



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate 2025

Marking Scheme

Design and Communication Graphics

Ordinary Level

Note to teachers and students on the use of published marking schemes

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

Future Marking Schemes

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.



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Note: Other valid solutions are acceptable and are marked accordingly.

Question A-1**MARKS****Perspective (18)**

- (i) Radiate lines to correct vanishing points.....4
- (ii) Complete front RHS5
- (iii) Complete the LHS6
- (iv) Complete the top surface3
- (v) **Presentation**2

Total = 20**Question A-2****MARKS****(a) Locate points (10)**

- (i) Appropriate use of given major and minor axis1
- (ii) Required construction for additional points3
- (iii) Locate additional points6

(b) Draw curve (6)

- (iv) Draw curve6

(c) Focal points (2)

- (v) Locate required focal points2
- (vi) **Presentation**2

Total = 20

Question A-3**MARKS****(a) Rotation of door (16)**

- (i) Rotation of points4
- (ii) Locate points6
- (iii) Draw door6

(b) Hidden detail (2)

- (iv) Complete hidden detail2
- (v) **Presentation**2

Total = 20**Question A-4****MARKS****(a) Radius 10 mm circle (4)**

- (i) Draw R10 mm circle4

(b) Complete the logo (14)

- (ii) Construct vertical lines6
- (iii) Determine required heights2
- (iv) Determine centre of arcs2
- (v) Draw arcs to complete logo4
- (vi) **Presentation**2

Total = 20

Question B-1**(a) Given plan & elevation (27)**

- (i) Draw the outline plan as given14
- (ii) Projections from plan3
- (iii) Draw the elevation as given10

(b) Interpenetration (16)***Interpenetration on Right Hand Side (8)***

- (iv) Projection from RHS of elevation2
- (v) Locate points on RHS in plan3
- (vi) Complete RHS of plan3

Interpenetration on Left Hand Side (8)

- (vii) Projection from LHS of elevation2
- (viii) Locate points on LHS of plan3
- (ix) Complete LHS of plan3

(c) End view (12)

- (x) Transfer of widths from plan2
- (xi) Projection of heights from elevation2
- (xii) Complete the end view of main structure.....4
- (xiii) Complete the end view profile4
- (xiv) **Presentation**5

Total = 60

Question B-2**MARKS****(a) Initial setup (6)**

- (i) Draw equilateral triangle **3**
- (ii) Draw X, Y, and Z axes **3**

(b) Elevation and Plan (14)

- (iii) Projections & semi-circle to set up elevation **4**
- (iv) Draw elevation in the correct position **3**
- (v) Projections & semicircle (or 45° lines) to set up plan **4**
- (vi) Draw plan in the correct position **3**

(c) Axonometric Projection of dugout and seat (18)

- (vii) Projections from elevation and plan **6**
- (viii) Axonometric projection of base **6**
- (ix) Axonometric projection of dugout opening **3**
- (x) Axonometric projection of seat **3**

(d) Axonometric Projection of curves and outline (17)

- (xi) Divisions on semi-circle in elevation **3**
- (xii) Corresponding divisions in plan **3**
- (xiii) Projections from elevation and plan **4**
- (xiv) Draw axonometric projection of the curves **4**
- (xv) Complete the outline of the dugout **3**

- (xvi) **Presentation** **5**

Total = 60

Question B-3**MARKS****(a) Elevation (18)**

- (i) Draw base **12**
(ii) Draw top **6**

(b) Plan (18)

- (iii) Draw base **12**
(iv) Draw top **6**

(c) Auxiliary elevation (19)

- (v) X_1Y_1 line parallel to plan of surface **A** **1**
(vi) Projections from plan **1**
(vii) Transfer of heights from elevation **3**
(viii) Draw surface **A** **4**
(ix) Complete auxiliary elevation **10**

- (x) **Presentation** **5**

Total = 60

Question C-1**MARKS****(a) Profile (35)**

- (i) Measure heights and draw horizontal lines**13**
- (ii) Projections from intersections between line **AB** and contours**10**
- (iii) Draw the profile**12**

(b) Earthworks for roadway (20)

- (iv) Parallel lines at 5 m intervals for cutting**6**
- (v) Identify points on cutting curve**8**
- (vi) Draw cutting curve**6**
- (vii) **Presentation****5**

