

04/06/2012 – 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
3. Draw to actual scale

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

34 **Q1.a) i.** A point A is 20 mm above HP and in the first quadrant. Its shortest distance from the XY line is 40 mm. Draw the projections. Determine its distance from VP. **(10 Marks)**

60 **ii.** A line AB measuring 70 mm has its end A 15 mm in front of VP and 20 mm above HP and the other end B is 60 mm in front of VP and 50 mm above HP. Draw the projections of the line and find the inclinations of the line with both the reference planes of projection. **(20 Marks)**

OR

106 **b)** A $30^{\circ} - 60^{\circ}$ setsquare of 60 mm longest side is so kept such that the longest side is in HP making an angle of 30° with VP. The setsquare itself is inclined at 45° to HP. Draw the projections of the setsquare. **(30 Marks)**

168 **Q2.** A square pyramid 35 mm sides of base and 60 mm axis length rests on HP on one of its corners of base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° to VP at 30° . **(40 Marks)**

210 **Q3. a)** Draw the development of the truncated portion of the lateral faces of a pentagonal prism of 20 mm sides of base and 50 mm height standing vertically with one of its rectangular faces parallel to VP and nearer to it so as to produce a one piece development. The inclined face of the truncated prism is 30° to its axis and passes through the right extreme corner of the top face of the prism. **(30 Marks)**

OR

258 **b)** A regular pentagonal prism of base edge 30 mm and axis 60 mm is mounted centrally over a cylindrical block of 80 mm diameter and 25 mm thick. Draw the isometric projection of the combined solids. **(30 Marks)**