International Institute of Information Technology,

Gachibowli , Hyderabad- 500032.

Civil Engineering

ENGINEERING DRAWING AND SKETCHING (CES511)

Assignment-6

Date: 06/ 04 /2016 Date of Submission: 12/ 04 /2016

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6. SECTION OFSOLIDS, DEVELOPMENT OF SURFACES AND ISOMETRIC VIEWS

Q.1 A cone, diameter of base 80 mm and height 80 mm, is resting on ground on its base. It is cut by an A.I.P. in such a way that the periphery of the true shape of the cut surface is parabola of axis length 50 mm. Draw the projections of the portion of the cone containing the apex when it is kept on the ground on its cut surface with the plan of the axis parallel to V.P.

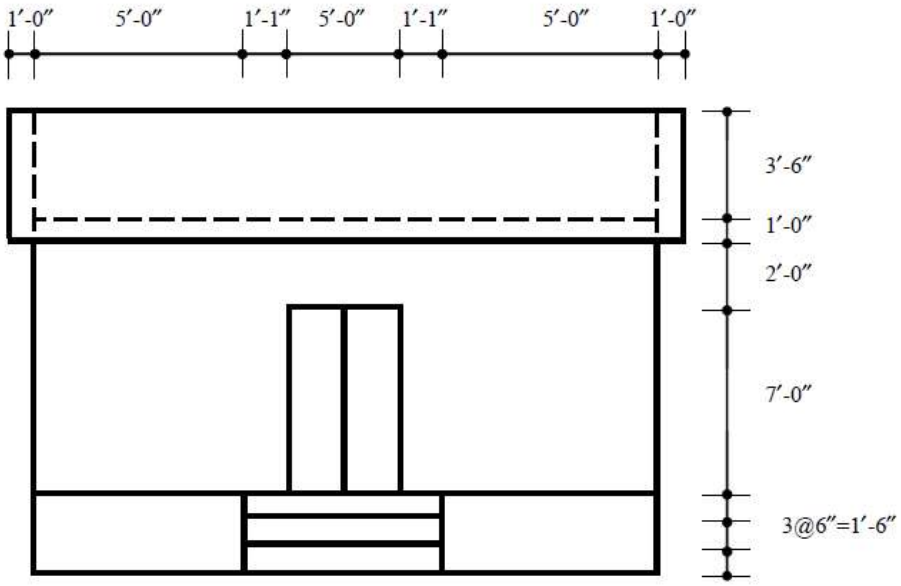
Q.2 A pentagonal pyramid, side of base 40 mm and height 80 mm, is resting on H.P. on its base with one of the edges of the base parallel to V.P. It is cut by an A.I.P. bisecting the axis, the distance of the section plane from the apex being 20 mm. Draw the elevation and sectional plan of the pyramid and show the true shape of the section. Find the inclination of the section plane with the H.P.

Q.3 A sphere of diameter 80 mm is resting on H.P. It is cut by A.I.P. in such a way that the true shape of section is a circle of 70 mm diameter and apparent section in plan is an ellipse with minor axis 35 mm. Draw elevation, sectional plan and true shape of section. Find also the inclination of A.I.P. with H.P.

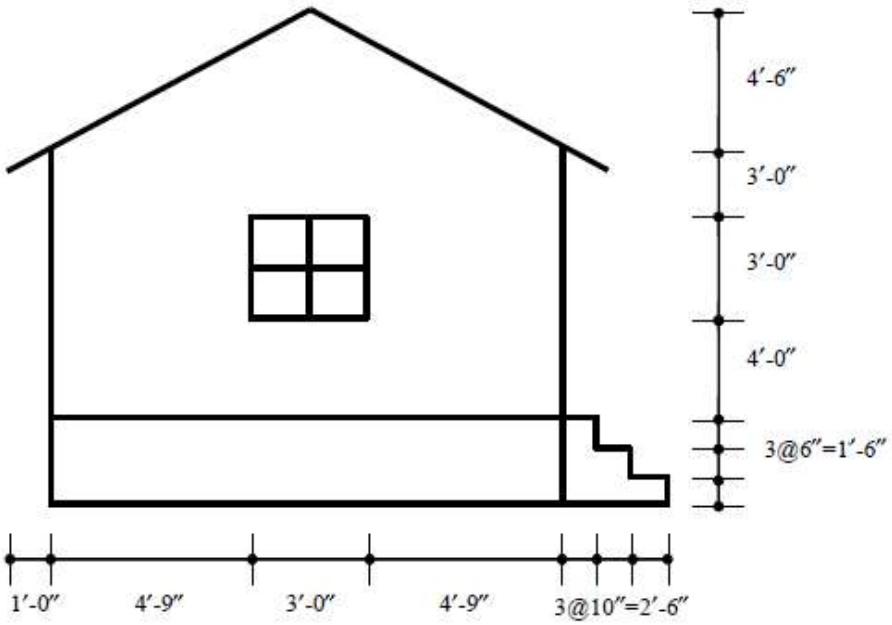
Q.4 A cylinder is resting on the ground on its base. Its diameter is 60 mm and its height is 75 mm. It is cut by a cutting plane which makes an angle of 30^o with the ground. Draw the development of the cut cylinder.

Q.5 A regular hexagonal pyramid 30 mm side of base and 70 mm height is resting on ground on its base with two edges of base parallel to V.P. It is cut by A.I.P. making an angle of 60^o with H.P. or ground and passing through one of the corners of the base. Draw the development of the truncated pyramid.

Q.6 In the following figure the F. V. and the L.H.S.V. is shown. Draw an isometric view.
(Note: All the dimensions are in feet-inches, so convert them into meters)



FRONT VIEW



LEFT VIEW

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