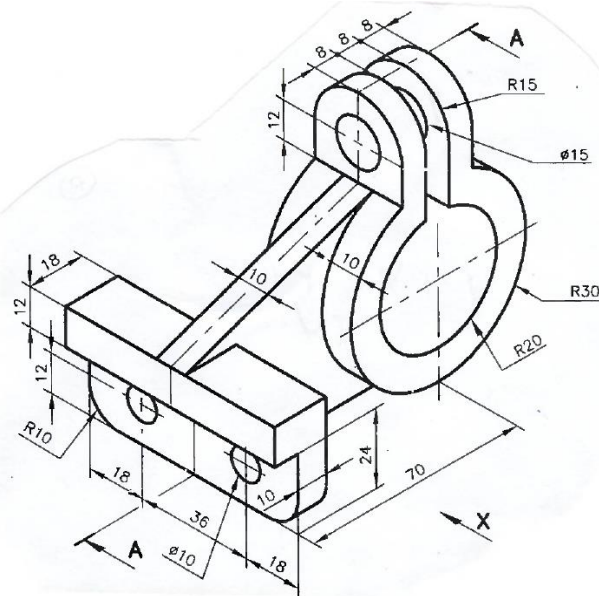


# SVKM's DJSCE Engineering Graphic Question Bank

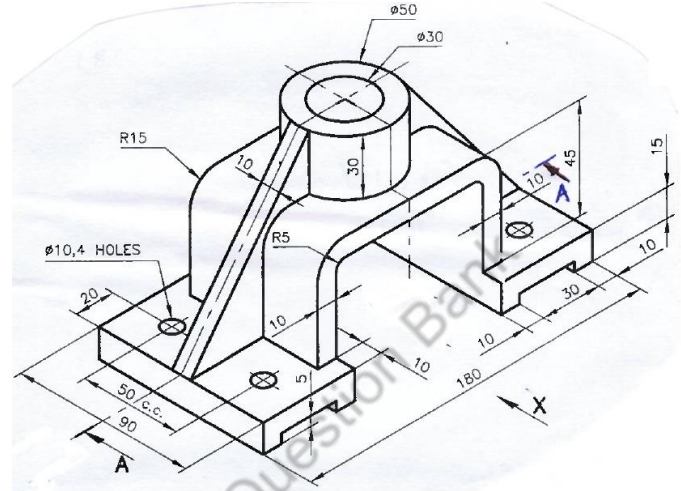
## Sectional Orthographic projections.

Insert at least 12 major dimensions

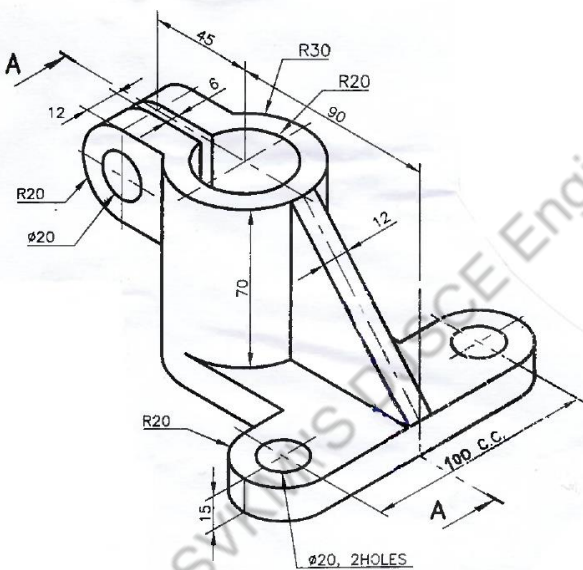
- 1) Draw:  
Sectional FV along A-A. TV.  
LHSV.



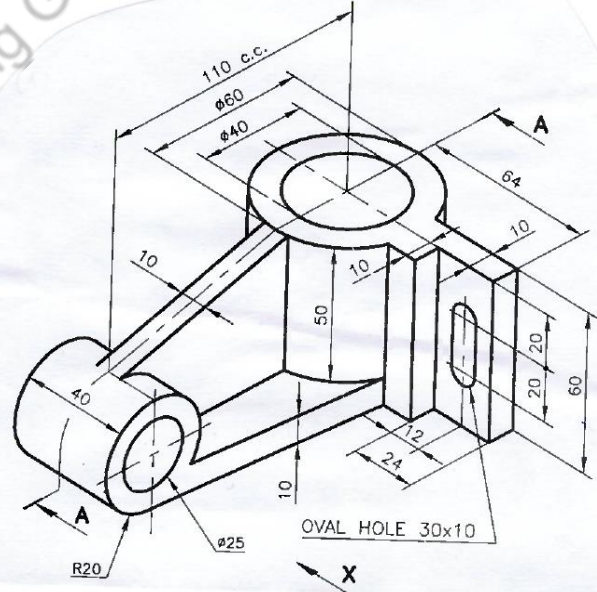
- 2) Draw:  
Sectional FV along A-A.  
TV.  
LHSV.



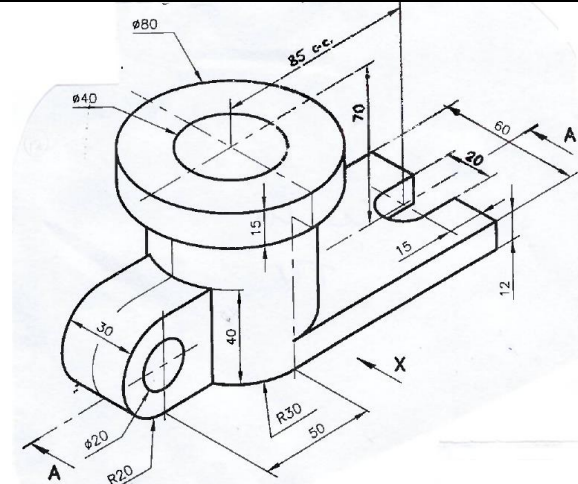
- 3) Draw:  
Sectional FV along A-B. TV. & RHSV.



- 4) Draw:  
Sectional FV along A-A. TV. & LHSV.



- 5) Draw:  
Sectional FV along A-A. TV.  
LHSV.



[illegible]

An isometric drawing of a mechanical bracket. The main body has a base plate with four holes labeled "ø10, 4 HOLES". A vertical support rises from the center, featuring a circular opening at the top with a radius of R18. The base plate has a width of 60 and a thickness of 6. The vertical support has a diameter of 12 and a height of 15. A horizontal flange extends from the side, containing two large circular openings with radii R30 and R22. The flange has a total width of 110 and a thickness of 18. The distance between the centers of the two large openings is 42. The overall length of the part is 50.

