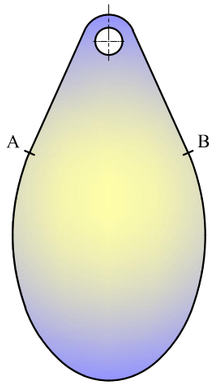
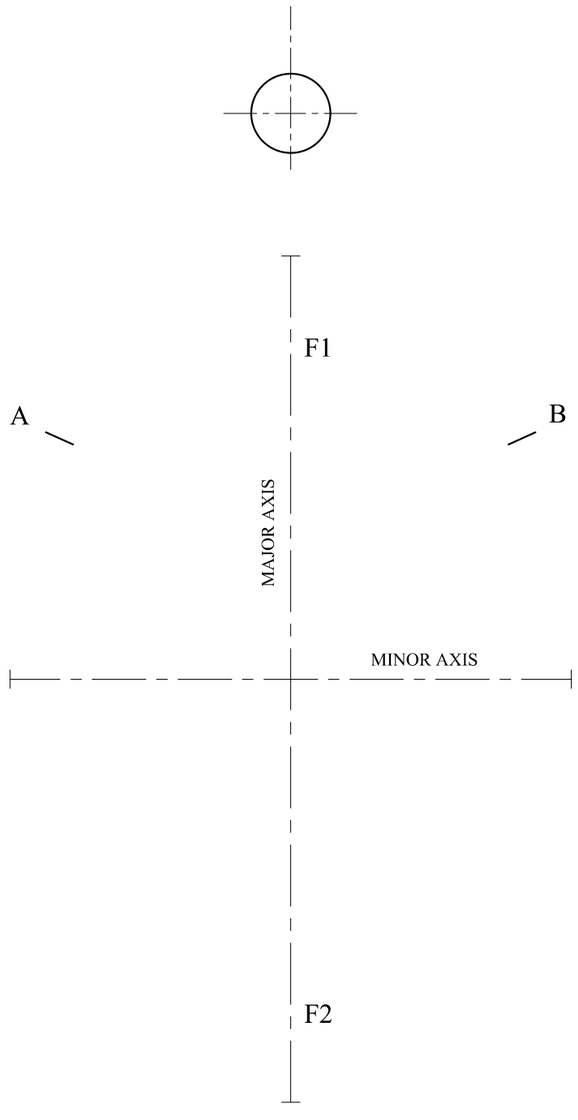
1. The drawing at the side shows the lower part of an earring.
It consists of a part-ellipse, two tangents at A and B and an arc.
Make a drawing of the earring by:

a) Constructing the part-ellipse on the given major and minor axes.
b) Locating the focal points of the ellipse.
c) Constructing a tangent at A and reflecting it at B.
d) Drawing the top arc.

Notes: The trammel method of construction is not accepted.
Leave all construction lines.

14 marks



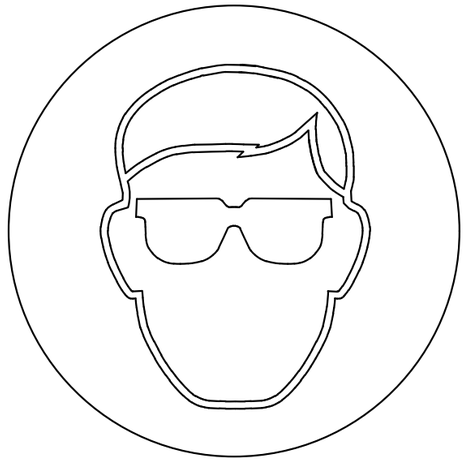


2. In a science laboratory various signs have to be installed to ensure a healthy environment.

a) One of the required ***Mandatory*** signs is shown below.
i. Colour the sign with the appropriate colours.
ii. Print down the meaning of the sign in the given guide lines.

b) A ***Safe Condition*** sign indicating **emergency eye wash** must also be installed.
i. Draw two preliminary freehand sketches to develop the idea of emergency eye wash.
ii. Make a final drawing of the sign, using drawing instruments where required.
iii. Colour the sign with the standard colours of a safe condition sign.

