

TECHNICAL DRAWING - ORDINARY LEVEL - PAPER II (B)

BUILDING APPLICATIONS

THURSDAY, 27 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 outline plan and elevation of a building. Draw a perspective view of the building when the position of the spectator is 20 m from corner A, the picture plane touching the corner A and the horizon line 5 m above the ground line.

Scale 1 : 200

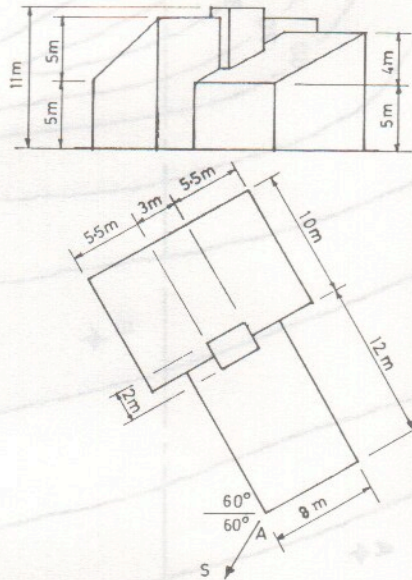


Fig. 1.

2. Fig. 2 shows the outline plan of a roof. All the surfaces have a pitch of 30° .
- (a) Draw the plan and project the elevation.
 - (b) Develop the surfaces A, C and D.
 - (c) Find the dihedral angle between the surfaces A and B.

Scale 1 : 100

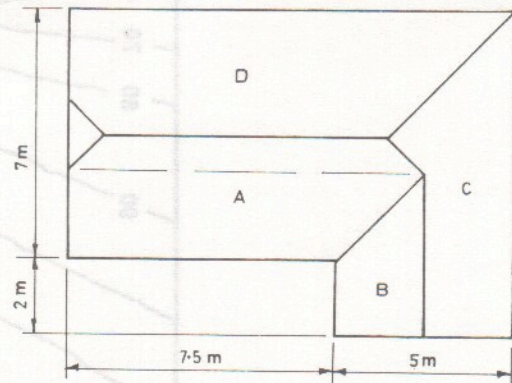
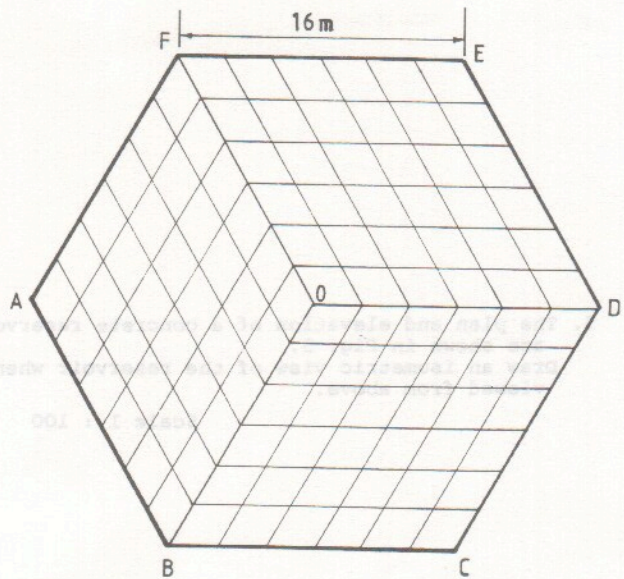


Fig. 2.

3. Fig. 3 shows the outline plan of three adjoining hyperbolic paraboloid roof surfaces. The roof perimeter is a regular hexagon in plan. A, B, C, D, E and F are 2.5 m above ground level and O is 10 m above ground level.

- (a) Draw the plan of the roof and project the elevation.
- (b) Show the curvature of the roof along the diagonal DF.

