

Code: 15A03101b

B.Tech I Year II Semester (R15) Regular &amp; Supplementary Examinations May/June 2017

**ENGINEERING DRAWING**

(Common to ME and IT)

Time: 3 hours

Max. Marks: 70

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

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**UNIT – I**

- 1 The vertex of a hyperbola is 65 mm from its focus. Draw the curve if the eccentricity is unity. Name the curve and draw a normal and tangent to the curve at a point on it 70 mm from the directrix.

**OR**

- 2 Construct an epicycloid, rolling circle 50 dia and directing circle 150 dia. Draw a tangent to it at any point 50 on it.

**UNIT – II**

- 3 Construct a diagonal scale to read meters, tenths of a meter and centimeters to a scale of 1/50. Mark on this scale a distance of 4.47 m.

**OR**

- 4 (a) A point A is located in the Third quadrant. The shortest distance line drawn from the point A to the intersection of HP and VP is 40 and this line is inclined at  $40^\circ$  to the VP. Draw the front and top views of the point A.  
(b) A point B is lying in the fourth quadrant. The shortest distance of the point from intersection of HP and VP is 55. If the point is 30 behind VP, draw the front and top views of the point B.

**UNIT – III**

- 5 A line AB, 90 long is inclined at  $45^\circ$  to the HP and its top view makes an angle of  $60^\circ$  with xy. The end A is in the HP and 15 in front of VP. Draw its front and top views and find its true inclination with the VP.

**OR**

- 6 A regular pentagon, length of side 30, has one of its corners on the VP and its surface inclined to the VP at  $60^\circ$ . The edge, opposite to the corner on the VP, makes an angle of  $45^\circ$  with the HP. Draw the projections of the plane.

**UNIT – IV**

- 7 A square pyramid, base 40 side and axis 90 long has a triangular face on the ground and the vertical plane containing the axis makes an angle of  $45^\circ$  with the VP. Draw its projection.

**OR**

- 8 Draw the development of an octagonal pyramid of base side 40 and axis 70.

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