



Engineering Drawing

MAY 17

First Year Engineering (Semester 2)

Total marks: 80

Total time: 3 Hours

INSTRUCTIONS

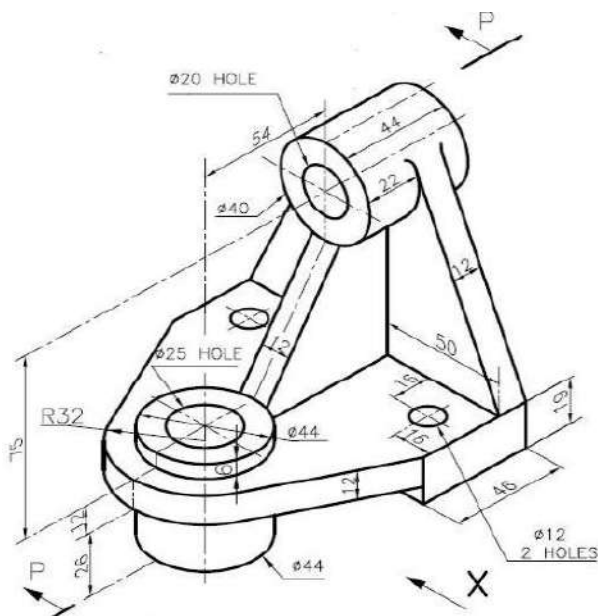
(1) Question 1 is compulsory.

(2) Attempt any **three** from the remaining questions.

(3) Draw neat diagrams wherever necessary.

1. Figure given below shows two views of an object. Draw the following views to full scale:

- i) Sectional Front view section P-P
- ii) Top View
- iii) Left hand Side view
- iv) Insert minimum 10 dimensions



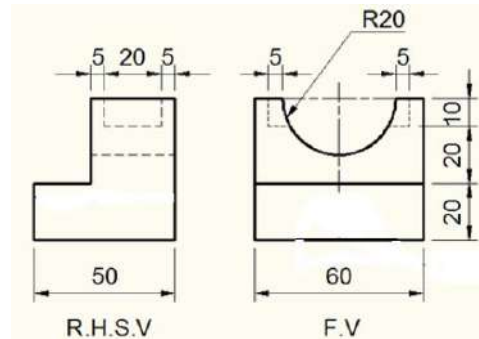
(15 marks)



2. A tetrahedron of 70 mm sides has one of its edges in H.P. and inclined at 45° to the V.P. while a face containing that edge is vertical. Draw projections of the tetrahedron.

(15 marks)

3.a. Draw the isometric view of the following using the natural scale

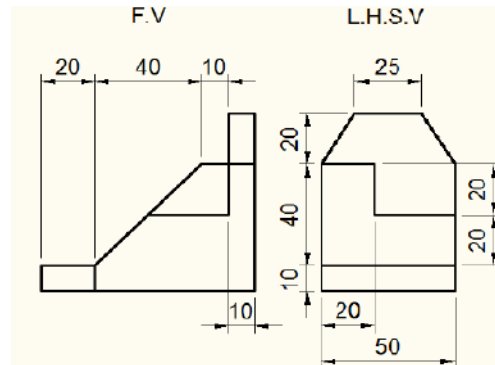


(8 marks)

3.b. A triangular prism base 40 mm long and height of axis 65 mm has one of its base edges in H.P. and inclined at 40° to V.P. Draw projections when the axis is inclined at 45° to H.P.

(7 marks)

4.a. Draw the isometric view of the following using the natural scale



(7 marks)

4.b. A line AB 70 mm long has its end A 10 mm above H.P. and 20 mm in front of V.P. The line AB is inclined at 40° to H.P. and its front view is inclined at 65° to XY. Draw its projections and find inclination of AB with VP.

(5 marks)

5.a. A pentagonal pyramid of 40 mm edge of base and 70 mm high stands vertically with its base on H.P. and an edge of base is perpendicular to V.P.



A section plane perpendicular to H.P. and inclined at 30° to V.P. cuts the pyramid such that it passes through the pyramid at a shortest distance of 12 mm from the axis and in front of it. Draw sectional Front View, Top View showing the section and true shape of section.

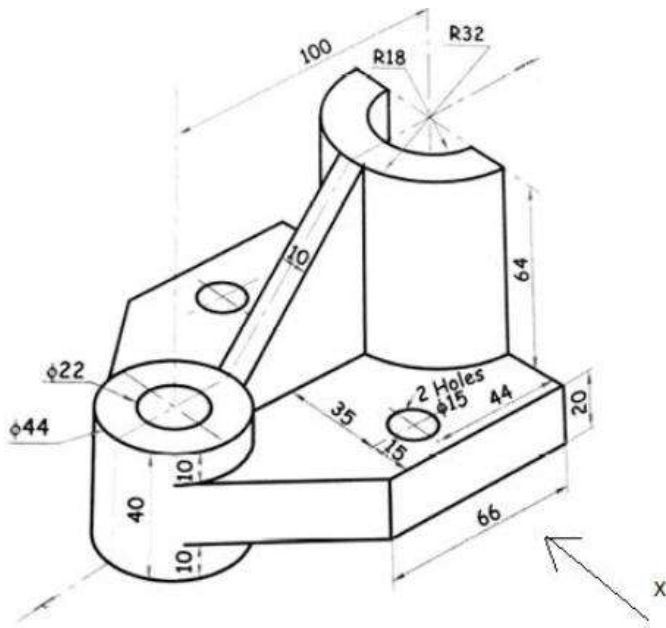
(5 marks)

5.b. A cone of 70 mm height of axis and base diameter 60 mm is resting on its base on H.P. It is cut by a section plane parallel to one of its end generators and 12 mm away from it. Draw development of lateral surface of truncated solid.

(7 marks)

6.a. Figure given below shows two views of an object. Draw the following views to full scale:

- i) Front View from X
- ii) Top View
- iii) Insert minimum 6 dimensions



(5 marks)

6.b. One end of an inelastic thread of 150 mm length is attached to one corner of a regular hexagonal disc having a side of 25 mm. Draw the curve traced out by the other end of the thread when it is completely wound along the periphery of the disc, keeping the thread always tight.

(5 marks)