AR16

CODE: 16ME1001 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

I B.Tech I Semester Regular/Suppl. Examinations, December, 2017

ENGINEERING DRAWING

(Computer Science Engineering)

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

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. a Construct a regular hexagon by using circle method, with one of its sides (i) Vertical (ii) Horizontal. The radius of circle of 20 mm. 6M

   b The distance between two towns is 120 km. A passenger train covers the distance in 4 hours. Construct a scale to measure-off distance covered by the train in a single minute and upto 1 hour. The scale factor is 1/ 2,00,000. Show on it, the distance covered by the train in 36 minutes. 8M

(OR)

2. Construct Ellipse whose major and minor axes are 100 mm and 75mm respectively. 14M

UNIT-II

3. a (i) A point M is 35 mm above HP and 40 mm in front of VP, draw its projections. 8M
   (ii) A point B is 45 mm above HP and 60 mm behind VP, draw the projections.
   (iii) Draw the projections of a point B lying on HP and 55 mm in front of VP.
   (iv) A point M is 60 mm below HP and 45 mm in front of VP, draw the projections.

   b The front view of a line, inclined at 30^0 to the V.P. is 65 mm long. Draw the projections of the line, when it is parallel to and 40 mm above the V.P., its one end being 30 mm in front of the V.P. 6M

(OR)

4. a A line AB 50 long, is parallel to both HP and VP. The line is 40 above HP and 30 in front of VP. Draw the projections of the line. 4M

   b A point A is 15 above HP and 20 in front of VP. Another point B is 25 behind VP and 40 below HP. Draw the projections of A and B, keeping the distance between the projectors equal to 90. Draw straight lines, joining (i) the top view and (ii) the front views. 10M

UNIT-III

5. A rectangular plate 50x25 size is perpendicular to both HP and VP. The longer edges are parallel to HP and the nearest one is 20 above it. The shorter edge, nearer to VP is 15 from it. The plane is 50 from the profile plane. Draw the projections of the plane. 14M

(OR)

6. An equilateral triangular lamina of 30 mm side with the surface inclined at 60^0 to HP lies with one of its sides on HP. The edge on which it rests is inclined at 60^0 to VP and its surface making an angle of 45^0 with HP. 14M

UNIT-IV

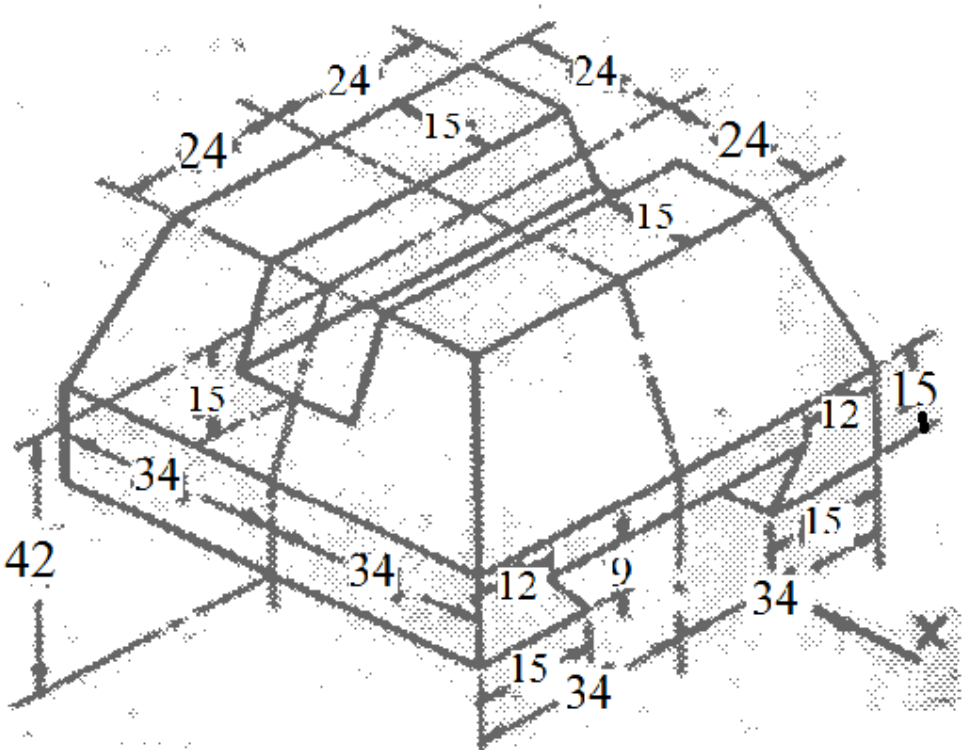
7. Draw the projections of a cone, base 30 mm diameter and axis 50 mm long, resting on HP on a point of its base circle with the axis making an angle of 45^0 with HP and parallel to VP. 14M

(OR)

8. An equilateral triangular prism of side of base 25 mm and axis 50 mm long, is resting on an edge of its base on HP. The face containing that edge is inclined at 30^0 to HP. Draw the projections of the prism, when the edge on which the prism rests, is inclined at 60^0 with V.P. Follow the change of position method. 14M

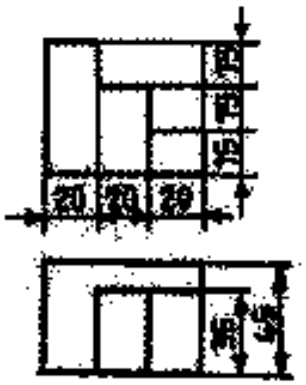
UNIT-V

9. Draw the front view, top view and right side view of the object shown below. (dimensions in mm) 14M



(OR)

10. Two views of a model are shown below. Draw the isometric projection of the model 14M



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