



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2006

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

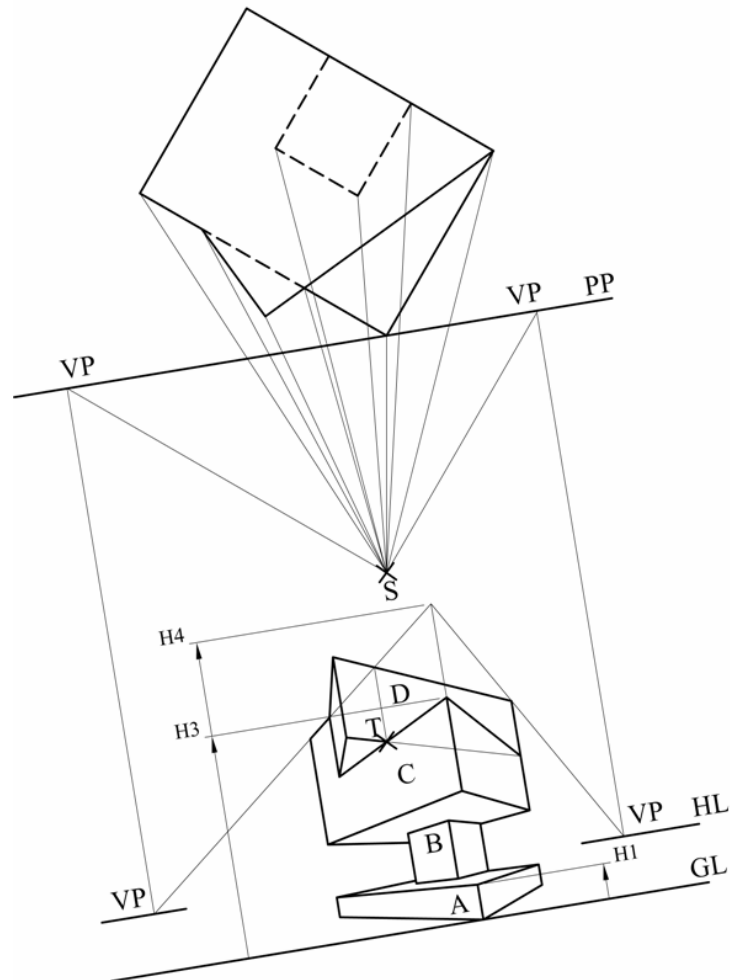
(200 Marks)



