AN ROINN OIDEACHAIS 6311 M.83
LEAVING CERTIFICATE EXAMINATION, 1996

TECHNICAL DRAWING - ORDINARY LEVEL - PAPER II (B)
BUILDING APPLICATIONS

MONDAY, 17 JUNE - MORNING 9.30 to 12.30

(200 MARKS)

INSTRUCTIONS

(a) Answer four questions.
(b) All questions carry equal marks.
(c) Construction lines must be shown on all solutions.
(d) Write the number of the question, distinctly, on the answer paper.
(e) First or third angle projection may be used.
(f) All measurements are given in metres or millimetres.

---

1. Fig. 1 shows the plan and elevation of a structure. Draw the given plan and make a perspective drawing of the structure when the position of the spectator is 1.6 m from the corner A, the picture plane touching the corner A, and the horizon line 1.9 m above the ground line.

Scale 1 : 20

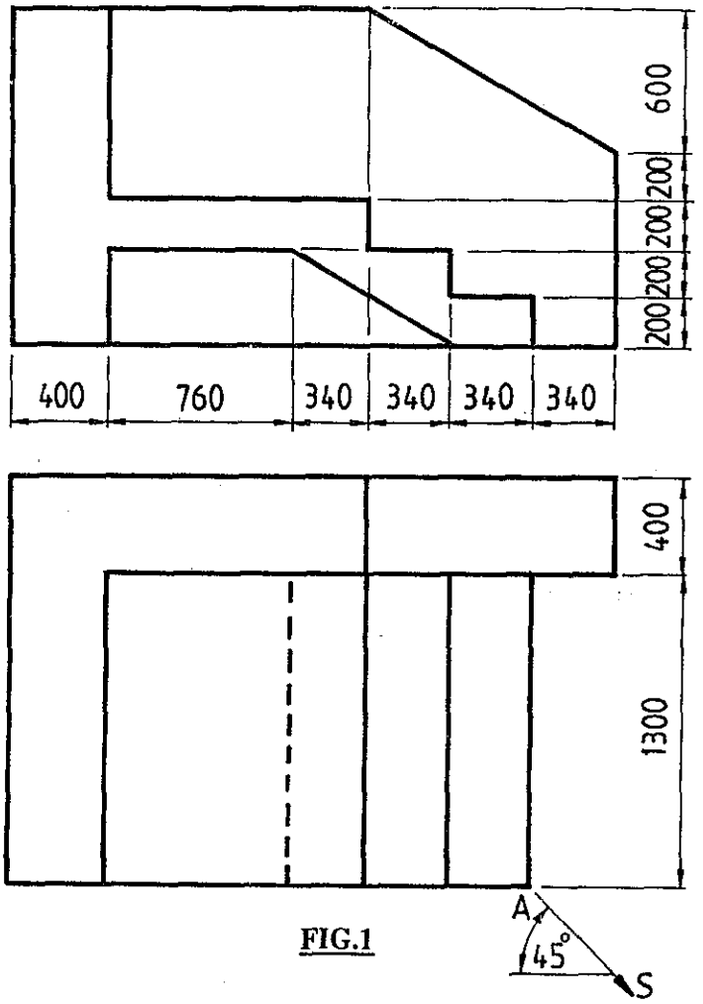

FIG.1

OVER→

2. Fig. 2 shows the outline plan and elevation of a lean - to roof. Surface A has a pitch of 30°, surface B has a pitch of 40° and surface C has a pitch of 45°.

(a) Draw the given plan and elevation of the roof.

(b) Develop the roof surface A.

(c) Find the dihedral angle between the surfaces B and C.

