

AN ROINN OIDEACHAIS AGUS EOLAÍOCHTA
LEAVING CERTIFICATE EXAMINATION, 2000

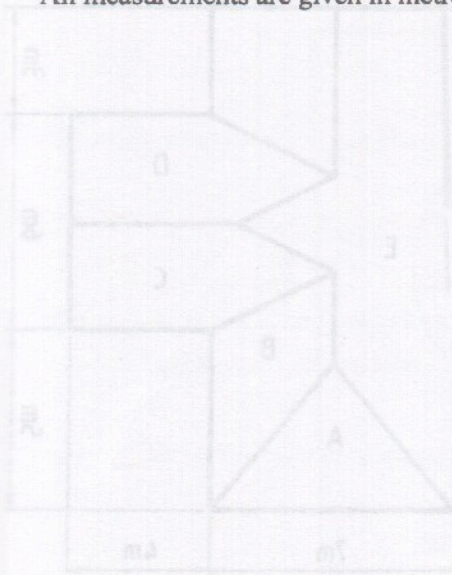
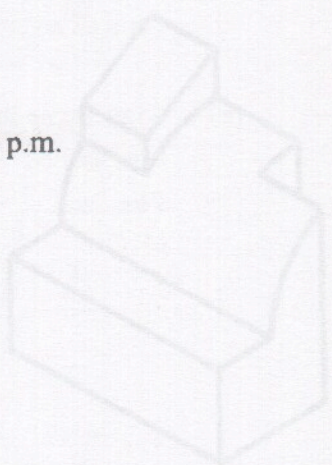
TECHNICAL DRAWING - ORDINARY LEVEL - PAPER II (B)
BUILDING APPLICATIONS

FRIDAY, 16 JUNE - AFTERNOON 2.00 p.m. to 5.00 p.m.

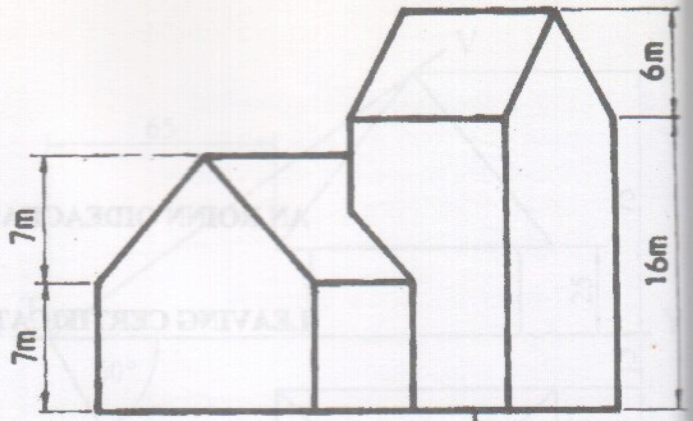
(200 MARKS)

INSTRUCTIONS

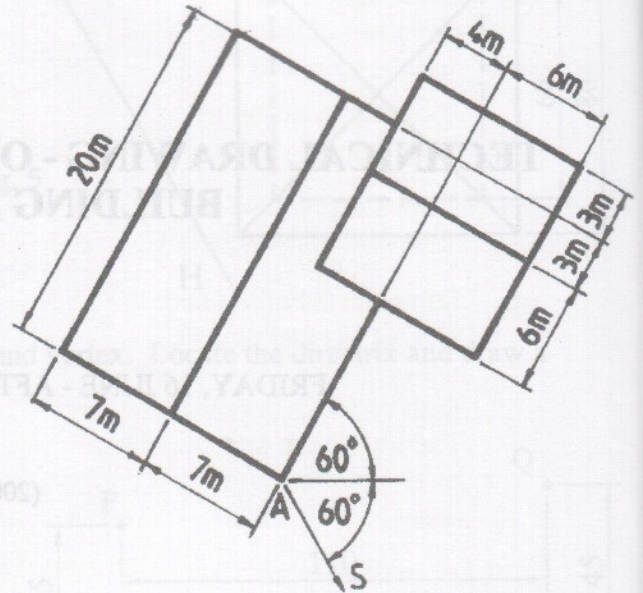
- (a) Answer four questions.
- (b) All questions carry equal marks.
- (c) Construction lines must be shown on all solutions.
- (d) Write the number of the question, distinctly, on the answer paper.
- (e) First or third angle projection may be used.
- (f) All measurements are given in metres or millimetres.



