

1125**Code : 9ME-01D**Register
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I Semester Diploma Examination, Nov./Dec., 2014

ENGINEERING GRAPHICS (CONVENTIONAL)

Time : 4 Hours]

[Max. Marks : 100

- Note :**
- (i) Answer any **four** questions from Section – I and **two** from Section – II.
 - (ii) Assume missing dimensions, if any.
 - (iii) Adopt first angle projection method.
 - (iv) **All** dimensions are in mm.

SECTION – I

1. (a) Draw the following lines and mention their applications : 10
 - (i) Continuous thick
 - (ii) Dashes thin
 - (iii) Chain thin
 - (iv) Chain thin & thick at the ends
 - (v) Chain thick
- (b) Draw the symbolic representation of 3rd angle projection method. Name the views. 5

2. (a) Copy the sketch shown in figure 1 to 1 : 1 scale and dimension it by adopting unidirectional system with parallel dimensioning. 10
- (b) List the elements of dimensioning. 5

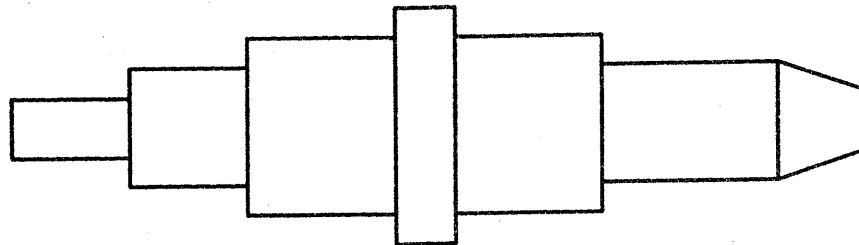


Figure – 1

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3. (a) A point P is 30 mm above Hp, 40 mm in front of VP and 45 mm in front of LPP. Draw the 3 principal views of the point P.
State the quadrants in which the point lies. 10
- (b) A point Q is 60 mm in front of VP and in HP. Draw its projections. 5
State the quadrants in which the point lies.
4. A line AB has its end A 20 mm above HP and 15 mm in front of VP. The end B is 60 mm above HP and the line is inclined at 30° to HP. The distance between the end projectors of the line when measured parallel to the line of intersection of HP and VP is 55 mm. Draw the projections of the line. Find the true length of the line & its inclination with VP. 15
5. A hexagonal lamina of 25 mm sides rests on one of its edges. The lamina makes 60° to HP and the edge on which it rests makes 45° to VP. Draw its projections. 15
6. A circular lamina of 60 mm diameter rests on HP such that the surface of the lamina is inclined at 40° to HP. The diameter through the point on which the lamina rests on HP, appears to be inclined at 45° to VP in the top view. Draw its projections. 15

SECTION – II

7. Draw the top and front views of a rectangular pyramid of sides 25×30 mm and height 40 mm, when it lies with one of its triangular faces containing the shorter edge of the base on HP. This shorter edge of the base, containing the triangular face lying on HP, is inclined at 60° to VP in the top view, with the apex of the pyramid nearer to the observer. 20
8. Draw the projections of a hexagonal prism, 20 mm side of base and axis 50 mm long, resting on a corner such that the two base edges passing through it make equal inclinations with HP and its base is inclined at 45° to HP and the axis appears to be inclined at 30° to VP in the top view. 20

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9. Draw the following orthographic views of the object shown in Fig. 2.

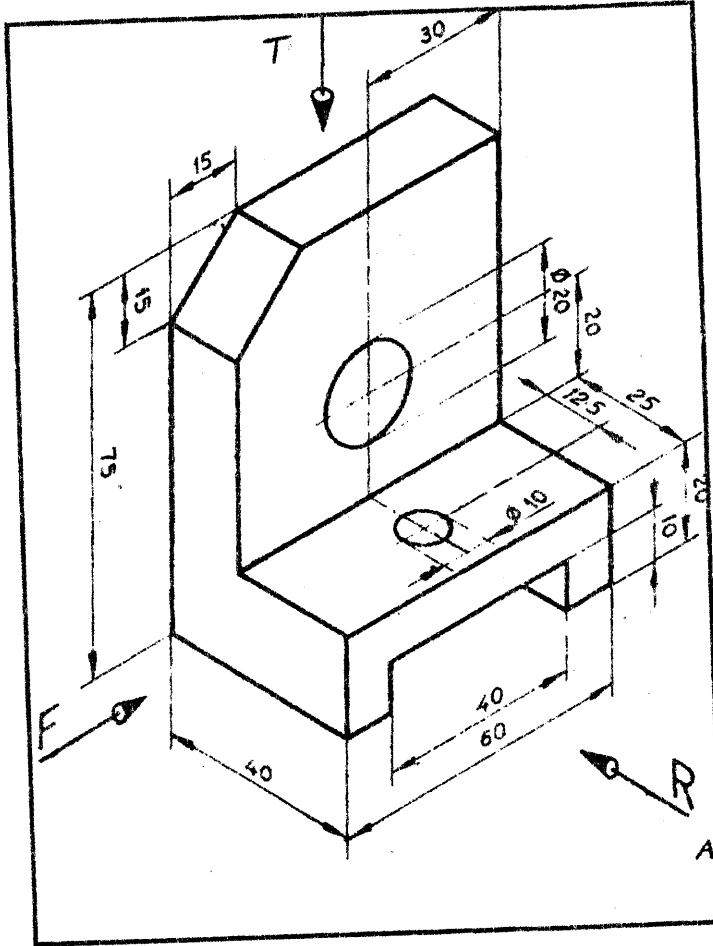


Figure - 2

- (i) Front view
- (ii) Top view
- (iii) Right view