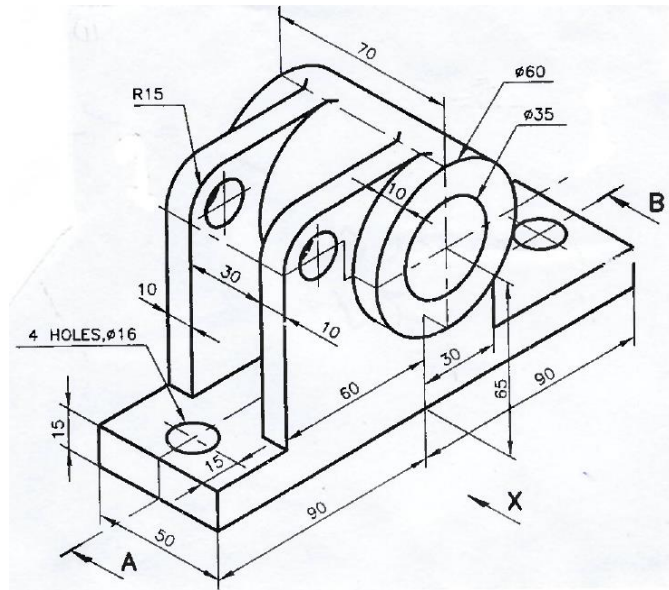
Isometric view of a mechanical part. Dimensions include: 60, 12,  $\phi 12$ , 10,  $\phi 60$ ,  $\phi 35$ , 35, 36 c.c., 12, 12, 80, 60, 10, R10, R22.5, 20, 68 c.c., 45, 15, and X. The part features a central cylindrical section with a hole, a base with a semi-circular cutout, and a rectangular block on top with a hole.

Isometric view of a mechanical part with the following dimensions and labels:

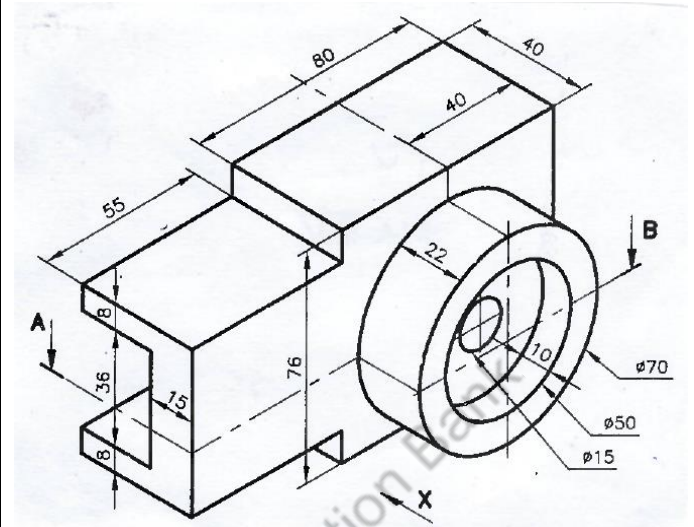
- Dimensions:**
  - Overall width: 36
  - Overall depth: 64
  - Overall height: 20
  - Base width: 54
  - Base depth: 10
  - Base height: 6
  - Base radius: R28
  - Base thickness: 10
  - Base width (inner): 18
  - Base width (outer): 36
  - Base height (inner): 82
  - Base height (outer): 20
  - Base radius (inner): R18
  - Base radius (outer): R5
  - Base width (inner): 18
  - Base width (outer): 36
  - Base height (inner): 82
  - Base height (outer): 20
  - Base radius (inner): R18
  - Base radius (outer): R5
  - Base width (inner): 18
  - Base width (outer): 36
  - Base height (inner): 82
  - Base height (outer): 20
  - Base radius (inner): R18
  - Base radius (outer): R5
- Labels:**
  - $\phi 36$
  - $\phi 18$
  - $\phi 3$  OIL HOLE
  - SIMILAR WEB ON OTHER SIDE
  - 2 HOLES,  $\phi 12$  THROUGH
  - R18
  - R28
  - R5



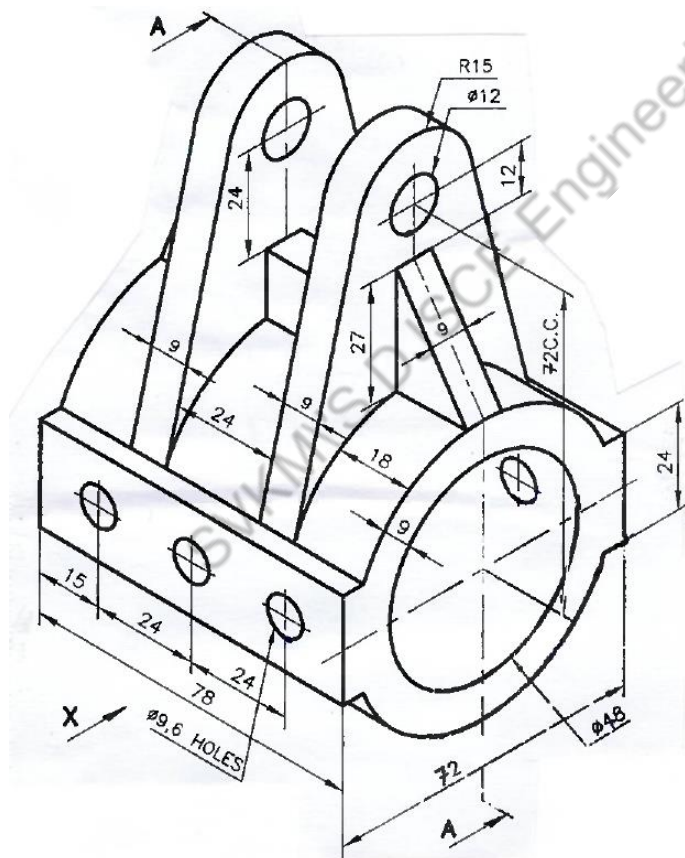
10) Draw:  
Sectional FV  
along A-B.  
TV.  
LHSV.