Total = 60

Question C-2**MARKS****(a) Elevation and Plan (37)**

- (i) Outline of surface **ABCD** in plan **10**
- (ii) Elements in plan (incl. division) **6**
- (iii) Outline of surface **ABCD** in elevation **10**
- (iv) Elements in elevation (incl. division or proj.) **6**
- (v) Completion of elevation (curve and hidden detail) **5**

(b) End view of Hyperbolic Paraboloid (18)

- (vi) Determine heights and widths for surface **ABCD** **6**
- (vii) Draw the outline of hyperbolic paraboloid surface **4**
- (viii) Draw elements **5**
- (ix) Completion of end view (curve) **3**
- (x) **Presentation** **5**

Total = 60

Question C-3**MARKS****(a) Elevation and plan (30)**

- (i) Draw the outline of the plan **6**
- (ii) Draw the outline elevation **12**
- (iii) Draw the inner detail in elevation **12**

(b) End view (8)

- (iv) Projections from elevation and plan **3**
- (v) Draw the end view..... **5**

(c) Surface Development (17)

- (vi) Appropriate layout of surface development **1**
- (vii) Development of front and back surfaces **4**
- (viii) Development of right and left sides **4**
- (ix) Development of the bottom surfaces **4**
- (x) Development of the curved surfaces **4**
- (xi) **Presentation** **5**

Total = 60

Question C-4**MARKS****(a) Helix (26)**

- | | | |
|-------|--|-----------|
| (i) | Set up given elevation and plan (incl. points A & B) | 10 |
| (ii) | Division of circle in plan | 3 |
| (iii) | Projections from plan | 3 |
| (iv) | Draw horizontal divisions in elevation..... | 3 |
| (v) | Locate points on helix..... | 3 |
| (vi) | Draw helix in elevation | 4 |

(b) Displacement Diagram (29)

- | | | |
|--------|---|----------|
| (vii) | 360° division (widths on displacement diagram) | 5 |
| (viii) | Correct use of 60 mm height | 1 |
| (ix) | Establish follower position at 0°, 90°, 180° and 360° | 7 |
| (x) | 0° to 90°, Rise 60 mm with Uniform Velocity | 4 |
| (xi) | 90° to 180°, Dwell | 4 |
| (xii) | 180° to 360°, Fall 60 mm with SHM construction..... | 4 |
| (xiii) | Complete Displacement Diagram | 4 |
| (xiv) | Presentation | 5 |

Total = 60

Question C-5**MARKS****Assembly (14)**

- (i) Relative positioning of components10
- (ii) Draw Section4

Base (10)

- (iii) Outline8
- (iv) Fillets2

Stem (12)

- (v) Locate centre points for circle4
- (vi) Outline4
- (vii) Connector4

Camera (10)

- (viii) Outline8
- (ix) Inner2

SD card (4)

- (x) Outline4

Drawing Completion (5)

