Reg.No.:								

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 1001

B.E. / B.Tech. DEGREE END - SEMESTER EXAMINATIONS – DECEMBER 2019

First Semester

Computer Science and Engineering

U14GE101 / U15GE101 – ENGINEERING GRAPHICS

(Common to Electrical and Electronics Engineering, Electronics and Communication Engineering, Information Technology & Biotechnology)

(Regulation 2014 / 2015)

Time : Three Hours | Maximum : 100 Marks

Answer ALL the questions. (5 x 20 = 100 Marks)

1. a) The top view of a 75 mm long line AB measures 60 mm, while the length of its front view is 55 mm. Its one end A is in the HP and 15 mm in front of the VP. Draw the projections of AB and determine its inclination with HP and the VP.

(OR)

b) Draw the projections of a circular lamina of 50 mm diameter resting in the H.P. on a point A on the circumference. The lamina is inclined at 35° to the H.P. and the top view of the diameter AB making 40° angle with the V.P.

2. a) A pentagonal pyramid, base 25 mm side and axis 50 mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the V.P. Draw its projections.

(OR)

b) A square prism, with the side of its base 40 mm and axis 70 mm long is lying on one of its base edges on the H.P. in such a way that this base edge makes an angle of 45° with the V.P. and the axis is inclined at 30° to the H.P. Draw the projections of the solid using alteration of position (or) alteration of plane (auxiliary plane) method.

3. a) A hexagonal pyramid axis 80 mm long is resting on its base on the H. P. The base of the pyramid is a regular hexagon with 20 mm side and one of its sides is parallel to the V.P. The pyramid is cut by a section plane perpendicular to V.P., inclined at 40° to the H. P. and cutting the axis at a point 15 mm from the base. Draw its front view, sectional top view and true shape of the section.

(OR)

b) A cylinder, 55 mm diameter and 65 mm long has its axis parallel to both the H.P. and V.P. It is cut by vertical section plane inclined at 30^0 to the V.P. so that the axis is cut at a point 30 mm from one of its ends and both the bases of the cylinder are partially cut. Draw its sectional front view and true shape of the section.

4. a) A cylinder (50 mm diameter of base and 100 mm height) is centrally penetrated by a cone (50 mm diameter of base and 75 mm height). The axis of the cylinder, which is vertical, cuts the axis of the cone, which is horizontal at 30 mm from the base of the cone. Develop the surface for the cylinder and the cone.

(OR)

b) Draw the development of the lateral surface of the part P of the cone as seen in Figure 1

5. a) Draw the orthographic views from the given pictorial view shown in Figure 2.

(OR)

b) Draw the Isometric view from the given detailed views shown in Figure 3.

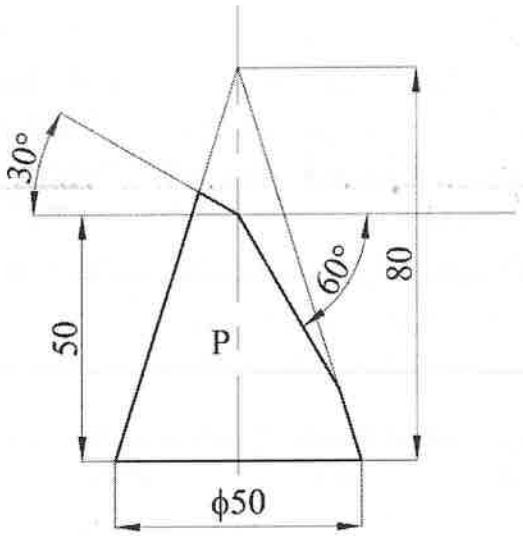


Figure 1

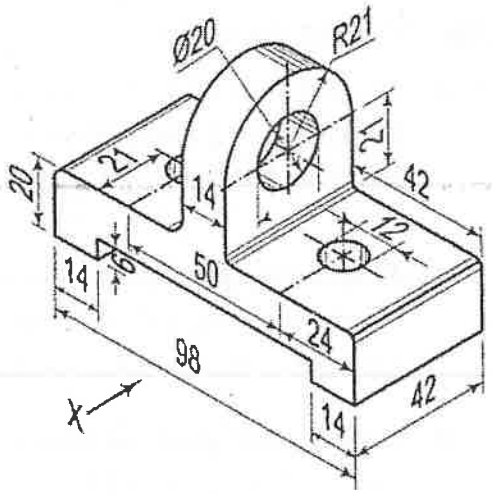


Figure 2

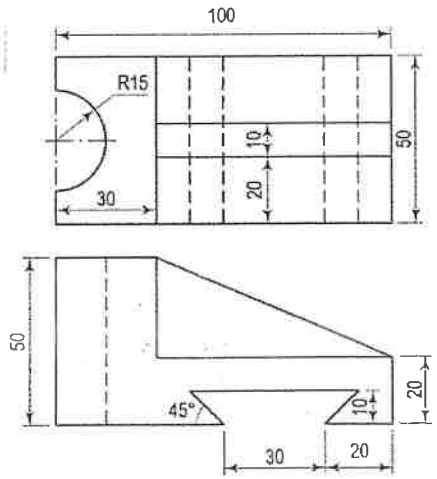


Figure 3

Reg.No.:								

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 1002

B.E. / B.Tech. DEGREE END - SEMESTER EXAMINATIONS – DECEMBER 2019.