Scale 1 : 100

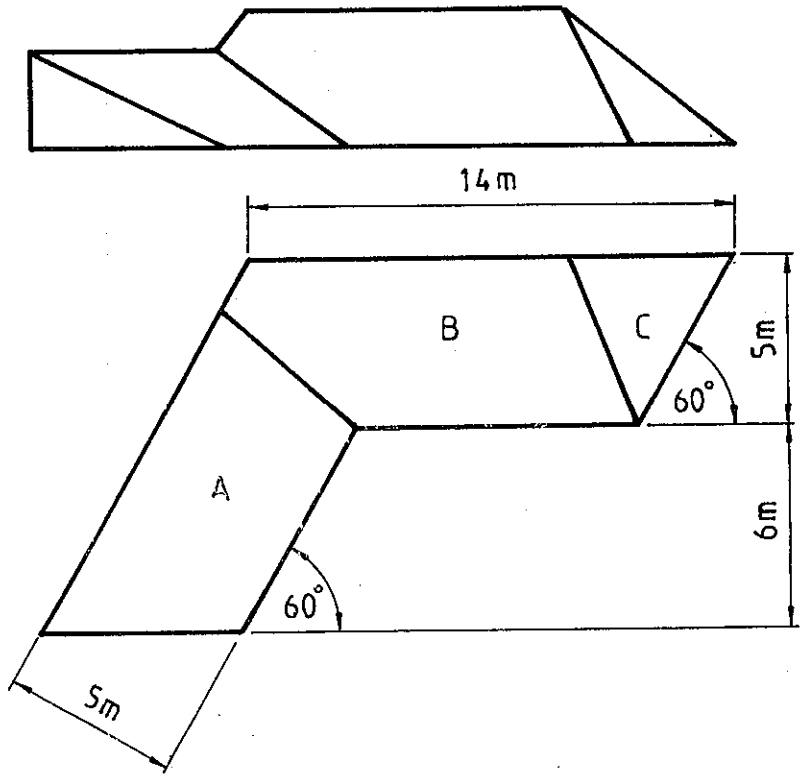

FIG.2

3. Fig. 3 shows the outline elevation, plan and end view of a building. Draw the given views and determine the shadows cast in plan and elevation when the direction of light is as shown.

