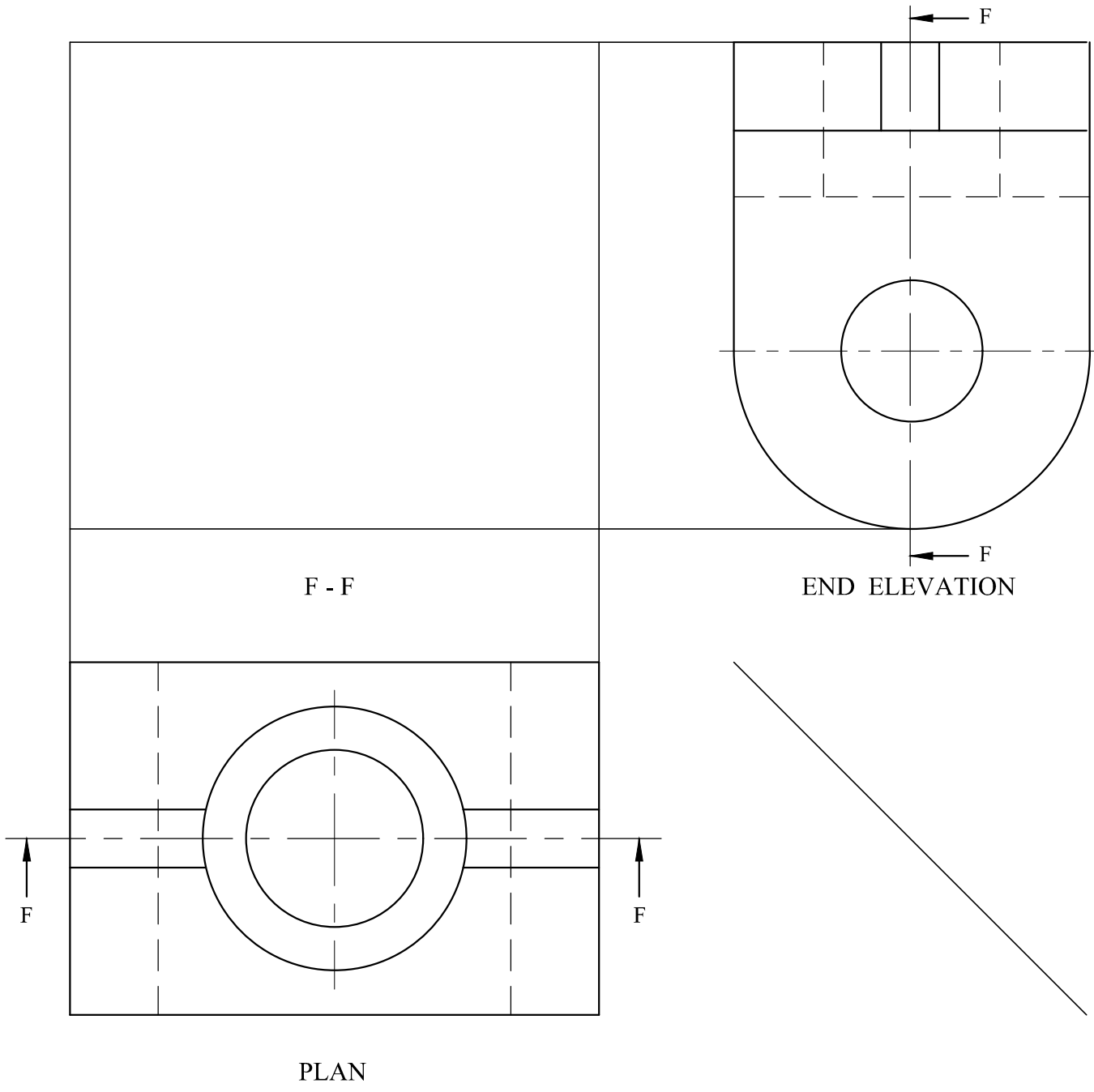
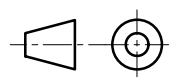
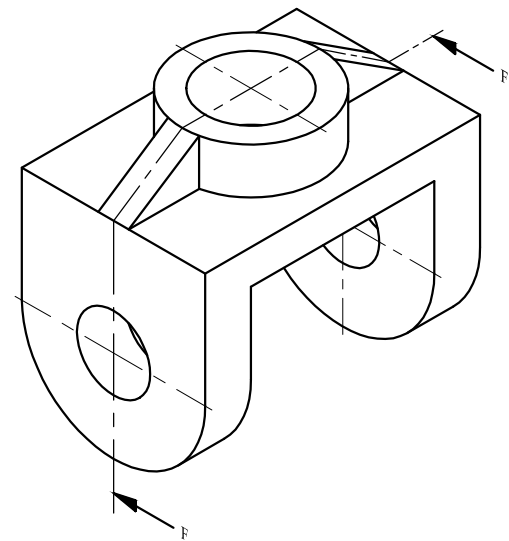
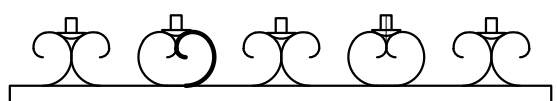