First Semester

Computer Science and Engineering

U19GE101 – ENGINEERING GRAPHICS

(Common to Electrical and Electronics Engineering, Electronics and Communication Engineering, Information Technology & Biotechnology)

(Regulation 2019)

Time : Three Hours | Maximum : 100 Marks

Answer ALL the questions. (5 x 20 = 100 Marks)

1. a) A line AB 70 mm long has its end B 25 mm above H.P. and 30 mm in front of V.P. The end A is 55 mm above H.P. and 55 mm in front of V.P. Draw its projections and finds its inclinations with V.P. and H.P.

(OR)

b) A square lamina of 50 mm side rests on one of the corners on the H.P. The diagonal through that corner makes 30° to the V.P. The side containing this corner makes equal inclinations with H.P. The surface of the lamina makes 45° to the H.P. Draw the projections of lamina.

2. a) A pentagonal prism of base side 25 mm and axis length 55 mm is resting on HP on one of its rectangular faces with the axis inclined at 45° to VP. Draw its projections.

(OR)

b) A hexagonal prism, side of base 25 mm and axis 50 mm long is freely suspended from one of its base corners, such that the axis is parallel to VP. Draw the front view and top view of the solid in the above position.

3. a) A cylinder of base diameter 35 mm and height 55 mm rests on its base on HP. It is cut by a plane perpendicular to VP and inclined at 45° to HP. The cutting plane meets the axis at a distance of 15 mm from the base. Draw the sectional plan and true shape of the section.

(OR)

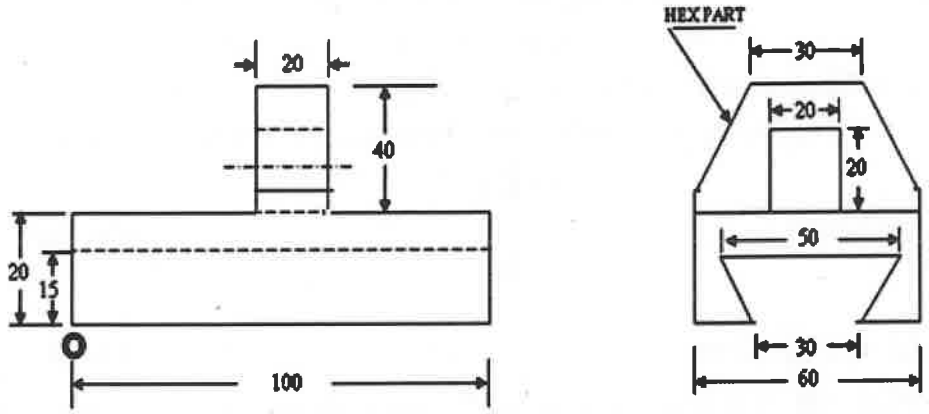
b) A square pyramid 50 mm base side and axis 90 mm long is resting on HP at its base with a side of base parallel to VP. The pyramid is cut by a section plane inclined at 45° to HP and perpendicular to VP, bisecting the axis. Draw the sectional views and the true shape of the section.

4. a) Draw the development of the lateral surface of the lower portion of a cylinder of diameter 50 mm and axis 70 mm when sectioned by a plane inclined at 40° to HP and perpendicular to VP and bisecting axis.

(OR)

b) A pentagonal pyramid, side of base 30 mm and height 60 mm, stands with its base on H.P and an edge of the base is parallel to V.P. It is cut by a plane perpendicular to V.P, inclined at 40° to H.P and passing through a point on the axis, 32 mm above the base. Draw the sectional top view and develop the lateral surface of the truncated pyramid.

5. a) Draw the isometric view from the given orthographic views.



(All dimensions are in mm)

(OR)

b) Draw the front, side (from the side available for viewing) and top views of the object shown in Figure 2.

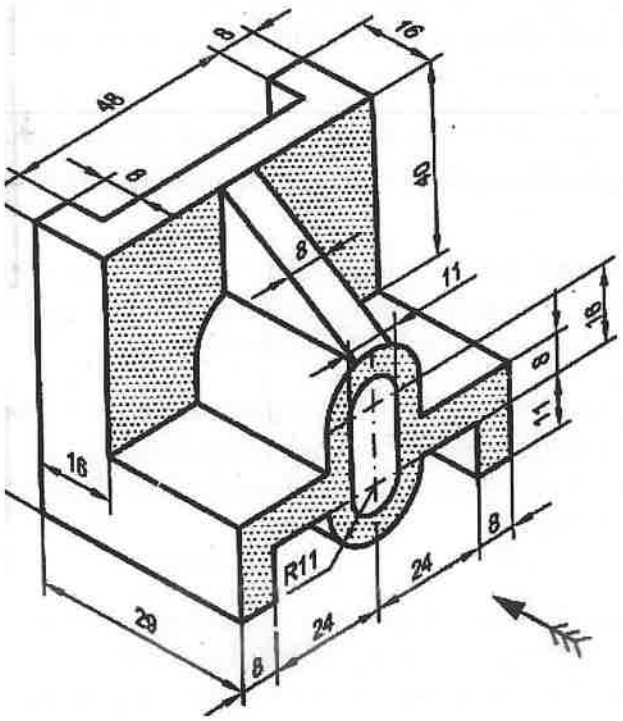


Figure 2 (All dimensions are in mm)