

Roll No.

Total Pages : 03

BT-2/M-19

32039

ENGINEERING GRAPHICS AND DRAWING

ES-109-A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting *one* question from each Unit.

Unit I

1. (a) Describe the principles of engineering drawing and their significance.
- (b) What is representative factor ? Also explain the construction of plain scale with suitable. 15
2. (a) Explain general methods for generating ellipse. 15
- (b) Define :
 - (i) Cycloid
 - (ii) Epicycloid.

Unit II

3. Draw the projections of the following points on a common reference line keeping the distance between their projectors 25 mm apart : 15
 - (a) Point A is 40 mm above the H.P. and 25 mm in front of the VP
 - (b) Point B is 40 mm above the H.P. and the V.P.

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P.T.O.

- (c) Point C is 40 mm in front of the V.P. and in the H.P.
- (d) Point D is 40 mm above the HP and 30 mm behind the V.P.
- (e) Point E is in the HP and 30 mm behind the V.P.

4. A straight line AB, 60 mm long makes an angle of 30° to H.P. and 45° to VP. The end A 15 mm in front of V.P. and 20 mm above H.P. Draw its projections. 15

Unit III

5. A cylinder of base diameter 50 mm and axis 60 mm is resting on its base on the H.P. It is cut by a section plane perpendicular to V.P., the V.T. of which cuts the axis at a point 40 mm from the bottom face and inclined at 45° to the reference line. Draw its front view, sectional top view and true shape of the section. 15
6. A hexagonal prism of the base side 30 mm and 70 mm is resting on its base on ground with a side of base inclined at 45° to the V.P. with a rectangular face parallel to the V.P. it is cut by an auxiliary inclined plane at 45° to the H.P. and passes through a point 15 mm below the top end of the axis. Draw the development of the lateral surface of the truncated prism. 15

L-32039

2

Unit IV

7. (a) Describe the construction of an isometric scale. 15
(b) Explain the principle of isometric projection. 15
8. Fig. 1 show two views of an object. Draw isometric view of the object :

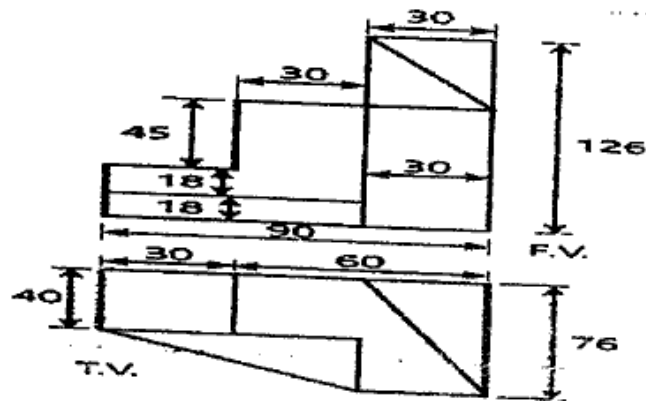


Figure no. 1
All dimensions are in mm

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