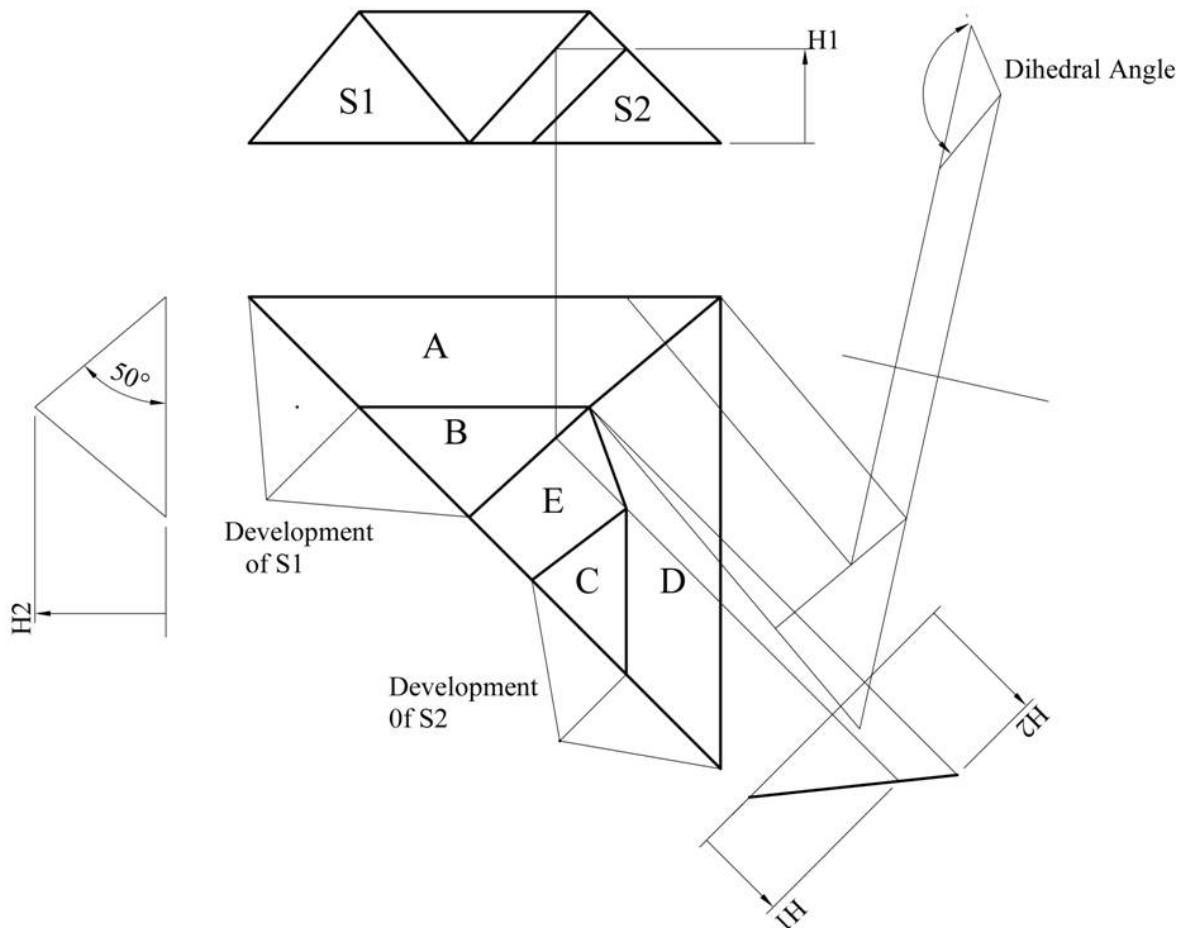
Marking Scheme
& Solutions

(Other valid solutions are acceptable and marked accordingly)

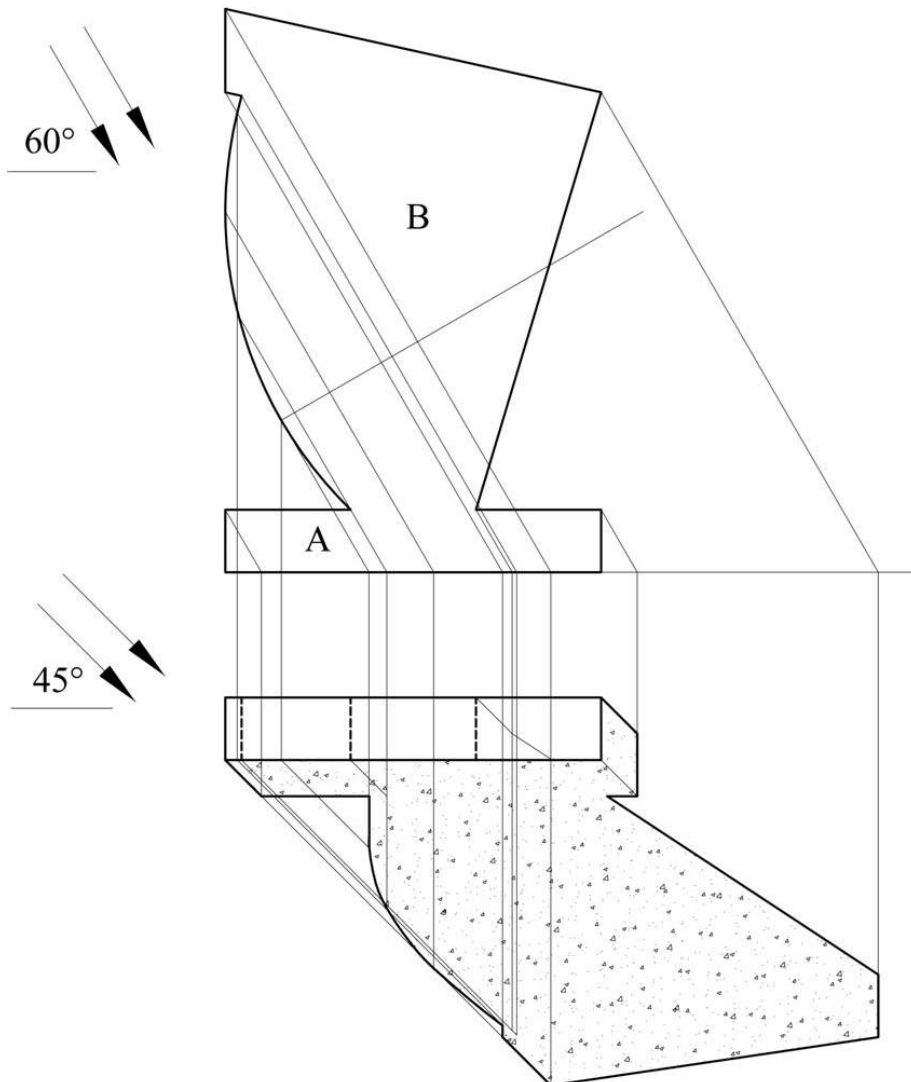
QUESTION 1		Marks
1)	Draw the given plan (any 4 lines)	4
2)	Position spectator, P.P., V.P.1 and V.P.2 in plan. (1,2,2) (Any spectator 1, Any PP 2, -1 if V. points wrong.)	5
3)	Ground line, horizon line and V.P.'s in elevation. (1,1,2) (-1 for incorrect projection)	4
4)	Projection lines from S to plan (Any one line)	2
5)	Perspective of base lines of block A. (1,1,1)	3
6)	Apply H ₁ for block A Complete block A (-1 if sketched)	7
7)	Establish base of block B (1,1,1)	3
8)	Establish Ht, and complete block B. (1,4,1,1)	7
9)	Establish base of block C. (1,1,1,1)	4
10)	Apply H ₃ , H ₄ and complete block C. (1,1,1)	3
11)	Establish point T, and complete block D. (1,2) (2 for any two lines on block D)	3
12)	Presentation	5
Total		50



