

Code: CE1T5, ME1T5, AE1T5

**I B. Tech - I Semester – Regular/Supplementary Examinations  
December 2016**

**ENGINEERING DRAWING  
(Common for CE, ME & AE)**

Duration: 3 hours

Max. Marks: 70

Answer any *FIVE* questions. All questions carry equal marks

5 x 14 = 70 M

1. Construct a parabola when the distance between focus and the directrix is 40 mm. Draw a tangent and normal at any point P on your curve. 14 M
2. Draw a hypo cycloid. The diameter of the rolling circle is 36mm and the diameter of the base circle is 108 mm. Draw a tangent and normal at any point on the curve. 14 M
3. A line PQ 75 mm long has its end P in both H.P. and V.P. It is inclined at an angle of  $30^{\circ}$  to H.P. and  $45^{\circ}$  to V.P. Draw the projection of the line. 14 M
4. A thin circular metal plate of 48 mm diameter, having its plane vertical and inclined at  $40^{\circ}$  to V.P. Its center is 38 mm above H.P. and 25 mm in front of V.P. Draw its projection. 14 M

5. Draw the projection of a regular pentagonal prism, side of the base 30 mm and axis 60 mm long resting with its base on H.P. such that one of its rectangular faces is parallel to and 10 mm in front of V.P. 14 M
6. A cube of 45 mm side rests with a face on H.P. such that one of its vertical faces is inclined at  $30^\circ$  to V.P. A section plane, parallel to V.P. cuts the cube at a distance of 15 mm from the vertical edge nearer to the observer. Draw its top and sectional front views. 14 M
7. Draw the isometric view of a hexagonal pyramid, with side of base 25mm and axis 60mm long, the Pyramid is resting on its base on H.P. with an edge of the base parallel to V.P. 14 M
8. Draw the orthographic projections for the given isometric view in below figure. All dimensions are in mm. 14 M

