AR13

Code: 13ME1001 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
I B. Tech II Semester Regular/ Supplementary Examinations, May-2016

ENGINEERING DRAWING
(Electrical and Electronics Engineering)

Time: 3 hours **Max Marks: 70**

PART-A

Answer all questions **[10 x 1=10M]**

1. a) Define R.F
   b) List out the methods available for the construction of ellipse.
   c) What is the significance of dimensioning?
   d) Discuss about the role of reference plane in orthographic projections.
   e) Describe the strategy to draw an oblique plane.
   f) What do you mean by an oblique plane?
   g) Which dimensions of a solid can be seen in the front view.
   h) Highlight the difference between prism and pyramid.
   i) Distinguish between first angle projection and third angle projection.
   j) What is the major difference between isometric and orthographic projections?

PART- B

Answer one question from each unit **[5X12=60M]**

UNIT – I

2. a) Draw all alphabet and numerical of 10mm height using single stroke vertical letters according to Indian standards.
   b) Draw a Heptagon having 25mm sides such that one of its edges is vertical.

OR

3. Construct an ellipse by using concentric circle method of major axis 100mm and minor axis 80mm respectively and also draw normal and tangent any point on the curve.

UNIT - II

4. a) Define an orthographic projection. Describe briefly the method of obtaining an orthographic projection of an object.
   b) A point P is 20mm below HP and lies in the third quadrant. Its shortest distance from XY is 40mm. Draw its projections.

OR

5. a) A 90mm long line is parallel to and 25mm in front of the V.P. Its one end is in the H.P. while the other is 50mm above the H.P. Draw its projections and find its inclination with the H.P.

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

UNIT - III

6. A 60^o set-square of 125mm longest side is so kept that the longest side is in the H.P. making an angle of 30^o with the V.P. and the set-square itself inclined at 45^o to the H.P. Draw the projections of the set-square.

OR

7. An equilateral triangle ABC having side length as 50mm is suspended from a point O on the side AB 15mm from A in such a way that the plane of the triangle makes an angle of 60^o with the V.P. The point O is 20mm below the H.P. and 40mm behind the V.P. Draw the projections of the triangle

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UNIT - IV

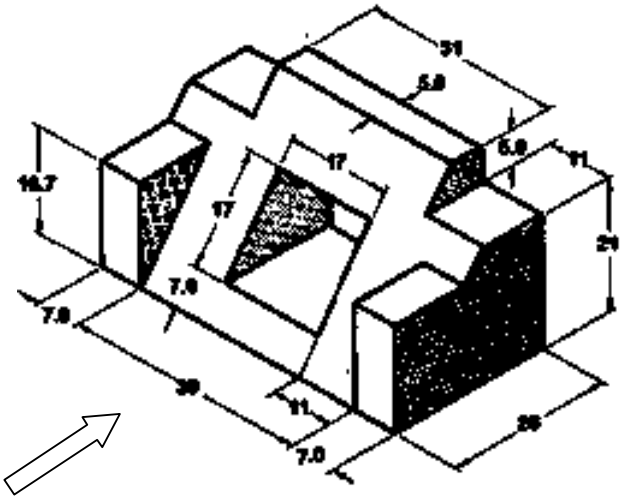
8. A pentagonal pyramid, base 40mm side and height 75mm rests on one edge of its base on the ground so that the highest point in the base is 25mm above the ground. Draw its projections when the axis is parallel to the V.P. Draw another front view of on a reference line inclined at 30^o to the edge on which it is resting, and so that the base is visible.

OR

9. Draw the pojections of a cone, base 50mm diameter and axis 75mm long, having one of its generators in the .P. and inclined at 30^o to the H.P., the apex being in the H.P.

UNIT - V

10. Draw the front view, top view and left hand side view of the block shown in figure shown below.



(OR)

11. Draw the isometric projection of the block whose orthographic projections are shown in figure below.