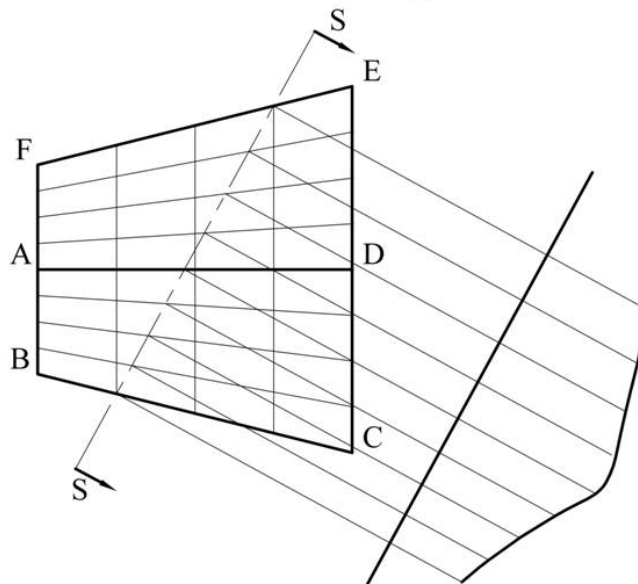
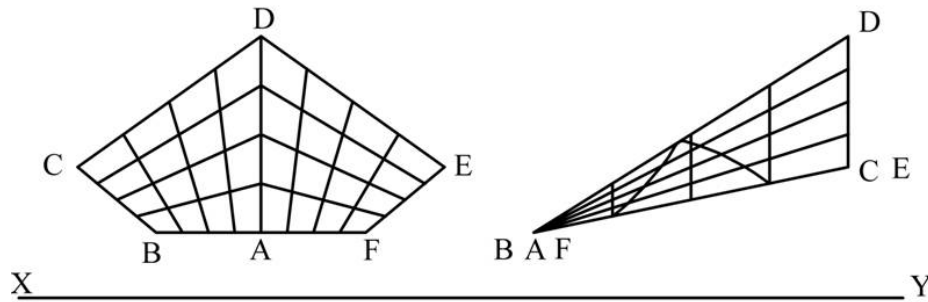
QUESTION 2		Marks
1)	Draw roof perimeter in plan.	3
2)	Draw edge view of surfaces C and D in elevation	3
3)	Edge view of surfaces A and B.	3
4)	Apply H_2 , and complete elevation. (1,5)	6
5)	Establish line of intersection between surfaces C and E	5
6)	Complete plan.	6
7)	<u>Development of surfaces S1 and S2</u> Determine true lengths, and draw developments. (2,2,2,2)	8
8)	<u>Dihedral angle between A and D</u> True length of line of intersection. (1x4)	4
9)	Construction to determine dihedral angle. (1x6)	6
10)	Dihedral angle between surfaces A and D	1
11)	Presentation	5
Total		50



