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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

13 **Q1.a) i.** A point M is on HP and 30 mm in front of VP. Another point N is 20 mm below HP and 20 mm in front of VP. The distance between their projectors measured parallel to XY line is 50 mm. Find the distance between front views of the points M and N (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

146 **b)** Draw the projections of a circular plate of negligible thickness of 50 mm diameter resting on HP on a point A on the circumference with its plane inclined at 45° to HP and the top view of the diameter passing through the resting point makes 60° to VP. (30 Marks)

164 **Q2** A pentagonal prism 25 mm sides of base and 50 mm axis length is suspended freely from a corner of base. Draw the projections when the axis appears to be inclined to VP at 45° . (40 Marks)

203 **Q3.a)** A square prism of base side 40 mm and axis length 65 mm is resting on HP with all the vertical faces equally inclined to VP. It is cut by a plane 60° to HP and perpendicular to VP and is passing through a point on the axis at a distance 15 mm from the top face. Draw the development of the lower portion of the prism. (30 Marks)

OR

264 **b)** A sphere of diameter 45 mm rests centrally over a frustum of cone of base diameter 60 mm, top diameter 40 mm and height 60 mm. Draw the isometric projections. (30 Marks)