Code: CE1T5, ME1T5, AE1T5

I B. Tech - I Semester – Regular Examinations - January 2015

ENGINEERING DRAWING
(Common for CE, ME, AE)

Duration: 3 hours   Max. Marks: 70

Answer any *FIVE* questions.   All questions carry equal marks

$$5 \times 14 = 70 \text{ M}$$

1. Construct a scale of 1:5 to show decimeters and centimeters and long enough to measure up to 1 m. Show a distance of 6.3 dm on it.   14 M

2. The major axis of an ellipse is 110 mm long and the foci are at a distance of 15 mm from the ends. Draw the ellipse, one-half of it by concentric circles method and the other half by rectangle method.   14 M

3. a) Draw the projections of the following points on a common reference line keeping the distance between their projectors 20 mm apart.   4 M
     i) Point A is 20 mm below the H.P. and 50 mm in front of the V.P.
     ii) Point B is in the H.P. and 40 mm behind the V.P.

   b) A 70 mm long line PQ is inclined at 30^0 to the H.P. The end P is 15mm in front of the V.P. and 25 mm above the H.P. The front view of the line measures 45 mm. Draw the projections of the line PQ and determine its true angle of inclination with the V.P.   10 M

4. Draw the projections of a regular pentagon of 40 mm side, having its surface inclined at 30^0 to the H.P. and a side parallel to the H.P. and inclined at an angle of 60^0 to the V.P.   14 M

5. A tetrahedron of 75 mm long edges has one edge parallel to the H.P. and inclined at 45^0 to the V.P. while a face containing that edge is vertical. Draw its projections.   14 M

6. A pentagonal pyramid of base side 30 mm and axis 60 mm long is resting on a triangular face on the H.P. with its axis parallel to the V.P. It is cut by a horizontal section plane passing through the centroid of the pyramid. Draw its projections.   14 M

7. Projections of a casting are given in Figure 1. Draw the isometric view of the casting. All Dimensions are in mm.   14 M
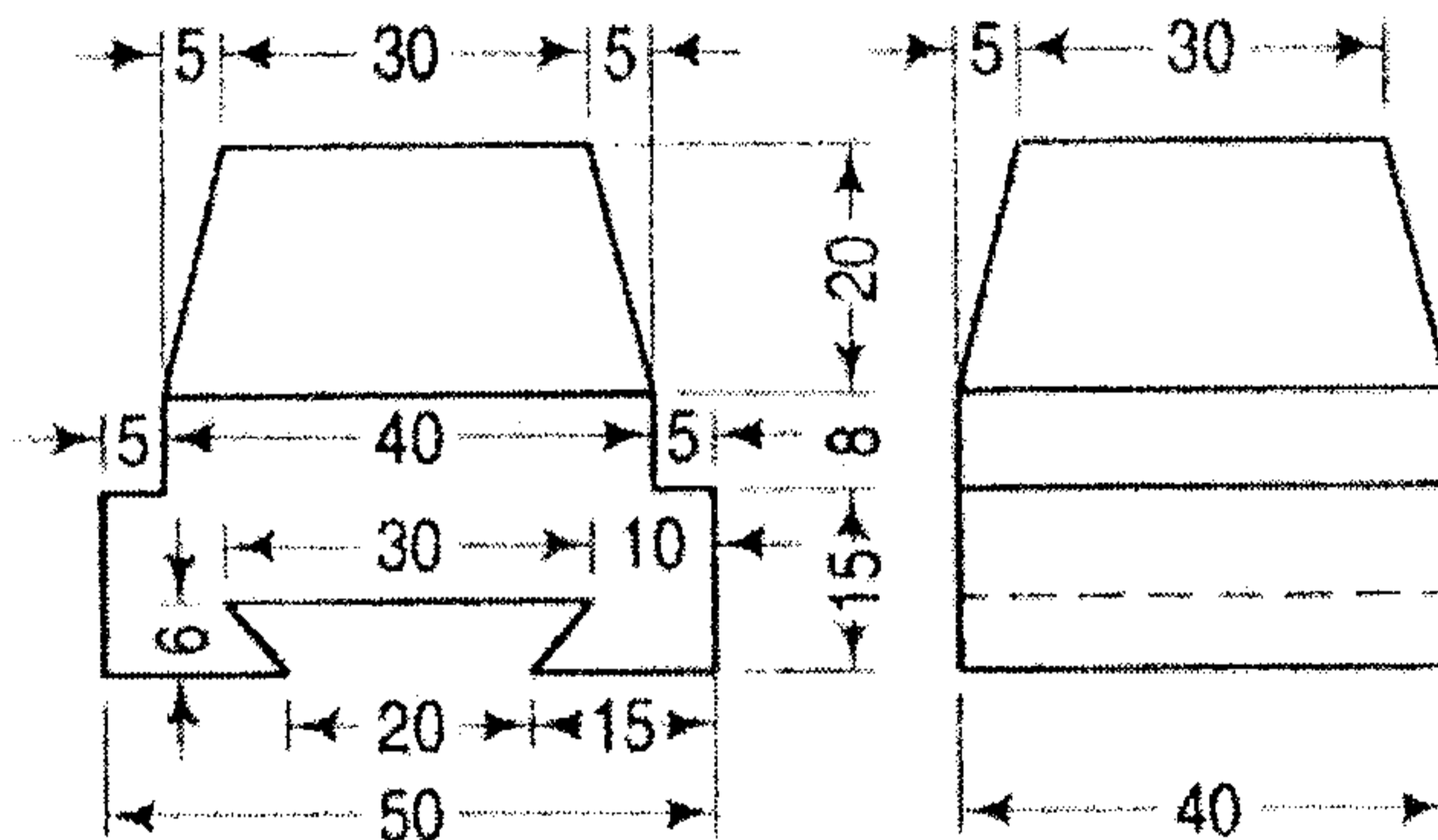

