04/06/2012 – 8.30am to 11.30am

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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 2. Use A4 sheets supplied
3. Draw to actual scale 4. Missing data, if any, may be suitably assumed

50 **Q1. a) i.** Draw the projection of the following points on the same XY line keeping convenient distance between the projectors. Also state the quadrants in which they lie.

A - 30 mm below HP & 25 mm behind VP.
B - 35 mm below HP & 30 mm in front of VP.
C - On HP and 30 in front of VP.
D - On HP and 35 mm behind VP. **(10 Marks)**

76 **ii.** A line has one ends 30 mm in front of VP and 15 mm above HP and the other end is 15 mm in front of VP and is above HP. Length of the line is 60 mm. Top view of the line is 40 mm long. Draw the two views of the line and obtain the inclination of the line with HP and VP. **(20 Marks)**

OR

107 **b)** An isosceles triangular plate of negligible thickness has base 25 mm and altitude 35 mm. It is so placed on HP such that in the front view it is seen as an equilateral triangle of 25 mm side with the side that is parallel to VP in inclined at 45^0 to HP. Draw its top and front views. Also determine the inclination of the plate with the reference planes. **(30 Marks)**

185 **Q2.** A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45^0. **(40 Marks)**

221 **Q3 a)** A square pyramid of 25 mm base edge and 50 mm height rests on HP with all of its base edges equally inclined to VP. It is cut by a plane perpendicular to VP and inclined to HP at 60^0, passing through extreme right corner of base. Draw the development of the lateral surface of the pyramid **(30 Marks)**

OR

275 **b)** A hemisphere of diameter 50 mm is resting on its curved surface centrally on the top face of a frustum of a rectangular pyramid base 80 mm x 60 mm and top 60 mm x 40 mm and height 55 mm. Draw the isometric projection of the combination. **(30 Marks)**