10 marks



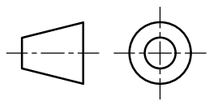
FREEHAND SKETCHES

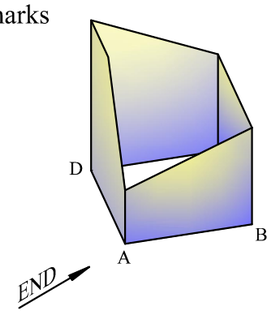
FINAL DRAWING

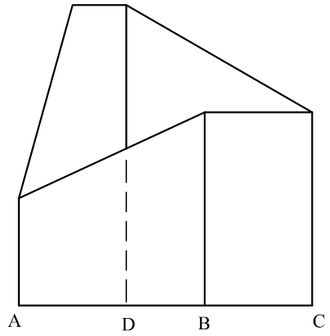
5. A pictorial view and two orthographic views of a trucated square prism are given.
   a) Draw an end view as indicated by the arrow.
   b) Draw the development on the given start line at the bottom.

Note: Include hidden detail in the end view.

14 marks

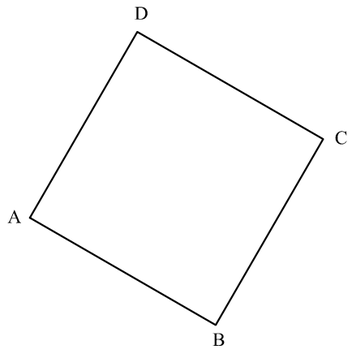






FRONT VIEW

END VIEW



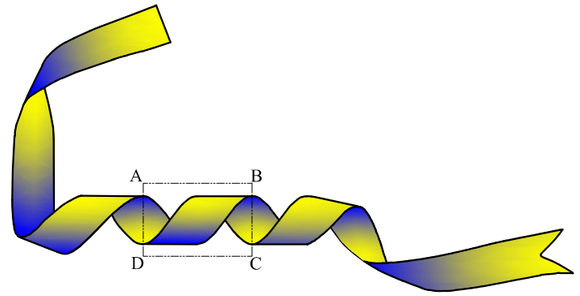
PLAN

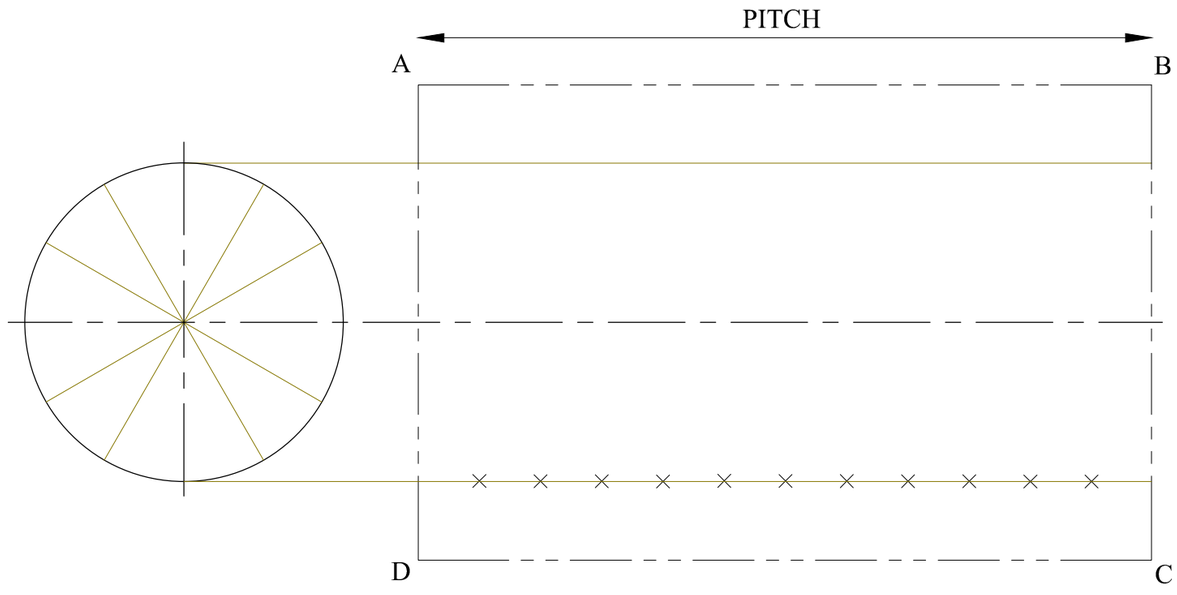
DEVELOPMENT

6. The ribbon shown below is the logo of a haberdashery shop.
