

Code No: R05010107

R05**Set No. 2**

of the cone. Draw the development of the lateral surface of the truncated portion of the cone. [16]

7. A circle of 60 mm diameter rolls on a horizontal line for half a revolution clock - wise and then on a line inclined at 60 degrees to the horizontal for another half, clock - wise. Draw the curve traced by a point P on the circumference of the circle, taking the top most point on the rolling circle as generating point in the initial position. [16]
8. Three lines OA, OB and OC are respectively 25 mm, 45 mm 65 mm long, each making 120 degrees angles with the other two and the shortest line being vertical. The figure is the top view of the three rods OA, OB and OC whose ends A, B and C are on the ground, while O is 100 mm above it. Draw the front view and determine the length of each rod and its inclination with the ground. [16]

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R05**Set No. 4**

I B.Tech Examinations, December 2010

ENGINEERING GRAPHICS

Common to CE, ME, MECT, MEP, AE, AME, MMT

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. A circle of 60 mm diameter rolls on a horizontal line for half a revolution clock - wise and then on a line inclined at 60 degrees to the horizontal for another half, clock - wise. Draw the curve traced by a point P on the circumference of the circle, taking the top most point on the rolling circle as generating point in the initial position. [16]
2. A vertical cone of 40 mm diameter of base and height 50 mm is cut by a cutting plane perpendicular to V.P and inclined at 30° to the H.P so as to bisect the axis of the cone. Draw the development of the lateral surface of the truncated portion of the cone. [16]
3. Draw the isometric view of a cone 40 mm diameter and axis 55 mm long when its axis is horizontal. Draw isometric scale. [16]
4. A right regular square pyramid, base edge 30 mm and height 32 mm is resting on ground plane on its base. Its base edge, nearer to the picture plane, parallel to and 25 mm behind the picture plane. The station point is 38 mm in front of the picture plane and 25 mm above the ground plane. The central plane containing station point, is 30 mm to left of vertex? Draw perspective view of pyramid. [16]
5. Draw the elevation, plan and side view of the picture shown in the figure2. All the dimensions in the figure are in mm. [16]

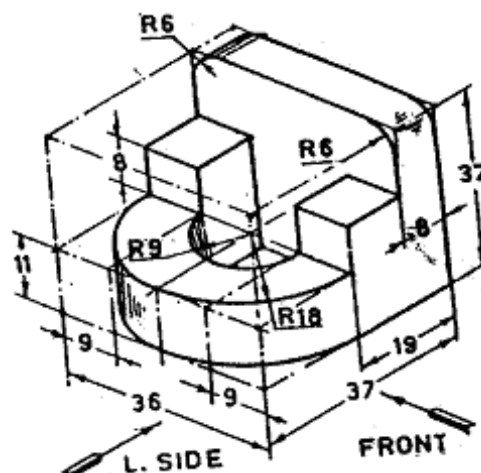


Figure 2

6. Construct a vernier scale to read distances correct to a decameter on a map in which the actual distances are reduced in the ratio of 1:40000. The scale should

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be long enough to measure 6 kilometers. Mark on the scale the lengths of 3.34 km and 0.57 km. [16]

7. Three lines OA, OB and OC are respectively 25 mm, 45 mm 65 mm long, each making 120 degrees angles with the other two and the shortest line being vertical. The figure is the top view of the three rods OA, OB and OC whose ends A, B and C are on the ground, while O is 100 mm above it. Draw the front view and determine the length of each rod and its inclination with the ground. [16]
8. A hexagonal prism of base of side 30mm and axis length 70mm rests on one of its corners on the HP, the two edges of the base containing the corner being equally inclined to the HP. The axis is inclined at 30° to the HP and parallel to VP. The prism is cut by a plane perpendicular to the VP and inclined at 45° to the HP. The cutting plane meets the axis at a distance 34 mm from the top end. Draw its front, the sectional top views and the true shape of the section. [16]

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R05**Set No. 1****I B.Tech Examinations, December 2010****ENGINEERING GRAPHICS****Common to CE, ME, MECT, MEP, AE, AME, MMT****Time: 3 hours****Max Marks: 80****Answer any FIVE Questions****All Questions carry equal marks**

1. A hexagonal prism of base of side 30mm and axis length 70mm rests on one of its corners on the HP, the two edges of the base containing the corner being equally inclined to the HP. The axis is inclined at 30° to the HP and parallel to VP. The prism is cut by a plane perpendicular to the VP and inclined at 45° to the HP. The cutting plane meets the axis at a distance 34 mm from the top end. Draw its front, the sectional top views and the true shape of the section. [16]
2. A vertical cone of 40 mm diameter of base and height 50 mm is cut by a cutting plane perpendicular to V.P and inclined at 30° to the H.P so as to bisect the axis of the cone. Draw the development of the lateral surface of the truncated portion of the cone. [16]
3. Construct a vernier scale to read distances correct to a decameter on a map in which the actual distances are reduced in the ratio of 1:40000. The scale should be long enough to measure 6 kilometers. Mark on the scale the lengths of 3.34 km and 0.57 km. [16]
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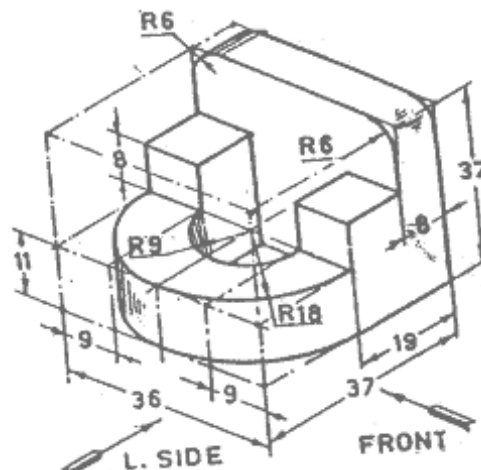


Figure 2

5. Three lines OA, OB and OC are respectively 25 mm, 45 mm 65 mm long, each making 120 degrees angles with the other two and the shortest line being vertical. The figure is the top view of the three rods OA, OB and OC whose ends A, B and C are on the ground, while O is 100 mm above it. Draw the front view and determine the length of each rod and its inclination with the ground. [16]

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6. A circle of 60 mm diameter rolls on a horizontal line for half a revolution clock - wise and then on a line inclined at 60 degrees to the horizontal for another half, clock - wise. Draw the curve traced by a point P on the circumference of the circle, taking the top most point on the rolling circle as generating point in the initial position. [16]
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8. Draw the isometric view of a cone 40 mm diameter and axis 55 mm long when its axis is horizontal. Draw isometric scale. [16]

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R05**Set No. 3**

6. A right regular square pyramid, base edge 30 mm and height 32 mm is resting on ground plane on its base. Its base edge, nearer to the picture plane, parallel to and 25 mm behind the picture plane. The station point is 38 mm in front of the picture plane and 25 mm above the ground plane. The central plane containing station point, is 30 mm to left of vertex? Draw perspective view of pyramid. [16]
7. Draw the isometric view of a cone 40 mm diameter and axis 55 mm long when its axis is horizontal. Draw isometric scale. [16]
8. Construct a vernier scale to read distances correct to a decameter on a map in which the actual distances are reduced in the ratio of 1:40000. The scale should be long enough to measure 6 kilometers. Mark on the scale the lengths of 3.34 km and 0.57 km. [16]