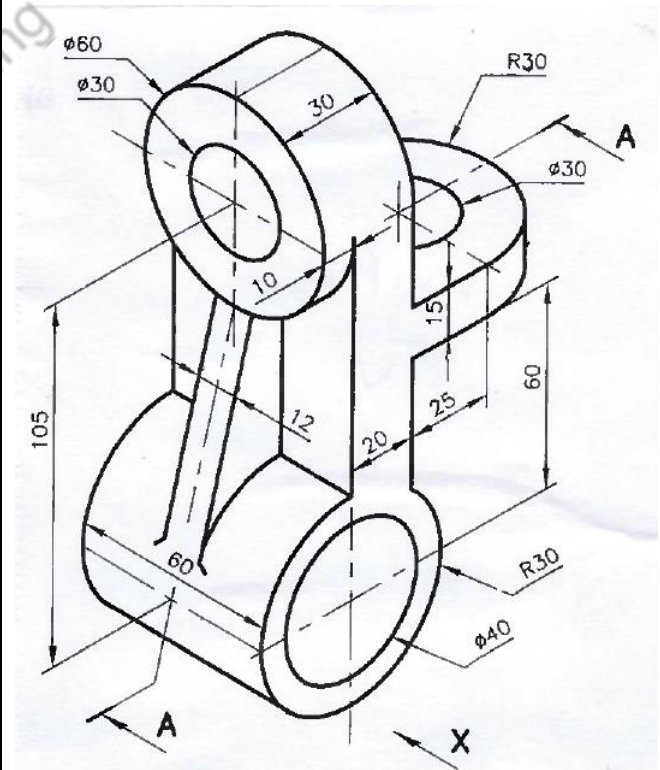
11) Draw:  
FV.  
Sectional TV along A-B.  
LHSV.



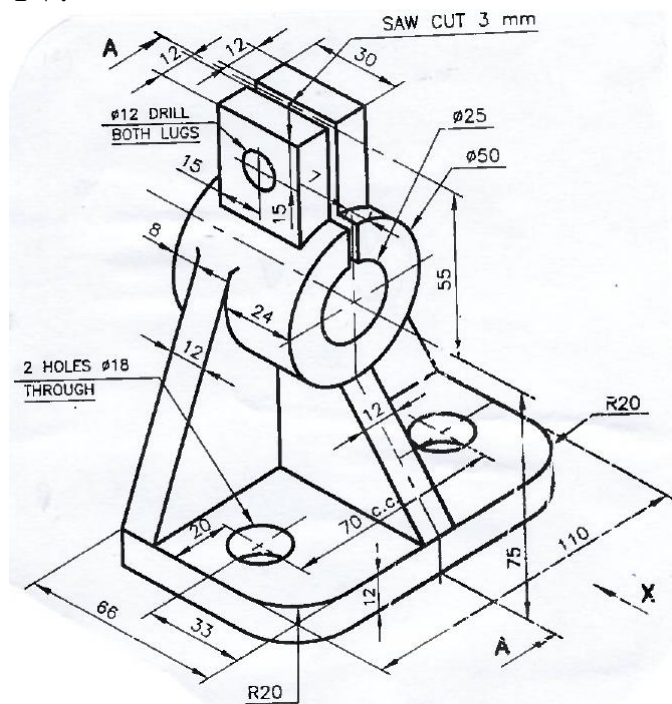
12) Draw:  
Sectional FV along A-A. TV.  
RHSV.



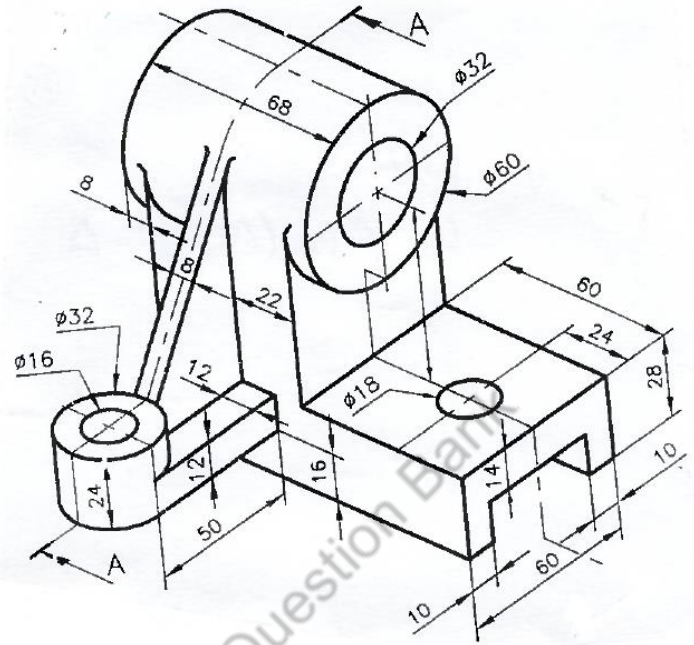
13) Draw:  
Sectional FV along A-A. TV.  
LHSV.



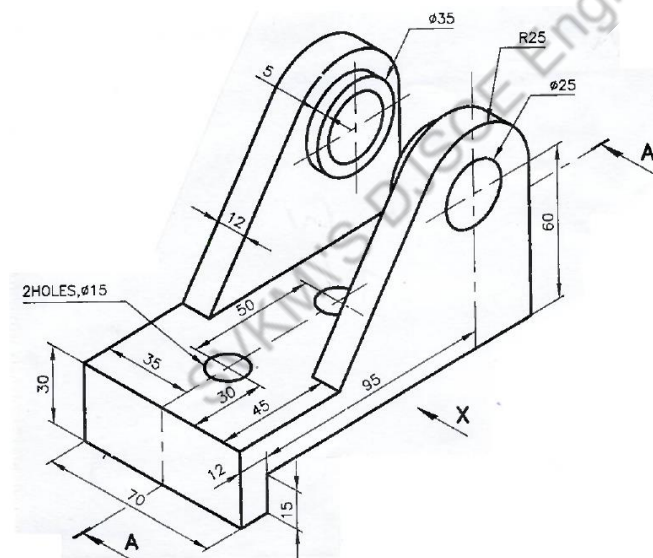
14) Draw:  
FV.  
Sectional SV along A-A.  
TV.



