



Coimisiún na Scrúduithe Stáit State Examinations Commission

Leaving Certificate Examination, 2003

Technical Drawing Paper II(B) – Ordinary Level (Building Applications)

(200 Marks)

*Friday 13 June
Afternoon, 2.00 to 5.00*

- (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) All dimensions on the question paper are given in metres or millimetres.*
- (f) First or third angle projection may be used.*

1. Fig. 1 shows the outline plan and elevation of a structure.

Draw the given views and make a perspective drawing of the structure when the position of the spectator is 9m from the corner A, the picture plane touching the corner A, and the horizon line 9m above the ground line.

Scale 1 : 100

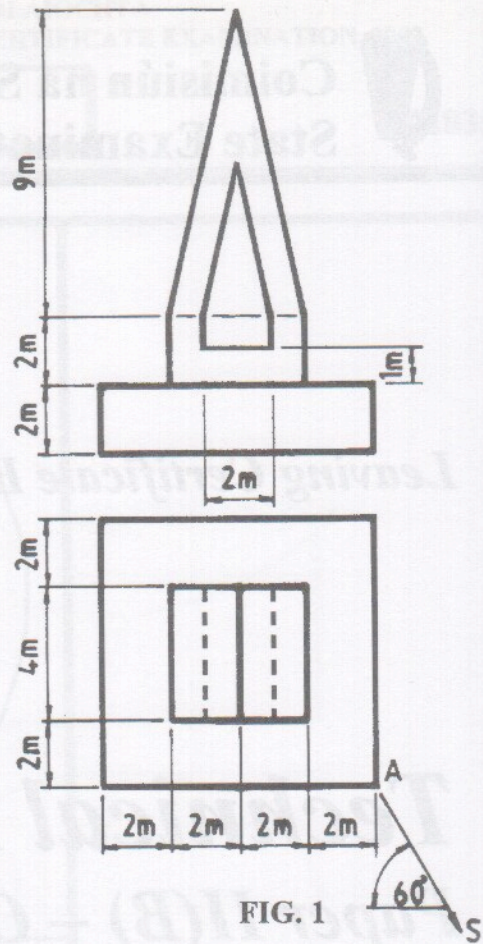


FIG. 1

2. Fig. 2 shows the outline plan and elevation of a roof.

Surface A has a pitch of 55° , surfaces B and C have a pitch of 50° , and surfaces D and E have a pitch of 45° .

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

Scale 1 : 100

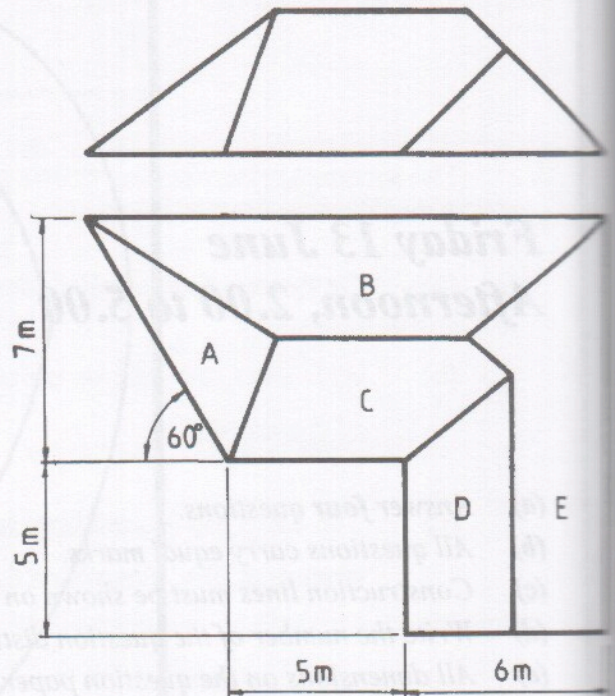


FIG. 2

3. Fig. 3 shows the plan and elevation of a structure. A pictorial view of the structure is also shown.

Draw the given plan and elevation and determine the shadows cast in plan when the direction of light is as shown.

