

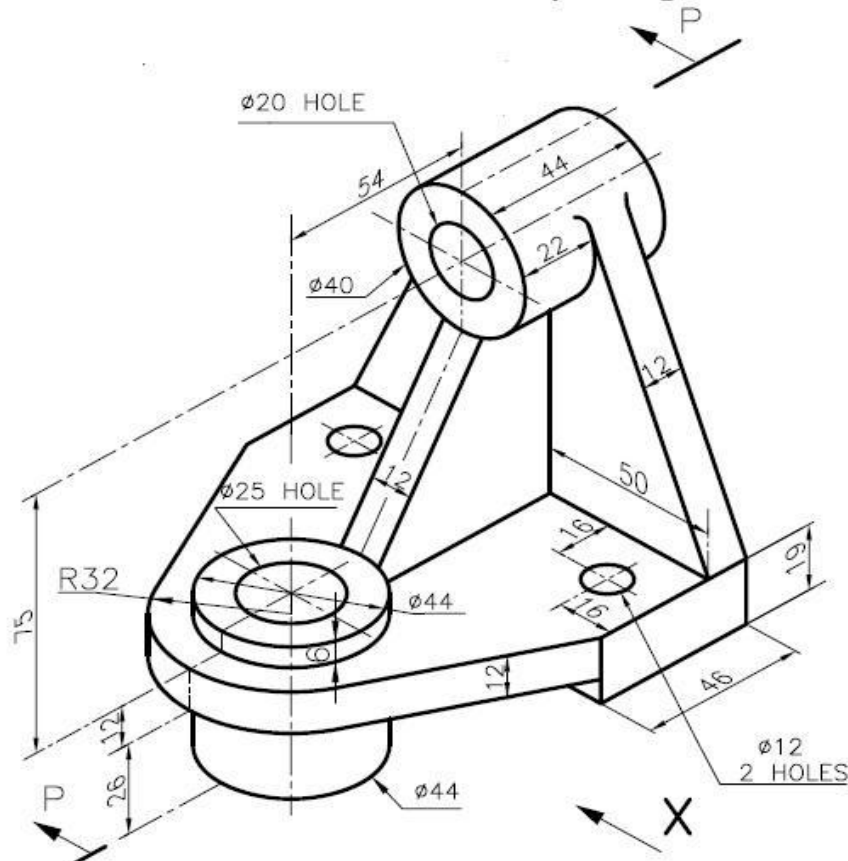
**(3 HOURS)**

**Max Marks:60**

- 1) Answer any **FOUR** questions.
- 2) Use **first** angle projection method **only**.
- 3) Assume any suitable dimension if required.

**Q1** Figure given below shows two views of an object. Draw the following views to full scale.:-

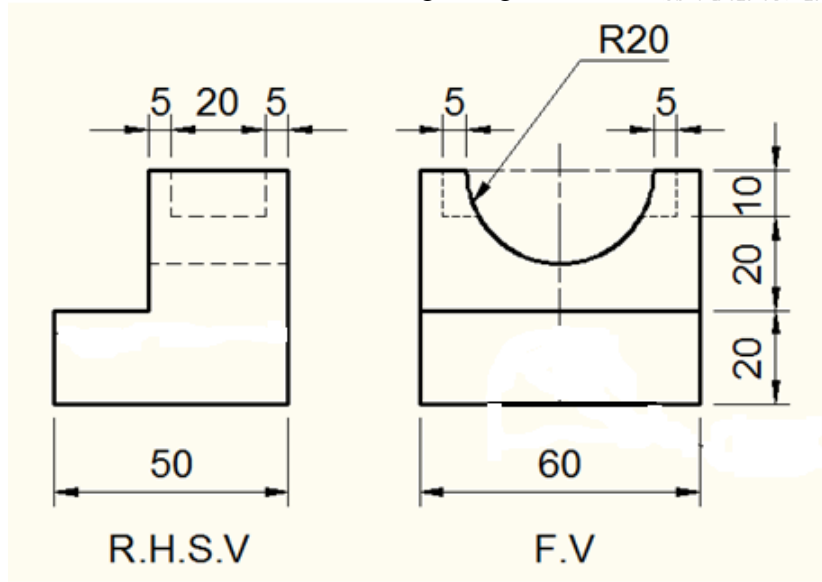
- i) Sectional Front view section P-P 05
- ii) Top View 04
- iii) Left hand Side view 04
- iv) Insert minimum 10 dimensions 02



