

**Subject Code: R13109/R13**

**Set No - 1**

**I B. Tech I Semester Supplementary Examinations May/June - 2016**

**ENGINEERING DRAWING**

**(Common to ECE, EIE, BioTech, EComE, Agri.E)**

**Time: 3 hours**

**Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**  
Answering the question in **Part-A** is Compulsory,  
Three Questions should be answered from **Part-B**

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**PART-A**

1. (a) A point 25 mm above XY line is the front view of two points E and F. The top view of E is 30 mm behind VP, and the top view of F is 40 mm in front of VP. Draw the projections of the two points and state their positions with reference planes and quadrants in which they lie.
- (b) A pentagonal pyramid has an altitude of 65 mm and side of base 25 mm. The pyramid rests on its apex on VP such that one of the triangular faces is perpendicular to both VP and HP. Draw the top and front views.
- (c) Sketch the truncated cone such that the section surface which gives the hyperbola.

[6+12+4]

**PART-B**

2. Construct a vernier scale to read distance correct to decameter on a map in which the actual distances are reduced in the ratio of 1:40000. The scale should be long enough to measure up to 6 km. Mark on the scale a length of 3.34 km and 0.59 km.  
[16]
3. (a) Draw the orthographic projections of the following points:
  - (i) Point P is 25 mm above HP and 35 mm behind VP
  - (ii) Point Q is in VP and 40 mm below HP
  - (iii) Point R is in HP and 30 mm behind VP
  - (iv) Point S is 32 mm below HP and 45 mm behind VP
- (b) A line AB 45 mm long is in VP and parallel to the profile plane. The end A is 10 mm above HP. Draw all the three principal views.  
[8+8]
4. A line AB has its end A in HP and 40 mm in front of VP. Its front view is inclined at 50 degrees to XY line and has a length of 70 mm. The other end B is in VP. Draw its projections. Also find true length and true inclinations of the line.  
[16]
5. A regular hexagonal lamina of side 25 mm is lying in such way that the one of its base edge touches both the reference planes. If the lamina makes  $40^{\circ}$  with the VP and perpendicular to profile plane, draw the projections of the lamina.  
[16]



- 6. A pentagonal pyramid has an altitude of 60 mm and side of base 25 mm. The pyramid rests with one of its sides of the base on HP such that the triangular face containing that side is perpendicular to both HP and VP. Draw the projections. [16]
- 7. Construct isometric view from the following orthographic projections. All dimensions are in mm. (Figure 1)

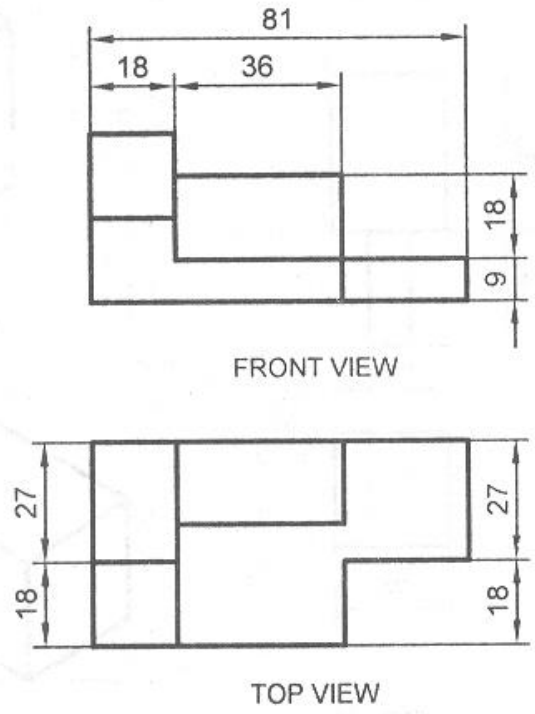


Figure 1

[16]

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