Scale 1 : 200

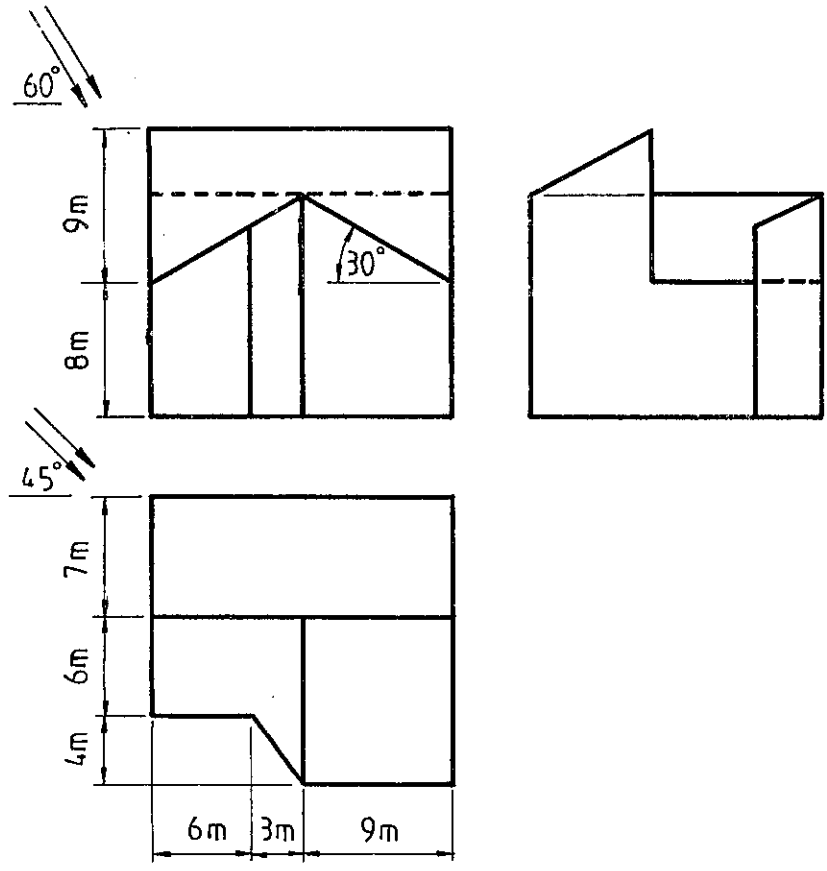

FIG.3

4. Fig. 4 shows the outline plan of three adjoining hyperbolic paraboloid roof surfaces ABOF, BCDO and DEFO. The roof is in the form of an equilateral triangle in plan. The corners A, C and E are 12 m above ground level, corners B, D and F are 4 m above ground level, and corner O is 18 m above ground level.

(a) Draw the plan of the roof and project the elevation.

(b) Determine the true shape of the sections R-R and S-S through the roof surfaces.

Scale 1 : 200

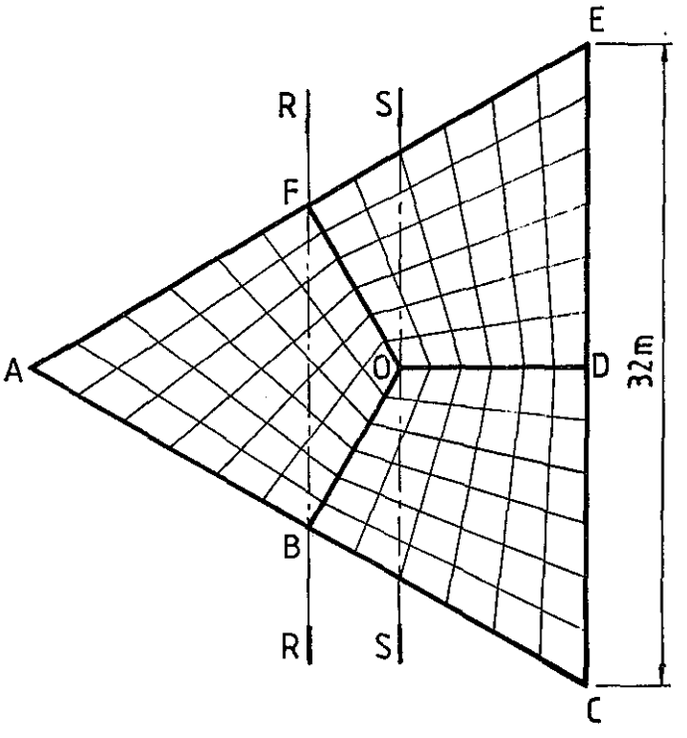

FIG.4

5. Fig. 5 shows the plan and elevation of a shaped stone.

Draw the given views and draw an isometric view of the stone.

Scale 1 : 5

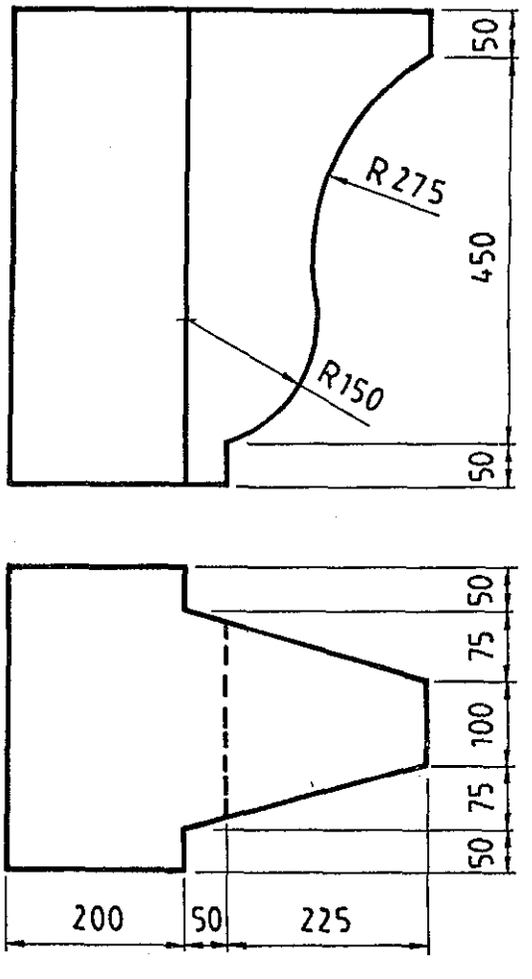

FIG. 5

6. Fig. 6 shows the outline plan, elevation and end view of a building. The main building is square in plan and the elevation of the entrance lobby is a parabola.

