

Code: 13A03101

B.Tech I Year (R13) Supplementary Examinations December 2017

ENGINEERING DRAWING

(Common to CE and ME)

Time: 3 hours

Max. Marks: 70

(Answer all five units, 05 X 14 = 70 Marks)

UNIT - I

- 1 A cricket ball is thrown vertically up, it reaches a maximum height of 15 meters and falls on the ground at a distance of 30 meters from point of projection of the ball till it reaches the ground. Draw the path followed by the cricket ball and name the curve. Draw normal and tangent at any point on the path of the curve.

OR

- 2 A circle of 40 mm diameter rolls on circumference of another circle of 150 mm diameter. Draw a curve traced out by a point P on the circumference of rolling circle for one complete revolution. Name the curve and draw tangent and normal to the curve at any point.

UNIT - II

- 3 The distance between the end projectors of a line AB is 50 mm. Point A is 15 mm above H.P and 10 mm in front of V.P. Point B is 40 mm above H.P and 40 mm in front of V.P. Find the true length of the line AB, the inclinations of the line AB with H.P and V.P. Locate HT and VT of the line.

OR

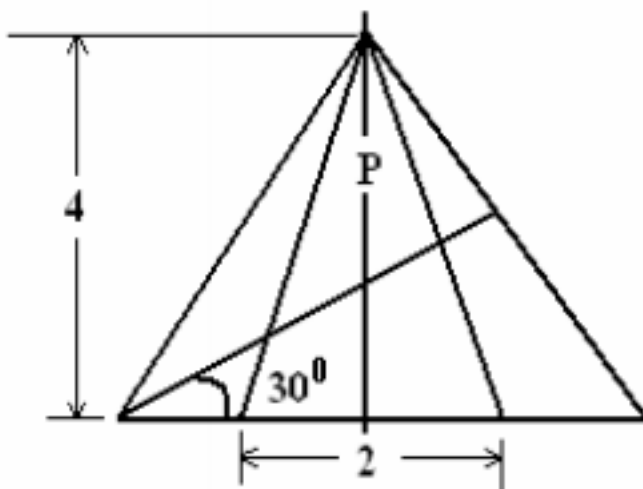
- 4 Draw the projections of a circle of 50 mm diameter resting in the H.P on a point A on the circumference, its plane inclined at 45 degrees to the H.P and the diameter AB making 30 degrees angle with the V.P. Also show its traces.

UNIT - III

- 5 A hexagonal pyramid of base 30 mm and axis 60 mm has one of its slant edges on the H.P and inclined at 45° to the V.P. Draw its projections when the base is visible.

OR

- 6 Draw the development of the lateral surface of the part P of the hexagonal pyramid, two sides of the base parallel to the V.P as shown in figure. All dimensions are in cm.

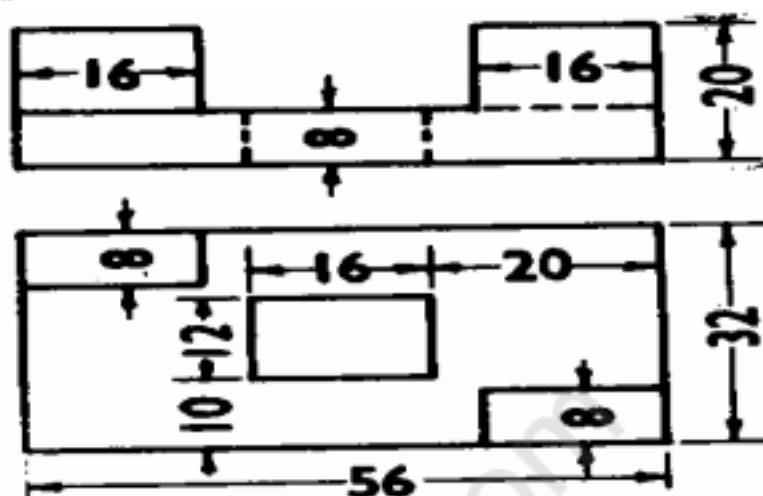


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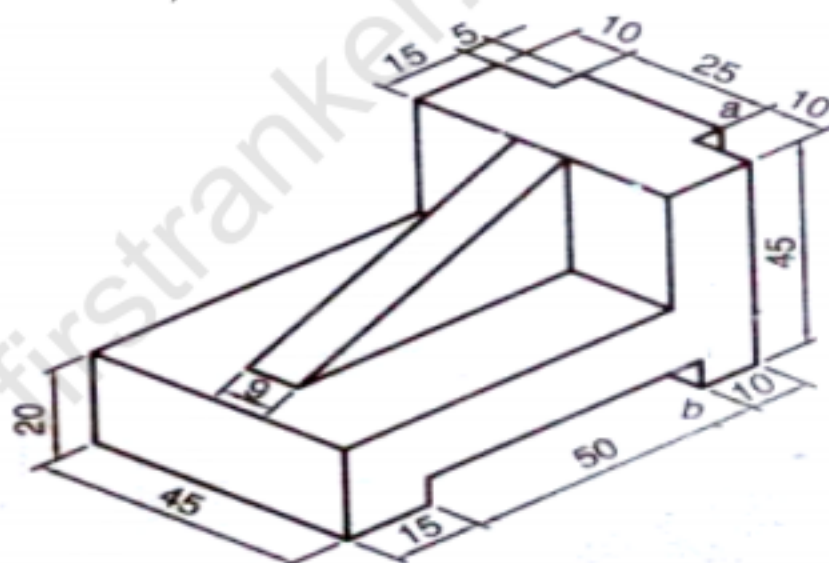
UNIT – IV

- 7 Draw the isometric view of the object whose orthographic projections are given in the figure below. All dimensions are in mm.



OR

- 8 Draw the front view, top view and side view of the object whose isometric view is shown in the figure below (All dimensions are in mm).


UNIT – V

- 9 A cone base 60 mm diameter and axis 70 mm long, rests with its base on H.P. It is penetrated by a horizontal cylinder of 36 mm diameter. The axis of the cylinder is parallel to V.P., 25 mm above the base and 8 mm in front of the axis of the cone. Draw the curves of intersection.
- OR
- 10 A pentagonal lamina of 30 mm sides stands vertically on the ground plane with one of its corners on the ground such that the side opposite to this corner is parallel to the ground plane. The lamina is inclined at 30° to the picture plane. The corner nearest to the picture plane is 20 mm behind it. The station point is 40 mm in front of the picture plane, 55 mm above the ground plane and passes through the centre of the lamina. Draw the perspective view.
