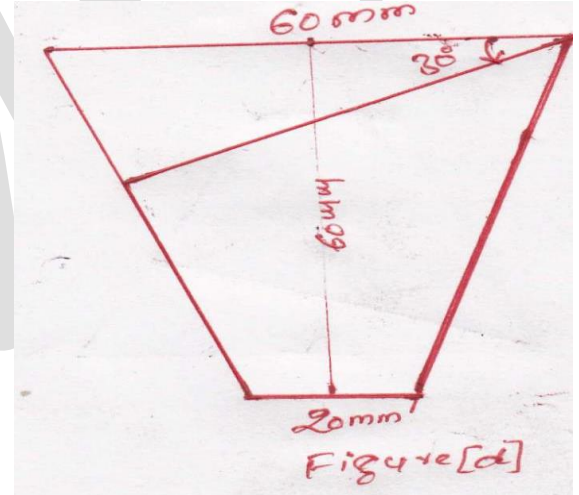
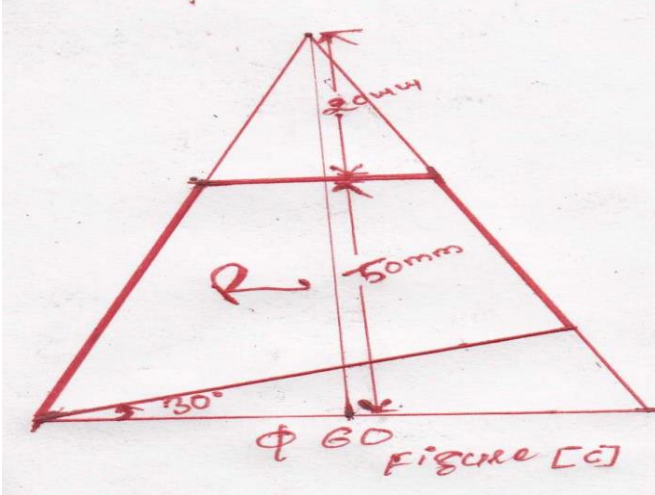
b) Draw the development, showing the line joining the mid point of a top edge of one face with the mid point of bottom edge of the opposite face, by the shortest distance?

Q.11) A hexagonal pyramid having side 30 mm and axis 70 mm long resting on its base on HP with an edge parallel to VP. It is cut by a section plane perpendicular to VP inclined at 45° to HP and intersecting the axis 35 mm from the base. Draw its front view, sectional top view and development of its lateral surface?

Q.12 A hexagonal pyramid having side 30 mm and axis 70 mm long resting on its base on HP with an edge perpendicular to VP. It is cut by a section plane inclined at 30° to HP and passing through the extreme edge of the pyramid. Draw its front view and development of its lateral surface?

Q.13 A right circular cone having diameter 60 mm and axis 70 mm long resting on its base on HP. It is cut by a section plane perpendicular to VP and inclined at 45° to HP and intersecting the axis 35 mm from the apex. Draw its front view and development of its lateral surface?

Q.14 Draw the development of the cone for surface 'R' the front view of which is shown in figure [c] ?



Q.15 Draw the development of the surface of cone, the front view of which is shown in figure [d]?

Q.16 A cone having diameter 70 mm and axis 80 mm long resting on its base on HP. It is cut by vertical section plane the HT of which makes an angle of 45° with X-Y and passing through a distance of 15 mm from the top view of the axis. Draw its sectional elevation and also draw the development of the surface of truncated cone ?

INTERSECTION OF SURFACES

Q.1) A vertical cylinder of 80mm diameter is penetrated by another cylinder of 60mm diameter, the axis of both is 100mm & that of penetrating cylinder is parallel to both HP & VP and it also bisect the vertical cylinder. Draw the projection showing curve of intersection on two cylinders?

Q.2) A vertical cylinder of 50mm diameter and 70mm long axis & resting on its base on HP, is completely penetrated by another cylinder of same diameter and length. Their axis bisect each other at right angle & the axis of penetrating cylinder is parallel to both HP & VP. Draw the projection showing lines of penetration of the two cylinders?

Classes on (ED,BEEE,M1,M2,M3,NA,CONTROL,DSP & other GATE oriented Engineering Subjects)

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