- (xi) Hatching and Centreline5
- (xii) **Presentation**5

Total = 60



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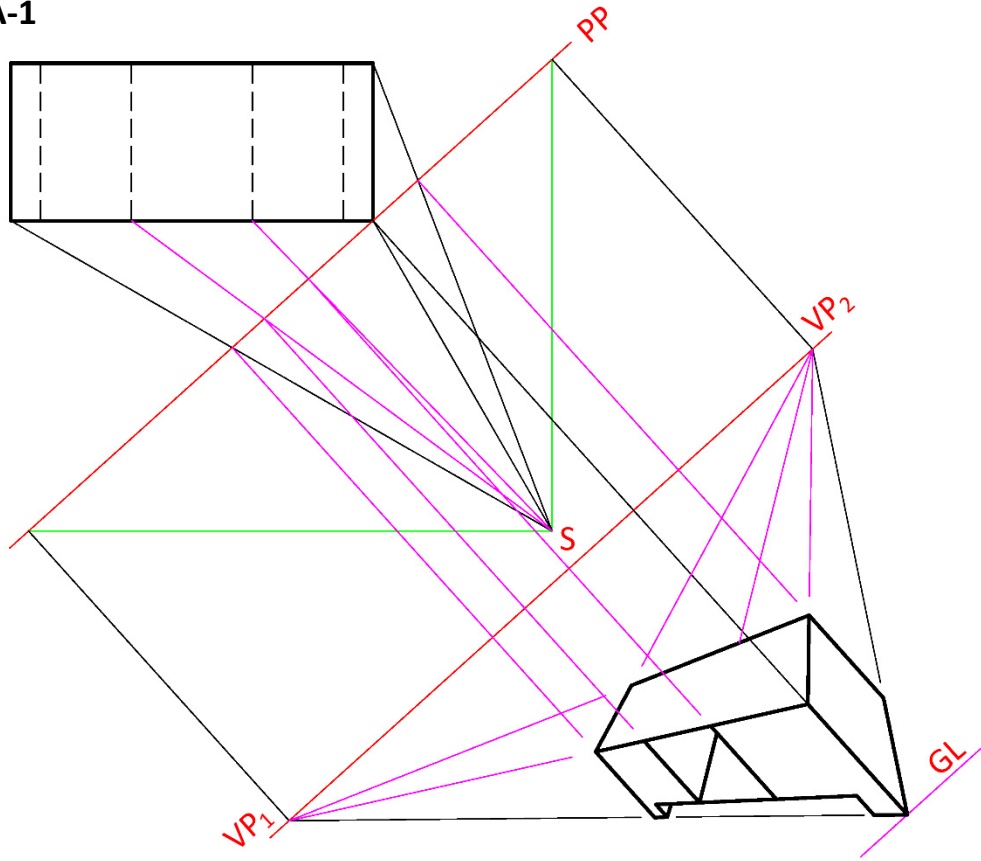
Design and Communication Graphics

Ordinary Level

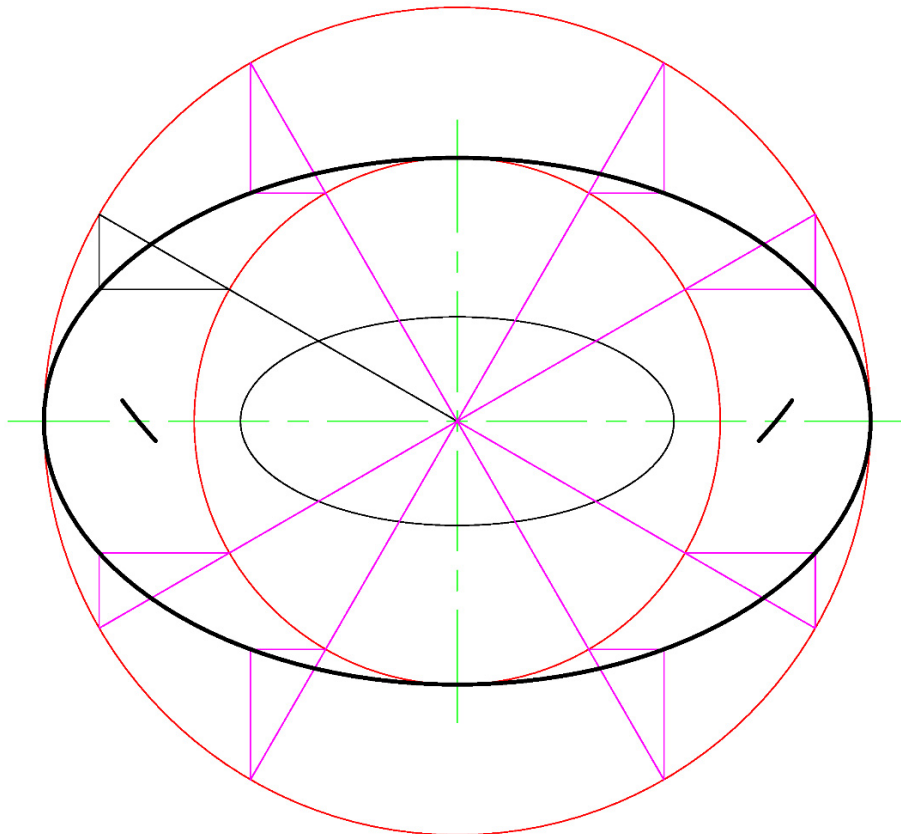
Sample Solutions

Note: Other valid solutions are acceptable and are marked accordingly.

