

Code: 15A03101a

B.Tech I Year II Semester (R15) Regular &amp; Supplementary Examinations May 2018

**ENGINEERING DRAWING**

(Common to ECE &amp; EIE)

Time: 3 hours

Max. Marks: 70

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

\*\*\*\*\*

**UNIT – I**

- 1 Construct a parabola when the distance between focus and the directrix is 40 mm. Draw tangent and normal at any point P on the curve.
- OR**
- 2 Draw an epi-cycloid generated by a rolling circle of 60 mm diameter for one complete revolution. The radius of the directing circle is 100 mm. Draw a tangent and a normal to the curve at 150 mm from the centre of the directing circle.

**UNIT – II**

- 3 A cube of 5cm sides represented a tank of  $1000\text{m}^3$  volume. Find the R.F and construct a scale to measure up to 35 m and mark a distance of 27 m on it.
- OR**
- 4 A train is moving at the rate of 1.2 km per minute construct a scale with scale factor  $1/25,000$ , showing minutes and seconds. Indicate on it, the distance moved by the train in 4 minutes and 27 seconds.

**UNIT – III**

- 5 The mid-point of a straight line AB is 60 mm above the H.P and 50 mm in front of V.P. The line measures 80 mm long and inclined at an angle of  $30^\circ$  to the H.P and  $45^\circ$  to the V.P. Draw its projections.
- OR**
- 6 A circle of 40 mm diameter is resting on H.P, on a point, with its surface inclined at  $30^\circ$  to H.P. Draw the projections of the circle, when the top view of the diameter, through the resting point, makes an angle of  $45^\circ$  with reference line.

**UNIT – IV**

- 7 A pentagonal prism of side of base 25 mm and axes 40 mm long is resting on H.P on a corner of its base. Draw the projections of the prism, when the base is inclined at  $60^\circ$  to H.P and the axis appears to be inclined at  $30^\circ$  to V.P.
- OR**
- 8 A cone of base 50 mm diameter and 60 mm long axes is resting on its base on H.P. It is cut by a section plane perpendicular to V.P and parallel to an extreme generator and passing through a point on the axis at a distance of 20 mm from the axis. Draw the development of the retained solid.

**UNIT – V**

- 9 Draw an isometric view of a cylinder, with a 50 mm base diameter and a 70 mm long axes. When axes is (i) vertical. (ii) Horizontal.
- OR**
- 10 Pictorial view of an object is shown in below figure. Using first angle projection draw its:  
(a) Front view.  
(b) JOP view.  
(c) Side view.

