Code.No: 09A10591 | R09 | SET-1

I B.TECH – EXAMINATIONS, JUNE - 2011
ENGINEERING DRAWING

Time: 3hours **Max.Marks:75**

Answer any FIVE questions
All questions carry equal marks
- - -

1. A room of 1728 cu.m. in volume is shown by a cube of 216 cu.cm. volume. Find R.T. construct a plain scale to measure up to 40 m. Mark on it a distance of 28 m. [15]

2. Draw a hypo cycloid of a circle of 40 mm. diameter which rolls inside another circle of 160 mm diameter for one complete revolution. [15]

3. A pentagon of side 30 mm is resting on an edge in H.P, such that it makes an angle of 50^0 with V.P and its surface makes an angle of 30^0 with H.P. Draw the projections. [15]

4. The projectors of the ends of a line AB are 55 mm apart. The end 'A' is 35 mm above HP and 40 mm in front of V.P. The end 'B' is 15 mm below the H.P and 45 mm behind V.P. Determine true length and its inclinations with two planes. [15]

5. A square pyramid of 30 mm side and 60 mm height is resting on one of its triangular faces in H.P, such that the edge containing that face makes an angle of 30^0 with V.P. Draw the projections of the pyramid. [15]

6. A cone of 40 mm diameter axis 65 mm long is resting on its apex in H.P so that the axis makes an angle of 45^0 with H.P and top view of axis makes an angle of 30^0 with xy line. Draw the projections. [15]

7. A cone of 3 cm diameter 4 cm height is placed centrally on the top of a square prism of 5 cm side and height 4 cm. Draw the Isometric Projection of the combination of the solids. [15]

8. Draw the front view, top view & side view of the object shown in figure 1. All dimensions are in mm. [15]

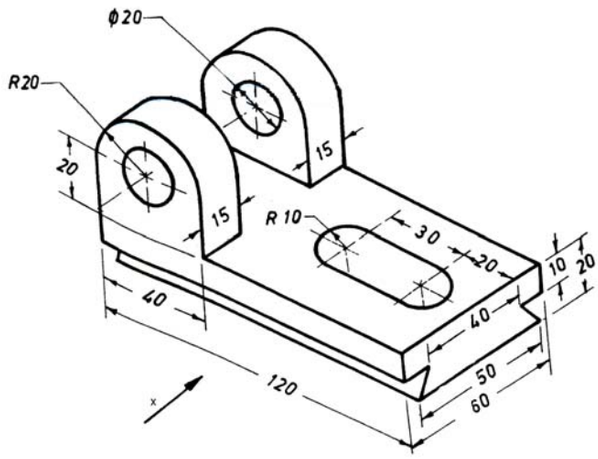


Fig: 1

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Code.No: 09A10591 | R09 | SET-2

I B.TECH – EXAMINATIONS, JUNE - 2011
ENGINEERING DRAWING

Time: 3hours **Max.Marks:75**

Answer any FIVE questions
All questions carry equal marks

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1. Construct a diagonal scale of $R.F = \frac{1}{2000}$ to show meters and long enough to measure up to 300 m. Mark on it a distance of 257 m. [15]

2. A circle of 50 mm diameter rolls on a straight line without slipping. Draw the locus of a point on the circumference of the circle for one complete revolution. Draw tangent and normal to the curve 15 mm above the axis. [15]

3. A Rhombus of diagonals 120 mm & 80 mm is resting on one of its corners in H.P such that the longer diagonal is inclined at 30^0 to H.P and the shorter diagonal is parallel to both the planes. [15]

4. The top view of a 75 mm long line measures 60 mm, while its front view is 55 mm. Its one end A is 10 mm above H.P and 15 mm in front of V.P. Draw the projections of the line and determine its inclinations with H.P & V.P. [15]

5. A Hexagonal pyramid of the base 30 mm and axis 65 mm long is resting on an edge of the base in H.P, and makes an angle of 45^0 with V.P, and axis of the pyramid makes an angle of 30^0 with H.P. Draw the projections of pyramid. [15]

6. A cone of 40 mm diameter and axis 65 mm long is resting on a point on the circumference of the base circle in V.P so that the axis makes an angle of 40^0 with V.P and the front view of the axis makes an angle of 30^0 with H.P. Draw the projections. [15]

7. A square pyramid of 2 cm side height 4 cm is placed centrally on the top of a cylinder of 40 mm diameter & height 60 m. Draw the Isometric projection of the compound solids. [15]

8. Draw the front view, top view & side view of the object shown in figure1. All dimensions are in mm. [15]

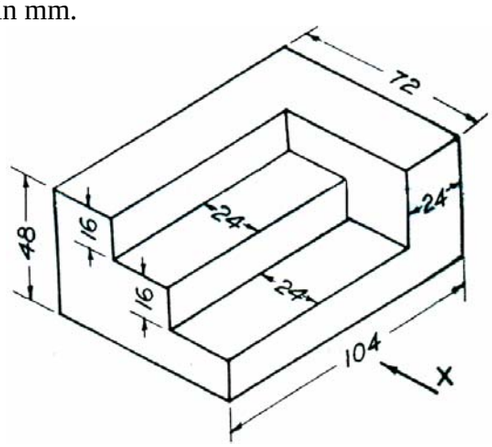


Fig:1

Code.No: 09A10591 | R09 | SET-3

I B.TECH – EXAMINATIONS, JUNE - 2011
ENGINEERING DRAWING

Time: 3hours **Max.Marks:75**

Answer any FIVE questions
All questions carry equal marks
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1. Construct a vernier scale of 1:2 to show decimeters, centimeters, millimeters and long enough to read up to 4 decimeters. Mark on it a distance of 2.38 decimeters on the scale. [15]