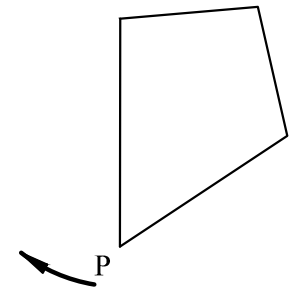
1. A pictorial view of a Bearing Bracket is shown on the right.
Also given are the End Elevation and the Plan.
Draw the Sectional Front Elevation F-F in the space provided.
18 marks



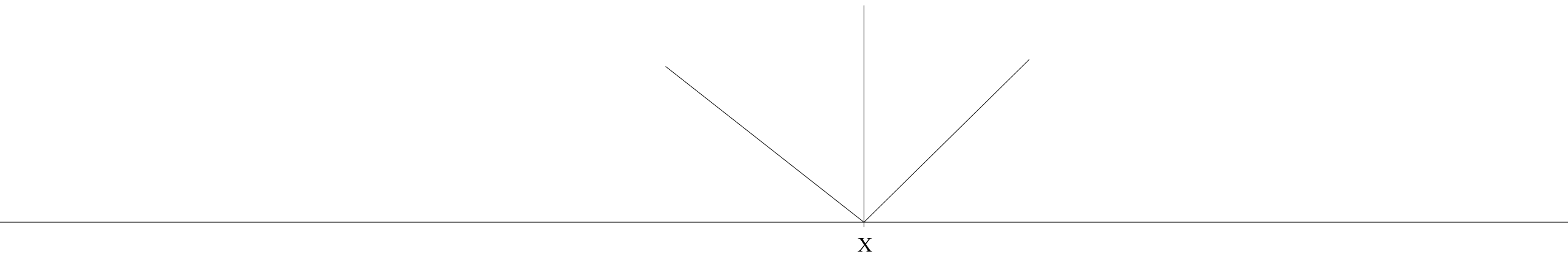
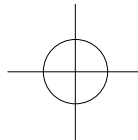
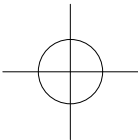
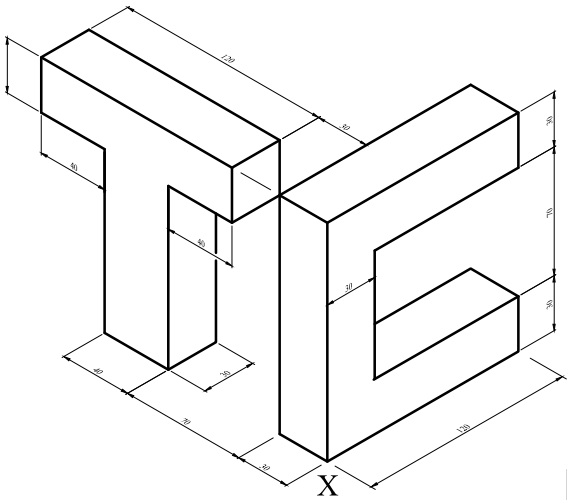
2. The drawing shows a set of five candle holders. All the curved parts are similar and have the shape of an Involute.
Draw an enlarged version of the curved part highlighted in the drawing.
Do this by constructing the Involute formed when plotting the locus of the end of a string as it unwinds completely from the given irregular quadrilateral.
Start your involute from P in the direction of the arrow.