The part of the ribbon enclosed by the rectangle ABCD, forms one turn of a perfect helix.
Construct this helical part of the ribbon started at the bottom.
Show hidden detail.

Note: Some construction lines are already drawn.

12 marks

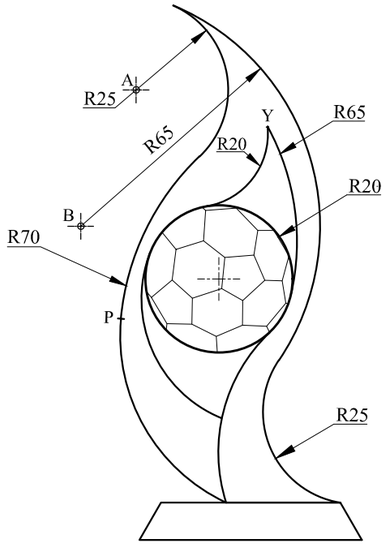


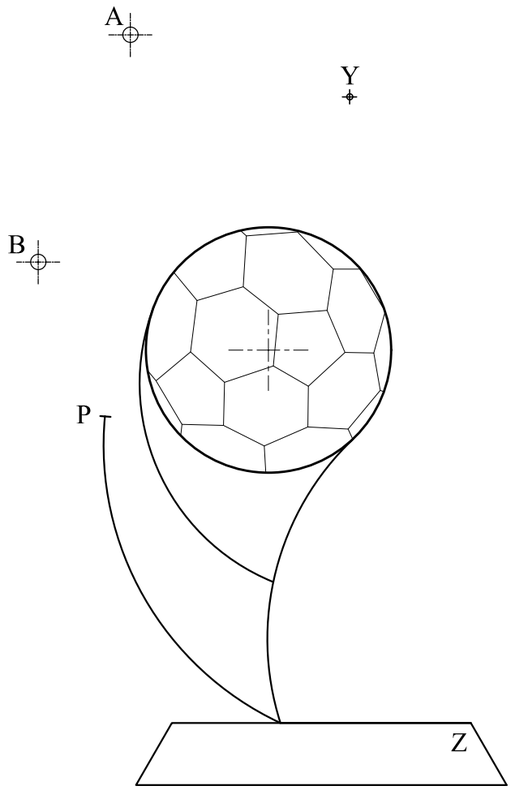


3. A dimensioned drawing of a football trophy is shown.
Using the given start lines, continue the drawing of the trophy to the given dimensions, showing clearly the construction to obtain the centres of the arcs.
Show three points of tangency.

Note: Point P is a point of tangency.