Scale 1 : 200



4. Fig. 4 shows the plan and elevation of a shelter. Draw the given views and show the shadows cast when the direction of the light is as shown. Scale 1 : 50

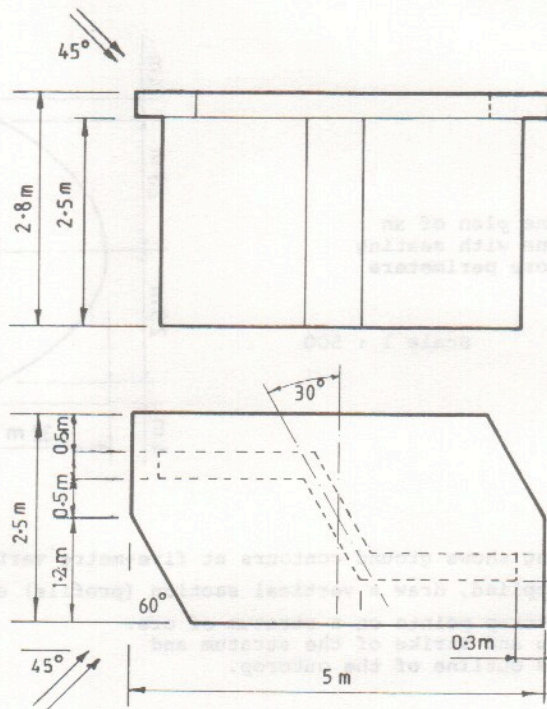
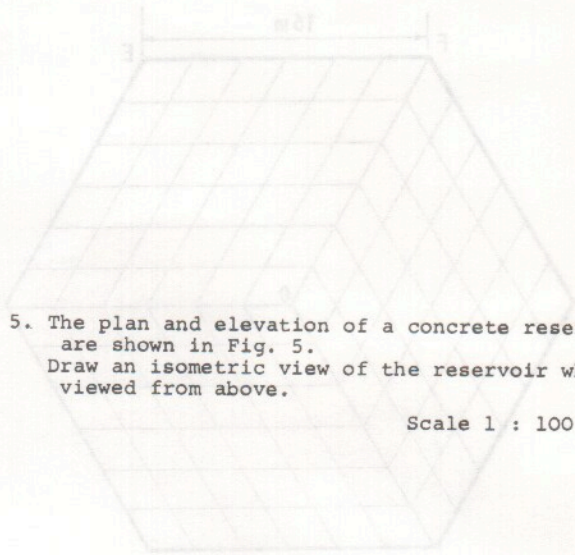


Fig. 4.



5. The plan and elevation of a concrete reservoir are shown in Fig. 5. Draw an isometric view of the reservoir when it is viewed from above.

Scale 1 : 100

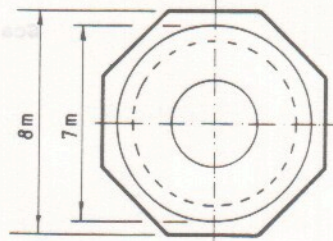
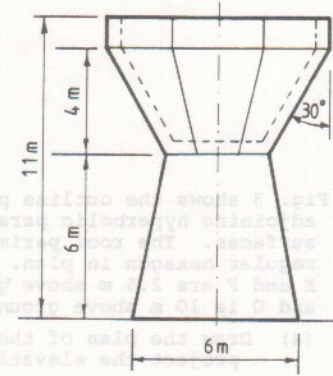


Fig. 5.

6. Fig. 6 shows the outline plan of an elliptical sports arena with seating areas on two sides whose perimeters are parabolic curves. Draw the given plan.

