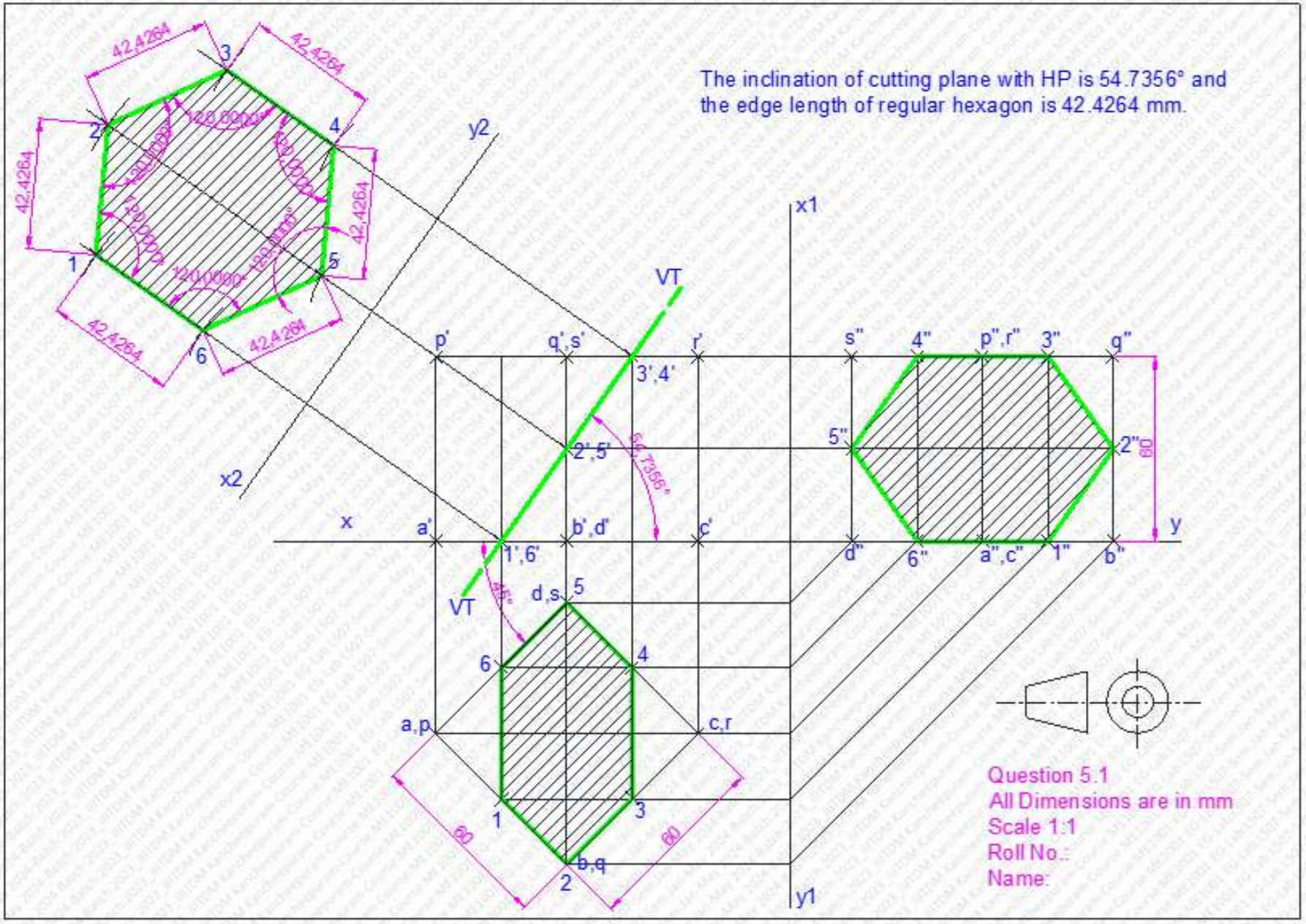
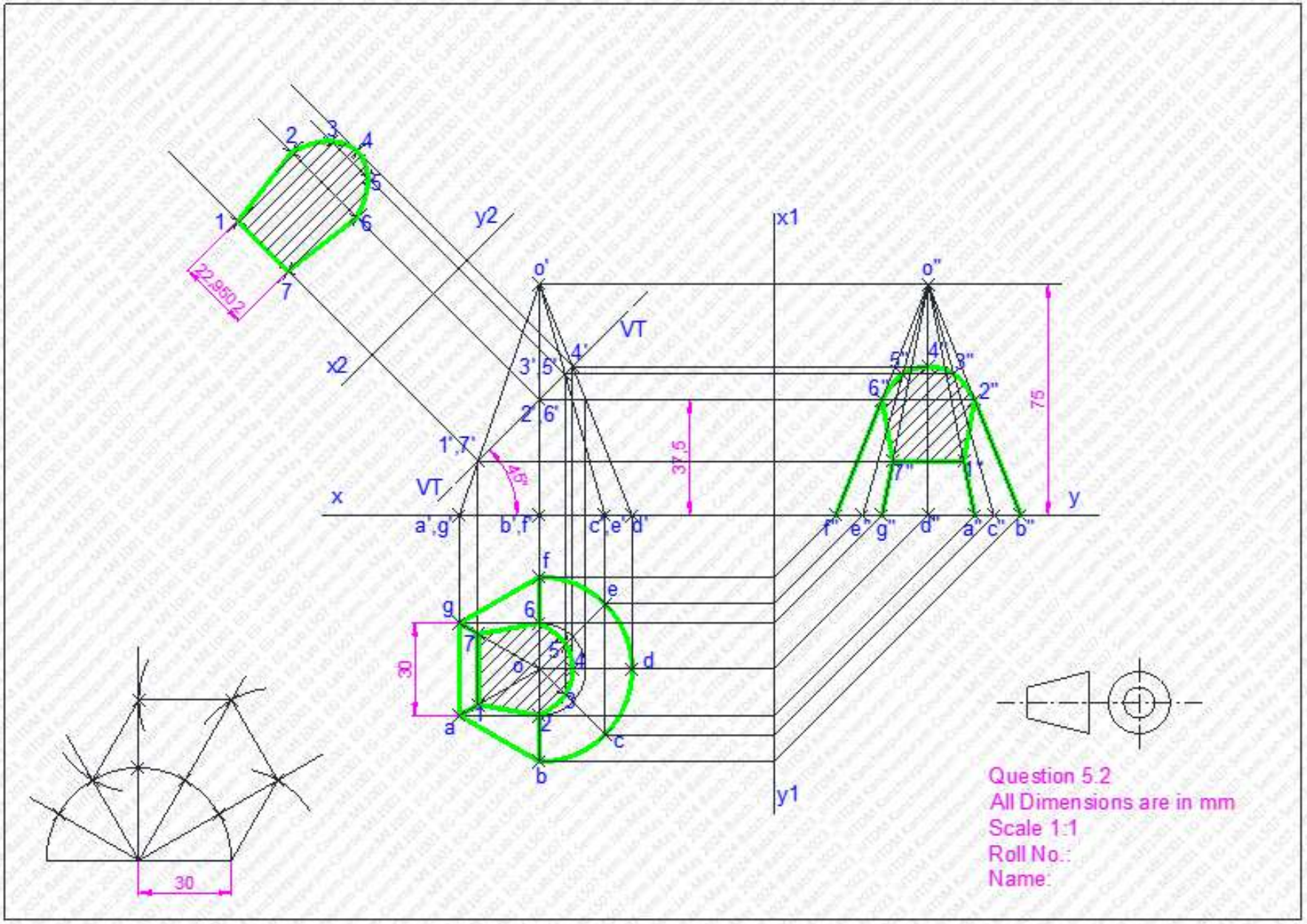
5.1 *A cube of 60 long edges, is resting on one of its face on HP such that, its vertical faces makes equal inclination with the VP. It is cut by a section plane, perpendicular to VP such that the true shape of the section produced is a regular hexagon. Draw the three projections of the sectioned solid and state the inclination of the cutting plane with HP and the edge length of produced regular hexagon. (5 Marks)*

Ref.: Narayana. K.L, and Kannaiah. P, Engineering Drawing, Scitech Pub. Pvt. Ltd, 3rd Edition, **Page No.: 471, Problem 49 - HINT.**



5.2 *A combination of a solid is composed of a half cone and half hexagonal pyramid. The side of the hexagon is 30 and the length of the solid is 75. The solid is resting on its base on HP with its common diagonal of the base, perpendicular to VP. It is cut by a section plane, bisecting the axis. The VT of the section plane is inclined at 45° to HP. Draw the three projections of the solid and the true shape of the section. (10 Marks)*

Ref.: Narayana. K.L, and Kannaiah. P, Engineering Drawing, Scitech Pub. Pvt. Ltd, 3rd Edition, **Page No.: 451, Problem 27, Fig. 12.29.**



5.3 *A cone of base 40 diameter and axis 55 long, lies on one of its generators on HP, with its axis parallel to VP. A horizontal section plane, bisects the axis of the cone. Draw the front and top views of the retained portion of the solid. (10 Marks)*

Ref.: Narayana. K.L, and Kannaiah. P, Engineering Drawing, Scitech Pub. Pvt. Ltd, 3rd Edition, **Page No.: 453, Problem 30, Fig. 12.32.**