2. A circle of 50 mm diameter rolls on a straight line, with out slipping. Draw the locus of a point on the circumference of the circle for one revolution. Name the curve. Draw the tangent & normal to the curve at a point 2 cm below the axis. [15]

3. A hexagon of 30 mm side is resting on one edge in V.P and making an angle of 30^0 to H.P. Its surface makes an angle of 45^0 to V.P. Draw the projections. [15]

4. A line AB of 75 mm long has its end 'A' 20 mm above H.P and 15 mm in front of V.P. The line is inclined at 30^0 to H.P. and 50^0 to V.P. Draw the projections & find the traces. [15]

5. Draw the projections of a square pyramid resting on one of its triangular faces in V.P, such that the edge contained by that face makes an angle of 30^0 with H.P. Draw the projections. [15]

6. A cone diameter of base 40 mm and axis 70 mm long is lying on H.P on one of its generators with the top view of the axis inclined at 40^0 to V.P. Draw the Projections. [15]

7. Draw the Isometric projection of a frustum of cone of top face diameter 40 mm and diameter of base 60 mm with a height of 60 mm, when it is resting on its base. [15]

8. Draw the front view, top view & side view of the object shown in figure 1. All dimensions are in mm. [15]

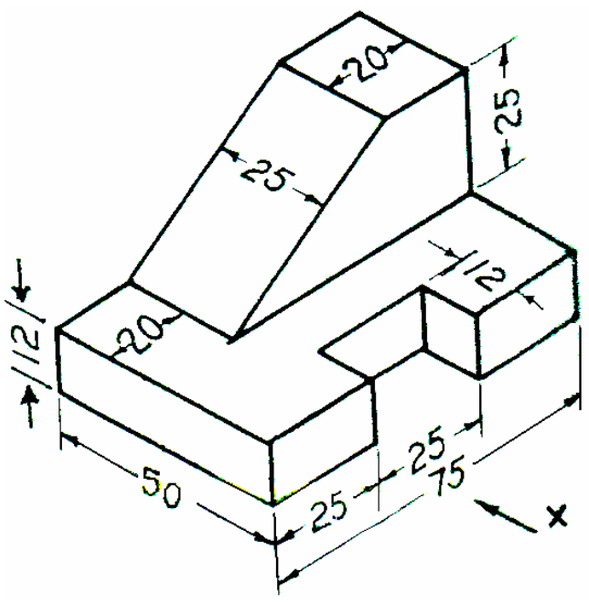


Fig: 1

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Code.No: 09A10591 | R09 | SET-4

I B.TECH – EXAMINATIONS, JUNE - 2011
ENGINEERING DRAWING

Time: 3hours **Max.Marks:75**

Answer any FIVE questions
All questions carry equal marks
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1. An area of 144 sq.cm on the map represents an area of 36 sq.km on the field. Find R.F and draw a diagonal scale to show kilometers, hectometers & decameters and to measure up to 10 km. Indicate on this scale 7.58 km. [15]

2. Draw an epi-cycloid of circle of 40 mm diameter which rolls outside another circle of 120 mm diameter for one revolution. [15]

3. Draw the projections of a circle of 50 mm diameter having a point on the circumference of the circle in H.P, such that its surface makes an angle of 40^0 with H.P. and the top view of the diameter passing through that point makes an angle of 30^0 with V.P. Draw the projections. [15]

4. The mid-point of a straight line AB is 60 mm above H.P and 50 mm in front of V.P. The line measures 80 mm and inclined at 30^0 to H.P & 45^0 to V.P. Draw the projections. [15]

5. A tetrahedron of 60 mm long edges is resting on one of edges in H.P and inclined at 40^0 to V.P, while the face containing that edge is vertical. Draw the projections. [15]

6. Draw the projections of a cylinder base 40 mm diameter and axis 70 mm long resting on H.P on a point on its base circle with the axis making an angle of 45^0 with H.P and top view of axis makes an angle of 30^0 with xy line. [15]

7. A Hollow cylinder of 50 mm external diameter with a thickness of 10 mm and axis 70 mm long is resting on its base. Draw the Isometric projection of hollow cylinder. [15]

8. Draw the front view, top view & side view of the object shown in figure 1. All dimensions are in mm. [15]

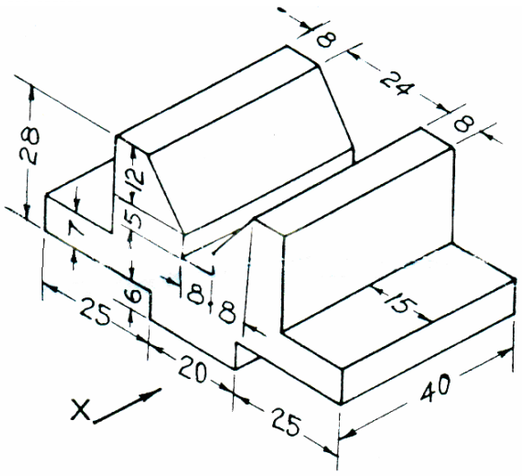


Fig: 1

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