Scale 1 : 500

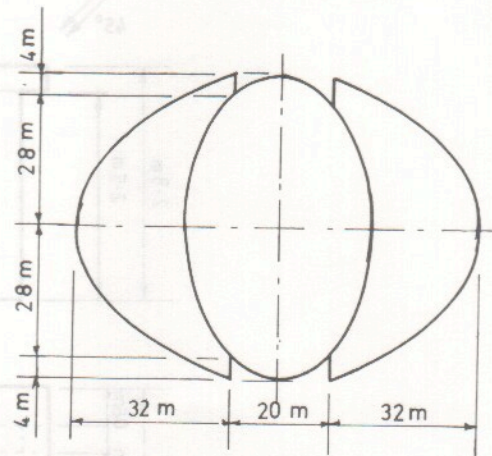
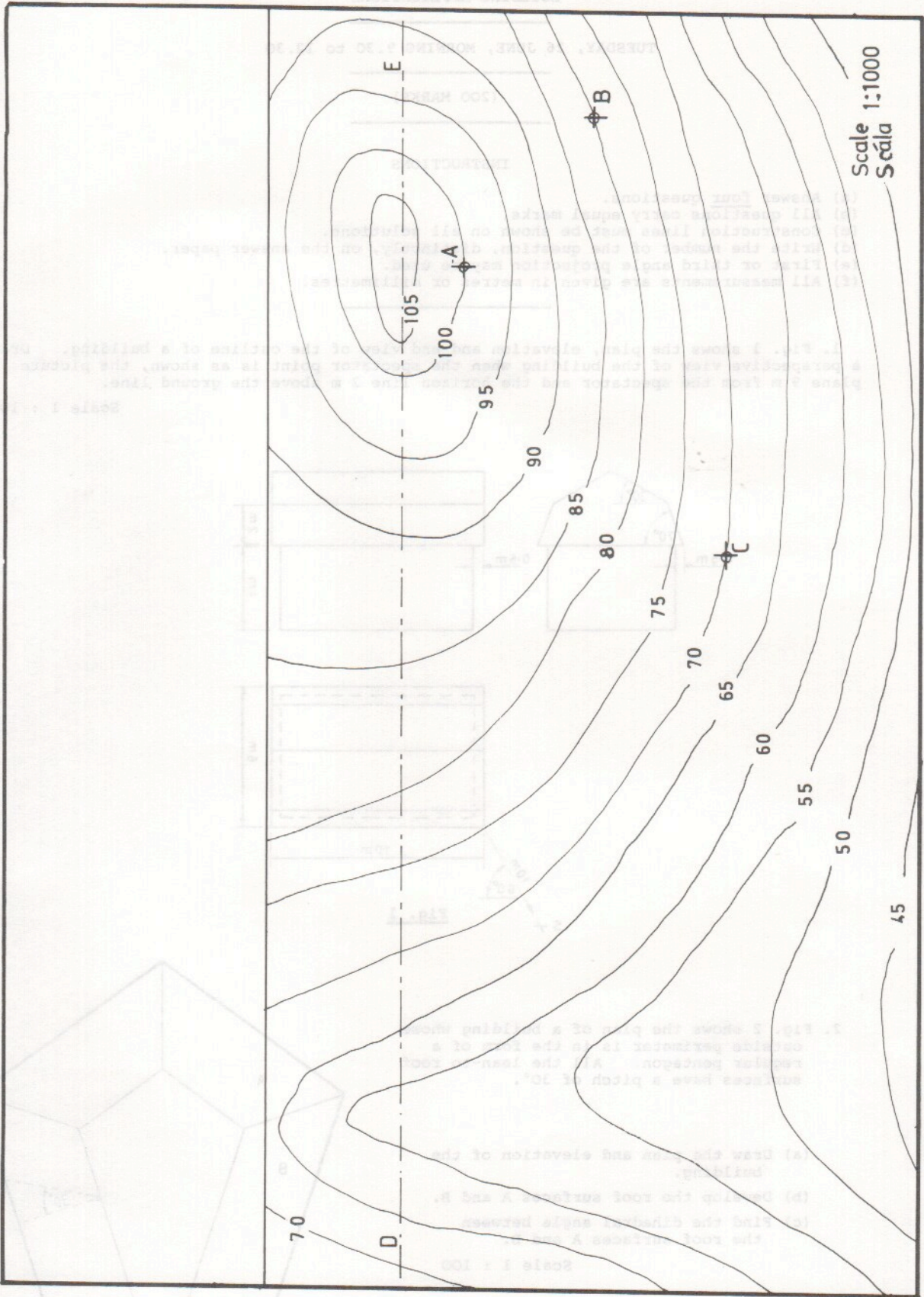


Fig. 6

7. The accompanying drawing shows ground contours at five-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 a stratum of ore. Determine the dip and strike of the stratum and draw the complete outline of the outcrop.

SCRÚDUIMHIR
EXAMINATION NO.

[Empty rectangular box for examination number]



Scale 1:1000
Scála