

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-II Examination June- 2010****Subject code: 110013****Subject Name: Engineering Graphics****Date: 25 /06 /2010****Time: 02.30 pm – 05.30 pm****Total Marks: 70****Instructions :**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Retain all the construction lines and show the required dimensions.
5. Take suitable scale whenever required and mention it clearly.
6. Assume additional data if required and mention it clearly.
7. Figures drawn in the question paper are not to the scale.

Q.1 Fig. – 1 shows pictorial view of an object. Draw following views **14**
 (a) Sectional Elevation from – X (b) Plan and (c) Right hand side view

Q.2 (a) In a slider crank chain OBA as shown in **Figure – 2**, the crank OB is 350 mm long and the connecting rod BA is 1050 mm long. Plot the loci of point P and Q where point P is on the connecting rod 350 mm from B and point Q is on extension of C.R. BA and 450 mm from A. **07**

(b) The major axis and the minor axis of Ellipse are 125 mm and 75 mm. Construct half ellipse by Oblong method and another half by Concentric circle method. **07**

OR

(b) Draw a cycloid for a rolling circle, of 60 mm diameter rolling along a straight line without slipping. Take initial position of the tracing point at the bottom of the vertical centre line of the rolling circle. Draw tangent and normal to the curve at a point 35 mm above the directing line. **07**

Q.3 Draw the projections of a regular Hexagonal plane of 30 mm side having one of its sides on the H.P. and inclined at 60 degree to V.P. and its surface making an angle of 45 degree with H.P. **14**

OR

Q.3 Fig – 3 shows the elevation of cut Hexagonal Prism, cut by curved and flat cutting planes. Draw the complete development of the prism. **14**

Q.4 A cone diameter of base 60 mm and height 90 mm is resting on H.P. on the point of periphery of the base. Axis of the cone makes 60 degree with the H.P. and 30 degree with the V. P. Draw the projections of the cone, when the apex is nearer to observer. **14**

OR

