AR16

CODE: 16ME1001 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

I B.Tech I Semester Regular Examinations, December, 2016

ENGINEERING DRAWING

(Common to CSE & IT)

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

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered at one place

UNIT-I

1. The vertex of a hyperbola is 65 mm from its focus. Draw the curve if the eccentricity is 3/2. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix.

(OR)

2. A fixed point F is 7.5 cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Plot at least 9 points. Name the curves. Also draw a normal and a tangent to the curve at a point on it 6cm from F.

UNIT-II

3. a) A point P is 15mm above the H.P. and 20 mm in front of the V.P. Another point Q is 25 mm behind the V.P. and 40 mm below the H.P. Draw projections of P and Q keeping the distance between their projectors equal to 90 mm. Draw straight lines joining i. their top views and ii. their front views

   b) A point 30 mm above xy line is the plan view of two points P and Q. the elevation of P is 45 mm above the H.P. while that of the point Q is 35 mm below the H.P. Draw the projections of the points and state their position with reference to the principal planes and the quadrant in which they lie

(OR)

4. a) The point A is on H.P. and 40 mm in front of V.P. Another point B is on V.P. and below H.P. The line joining their front views makes an angle of 45^0 with x y, while the line Joining their top views makes an angle of 30^0. Find the distance of the point B from H.P

   b) Draw the projections of the following points in third quadrant when the
   i. Point A lies in the H.P. and 22 mm away from the V.P.
   ii. Point B lies in the V.P. and 32 mm away from the H.P.
   iii. Point C lies 32 mm from the H.P. and 22 mm from the V.P

UNIT-III

5. Draw the projections of a circle of 60 mm diameter, resting on V.P. on a point on the circumference. The plane is inclined at 45^0 to V.P. and perpendicular to H.P. The centre of the plane is 40 mm above H.P

(OR)

6. A regular pentagon of 30 mm side, is resting on one of its edges on H.P. which is inclined at 45^0 to V.P. Its surface is inclined at 30^0 to H.P. Draw its projections.

UNIT-IV

7. An equilateral triangular prism of side of base 25 mm and axis 50 mm long, is resting on an edge of its base on H.P. The face containing that edge is inclined at 30^0 to H.P. Draw the projections of the prism, when the axis parallel to the V.P

(OR)

8. A regular pentagonal pyramid, base 30 mm side and height 80mm rests on one edge of its base on the ground so that the highest point in the base is 30 mm above the ground. Draw its projection when the axis is parallel to the V.P

UNIT-V

9. Draw the following views of the block shown in figure 1. All dimensions are in mm.

   (a) Front View. (b) Top view (c) side view.

(OR)

10. Draw the elevation, plan and left hand side view of the bracket shown in the figure 2. (All dimensions are in mm)

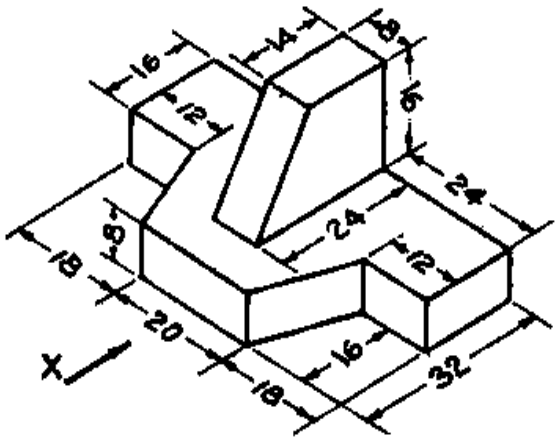

Figure .1

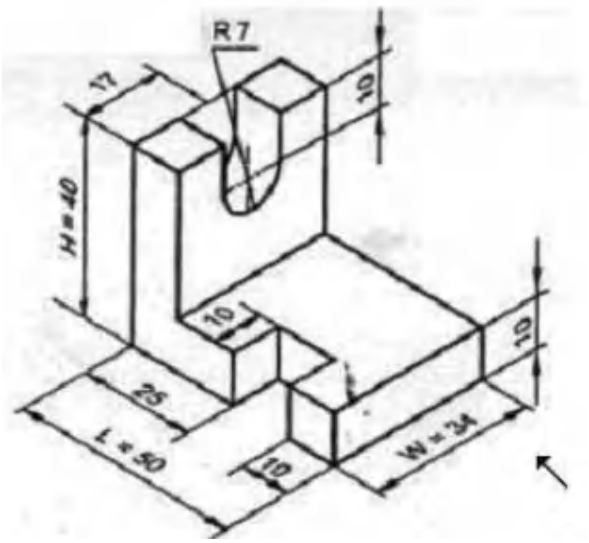

Figure .2

***