1. Fig. 1 shows the outline plan and elevation of a building. Draw the given plan and make a perspective drawing of the building when the position of the spectator is 18 m from the corner A, the picture plane touching the corner A, and the horizon line 15 m above the ground line.



Scale 1 : 200



2. Fig. 2 shows the outline plan and elevation of a roof. Surface A has a pitch of 35° ; surfaces B and E have a pitch of 40° and surfaces C and D have a pitch of 60° .

- Draw the given plan and elevation of the roof.
- Develop the surface E.
- Find the dihedral angle between the surfaces A and B.

Scale 1 : 100

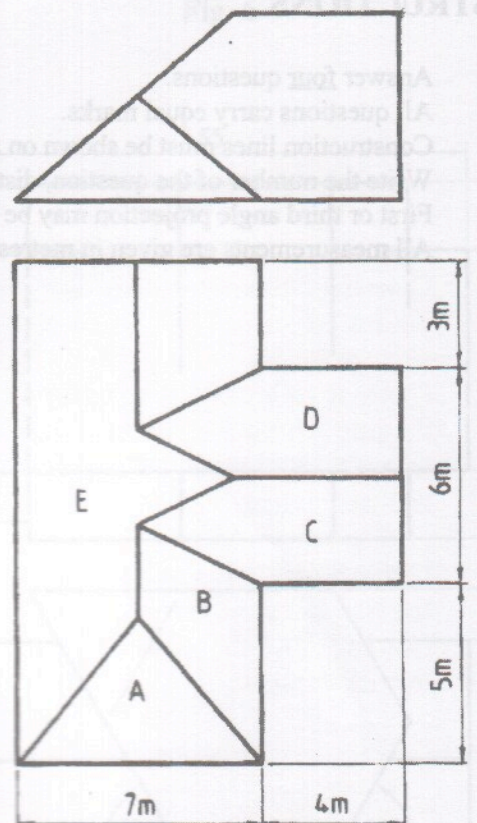


FIG.2

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

Scale 1 : 200

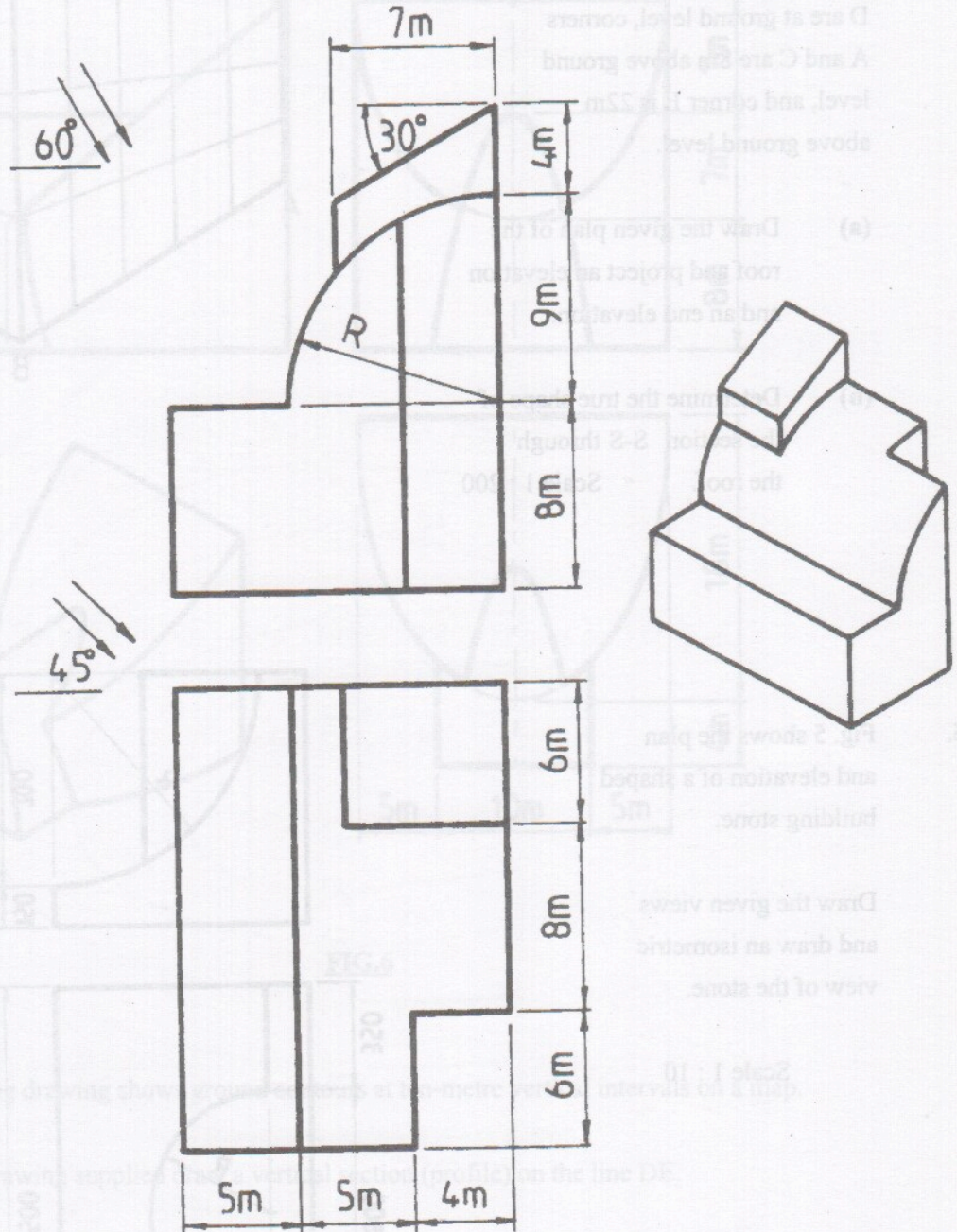
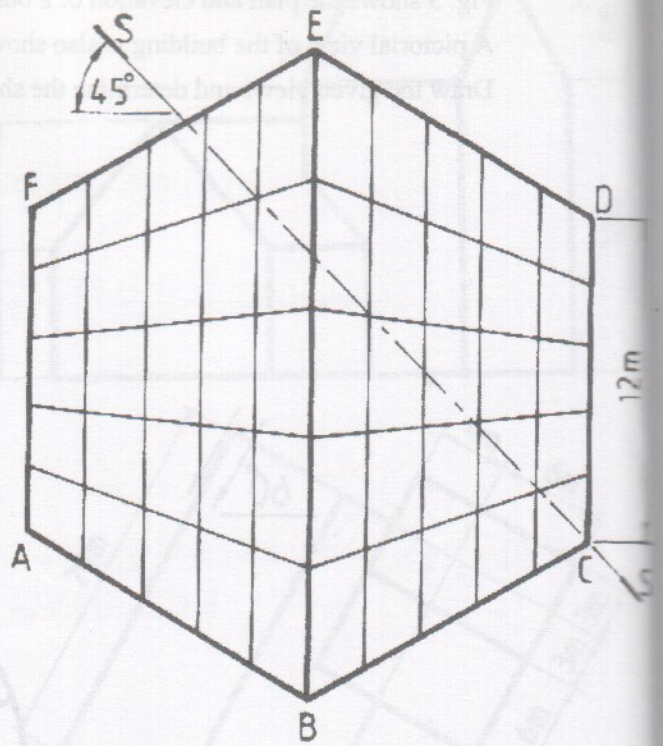


FIG.3

4. Fig. 4 shows the outline plan of two adjoining hyperbolic paraboloid roof surfaces ABEF and BCDE. The roof perimeter is a regular hexagon in plan. The corners B, F and D are at ground level, corners A and C are 8m above ground level, and corner E is 22m above ground level.