marks



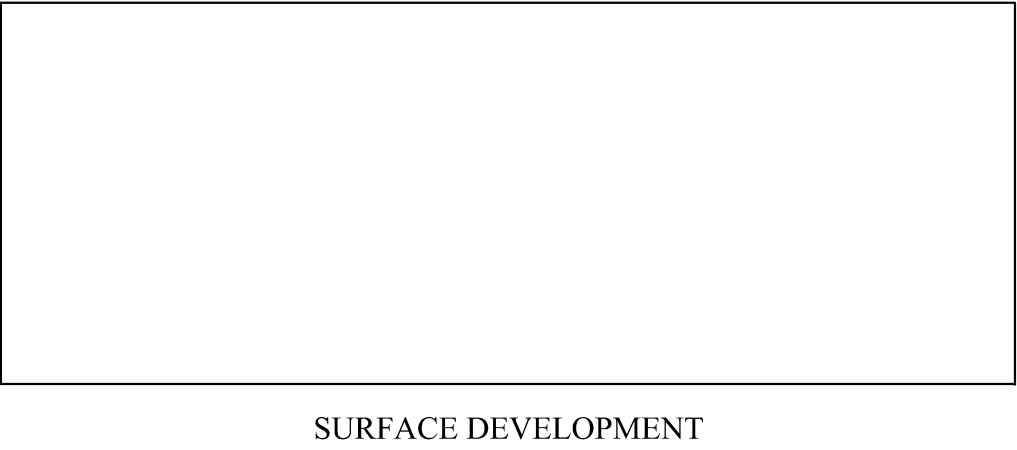
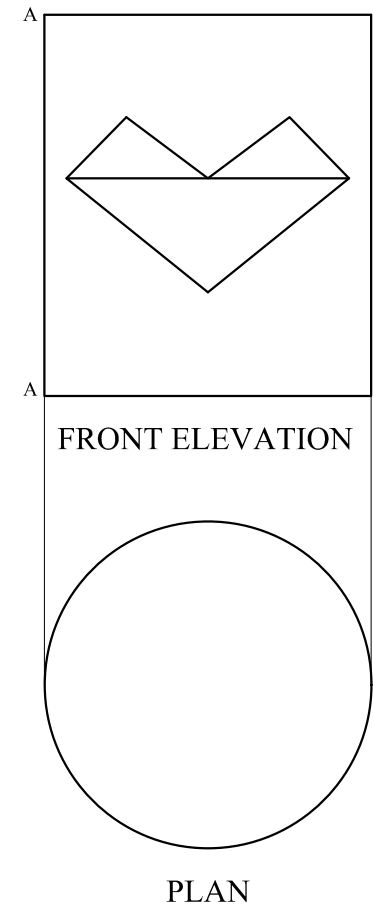
5. The logo shown on the right belongs to a shop called Torrisi Contractors.
A dimensioned isometric projection of the logo is also given.
On the given start lines, draw a Two-Point Perspective Projection of the logo
to the given dimensions, assuming point X as the lowest point of the drawing.
18 marks



3. The pictorial view shows a diamond depicted on a cylindrical chimney of a model vessel belonging to a company called Diamond Shipping Line. The widest part of the diamond covers half the circumference of the chimney. Using the front elevation and plan given below, construct the surface development of the cylinder chimney, including the logo of the diamond.

Note: 1. Only one diamond is required.
2. Make the joint line along AA.

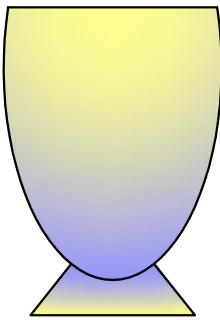
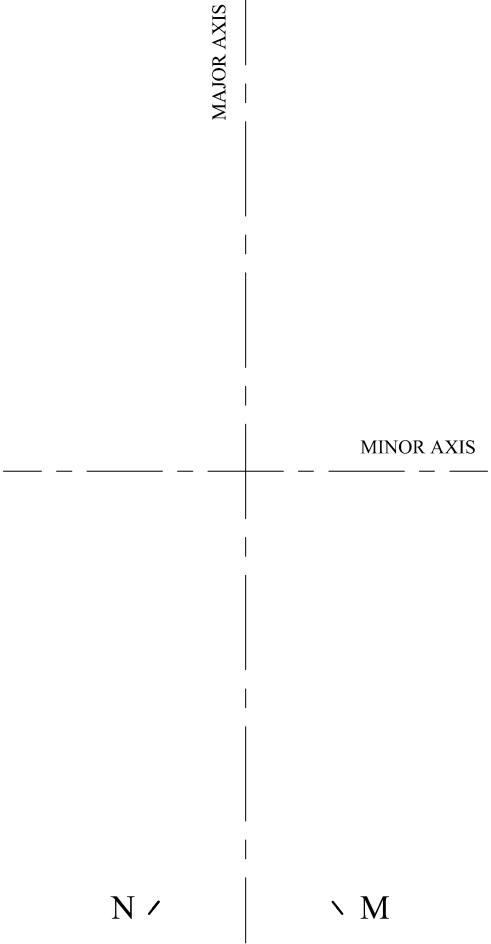
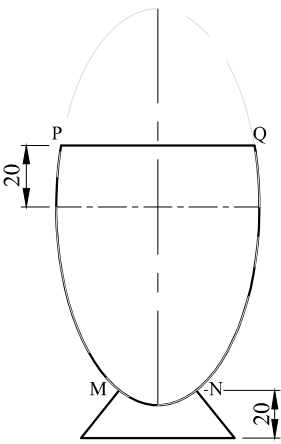
marks