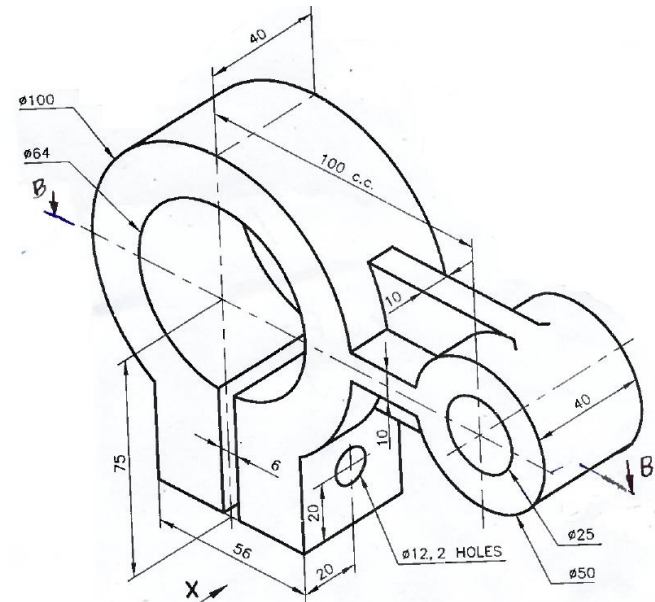
15) Draw:  
Sectional FV along A-B. TV.  
LHSV.



16) Draw:  
Sectional FV  
along A-A.  
TV.  
LHSV.



17) Draw:  
FV.  
Sectional TV  
along B-B.  
LHSV.





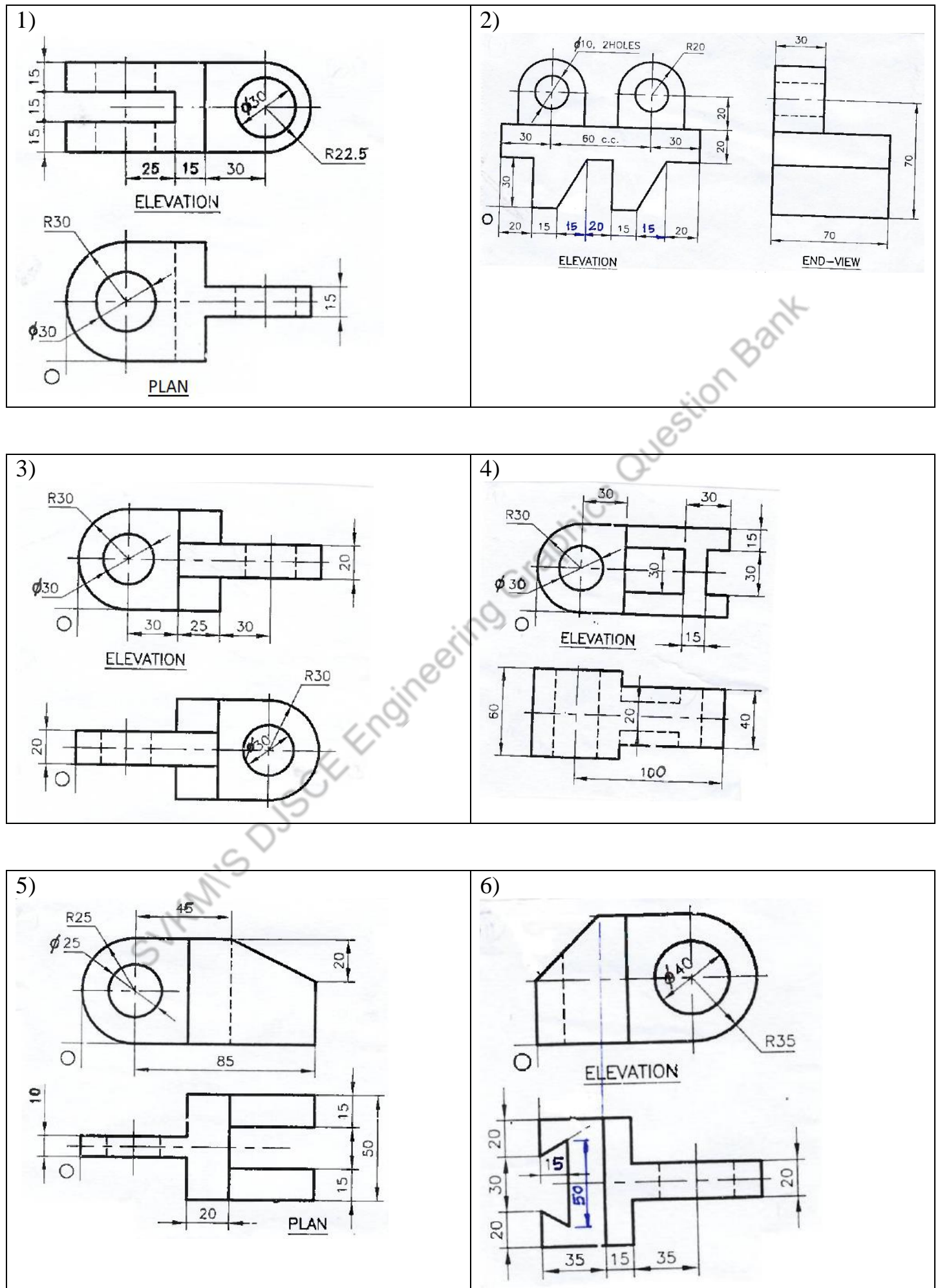


An isometric drawing of a complex mechanical component. The part features a base plate with a total length of 110 units and a width of 15 units. On the left side, there is a semi-circular feature with a radius of R25 and a thickness of 6 units. A central vertical section has a height of 75 units and a width of 15 units. To the right of this section is a sloped surface with a height of 40 units and a width of 15 units. The top surface is flat with a width of 80 units and a depth of 50 units. There are several fillets with radii of R15 and R25. Dimensions are given in millimeters.