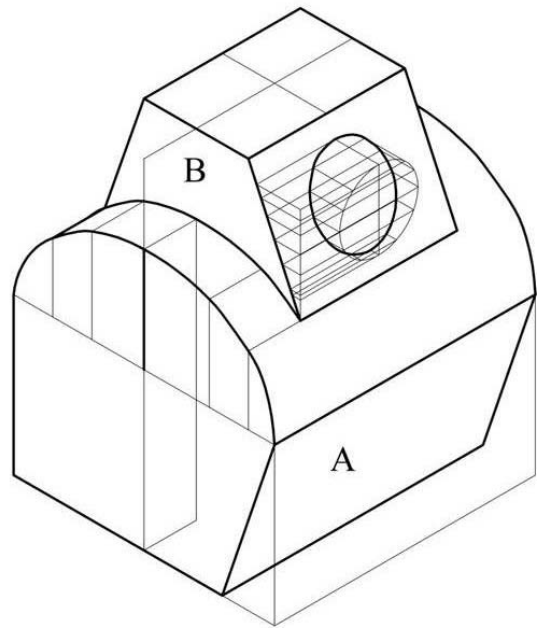
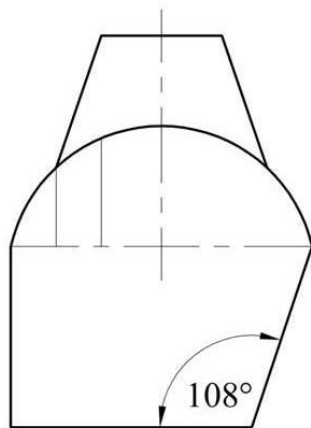
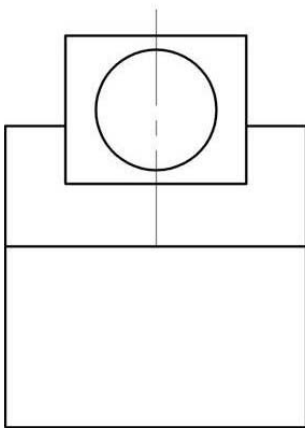
<u>QUESTION 3</u>			Marks
1)	Draw the given plan and elevation	(4,4)	8
2)	Lines at appropriate angles in plan and elevation	(2,2)	4
3)	Determine shadow cast by block A	(1x8)	8
4)	<u>Determine shadow cast by curved surface of block B.</u> Locating any three points on curve in plan, and draw curve. (2,2,2,2) (2 for any curve)		8
5)	Shadow cast by lines of separation of curve in plan.	(1,1)	2
6)	Shadow cast by vertical, and horizontal lines of block B.	(5,5)	10
7)	Shadow cast by sloped lines in plan.	(2,1,1)	4
8)	Identify shadow cast.		1
9)	Presentation		5
Total			50



