USN ☐☐☐☐☐☐☐☐☐☐ 10CED14 / 24

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

COMPUTER AIDED ENGINEERING DRAWING

(COMMON TO ALL BRANCHES)

Time: 3 Hours   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

38 **Q1. a) i.** A point P is on HP and 30 mm in front of VP. Another point Q is on VP and 40 mm above HP. The distance between their projectors parallel to XY line is 50 mm. Find the distance between the front and top views of the points P and Q. **(10 Marks)**

84 **ii.** One end of a line is 30 mm in front of VP and 30 mm above HP. The line is inclined at 40^0 to HP and its top view measuring 60 mm, is inclined at 50^0 to XY line. Draw the projections of the line and determine true length and inclination with VP. **(20 Marks)**

OR

116 **b)** The front view of a rectangular lamina of sides 30mm x 20 mm is a square of 20 mm sides. Draw the projections and determine the inclinations of the surface of the lamina with HP and VP. **(30 Marks)**

154 **Q2.** A square prism 35 mm side of base and 65 mm axis length rests on HP on one of its edges of base. Draw the projections of the prism when the axis is inclined to HP at 45^0 and VP at 30^0. **(40 Marks)**

212 **Q3. a)** A pentagonal prism 30 mm side of base and height 50 mm lies with its base on HP such that one of the rectangular faces is inclined at 40^0 to VP. It is cut to the shape of a truncated prism with the truncated surface inclined at 30^0 to axis so as to pass through a point on it 30 mm above the base. Develop the truncated portion of the prism so as to produce a one-piece development. **(30 Marks)**

OR

272 **b)** A frustum of cone of base diameter 50 mm top diameter 25 mm and height 50 mm rests centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination. **(30 Marks)**