

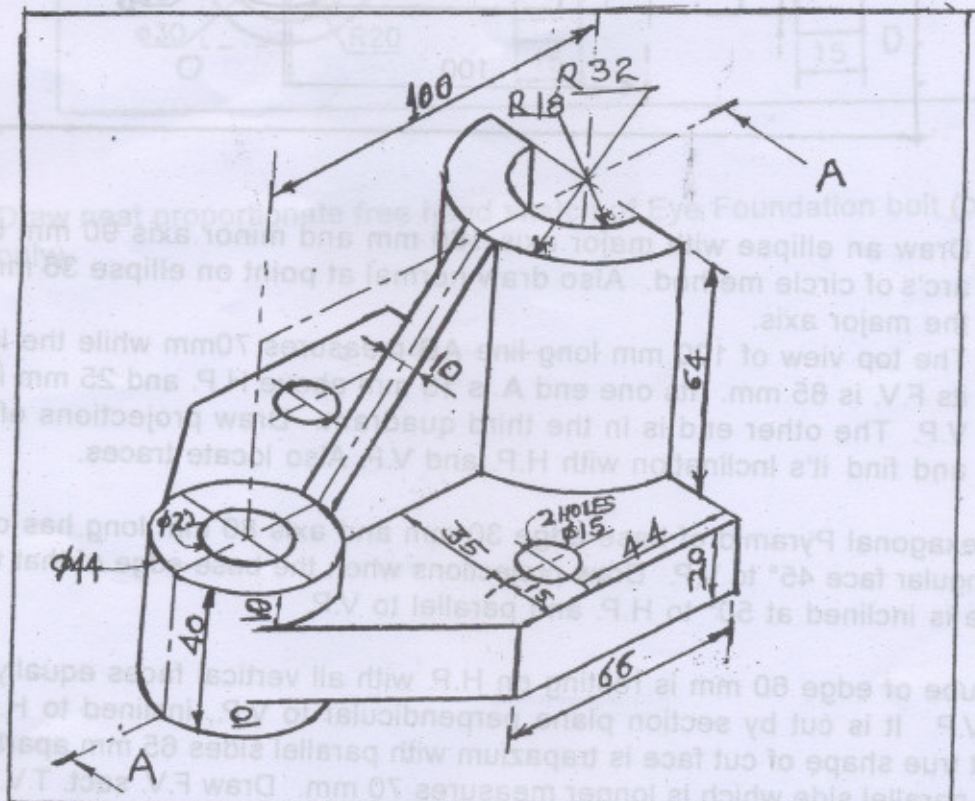
- N.B. (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.
(3) Use **drawing sheets** only for **answering**.
(4) **All** dimensions in figure are in **mm**.
(5) Use your own judgement for any unspecified dimensions assuming suitable data if **necessary**.
(6) Use only **First angle method** of projection.
(7) Retain all construction lines.
(8) **Figures** to the **right** indicate **full marks**.
(9) Answers to the question should be **grouped** and written **together**.
(10) Neatness, accuracy and draftmanship will be considered while **assessing**.
(11) Use **both** the sides of the **drawing sheet**.
(12) Use scale **1:1** only.

1. **Figure** shows a pictorial view of object. Draw following views :-

- (a) Sectional F.V. along sect. A-A
- (b) Top View
- (c) Left Hand Side View.

Insert at least ten major dimensions.

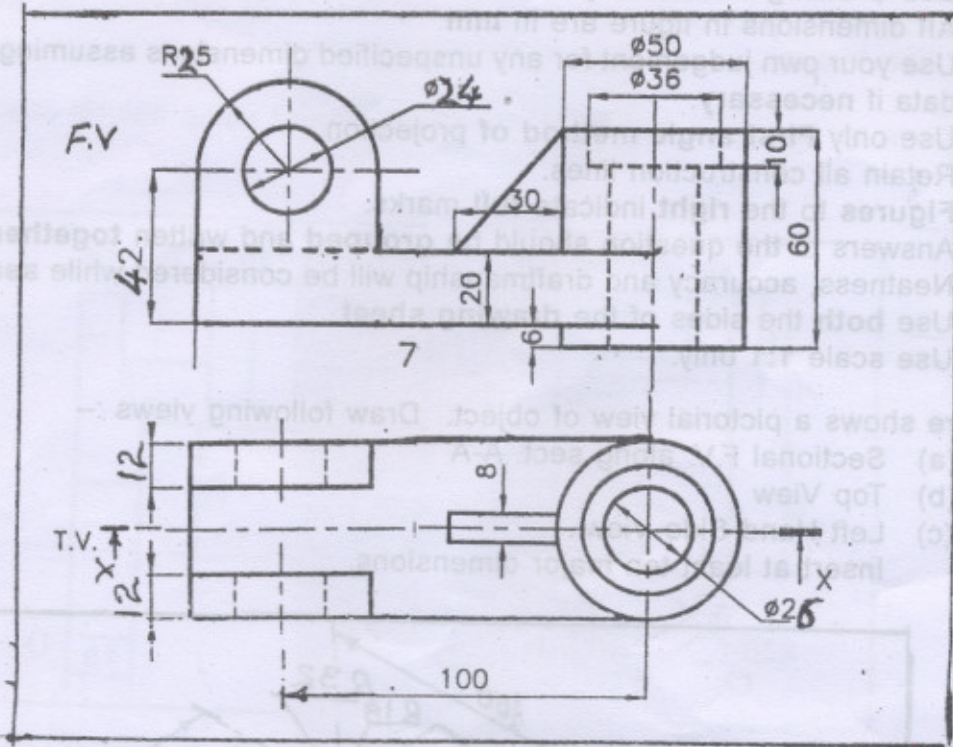
4
4
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2. Figure shows the F.V. and T.V. of an object. Draw following views.