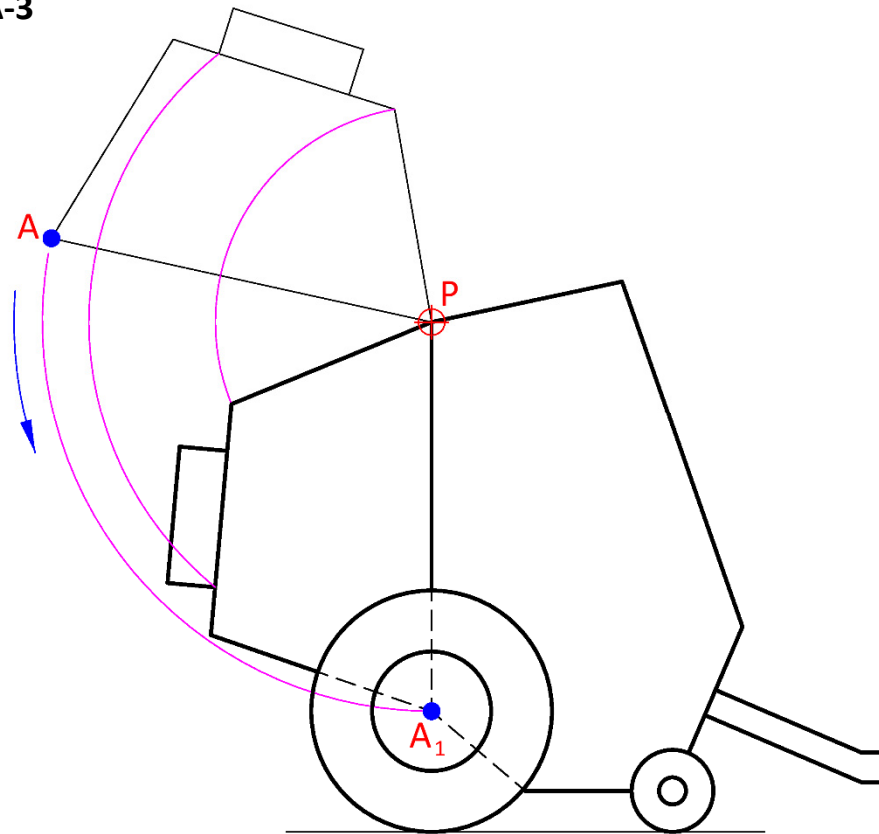
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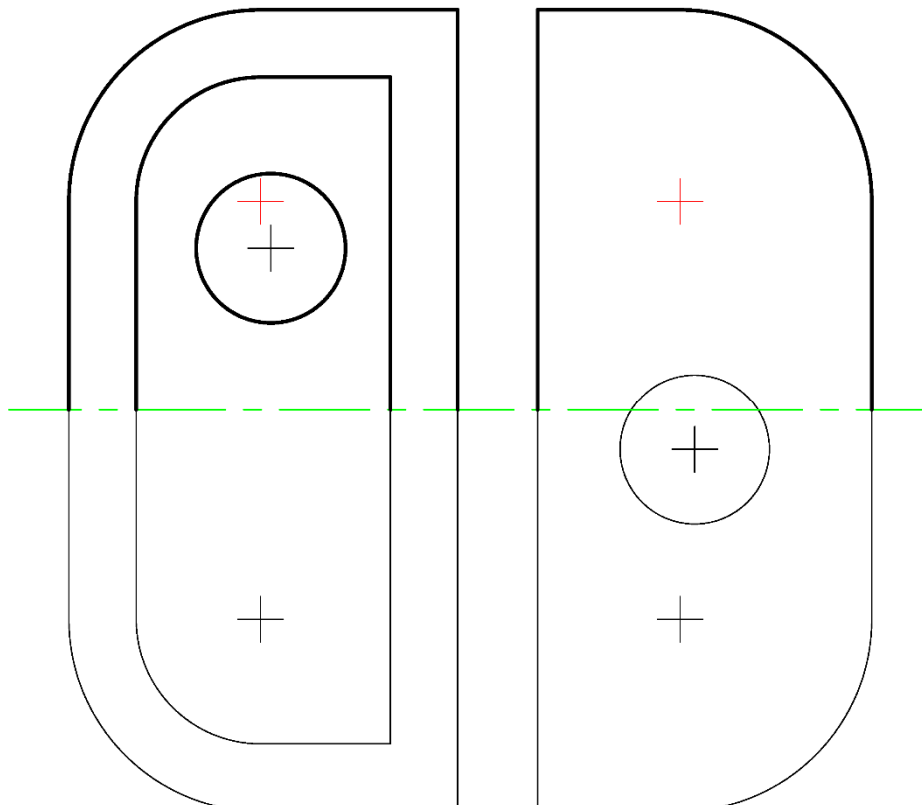