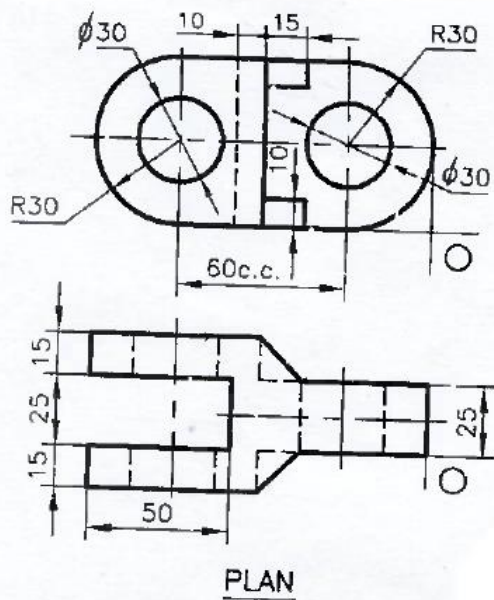
[illegible][illegible]



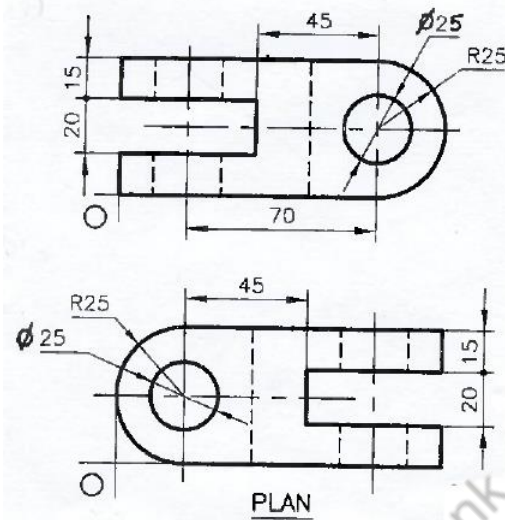
Draw Isometric view using natural scale.



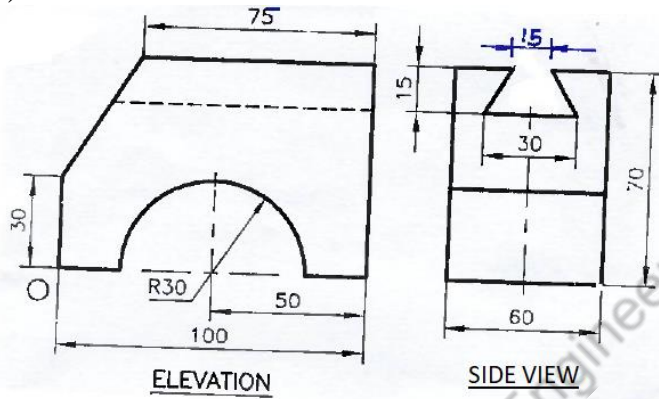
7)



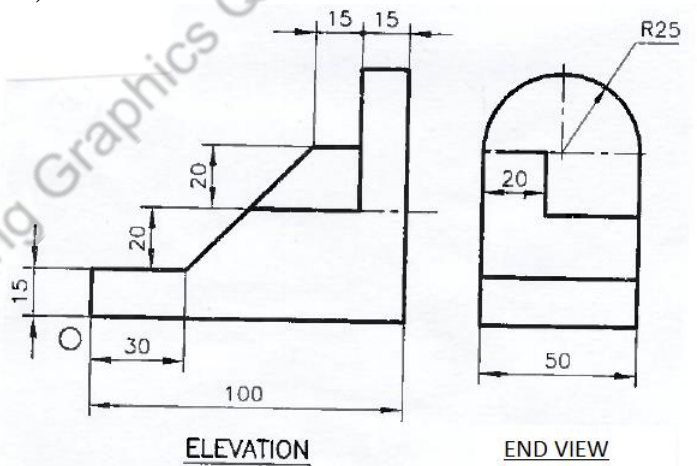
8)



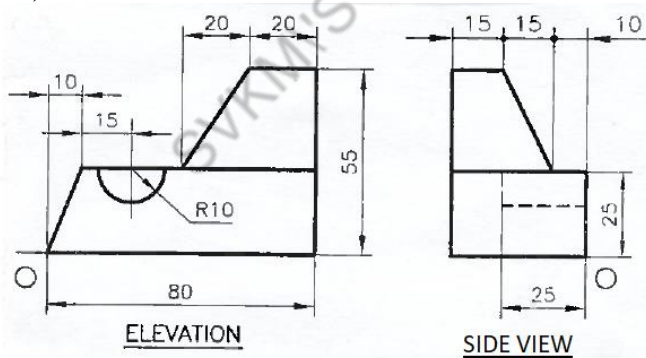
9)



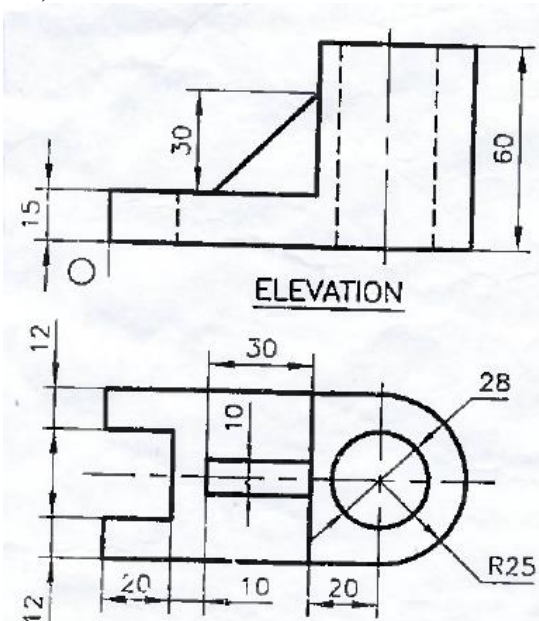
10)



11)

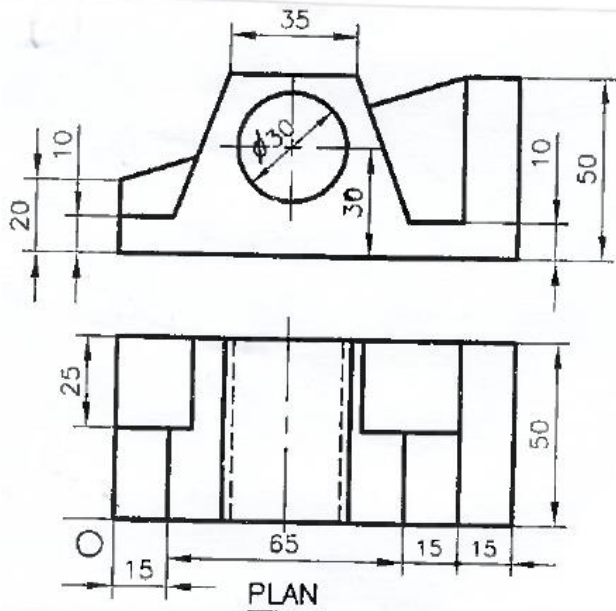


12)

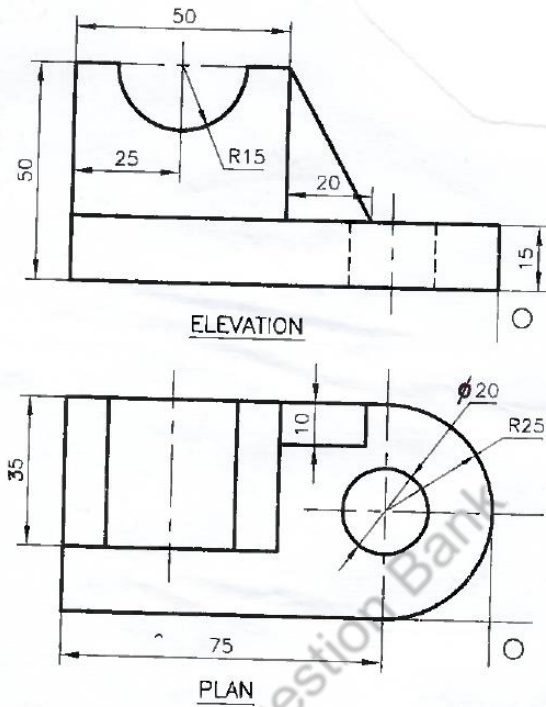




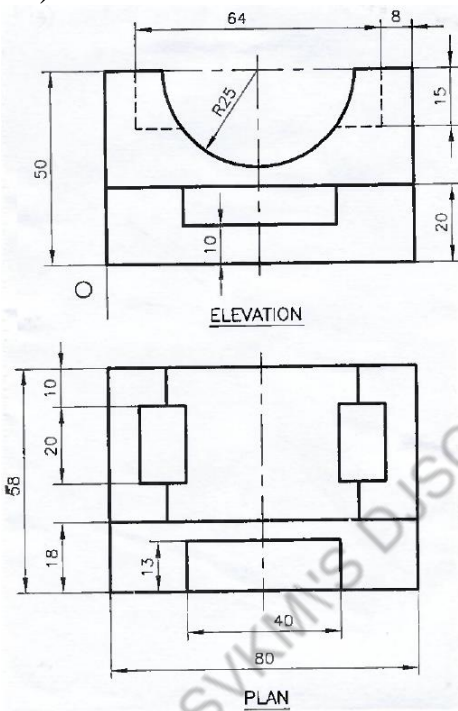
13)



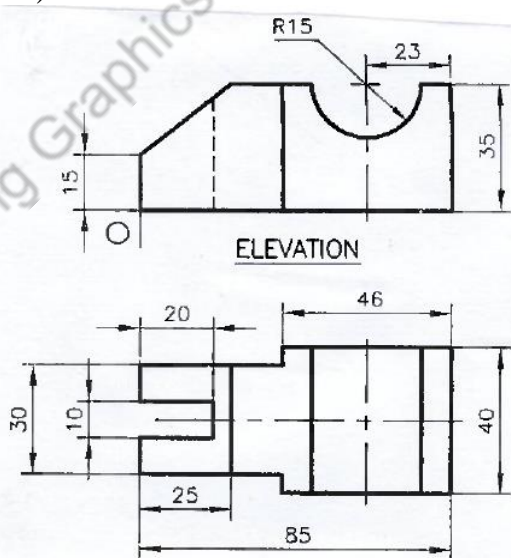
14)



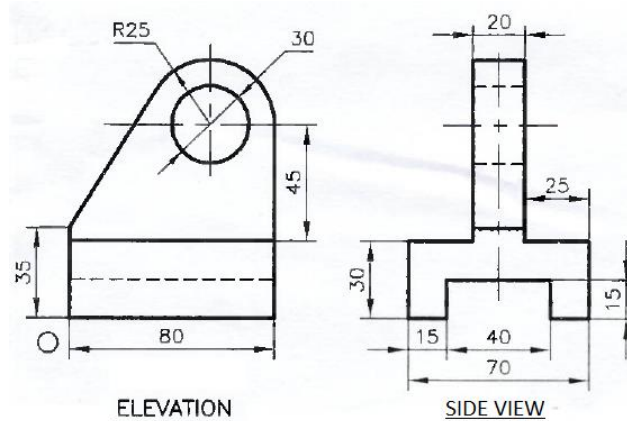
15)



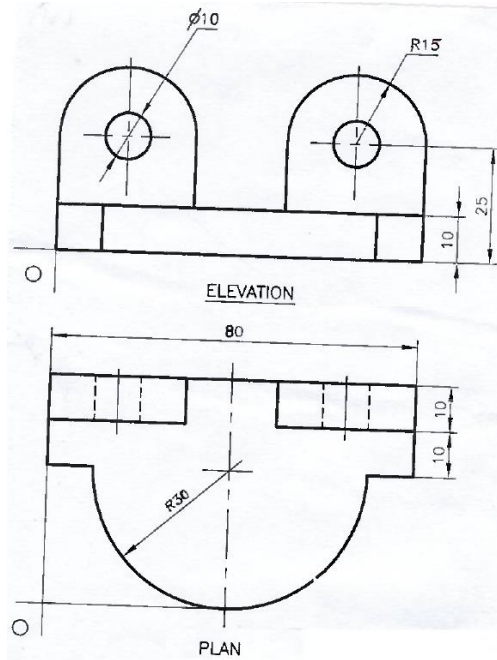
16)



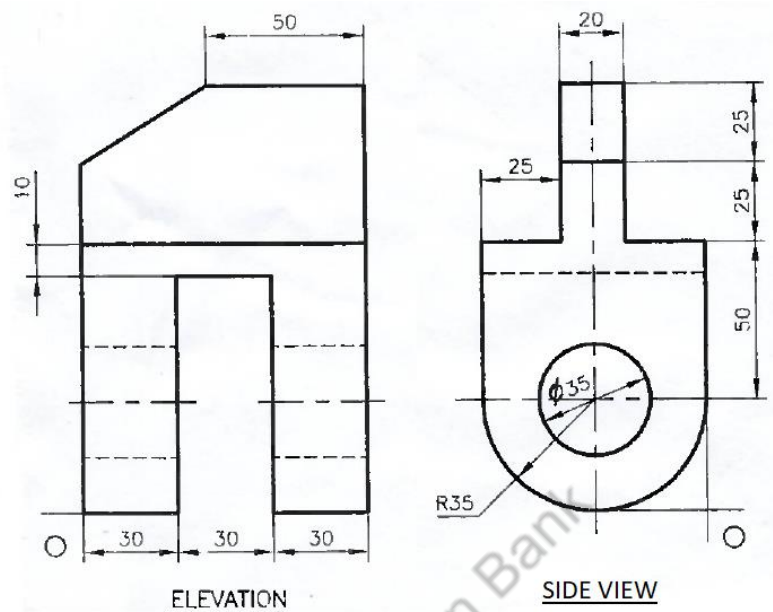
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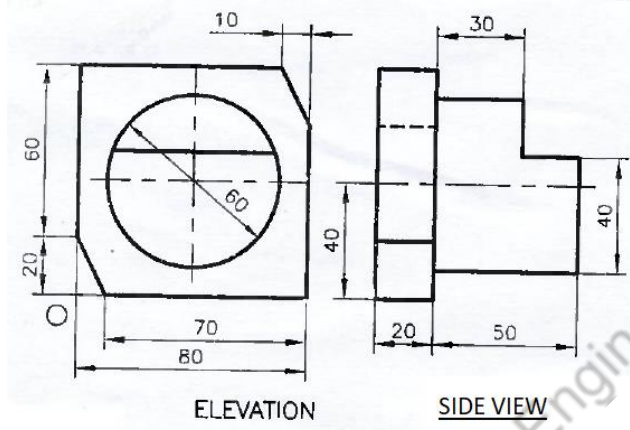
18)



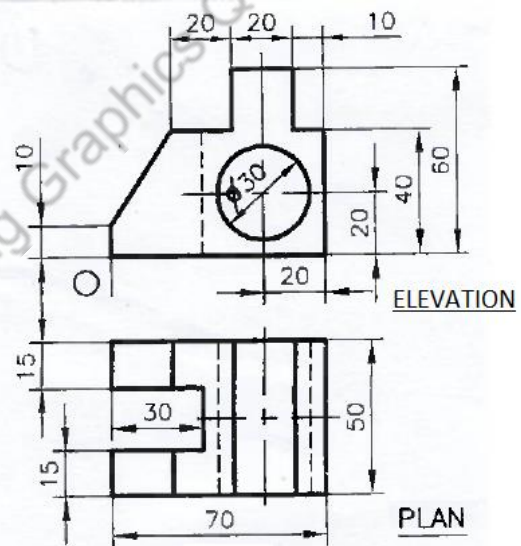
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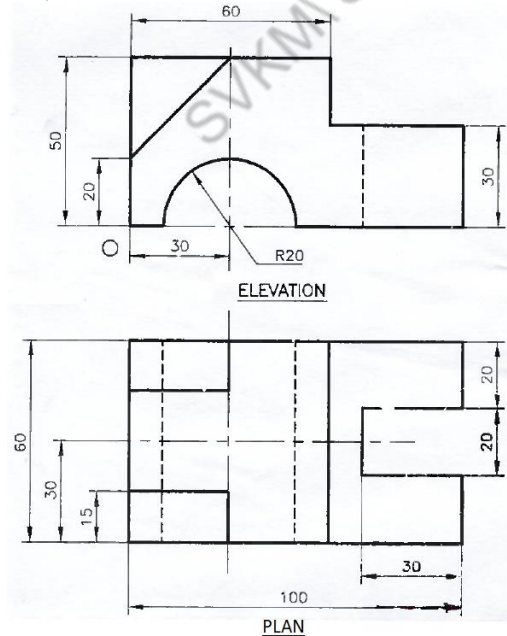
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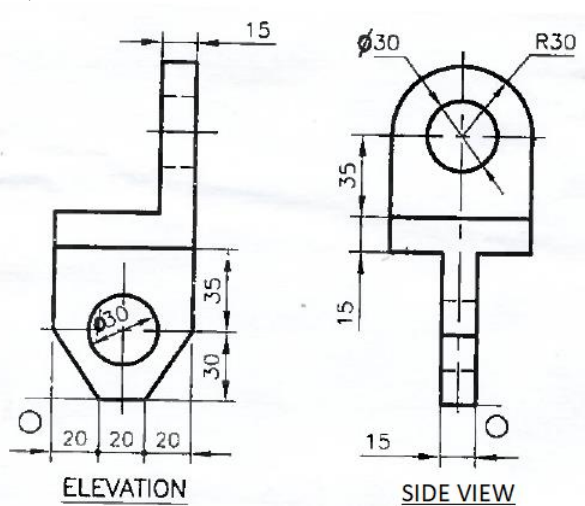
21)



22)

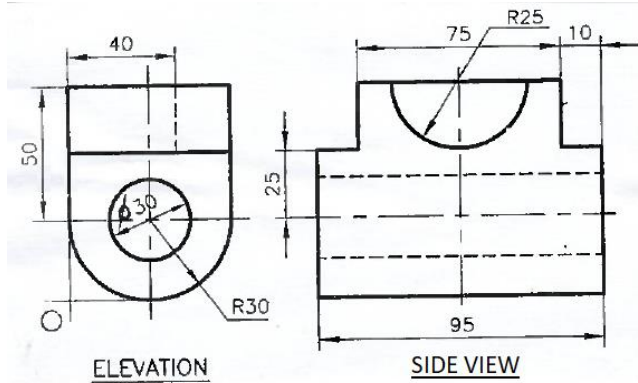


23)

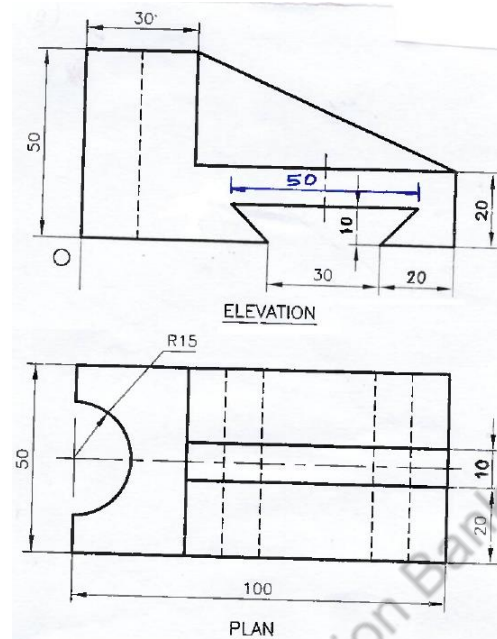




24)



25)