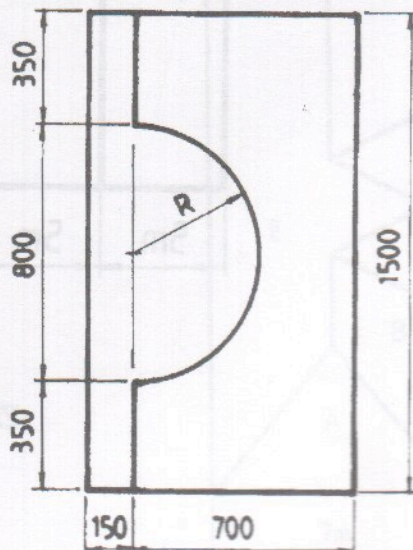
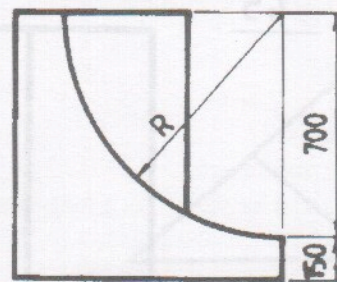


- (a) Draw the given plan of the roof and project an elevation and an end elevation.
- (b) Determine the true shape of the section S-S through the roof. Scale 1 : 200

FIG. 4

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

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



Scale 1 : 10

FIG. 5

Fig. 6 shows the outline plan, elevation and end elevation of a building. A pictorial view of the building is also shown. The main building is semi-elliptical in plan and the elevation of the entrance lobby is a parabola.

Draw the given plan, elevation and end elevation of the building.

Scale 1 : 200

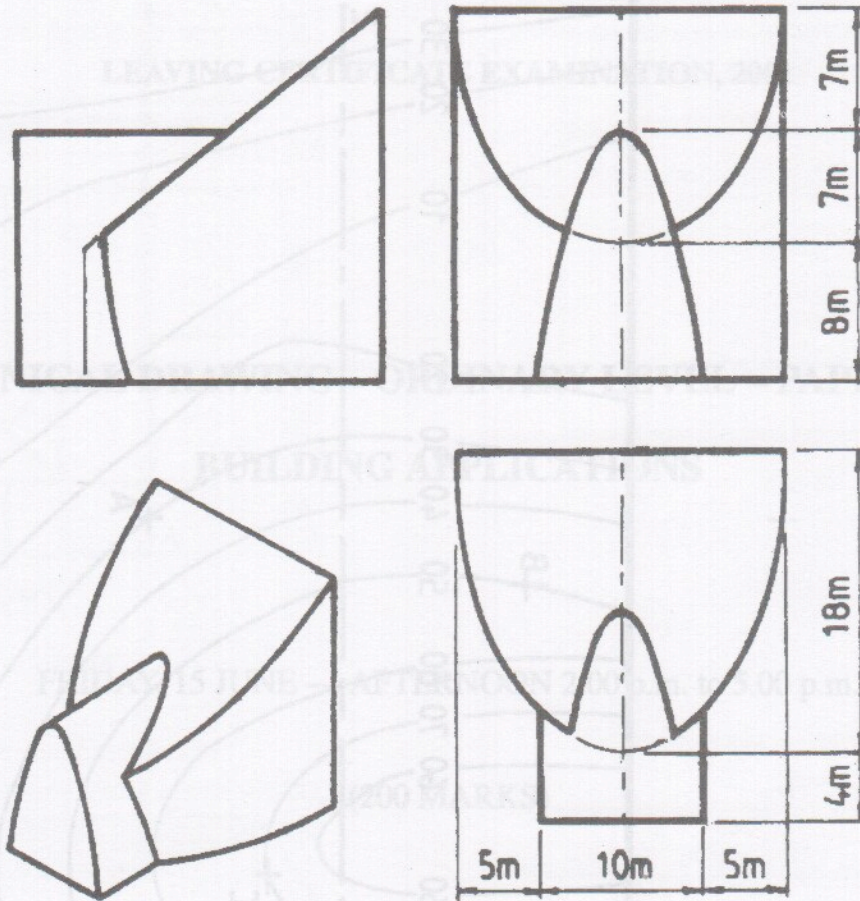


FIG.6

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 and between A and C.

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SCRÚDÚ ARDTEISTIMÉIREACHTA, 2000
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