4. The profile of a cup consists mainly of a part ellipse and two normals at the bottom. On the given major and minor axes and to the given dimensions:

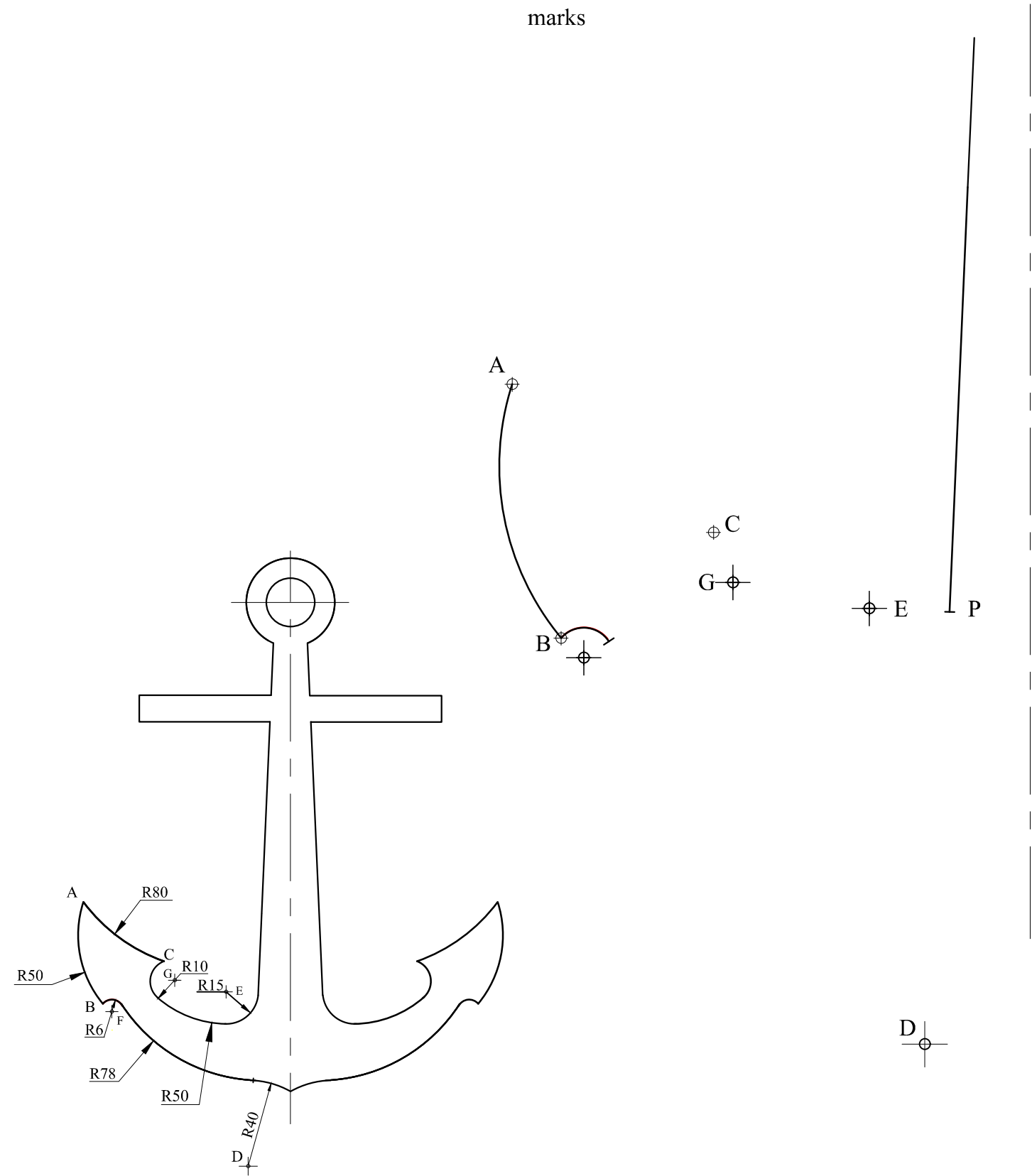
- a) Construct the part ellipse PMNQ.
- b) Locate geometrically the focal points.
- c) Construct normals at M and N and complete the lower part of the cup.

