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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

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) One end of a line is 30mm in front of VP and 30mm above HP. The line is inclined at 40° to HP and its top view measuring 60mm is inclined at 50° to the X-Y line. Draw the projections of the line and determine true length and inclination with VP. [20 Marks]

OR

Q1. A triangular plane figure of sides 25mm is resting on HP on one of its corners, such that the surface of the lamina makes an angle of 60° with HP. If the side opposite to the corner on which the lamina rests makes an angle of 30° with VP, draw the top and front views in this position. [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 cylinder is cut as shown in figure 1. Draw the development of the lateral surface of the cylinder. [30 Marks]

OR

Q3. A hemisphere of diameter 50mm is resting on its curved surface centrally on the top face of frustum of a rectangular pyramid of base 80mm X 60mm, top face 60mm X 40mm and height 55mm. Draw the isometric projection of the combination of solids. [30 Marks]

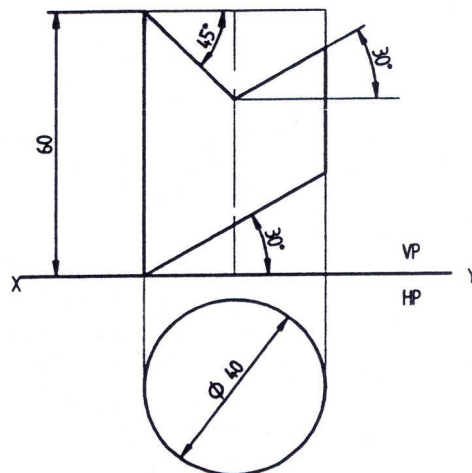


FIG. 1.