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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

4 **Q1. a) i.** A point 30 mm above XY line is the front view of 2 points A & B. The top view of A is 40 mm behind VP and the top view of B is 45 mm in front of VP. Draw the projections of the points and state the quadrants in which the points are situate. **(10 Marks)**

61 **ii.** The front view of a 90 mm long line which is inclined at 45° to XY line, measures 65 mm. End A is 15 mm above the XY line and is in VP. Draw the projections of the line and find its inclinations with HP and VP. **(20 Marks)**

OR

123 **b)** A pentagonal lamina having edges 25 mm is placed on one of its corners on HP, such that the perpendicular bisector of the edge passing through the corner on which the lamina rests is inclined at 30° to HP and 45° to VP. Draw the top and front views of the lamina. **(30 Marks)**

173 **Q2.** A pentagonal pyramid 25 mm sides of base and 50 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)**

249 **Q3. a)** A funnel is to be made of sheet metal. The funnel tapers from 40 mm to 20 mm diameter to a height of 20 mm and from 20 mm to 15 mm diameter, for the next 20 mm height. The bottom of the funnel is beveled off to a plane inclined at 45° to the axis. Draw the development of the funnel. **(30 Marks)**

OR

268 **b)** A rectangular pyramid of base 40 mm x 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination. **(30 Marks)**