Note: One of the normals can be reflected.



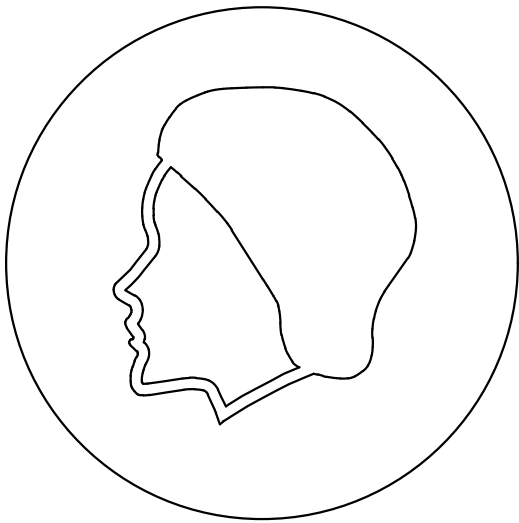
6. Details of the drawing of an anchor are given below.
Using the given start lines and to the given dimensions, complete the lower left part of the anchor showing clearly the construction to obtain the centres of the arcs. Show points of tangencies.

marks



7a. A **mandatory sign** was placed at the entrance of an IT hardware equipment workshop. The management forbids persons with loose hair from entering the shop. The mandatory sign emphasises the use of hair caps. Colour the sign with the appropriate colours.

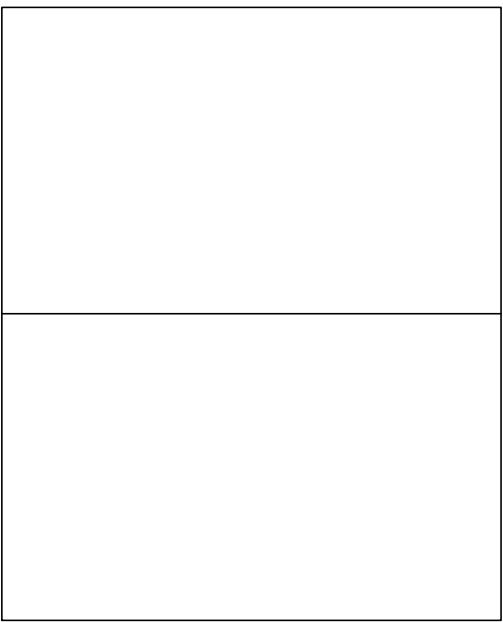
3 marks



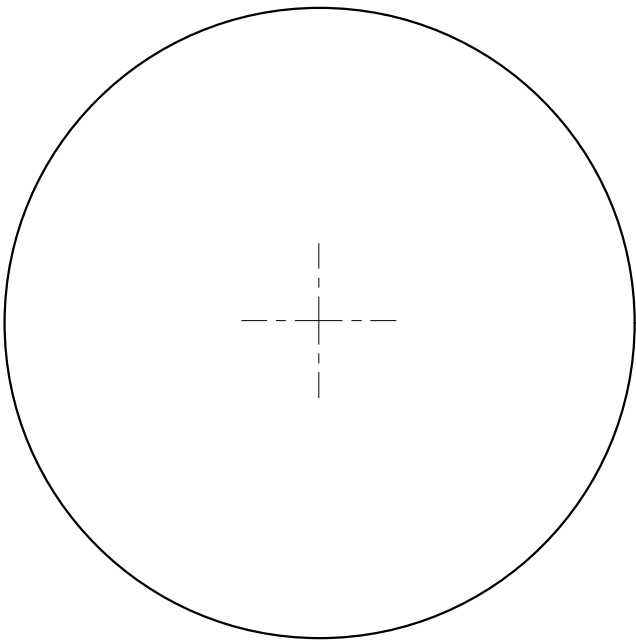
MANDATORY SIGN (Wear hair cover)

7b. Draw a **prohibition sign** informing persons not to step on the flowers while walking in a garden. Start by drawing two preliminary sketches in the rectangles provided. Use your sketches to make a final drawing of the prohibition sign in the circle provided, using drawing instruments where required. Colour your drawing with the standard colours of a prohibition sign.

11 marks



FREEHAND SKETCHES



PROHIBITION SIGN