

Code: 9A03101

R09

B.Tech I Year (R09) Supplementary Examinations June 2016

ENGINEERING DRAWING

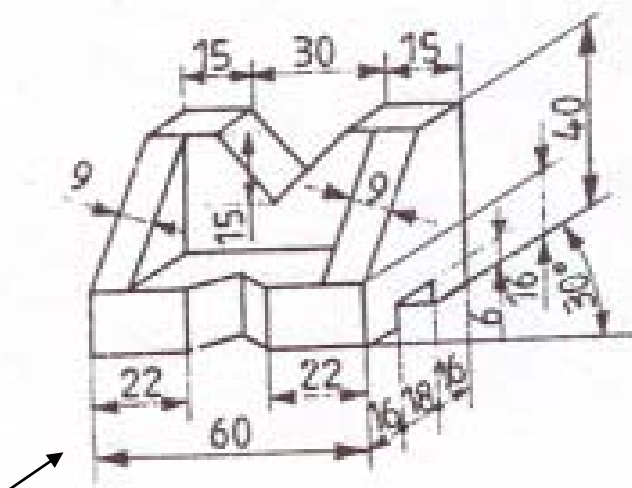
(Common to all branches)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Draw the path traced out by a point on a circumference of circle when it rolls without slip on vertical surface, for the distance equal to the perimeter of the circle of diameter of 40 mm.
- 2 (a) A line MN 50 mm long is parallel to VP and inclined at 45° to HP. The end M is 20 mm above HP and 15 mm in front of VP. Draw the projections of the line and find its traces.
(b) Draw the projections of a straight line AB of 100 mm long when one of its ends is touching the VP and the other end touching HP. The angles of inclination with HP and VP are 40° and 50° respectively.
- 3 (a) A rectangular lamina of sides 40 mm X 30 mm is perpendicular to both HP and VP. Draw its projections
(b) Draw the projections of a pentagonal plane figure of side 28 mm resting with one of its edges on HP. Such that the plane figure is inclined at 30° to HP perpendicular to VP.
- 4 (a) 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.
(b) 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.
- 5 A square prism of 40 mm side and 60 mm height rests on its base on HP such that the vertical faces are equally inclined to VP. A horizontal hole of 40 mm diameter is drilled through the geometrical center of the prism with the axis perpendicular to VP. Develop the lateral surface of the prism.
- 6 Convert the part shown in the pictorial view below into orthogonal projections of three views (dimensions in mm).



- 7 A vertical square prism of side of base 60 mm is penetrated by a horizontal triangular prism of 40 mm side. The axes are 5 mm apart. One rectangular face of the vertical prism is inclined at an angle of 60° to VP, while that of the horizontal prism is parallel to VP. Draw the projections showing the lines of intersection.
- 8 Draw the perspective view of a pentagonal plane with 30 mm long side perpendicular to the PP. It is placed on GP with its centre 50 mm behind PP. The station point is 50 mm in front of the PP, 65 mm above GP and lies in a CP which is 50 mm to the right of the centre of the pentagon.