AN ROINN OIDEACHAIS

B JUNIOR CERTIFICATE EXAMINATION, 1995

TECHNICAL GRAPHICS — HIGHER LEVEL

THURSDAY, 15 JUNE — AFTERNOON, 2.00 - 5.00

SECTION B — 280 MARKS

INSTRUCTIONS FOR SECTION B

(a) Any four questions to be answered.

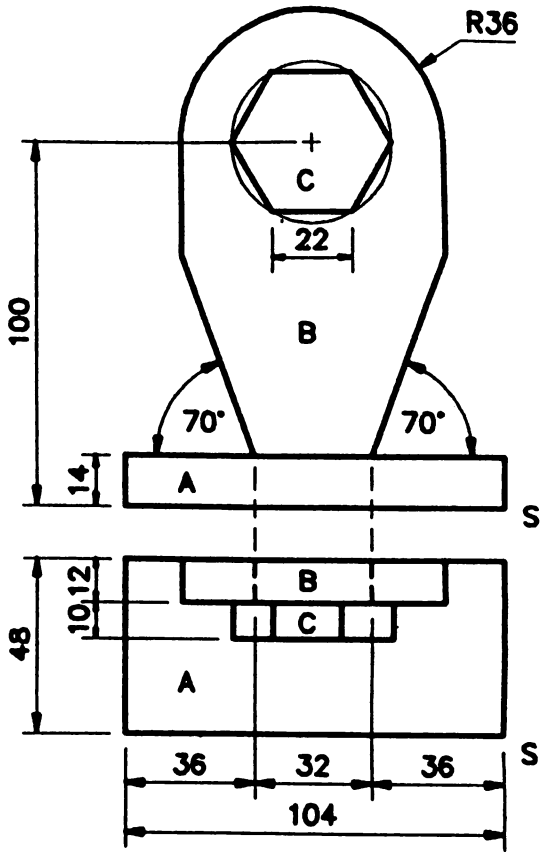
(b) All questions carry equal marks.

(c) The number of the question must be distinctly marked by the side of each question.

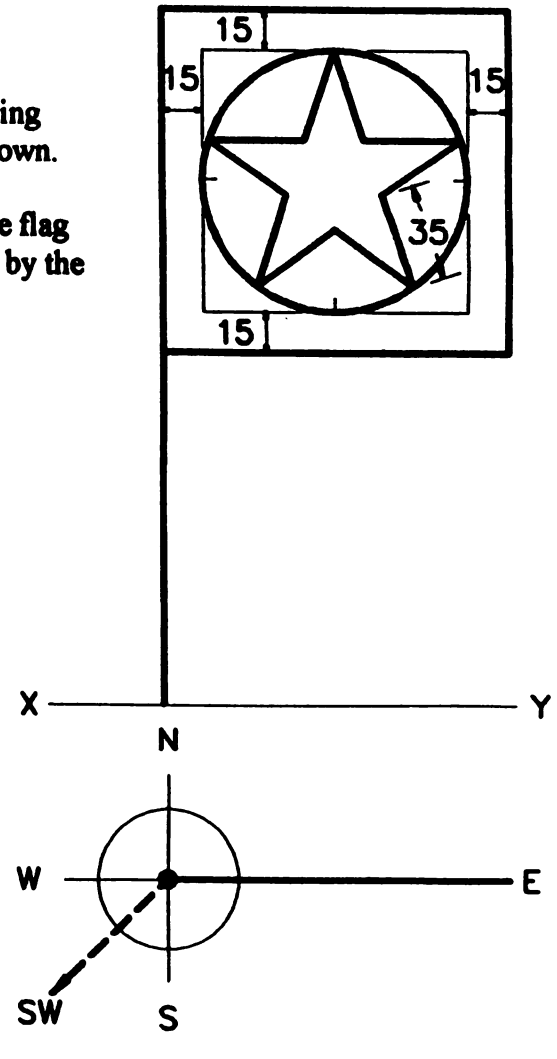
(d) Work on one side of the paper only.

(e) Examination number must be distinctly marked on each sheet of paper used.

1. The elevation and plan of a trophy are shown. The trophy is made up of three parts A, B and C as shown.
Draw an exploded isometric view of the trophy with the corner S as the lowest point.