### Projection of Solids

- 1) A square prism with base side 30 mm and axis height 70 mm is resting on HP on one of its corner such that the vertical edge containing the corner is inclined  $30^\circ$  to HP and the top view of the axis is inclined by  $45^\circ$  to VP. Draw projections of the prism if top of the prism is nearer to the observer.
- 2) A hexagonal prism with base side 30 mm and axis height 70 mm is resting on HP on one of the base edge. The base of the prism is inclined by  $40^\circ$  to HP and the base edge resting on HP is parallel VP. Draw projection of Prism if base is nearer to the observer.
- 3) A square pyramid with base side 40 mm and axis height 80 mm is resting on HP on one of the base edge. The triangular face containing the base edge is perpendicular to HP and the same base edge is inclined by  $40^\circ$  to VP. Draw the projections of pyramid if apex is towards the observer.
- 4) A hexagonal prism with base side 30 mm and axis height 70 mm is resting on HP on one of the base corner with axis of the prism inclined by  $40^\circ$  to HP and the top view of the axis is inclined by  $30^\circ$  to VP. Draw projections of Prism if top of the prism is nearer to the observer.
- 5) A square pyramid with base side 40 mm and axis height 70 mm is resting on HP on one of the triangular face such that the base edge containing the triangular face is inclined by  $40^\circ$  to VP. Draw the projections of pyramid if apex is towards the observer.

- 6) A square prism with base side 40 mm and axis height 70 mm is resting on HP on one of the base edge. The base of the pyramid is inclined by  $30^\circ$  to HP and the base edge resting on HP is parallel VP. Draw projection of Prism if base is nearer to the observer.
- 7) A square pyramid with base side 40 mm and axis height 75 mm is resting on HP on one of the base side. The axis of the pyramid is inclined by  $40^\circ$  to HP and top of axis is inclined by  $30^\circ$  to VP. Draw projections of Pyramid if the base is nearer to VP.
- 8) A hexagonal prism with base side 30 mm and axis height 70 mm is resting on HP on one of the base corner. The axis of the prism is inclined by  $40^\circ$  to HP and the top view of the axis is inclined by  $30^\circ$  to VP. Draw projections of Prism if top of the prism is away from the observer.
- 9) A pentagonal pyramid with base side 30 mm and axis height 75 mm is resting on HP on one of the base corner. The axis of the pyramid is inclined by  $45^\circ$  to HP and the top view of the axis is inclined by  $30^\circ$  to VP. Draw projections of Pyramid if apex is away from the observer.
- 10) A square pyramid with base side 40 mm and axis height 75mm is resting on HP on one of the base edge. The triangular face containing the base edge is  $45^\circ$  to HP and the same base edge is inclined by  $30^\circ$  to VP. Draw the projections of pyramid if apex is away from the observer.
- 11) A pentagonal prism with base side 40 mm and axis height 80 mm is resting on HP on one of the base edge. The base of the prism is inclined by  $35^\circ$  to HP and the base edge resting on HP is parallel VP. Draw projections of Prism if base is nearer to the VP.
- 12) A pentagonal prism with base side 30 mm and axis height 70 mm is resting on HP on one of the base corner. The axis of the prism is inclined by  $40^\circ$  to HP and the top view of the axis is inclined by  $30^\circ$  to VP. Draw projections of Prism if top of the prism is away from the observer.
- 13) A pentagonal prism with base side 30 mm and axis height 70 mm is resting on HP on one of its corner such that the vertical edge containing the corner is inclined  $45^\circ$  to HP and the top view of the axis is inclined by  $30^\circ$  to VP. Draw projections of the prism if top of the prism is nearer to the observer.



- 14) A pentagonal prism having an edge of base 30 mm, axis height 70 mm has one of its corner in the H.P. The axis is inclined at  $30^\circ$  to the H.P. and the T.V. of an axis is inclined at  $45^\circ$  to the V.P. Draw the projections.
- 15) A pentagonal pyramid with base side 30 mm and axis height 70 mm is resting on HP on one of the base edge. The axis of the pyramid is inclined by  $45^\circ$  to HP and the base edge resting on HP is  $30^\circ$  inclined to VP. Draw projections of Pyramid.
- 16) A square prism with base side 40 mm and axis height 70 mm is resting on HP on one of the base side. The axis of the prism is inclined by  $30^\circ$  to HP and top of axis is inclined by  $40^\circ$  to VP. Draw projections of Prism if the base is nearer to VP.
- 17) A square prism, side of base 40 mm and axis 75 mm has one of the side of base in the H.P. which makes an angle  $30^\circ$  with the V.P. and axis inclined at an angle  $45^\circ$  with the H.P. Draw its projections.
- 18) A pentagonal prism with base side 30 mm and axis height 75 mm is resting on HP on one of the base edge. The axis of the prism is inclined by  $40^\circ$  to HP and the base edge resting on HP is  $30^\circ$  inclined to VP. Draw projections of Prism.
- 19) A hexagonal pyramid with base side 30 mm and axis height 75 mm is resting on HP on one of the base edge. The triangular face containing the base edge is  $45^\circ$  to HP and the same base edge is inclined by  $30^\circ$  to VP. Draw projection of the pyramid if apex is away from the observer.
- 20) A hexagonal pyramid with base side 30 mm and axis height 75 mm is resting on HP on one of the base corner with axis of the pyramid inclined by  $30^\circ$  to HP and the top view of the axis is inclined by  $45^\circ$  to VP. Draw projections of Pyramid if apex is nearer to the observer.
- 21) A hexagonal pyramid with base side 35mm and axis height 80 mm is resting on HP on one of the base edge. The base of the pyramid is inclined by  $45^\circ$  to HP and the base edge resting on HP is parallel VP. Draw projection of Pyramid if base is nearer to the observer.

- 22) A hexagonal pyramid with base side 30 mm and axis height 70 mm is resting on HP on one of its slant edge. The same slant edge is inclined by  $40^\circ$  to VP. Draw projection of the pyramid if apex is nearer to the observer.
- 23) A pentagonal pyramid with base side 40 mm and axis height 80 mm is resting on HP on one of the base edge. The base of the pyramid is inclined by  $35^\circ$  to HP and the base edge resting on HP is parallel VP. Draw projections of Pyramid if base is nearer to the VP.
- 24) A pentagonal pyramid with base side 30 mm and axis height 70 mm is resting on HP on one of its slant edge such that the top view of the axis is inclined by  $45^\circ$  to VP. Draw projections of the pyramid if apex is nearer to the observer.
- 25) A hexagonal pyramid with base side 35 mm and axis height 85 mm is resting on HP on one of the base edge. The triangular face containing the base edge is perpendicular to HP and the same base edge is inclined by  $30^\circ$  to VP. Draw projection of Pyramid if apex is nearer the observer.

*All the best!*