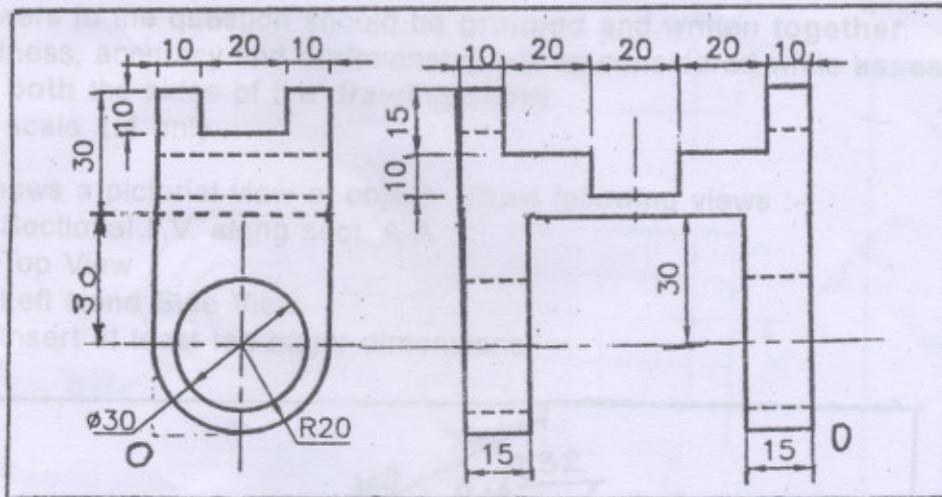
- (a) Sectinal F.V. Sect. along X-X
 - (b) Top View
 - (c) Missing Left Side View.
- Insert at least six major dimensions

4
4
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2



- 3. (a) Draw an ellipse with major axis 160 mm and minor axis 90 mm by using arc's of circle method. Also draw normal at point on ellipse 35 mm above the major axis. 6
- (b) The top view of 100 mm long line AB measures 70mm while the length of its F.V. is 85 mm. Its one end A is 15 mm above H.P. and 25 mm in front of V.P. The other end is in the third quadrant. Draw projections of the line and find its Inclination with H.P. and V.P. Also locate traces. 9
- 4. A hexagonal Pyramid of base edge 30 mm and axis 80 mm long has one of its triangular face 45° to V.P. Draw projections when the base edge of that triangular face is inclined at 50° to H.P. and parallel to V.P. 15
- 5. A cube of edge 60 mm is resting on H.P. with all vertical faces equally inclined to V.P. It is cut by section plane perpendicular to V.P., inclined to H.P. Such that true shape of cut face is trapezium with parallel sides 65 mm apart. One of the parallel side which is longer measures 70 mm. Draw F.V. sect. T.V. and true shape of cut face. Find inclination of section plane and length of smaller parallel side of the trapezium. 15

6. (a) A pentagonal prism of edge 35 and axis 90 mm in resting on H.P. on one of its rectangular faces with axis perpendicular to V.P. A vertical equilateral triangular hole of side 50 mm is cut through it with axis of hole intersecting axis of prism. One of the rectangular face of hole is parallel to one of the end face of prism and 25 mm away from it. Draw development of remaining lateral portion of the prism. 12
- (b) Draw neat proportionate free hand sketch of lock-nut i.e. check nut 3
(Two Views).
7. (a) Draw an Isometric view of the following object using natural scale. 12



- (b) Draw neat proportionate free hand sketch of Eye Foundation bolt (one view only). 3