**Q2** A tetrahedron of 70 mm sides has one of its edges in H.P. and inclined at  $45^\circ$  to the V.P. while a face containing that edge is vertical. Draw projections of the tetrahedron. 15

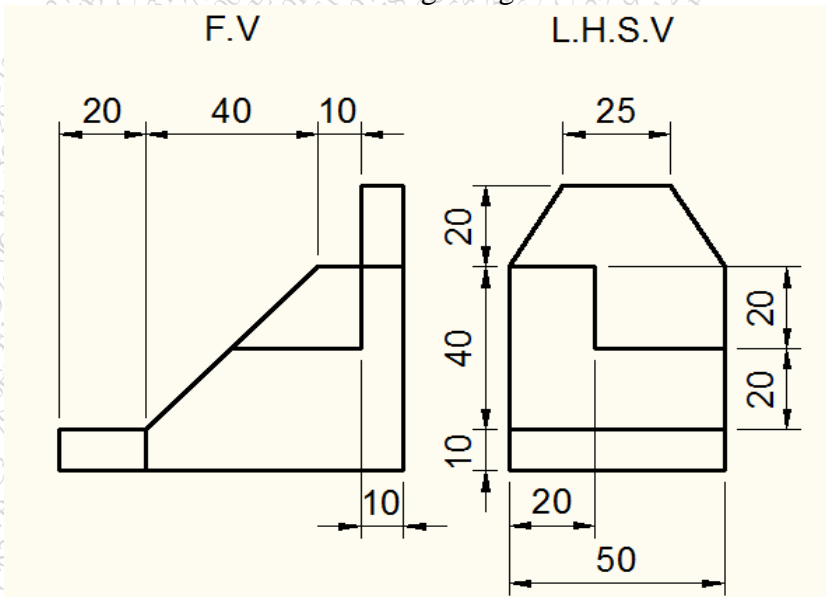
**[TURN OVER**

Q3 a) Draw the isometric view of the following using the natural scale 08



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  $40^\circ$  to V.P. Draw projections when the axis is inclined at  $45^\circ$  to H.P. 07

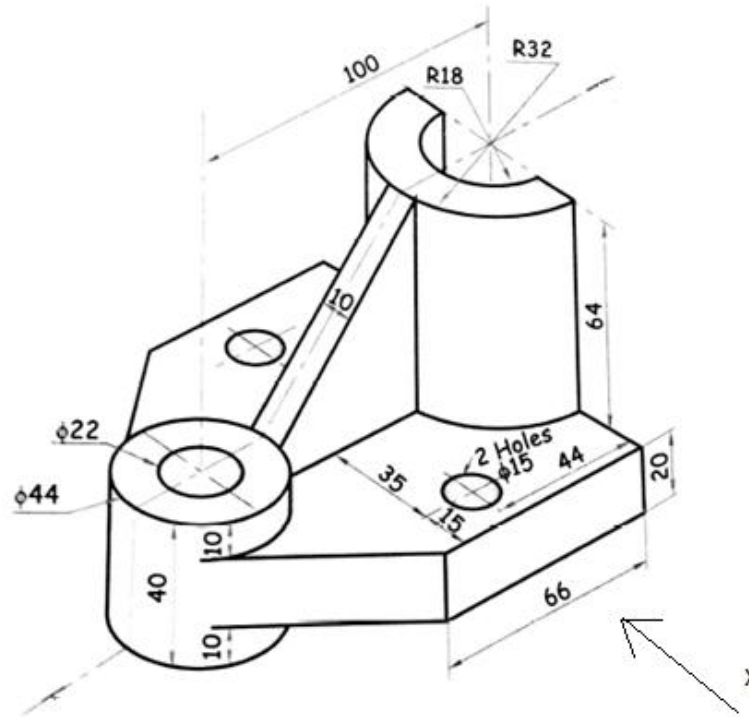
Q4 a) Draw the isometric view of the following using the natural scale 07



b) A line AB 70 mm long has its end A 10mm above H.P. and 20 mm in front of V.P. The line AB is inclined at  $40^\circ$  to H.P. and its front view is inclined at  $65^\circ$  to XY. Draw its projections and find inclination of AB with VP. 08

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- Q5 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  $30^\circ$  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. 08
- 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. 07
- Q6 a) Figure given below shows two views of an object. Draw the following views to full scale:-
- i) Front View from X 4
  - ii) Top View 4
  - iii) Insert minimum 6 dimensions 1



- 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. 6