**06/06/2012 – 11.30am to 2.30pm**

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10CED14 / 24

First / Second Semester B.E. Degree Examination, May / June 2012

# COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 100

Note: 1.Answer three full questions 2. Use A4 sheets supplied
3. Draw to actual scale 4. Missing data, if any, may be suitably assumed

Q1. i) A point G is 25mm below HP and is situated in the third quadrant. Its shortest distance from the intersection of X-Y and $X_1Y_1$ line is 45mm. Draw its projections and find its distance from VP. [10 Marks]

ii) One end of a line is 30mm in front of VP and 30mm above HP. The line is inclined at $40^\circ$ to HP and its top view measuring 60mm is inclined at $50^\circ$ to the X-Y line. Draw the projections of the line and determine true length and inclination with VP. [20 Marks]

OR

Q1. A triangular plane figure of sides 25mm is resting on HP on one of its corners, such that the surface of the lamina makes an angle of $60^\circ$ with HP. If the side opposite to the corner on which the lamina rests makes an angle of $30^\circ$ with VP, draw the top and front views in this position. [30 Marks]

Q2. A hexagonal prism 25mm sides of base and 50mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at $40^\circ$ and appears to be inclined to VP at $45^\circ$. [40 Marks]

Q3. A pentagonal prism of 30mm side of base and height 50mm lies with its base on HP such that one of the rectangular faces is inclined at $40^\circ$ to VP. It is cut to the shape of a truncated prism with the truncated surface inclined at $30^\circ$ to the axis so as to pass through a point on it 30mm above the base. Develop the truncated portion of the prism so as to produce a one piece development. [30 Marks]

OR

Q3. Draw the isometric projection of a rectangular prism of 60mm X 80mm X 20mm thick surmounting a tetrahedron of sides 45mm such that the axes of the solids are collinear and at least one of the edges of both the solids are parallel to VP. [30 Marks]