2. The figure shows the elevation and plan of a flag containing a logo. The flag is blowing in an easterly direction as shown.
(i) Draw the given elevation.
(ii) On the same X—Y line, draw the elevation when the flag is blowing in a south westerly direction as indicated by the dotted line in the plan



3. The figure shows an incomplete isometric projection of a model aeroplane using the axonometric axes method. The side elevation and plan are also shown in their required positions.

(a) (i) Draw the plan orientated at 45° as shown.

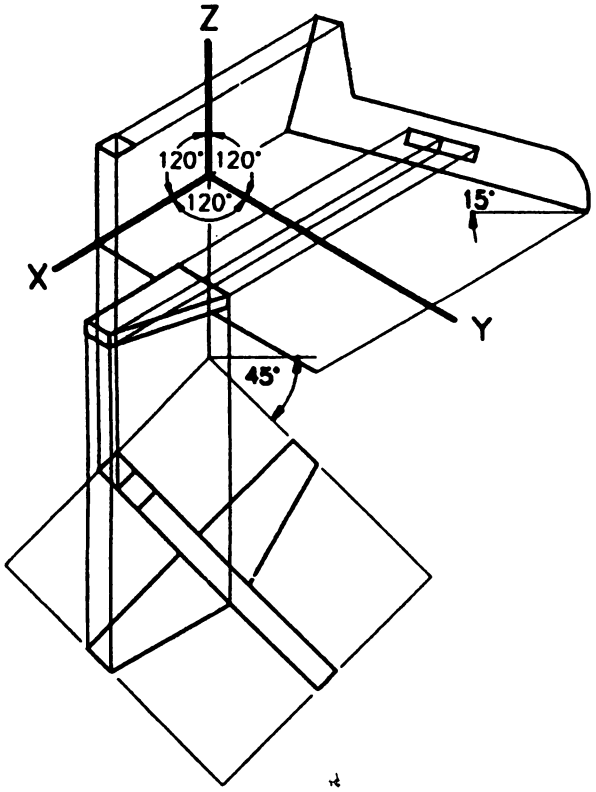
(ii) Draw the axes X, Y, and Z.

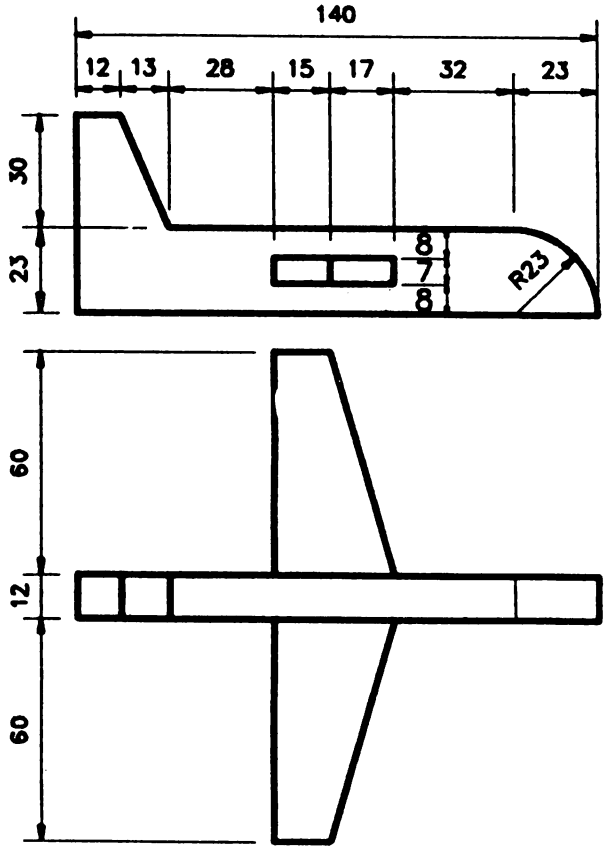
(iii) Draw the side-elevation orientated at 15° as shown.

(iv) Draw the completed isometric projection.

