

N. B:-

1. All questions are compulsory
2. Figures to the right indicate full marks
3. Assume suitable data if necessary and state it clearly
4. Use of non-programmable calculators is allowed

Q.1. Solve any two questions

- a) A line AB, 75 mm long is inclined at 45° to HP and 30° to VP. Draw the projections of the line AB, when A is 20 mm above HP and 30 mm in front of VP and end B is in second quadrant. (6)

- b) A 100 mm long line PQ is inclined at 30° to HP and 45° to the VP. Its mid point is 35 mm above the HP and 50 mm in front of VP. Draw its projections. (6)

- c) A straight line PQ has its end P 20 mm above the HP and 30 mm in front of the VP. The end Q is 80 mm above HP and 70 mm in front of the VP. If the end projectors are 60 mm apart, draw the projections of the line. Determine its true length and true inclinations with HP and VP. (6)

Q.2. Solve all questions

- a) A regular hexagon of side 25 mm is inclined at 60° to the HP and 30° to the VP. One of its edges is parallel to the VP. Draw the projections of the hexagon. (6)

- b) Draw the projections of a circular lamina of 60 mm diameter having the end A of its diameter AB in the HP and the end B in the VP and the surface inclined at 30° to the HP and 60° to the VP. (6)

- Q.3. A tetrahedron PQRS of 50 mm long edges has edge PQ in HP. The edge RS is inclined at 30° and 45° to HP and VP respectively. Draw its projections. (12)

Q.4. Solve any one question

a) Draw by using first angle method of projection the following views i) Elevation looking in the direction of arrow X ii) plan iii) Left hand side view for the object as shown in figure A.

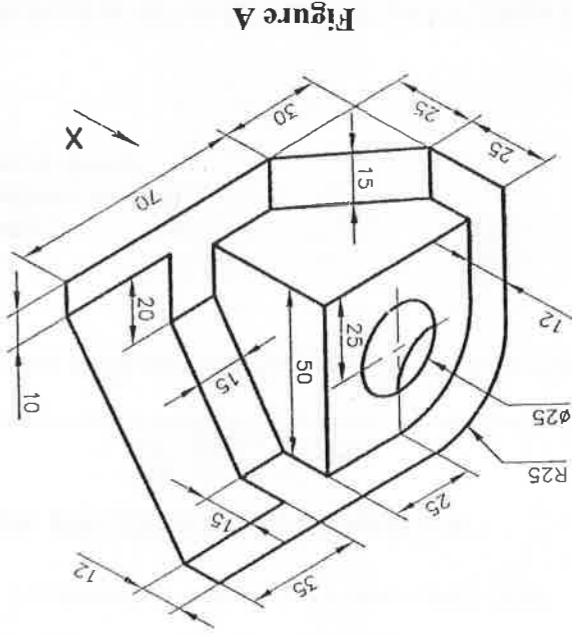


Figure A

b) Draw the front view looking in direction of arrow X, top view and right hand side view of the object shown in figure B.

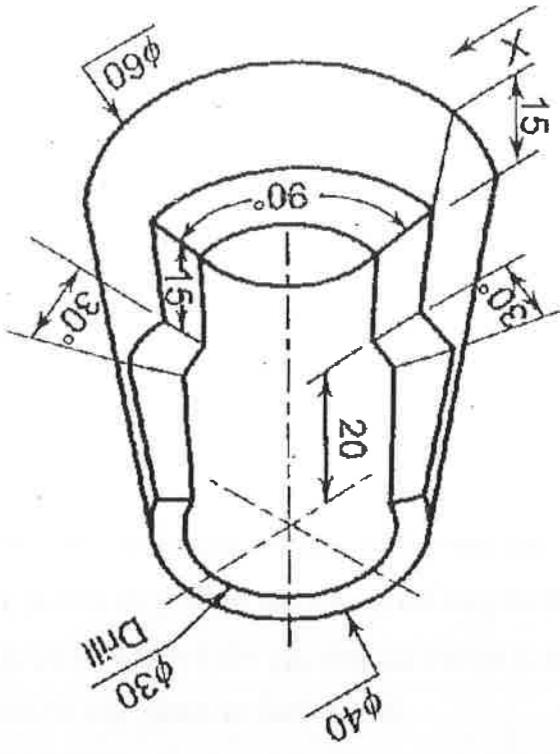


Figure B

Q.5. Solve any one question

(12)

a) Draw the isometric projection of the object as shown in figure C.

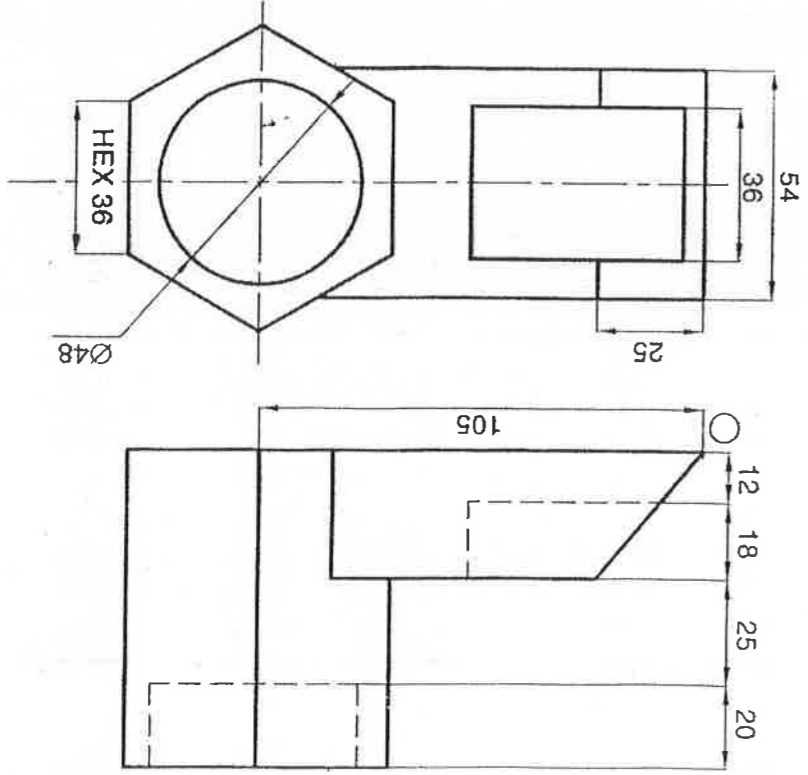
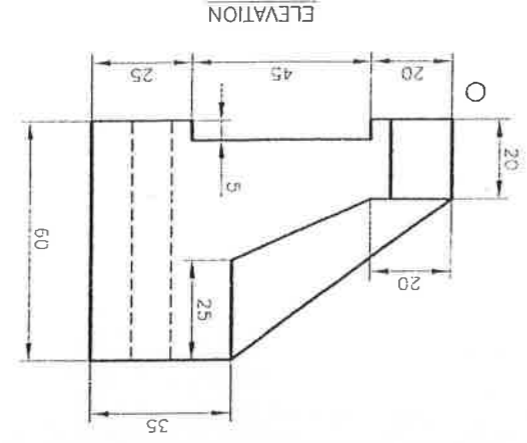


Figure C

b) Draw an isometric view of the object as shown in figure D.



ELEVATION

Fig.- 5.48(e)

Figure D