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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
3. Draw to actual scale

2. Use A4 sheets supplied
4. Missing data, if any, may be suitably assumed

45 **Q1.a) i.** A point is lying on VP, 10 mm below HP and 30 mm behind / in front / from LPP. Draw its projections and name the side view. (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° to HP and its top view measuring 60 mm, is inclined at 50° to XY line. Draw the projections of the line and determine true length and inclination with VP. (20 Marks)

OR

103 **b)** An triangular plane of figure of sides 25 mm is resting on HP with one of its corners, such that the surface of the lamina makes an angle of 60° with HP. If the side opposite to the corner on which the lamina rests makes an angle of 30° to VP, draw the top and front views in this position. (30 Marks)

200 **Q2.** A cone of base diameter 40mm and axis length 50 mm is resting on HP on a point on the circumference of its base such that its apex is 40 mm above HP and its top view of the axis is inclined at 60° to VP. Draw the top and front views of the solid. Also determine the inclinations of the axis when the base is nearer to the observer. (40 Marks)

250 **Q3 a)** A funnel is to be made of sheet metal. The funnel tapers from 60 mm to 30 mm diameter to a height of 25 mm and then forms a cylinder with a height of 50 mm. Bottom of the funnel is beveled off completely at an angle of 45° to the axis. Draw the development of the funnel. (30 Marks)

OR

284 **b)** A sphere of diameter 60 mm is placed centrally on the top face of a hexagonal prism of side 35 mm and height 50mm. Draw the isometric projection of the combination. (30 Marks)