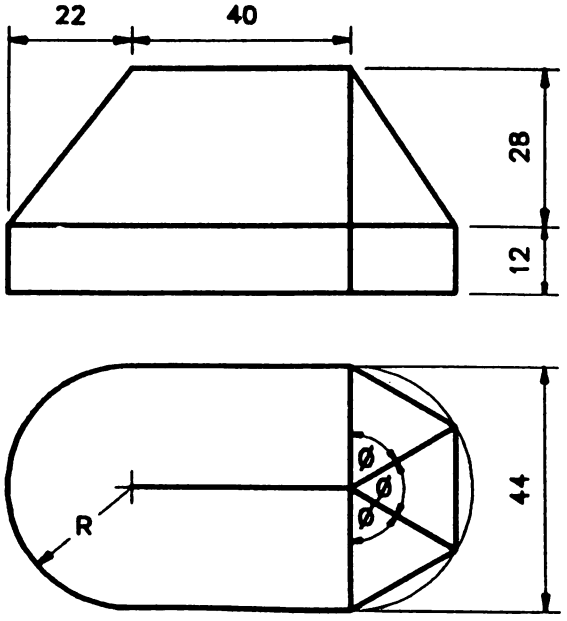
OR

(b) Draw the completed isometric projection using isometric scale.

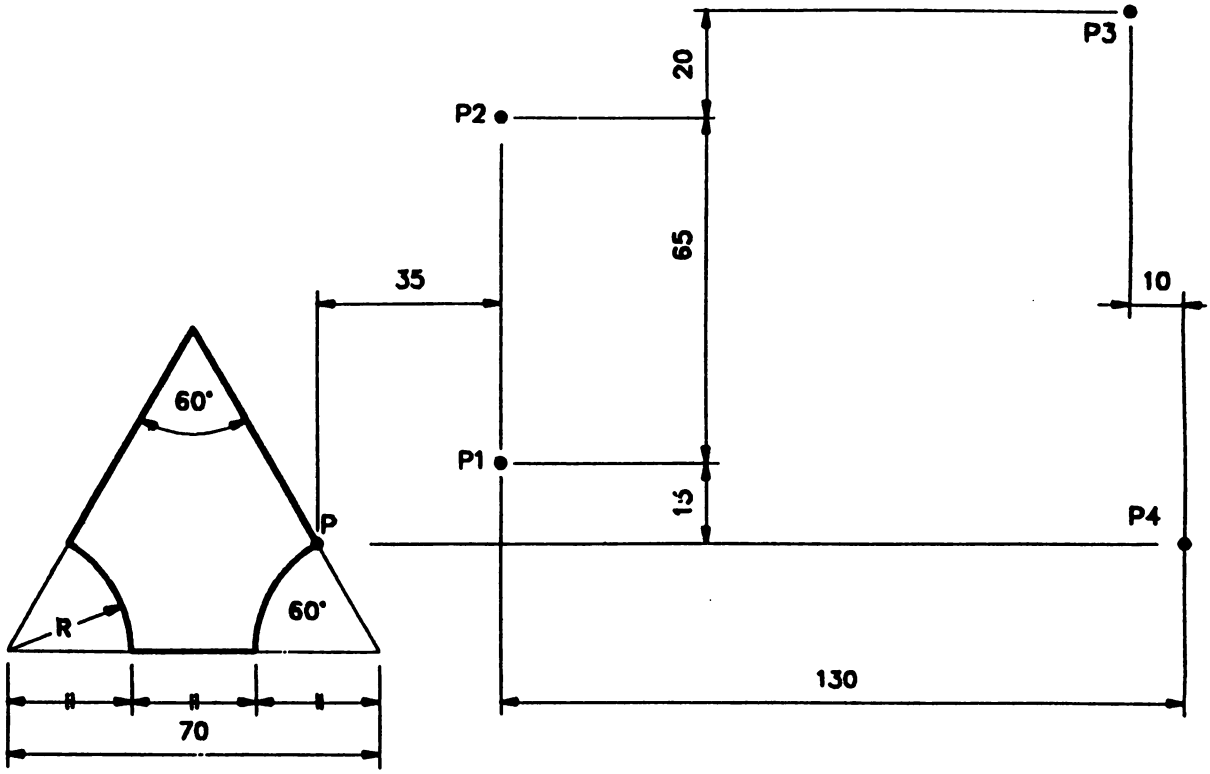




4. The elevation and plan of a structure are shown. Draw the complete surface development.



5. The figure shown is subject to transformations in the following order:-
   (i) axial symmetry.
   (ii) translation.
   (iii) central symmetry.
   (iv) rotation anti-clockwise through 120°.
   P1, P2, P3 and P4 show the positions of the vertex P under these transformations.
   Draw the given figure and determine the image figure in each of the transformations.



6. The figure represents a radar station. The curves ABC and DEF are semi-elliptical and parabolic, respectively. The two curves are tangential at point E.
   Draw the outline of the building showing clearly how the point of contact E is established.