

(3 Hours)

[TOTAL MARKS 75]

NB:

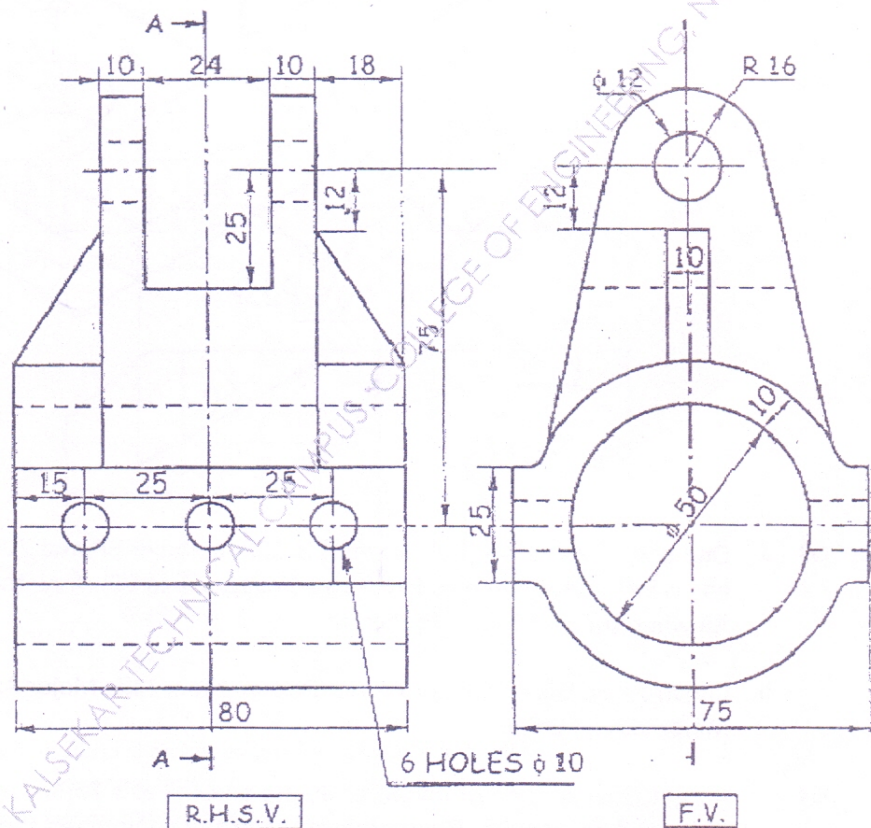
1. Question No.1 is compulsory.
2. Attempt any 4 from remaining 6 questions.
3. All dimensions in fig. are in mm.
4. Use **first Angle Method** of projection only.

Use your judgment for unspecified dimensions

Q1 Draw

- 1) The sectional front View A-A,
- 2) TV
- 3) Right Hand Side View from the given two views.
- 4) Insert at least 10 dimensions