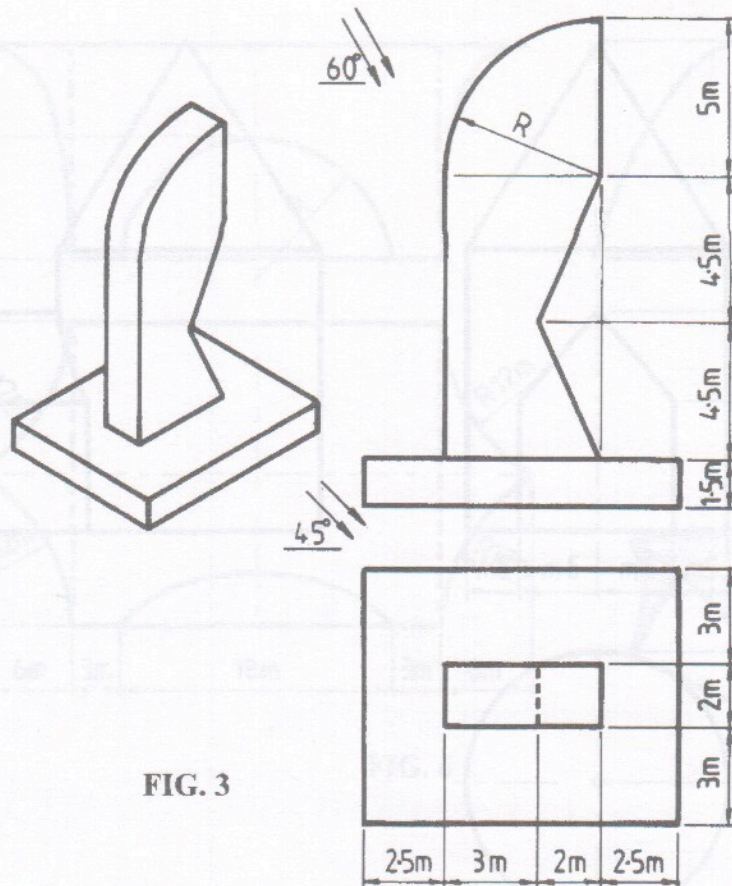


FIG. 3

4. Fig. 4 shows the outline plan of two adjoining hyperbolic paraboloid roof surfaces ABCD and ADEF.

The corners B, D and F are at ground level. Corners C and E are 4m above ground level and corner A is 10m above ground level.

- Draw the given plan of the roof and project an elevation.
- Determine the curvature of the roof along a line joining C and F.

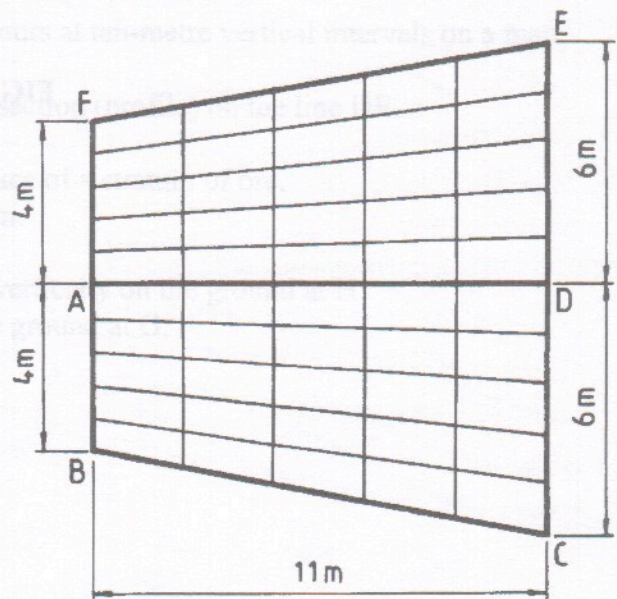


FIG. 4

5. Fig. 5 shows the plan, elevation and end elevation of a building.

Draw the given plan and draw an isometric view of the building.