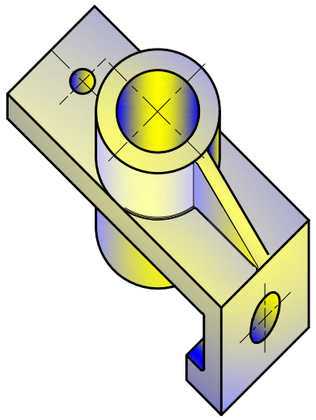
12 marks

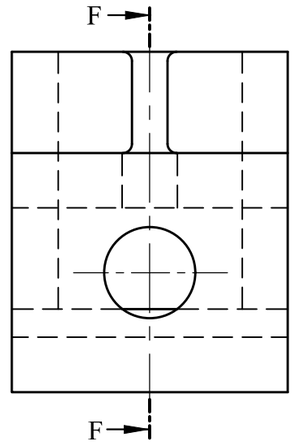




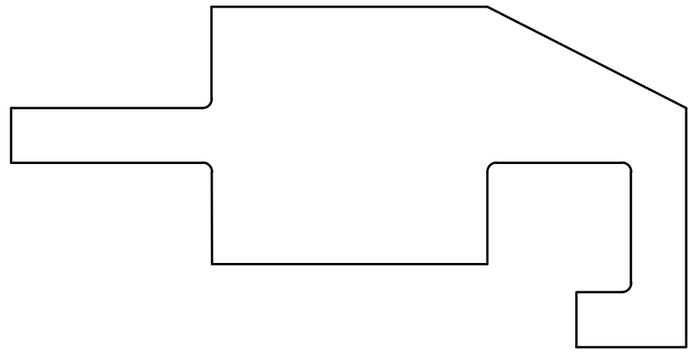
4. A pictorial view, an end elevation, a plan and an incomplete sectional front elevation of a Bearing Bracket are given.
a) Complete the sectional front elevation indicated by the cutting plane F-F .
b) Draw the symbol of projection.

12 marks

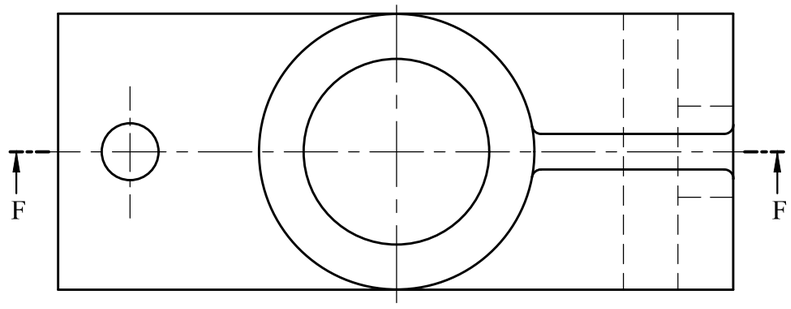




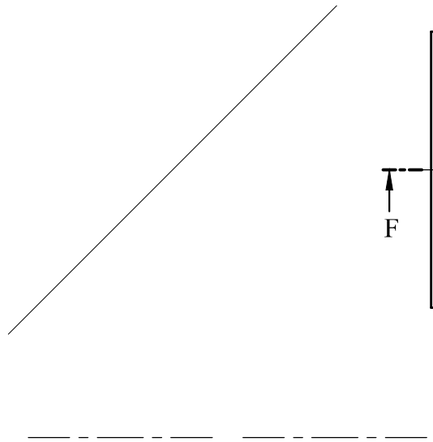
END ELEVATION



F - F



PLAN

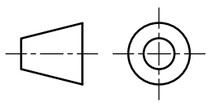


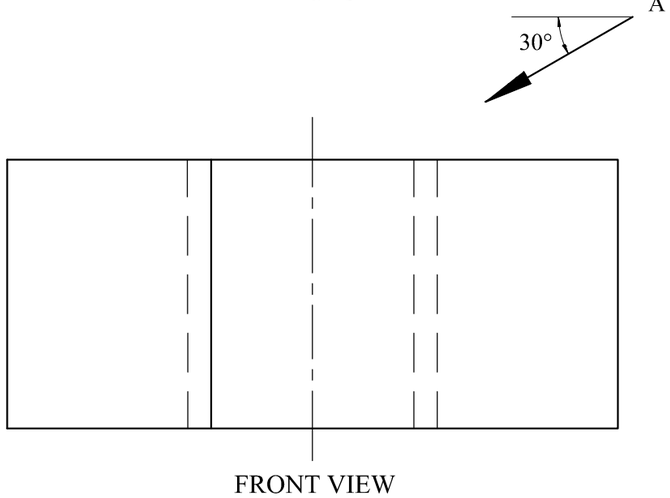
SYMBOL OF PROJECTION

7. The drawing shows two orthographic views of a rectangular metal block with a hole in the middle.
Draw an auxiliary plan in the direction of arrow A.
Do not show hidden details.

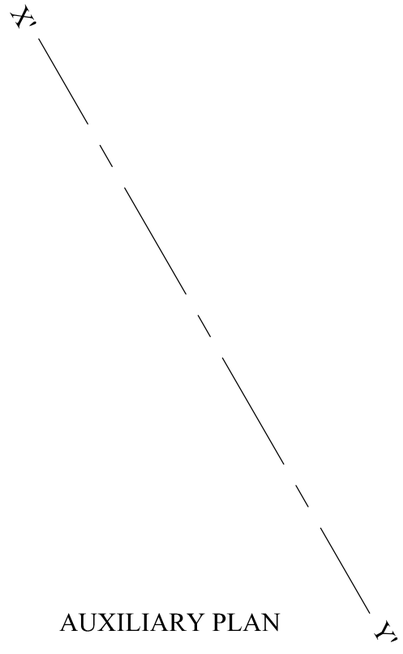
Note: Some construction lines are already drawn on the plan.

14 marks

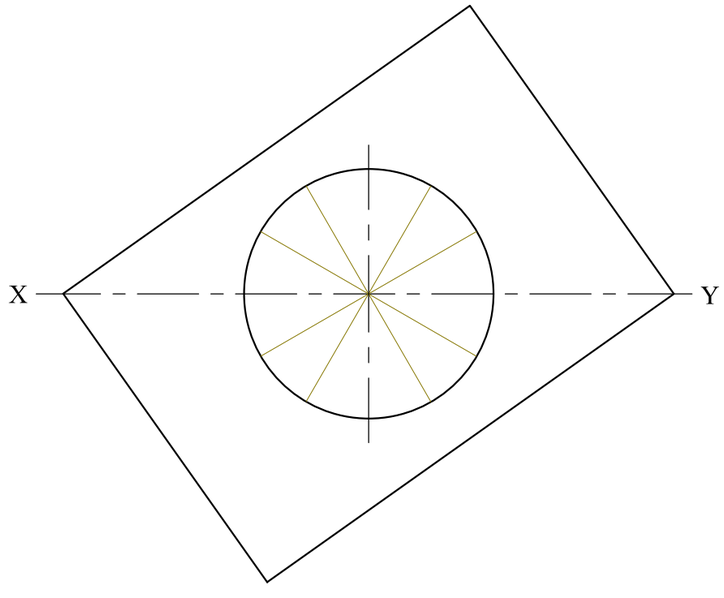




FRONT VIEW



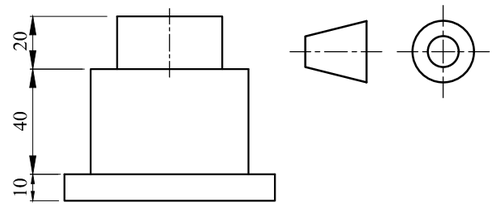
AUXILIARY PLAN



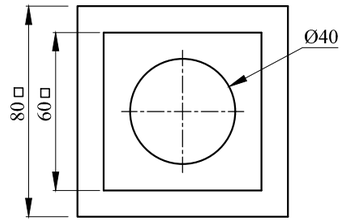
PLAN

8. The front elevation and plan of a pedestal are given.
On the given start lines, draw a **planometric** projection
of the pedestal to the given dimensions.
Give some light shading to your drawing, using black or coloured pencil.

12 marks



FRONT VIEW



PLAN