Figure 1

8. Draw Front view, Right side view and Top view of block shown in Figure 2. All dimensions are in mm.   14 M
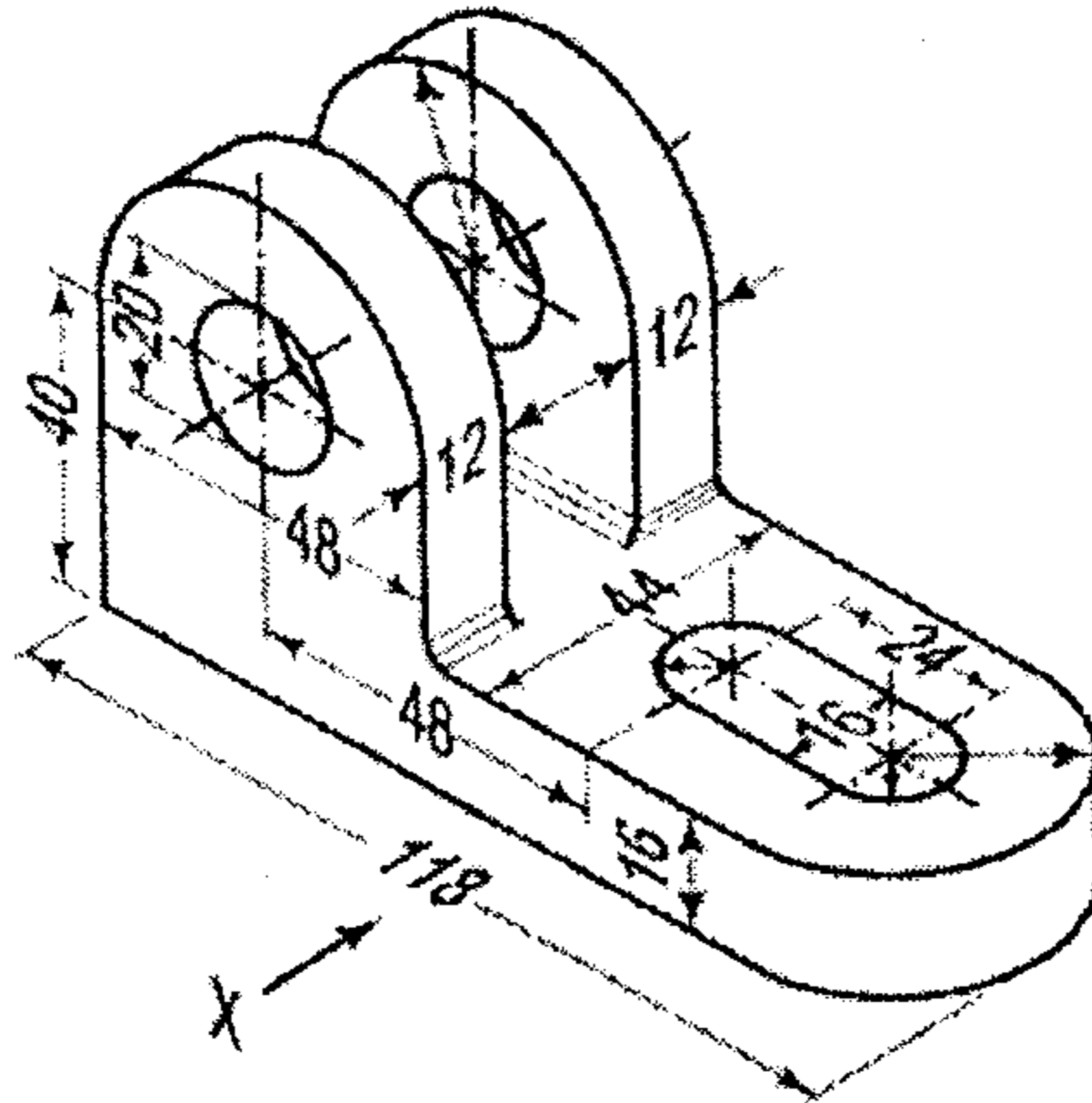

Figure 2