

Code: 9A03101

R09

B.Tech I Year (R09) Supplementary Examinations June 2017

ENGINEERING DRAWING

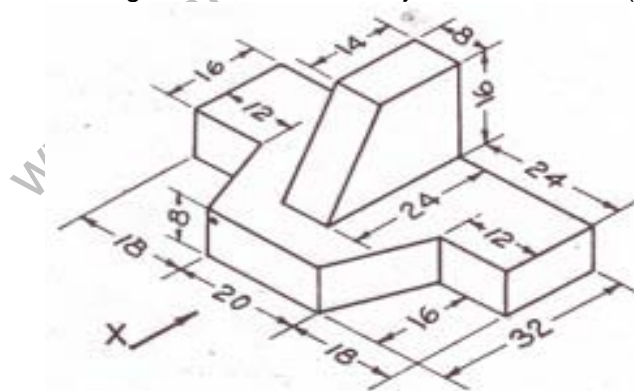
(Common to all branches)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Inscribe a regular octagon in a given square of 50 mm side.
(b) Construct a parabola with base 60 and length of the axis 40. Draw a tangent to the curve at point 20 from the base. Also locate the focus and directrix to the parabola.
- 2 A line AB 120 mm long is inclined at 45° to HP and 30° to the VP. Its mid-point C is in VP and 20 mm above HP. The end A is in third quadrant and B is in first quadrant. Draw the projections of the line.
- 3 (a) A square lamina of 40 mm side is perpendicular to H.P one of its sides is 20 mm above H.P and 15 mm in front of V.P. Draw its projections.
(b) A square lamina of 40 mm is perpendicular to both planes. Draw projections with lamina is 25 mm above H.P and 40 mm in front of V.P.
- 4 (a) A rectangular prism side of base 40 mm x 25 mm and height 60 mm rests with its base on H.P such that one of its larger rectangular faces is parallel to V.P. Draw its projections.
(b) A cube of 40 mm side rests with one of its square faces on H.P such that one of its vertical faces is perpendicular to V.P. Draw its projections.
- 5 (a) A pentagonal prism of side of base 25 mm and axis 40 mm long is resting on HP on a corner of its base. Draw the projections of the prism, when the base is inclined at 60° to HP and the axis appears to be inclined at 30° to VP.
(b) A hexagonal prism of base 25 mm side and axis 45 mm long, is positioned with one of its base edges on HP such that, the axis is inclined at 30° to HP and 45° to VP. Draw its projections.
- 6 Draw the front view, top view and right side view of the object shown below (dimensions in mm).



- 7 A vertical square prism, base 50 mm side has its faces equally inclined to the V.P. It is completely penetrated by another square prism of base 30 mm side, the axis of which is parallel to both the planes and is 6 mm away from the axis of the vertical prism. The faces of the horizontal prism also are equally inclined to the V.P. Draw the projections of the solids showing lines of intersection.
- 8 A pentagonal plane with a 30 mm side stands vertically on the GP on an edge and a corner touching the PP. The surface of the plane makes an angle of 30° with the PP. The station point is 60 mm in front of PP, 75 mm above GP and lies in a CP which is at a distance of 40 mm towards right of the centre of the plane. Draw its perspective view.