Scale 1 : 100

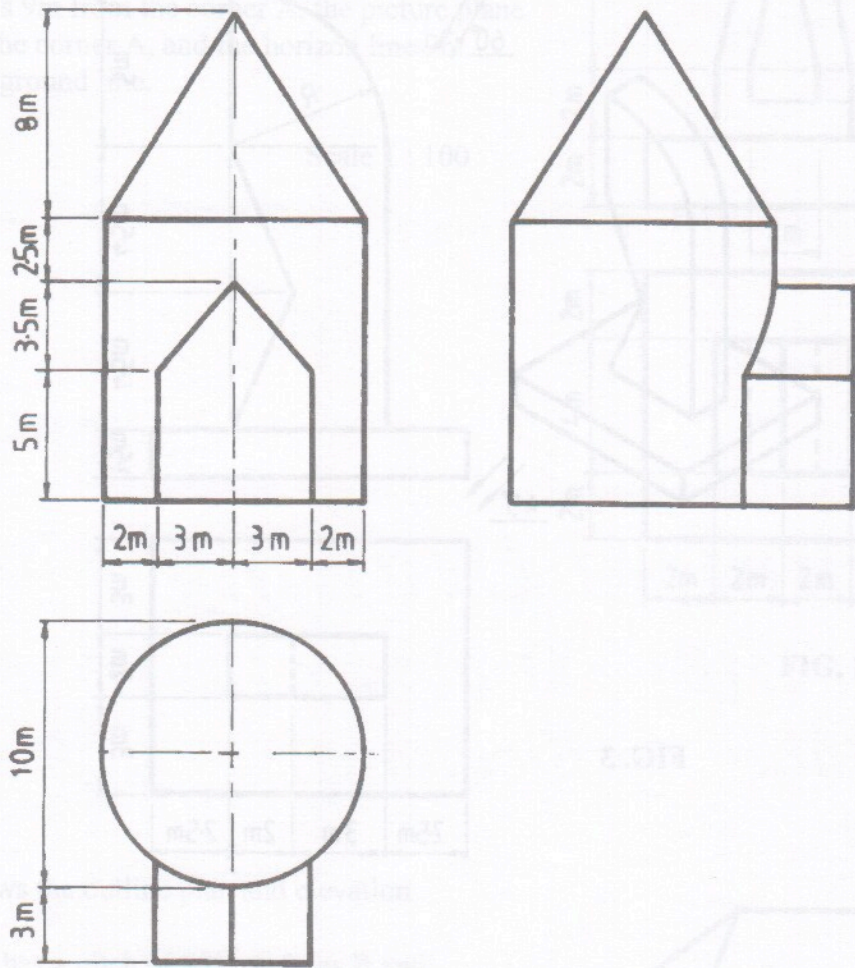


FIG. 5

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

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

Scale 1 : 200

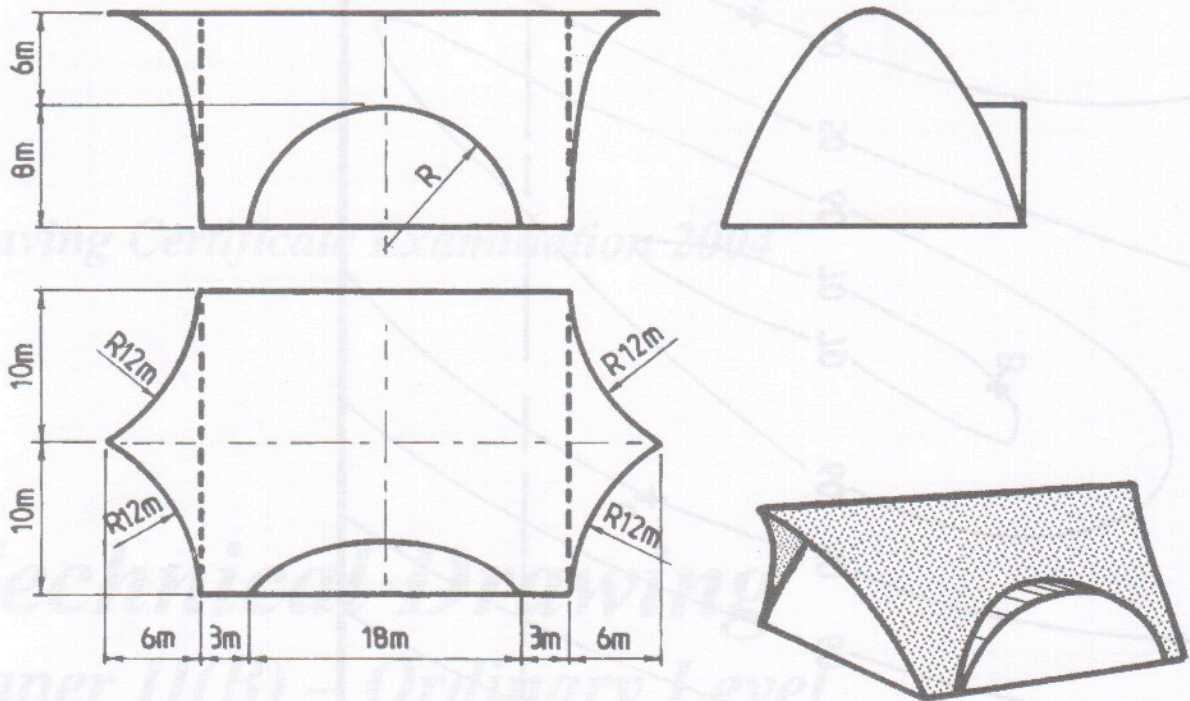


FIG. 6

7. The accompanying drawing shows ground contours at ten-metre vertical intervals on a map.
- On the drawing supplied, draw a vertical section (profile) on the line DE.
 - A, B and C are outcrop points on the surface of a stratum of ore. Determine the dip and strike of the stratum.
 - An object having a height of 40m stands vertically on the ground at H. Determine if the object is visible from the ground at G.



Scrúimhir:
Examination Number:

