

06/06/2012 – 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

Q1. i) A point G is 25mm below HP and is situated in the third quadrant. Its shortest distance from the intersection of X-Y and X_1Y_1 line is 45mm. Draw its projections and find its distance from VP. [10 Marks]

ii) Draw the projections of a straight line AB 100 mm inclined at 45° to HP and 30° to VP. The end A is in the HP and the end B is in VP. Find the shortest distance between the line AB and the line of intersection of planes of projection. [20 Marks]

OR

Q1. A square lamina ABCD of 40mm sides rests on corner C such that the diagonal AC appears to be at 45° to VP. The two sides BC and CD containing the corner C make equal inclinations with HP. The surface of the lamina makes 30° to HP. Draw its top and front views. [30 Marks]

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

Q3. A vertical cylinder of base diameter 50mm and axis length 60mm is cut by two planes which are perpendicular to VP and inclined at 45° to HP and passing through either side of the center point of the top face. Draw the development of the lateral surface of the cylinder. [30 Marks]

OR

Q3. A sphere of diameter 60mm is placed centrally on the top face of a hexagonal prism of base sides 35mm and height 50mm. Draw the isometric projection of the combination of solids. [30 Marks]