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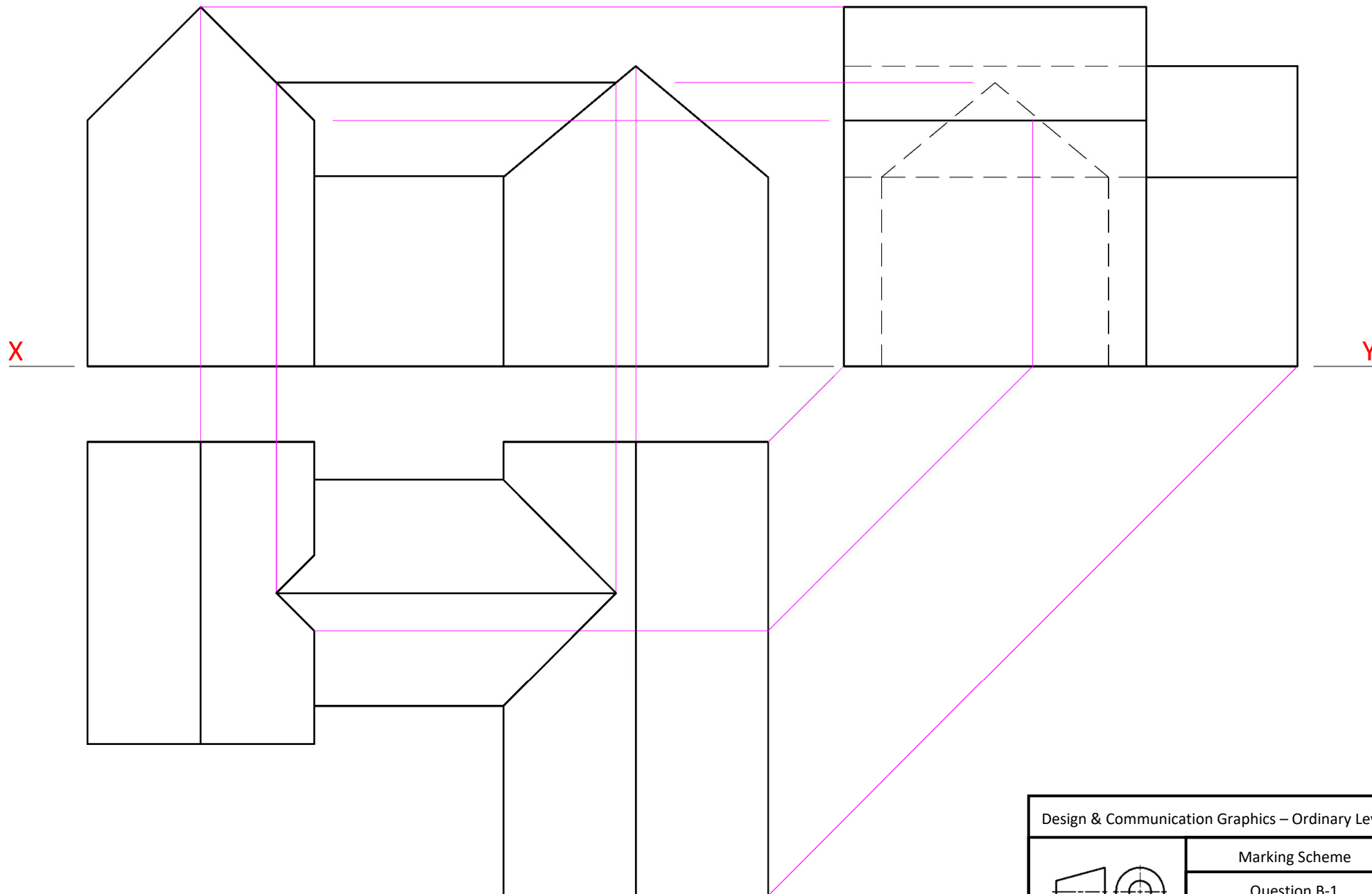