(a) Draw the given views.

(b) Develop the outer surface A of the entrance lobby.

Scale 1 : 200

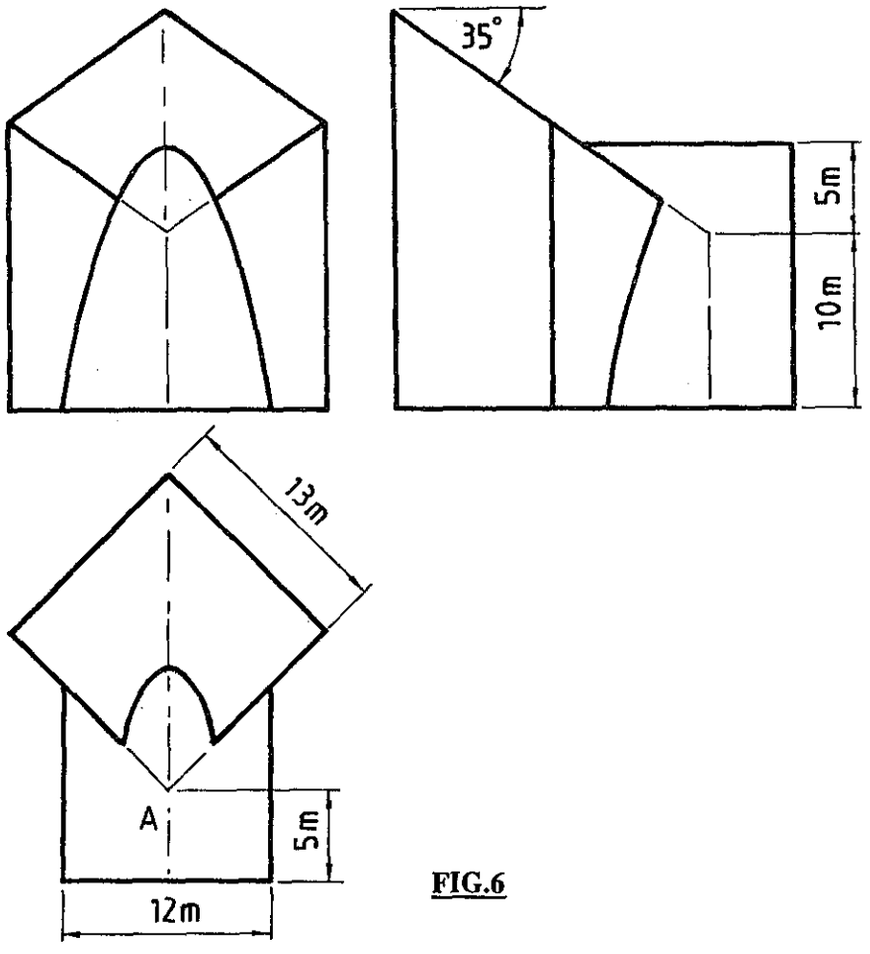

FIG.6

7. The accompanying drawing shows ground contours at ten-metre vertical intervals on a map.

(a) On the drawing supplied, draw a vertical section (profile) on the line DE.

(b) A, B and C are outcrop points on the surface of a stratum of ore. Determine the dip and strike of the stratum.

(c) Draw the outline of the outcrop between A and B.

Scrúduimhir
Examination Number

AN ROINN OIDEACHAIS

M.83(L)S

SCRÚDÚ ARDTEISTIMÉIREACHTA, 1996
LEAVING CERTIFICATE EXAMINATION, 1996.