Hall Ticket No | | | | | | | | | | | Question Paper Code: AME001

MODEL QUESTION PAPER – I

Four Year B.Tech I Semester End Examinations, December – 2016

Regulation: R16

ENGINEERING DRAWING

(Common to AE, ME, CE)

Time: 3 Hours **Max Marks: 70**

Answer any ONE question from each Unit
All questions carry equal marks
All parts of the question must be answered in one place only

Unit – I

1. (a) Draw a plain scale of R.F 1:40 to read Metres and Decimetres and long enough to measure up to 8 m. Show lengths of 4.3 m and 6.2 m on this scale. [7M]

   (b) Draw the hyperbola when the focus and the vertex are 25 mm apart. Consider eccentricity as 3/2. Draw a tangent and normal to the curve at a point that is 35 mm from the focus. [7M]

2. A circle of 50 mm diameter rolls on the circumference of another circle of 175 mm diameter and outside it. Trace the locus of a point on the circumference of the rolling circle for one complete revolution. Name the curve. Draw a tangent and a normal to the curve at a point 125 mm from the centre of the directing circle. [14M]

Unit – II

3. A 120 mm long line PQ is inclined at 45^0 to the HP and 30^0 to the VP A point m on the line is at a distance of 40 mm from p and its front view is 50 mm above the xy line and the top view is 35 mm below the xy line, Draw its projection. Locate the traces. [14M]

4. A regular hexagonal lamina with its edge 50 mm has its plane inclined at 45^0 to HP and lying with one of its edges in HP. The plane of one of its diagonals is inclined at 45^0 to XY. The corner nearest to VP. is 15 mm in front of it. Draw its projections. [14M]

Unit – III

5. A pentagonal pyramid, side of pentagon 30 mm and height 70 mm is resting on HP on one of its base edges such that the triangular face containing that edge is perpendicular to HP and parallel to VP draw the projections. [14M]

6. A cylinder of diameter 30 mm and axis height 60 mm lying on the ground on a point of its base circle such that the axis is inclined at 45^0 to the H.P and the plane containing the axis males an angle of 30^0 with the VP. Draw the projection of the cylinder. [14M]

Unit – IV

7. A hexagonal prism of base 30 *mm* and height 70 *mm* is resting on its base on the HP with a side of the base perpendicular to the VP. The prism has a cylindrical hole of diameter 40 *mm* drilled centrally such that the axis of the hole is perpendicular to the VP. Draw the development of the lateral surface of the prism. [14M]

8. Draw the isometric view of Figure 1. [14M]

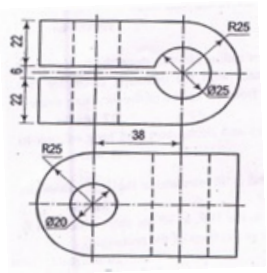

Figure 1

Unit – V

9. Draw the following views of the object shown pictorially in Figure 2. [14M]
   (a) Front view
   (b) Top view and
   (c) Side view

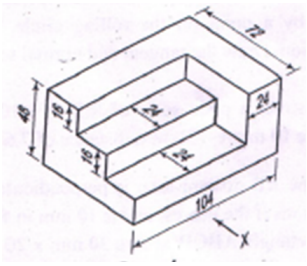

Figure 2

10. Draw the elevation, plan and side view of the picture shown in the Figure 3. [14M]

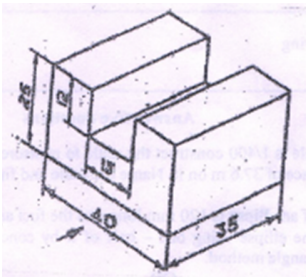

Figure 3