

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E/B.TECH – EEE/EIE/AERO/AUTO/CHEM/
CIVIL/M&P/MECH

Title of the paper: Engineering Graphics - I

Semester: I

Max. Marks: 80

Sub.Code: 3ET107-4ET107-5ET107-6C0006(06-07-08)

Time: 3 Hours

Date: 12-12-2008

Session: FN

PART – A

(10 x 2 = 20)

Answer All the Questions

1. What do you understand by “First angle projection”?
2. When a straight line will not have traces?
3. If a cone is lying on its generator on H.P, with the axis parallel to V.P., what will be the shape of the top view of the base?
4. What do you mean by true shape of section?
5. Mention the true shape of section when a plane passing through the vertex of the cone cuts the cone.
6. Name the two methods of development of sphere
7. What is an isometric scale?
8. When will the size of perspective be larger than that of the Object?
9. State the difference between the isometric projection and isometric view.
10. How the isometric axes are represented?

PART – B
Answer All the Questions

(5 x 12 = 60)

11. A line AB, 80mm long has its end A 20 mm above HP and 30mm in front of VP. The top and front views are 50mm and 65mm respectively. Draw the projections of the straight line and find the true inclinations.

(or)

12. One end P of a line PQ, 80mm long is 10 mm above HP and 15mm in front of V.P. The line is inclined at 40° to H.P and the top view makes 50° with V.P. Draw the projections and true inclination with V.P.

13. A pentagonal prism side of base 30mm and axis length 60 mm rests on the H.P on one of the base corners with the base edges containing it being equally inclined to H.P. The axis is inclined at 45° to the H.P and parallel to the V.P. Draw the projections of the prism by change of position method.

(or)

14. A tetrahedron of 40 mm side is resting with one of the edges on H.P. The edge on which it rests is inclined at 45° to V.P and a face containing that edge is inclined at 30° to H.P. Draw the projections of the solid.

15. A right circular cone base diameter 50 mm and height 70mm, rests on its base on H.P. A section plane perpendicular to V.P and inclined to H.P at 45° cuts the cone meeting its axis at a distance of 35mm from its base. Draw its front view, sectional top view and true shape of the section.

(or)

16. A square pyramid of base side 30 mm and altitude 65 mm is resting on H.P on its base with a side of base inclined at 25° to V.P. It is cut by a plane inclined at 35° to H.P and perpendicular

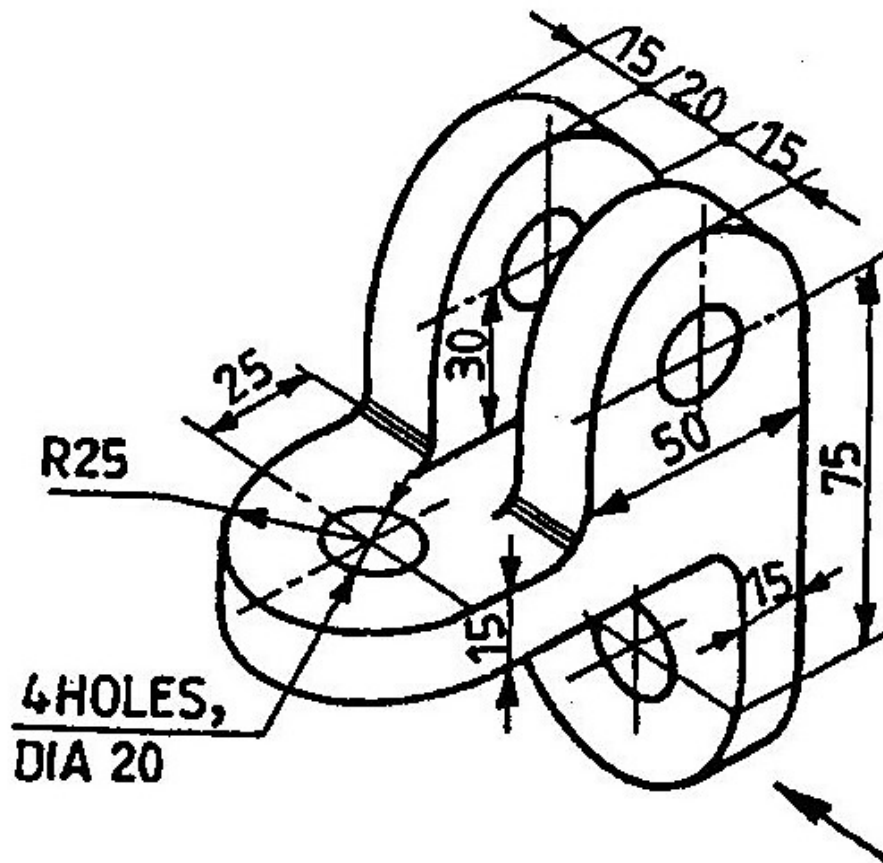
to V.P and bisects the axis. Draw the development of the remaining lower portion of the pyramid.

17. A square pyramid side of base 30 mm and 50 mm height stands vertically on a cube and the axes of the solids coincides. Draw the isometric view.

(or)

18. A square pyramid side of base 40 mm and axis 60 mm long, rests with its base on the ground plane such that all the edges of the base are equally inclined to the PP. One of the corners of the base is touching the PP. The station point is 60 mm in front of the PP, 80 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective view.

19. Draw the three views for the object shown in figure 1.



(or)

20. The front and top view of the object are two concentric squares (Figures 2). Give a rough sketch of solid in pictorial view.

