

CODE: 17CA03201

B. Tech I Year II Semester (R17) Regular Examinations, May/June - 2018

ENGINEERING DRAWING

(ME)

Time: 3 hours

Max Marks: 70

Answer all **FIVE** units (5 x 14 = 70 Marks)

UNIT-I

1. Draw an ellipse of eccentricity $e=2/3$, the distance of the focus from the directrix is 50mm
OR
2. A circle of 50mm diameter rolls along a line. A point on the circumference of the circle is in contact with the line in the beginning and after one complete revolution. Draw the cycloidal path of the point. Draw a tangent and normal at any point on the curve

UNIT-II

3. A point P is 40 mm in front of VP, 50 mm above HP and 30 mm in front of left PP. Draw the three principal views of the point.
OR
4. A line AB is 80 mm long and the end A is 15 mm above H.P and 10 mm in front of V.P. The line is inclined at 30° with H.P. and 45° with V.P. Draw the projections of the line

UNIT-III

5. A pentagonal plate of side 60 mm is held on V.P. on one of its corner. The edge opposite to that corner makes an angle of 25° with the H.P. The flat surface of pentagon is inclined at 40° to the V.P. Draw the projections.
OR
6. A circular lamina of 60mm diameter rests on HP such that the surface of the lamina is inclined at 30° to HP. The diameter through the point on which the lamina rests on HP, appears to be inclined at 30° to VP in the top view. Draw its projections

UNIT-IV

7. A cone of diameter of base 60 mm and axis length equal to 100 mm rests on one of its slant generators on H.P. such that its axis appears to be inclined at an angle of 65° with the V.P. Keep its apex near to the V.P.
OR
8. One cuboid of side of 40 mm x 60 mm x 40 mm is resting on its longer side on H.P. & one of the longer surfaces of the cuboid is parallel to V.P. It is cut by a cutting plane which is perpendicular to V.P. and inclined to H.P. such that it passes diagonally from one corner of the top to the opposite corner of the bottom. Develop the lateral surface of the cuboid

UNIT-V

9. A right circular cone of diameter of base 50 mm and height 65 mm rests on the top of the frustum of a square pyramid having dimensions of top and bottom square faces as 60 mm and 80 mm respectively. The height of frustum is 50 mm. Draw the isometric projection of the combined solid when the axes of the solids are coaxial
OR
10. A sphere of diameter 40 mm lies on the centre of the top face of the square pyramid of 60mm side and axis 40mm. Obtain the isometric projection of the combined solid.
