

**I B. Tech I Semester Supplementary Examinations, May/June - 2017****ENGINEERING DRAWING**

(Com. to CSE, IT, AGE)

Time: 3 hours

Max. Marks: 70

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- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answering the question in **Part-A** is Compulsory  
 3. Answer any **FOUR** Questions from **Part-B**
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**PART -A**

1. a) A line AB 25 mm long is perpendicular to V.P. and parallel to H.P. Its end A is 10 mm in front of V.P. and the line is 20 mm above H.P. Draw the projections of the line. (4M)
- b) Draw the projections of the following points on the same ground line, keeping the Projectors 30 mm apart. (4M)
  - i) Point A, on the H.P. and 45 mm behind the V.P.
  - ii) Point B, on the H.P. and 35 mm in front of the V.P.
- c) Draw the isometric view of a pentagonal prism, with side of base 30 mm and length of axis 60 mm, when its axis is horizontal. (6M)

**PART -B**

2. a) Construct a parabola with a base 60 mm and length of the axis 40 mm. Draw a tangent to the curve at a point 20 mm from the base. Also locate the focus and directrix to the parabola by rectangular method. (7M)
- b) A room of 1000 m<sup>3</sup> volume is represented by a block of 125 cm<sup>2</sup> volume. Find R.F. and construct a plain scale to measure upto 30 m. Measure a distance of 18 m on the scale. (7M)
3. a) A point P is 25 mm in front of the V.P. and 40 mm above the H.P. Another point Q is 40 mm in front of the V.P. and 25 mm above the H.P. The distance measured between the projectors is 40 mm. Draw the projections and find the distance between P and Q. (7M)
- b) The front view of a line which is inclined at 30<sup>0</sup> to VP, is 65 mm long. Draw the projections of the line when it is parallel to and 30 mm above HP; its one end being 30 mm in front of VP. (7M)

4. a) The front view of a 125 mm long line PQ measures 80 mm and its top view measures 100 mm. Its end Q and the mid-point M are in the first quadrant, M being 20 mm from both the planes. Draw the projections of the line PQ. (7M)
- b) A straight line AB of 75 mm long has the end A on VP and the end B on HP. (7M)  
The line is inclined at  $30^\circ$  to VP and its front view makes an angle of  $45^\circ$  with xy. Draw the projections of the line and add the left side view and locate the traces.
5. a) A pentagonal plate of 35 mm side is perpendicular to V.P and parallel to H.P. (7M)  
One of its edges is perpendicular to V.P. Draw its projections.
- b) A regular hexagon of 40mm has one of the side in the V.P. and inclined at  $60^\circ$  to H.P. Its surface is inclined at  $45^\circ$  to the V.P. Draw its projections. (7M)
6. a) A hexagonal pyramid, base 25 mm side and axis 65 mm long, has an edge of its base on the ground. Its axis is inclined at  $30^\circ$  to the ground and parallels to the V.P. Draw its projections. (7M)
- b) A pentagonal prism is resting on one of the corners of its base on the HP. The longer edge containing that corner is inclined at  $30^\circ$  and the vertical plane containing that edge is inclined at  $45^\circ$  to the VP. Draw the projections of the solid. (7M)
7. Two views of a casting are shown in figure. Draw the isometric view of the casting (all dimensions are in mm). (14M)