5
4
4
2

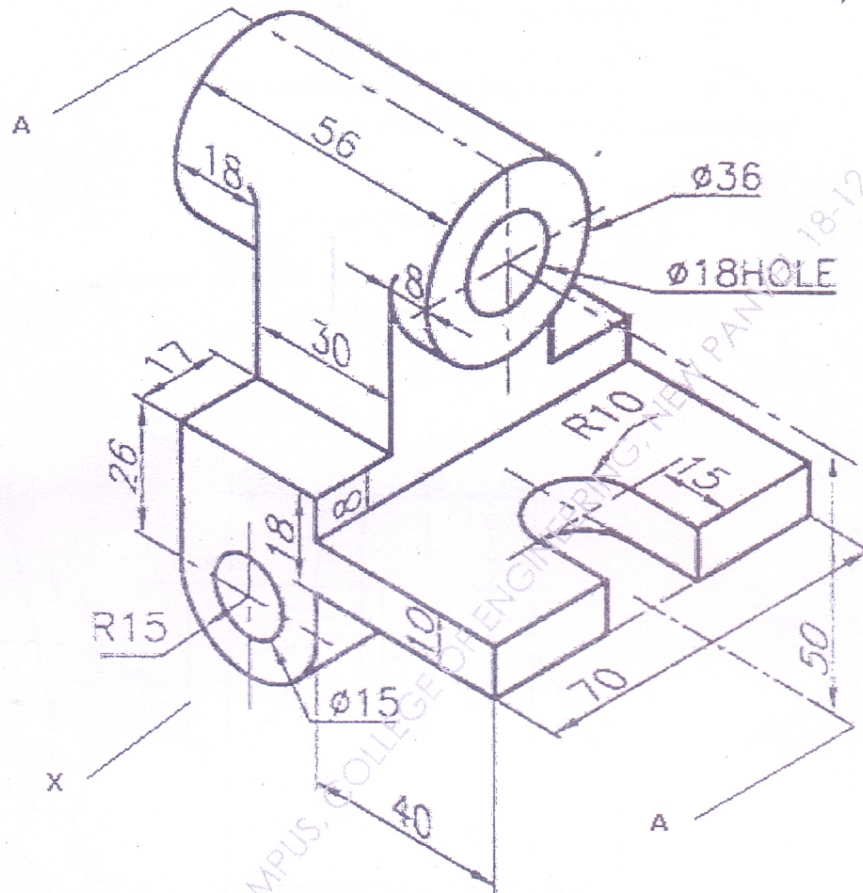


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Q2 Fig. shows isometric view of a block. Draw

15

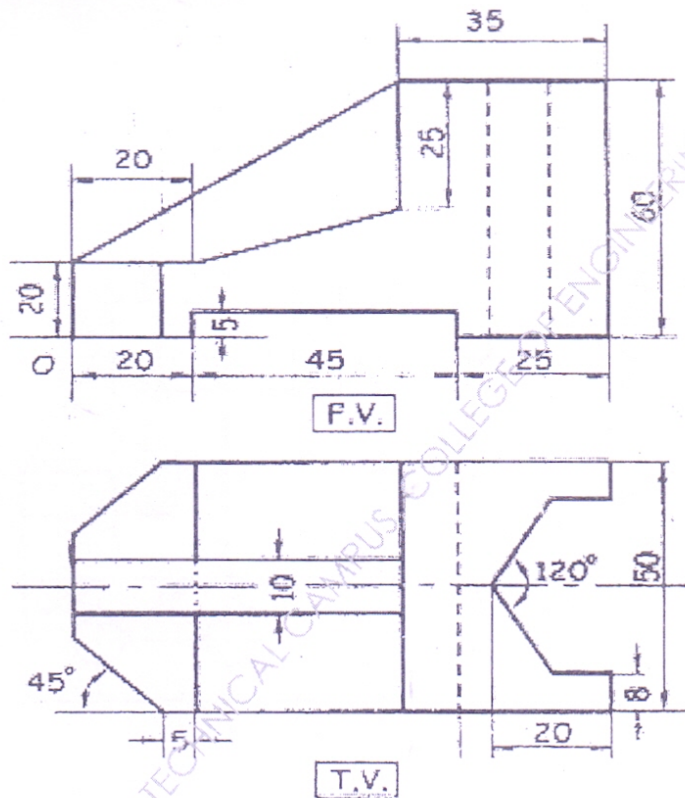
- 1) Sectional front view section A-A,
- 2) Top View
- 3) Right hand side view.



- Q3 a One end of a line AB ($TL = 80$ mm) is 10mm above HP and 20mm behind VP. The line is inclined 30 degrees to HP and 45 degrees to VP. Draw the projections of line AB when the end B in 4TH quadrant. 8
- b Construct an Ellipse by concentric circle method. Take Major Axis = 100mm and Minor axis = 70mm. 7
- Q4 A right circular cone of diameter 60mm and the axis 75mm is lying on HP on one of its end generators. Draw projections of the cone when the Top View of axis is inclined 45 degrees to VP. 15

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- Q5 a Hexagonal pyramid of base edge 30 mm and axis 60mm is resting on HP with an edge of base is parallel to VP. It is cut by a section plane inclined 45 degrees to VP and passing through a point 10 mm away from the axis. Draw the sectional Front View, Top View and True shape of the section. 12
- b Draw free Hand sketches of the following (Two Views) 3
- Square Nut
 - Castle Nut.
- Q6 Pentagonal prism of side 30 mm and axis 60 mm is resting on HP on its base with one of its base edge parallel to VP. It is cut by a section plane inclines 60 degrees to HP and passes through a point 25 mm from the top surface on the axis. Draw the projections and develop the lateral surface of the retained portion of the prism. 15
- Q7 a Draw the Isometric View of the Two views given using natural Scale. 12



- b Draw free Hand sketches of the following (Two Views) 3
- Hexagonal Bolt
 - Eye Foundation bolt