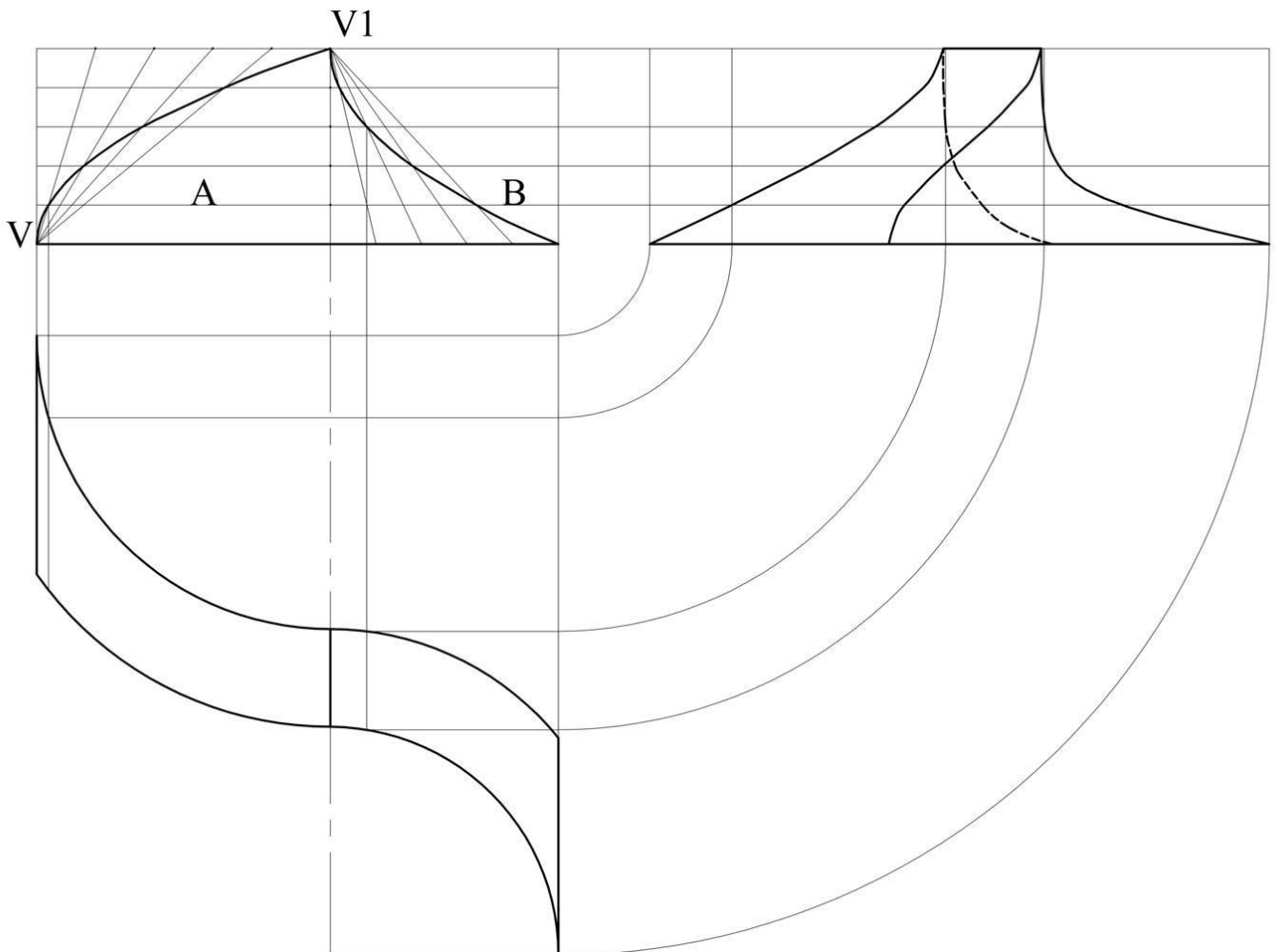
<u>QUESTION 4</u>			Marks
1)	<u>Plan and elevation</u> Draw the given plan, including the elements.	(4,2,2)	8
2)	Project outline elevation and measure heights.	(2,3)	5
3)	Draw outline elevation.	(1x3)	3
4)	Draw elements in elevation.	(2,2)	4
5)	<u>True shape of section</u> Use of line SS or XY line parallel to SS		1
6)	Project intersections from plan	(2,3)	5
7)	Measure heights	(1,5)	6
8)	Draw the true shape (Any curve)		1
9)	<u>End Elevation</u> Determine height and width of end elevation.	(1,1)	2
10)	Draw outline of end elevation.	(1x5)	5
11)	Complete end elevation	(1,2,2)	5
12)	Presentation		5
Total			50



QUESTION 5			Marks
1)	Draw the given views	(4,4)	8
2)	Isometric axis	(1,1,1)	3
3)	Base of block A in isometric.	(3,2)	5
4)	Flat surfaces of block A in isometric.	(3,4)	7
5)	Grid on curve of block A in orthographic and isometric. (Any three ordinates)	(3,3)	6
6)	Draw end curves on block A in isometric.	(1,2,1)	4
7)	Cage for block B in isometric.		4
8)	Outline of block B in isometric.		3
9)	Curve of intersection.	(1,1)	2
10)	Grid for circular hole in isometric, and draw curve.	(1,1,1)	3
11)	Presentation		5
Total			50



QUESTION 6			Marks
1)	Draw centre line and set up centers in plan (2,1,1)		4
2)	Curves in plan (1x4)		4
3)	Draw outline elevation		4
4)	Construction for semi parabola A in elevation		5
5)	Construction for semi parabola B in elevation		5
6)	Draw semi parabolic curves in elevation (3,3)		6
7)	Project outline end elevation		4
8)	Project of any two additional points to end elevation (4,4)		8
9)	Complete end elevation (2,2,1)		5
10)	Presentation		5
Total			50



<u>QUESTION 7</u>		Marks
1)	<u>Profile</u> Measure heights and draw horizontal sections.	5
2)	Projections from intersections of line DE with contours to profile	5
3)	Draw outline profile (4,4)	8
4)	<u>Dip and strike</u> Join points A, B and C in plan.	3
5)	Draw triangle in elevation (3,3)	6
6)	Horizontal line in elevation	2
7)	Strike in plan	3
8)	New XY line, viewing direction for dip	2
9)	Determine dip	2
10)	<u>Turbine</u> Project intersection of contours at right angles to FG , Measure heights and draw profile (1,4,2,1)	8
11)	Determine location for turbine	1
12)	Presentation	5
Total		50