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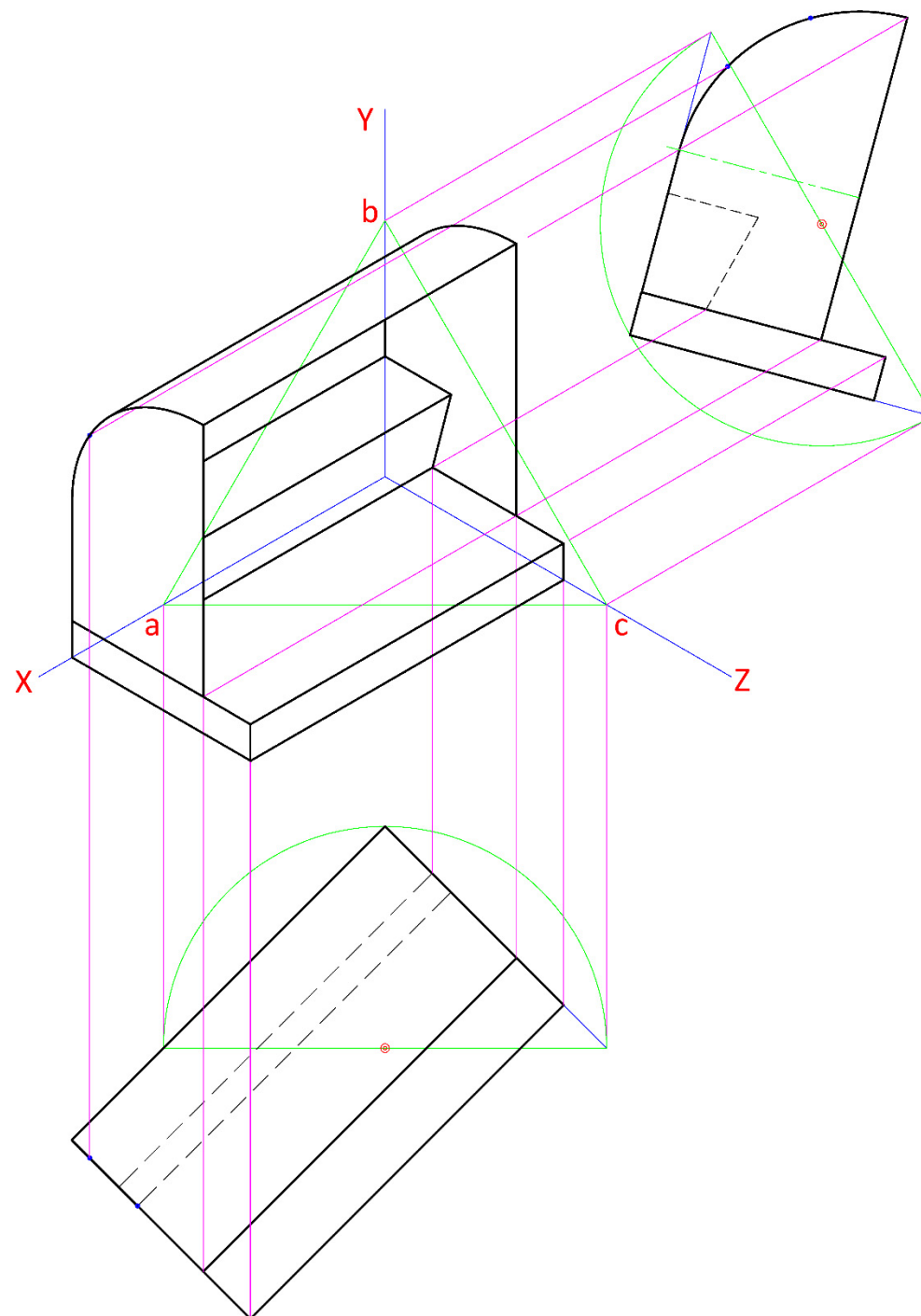


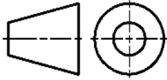
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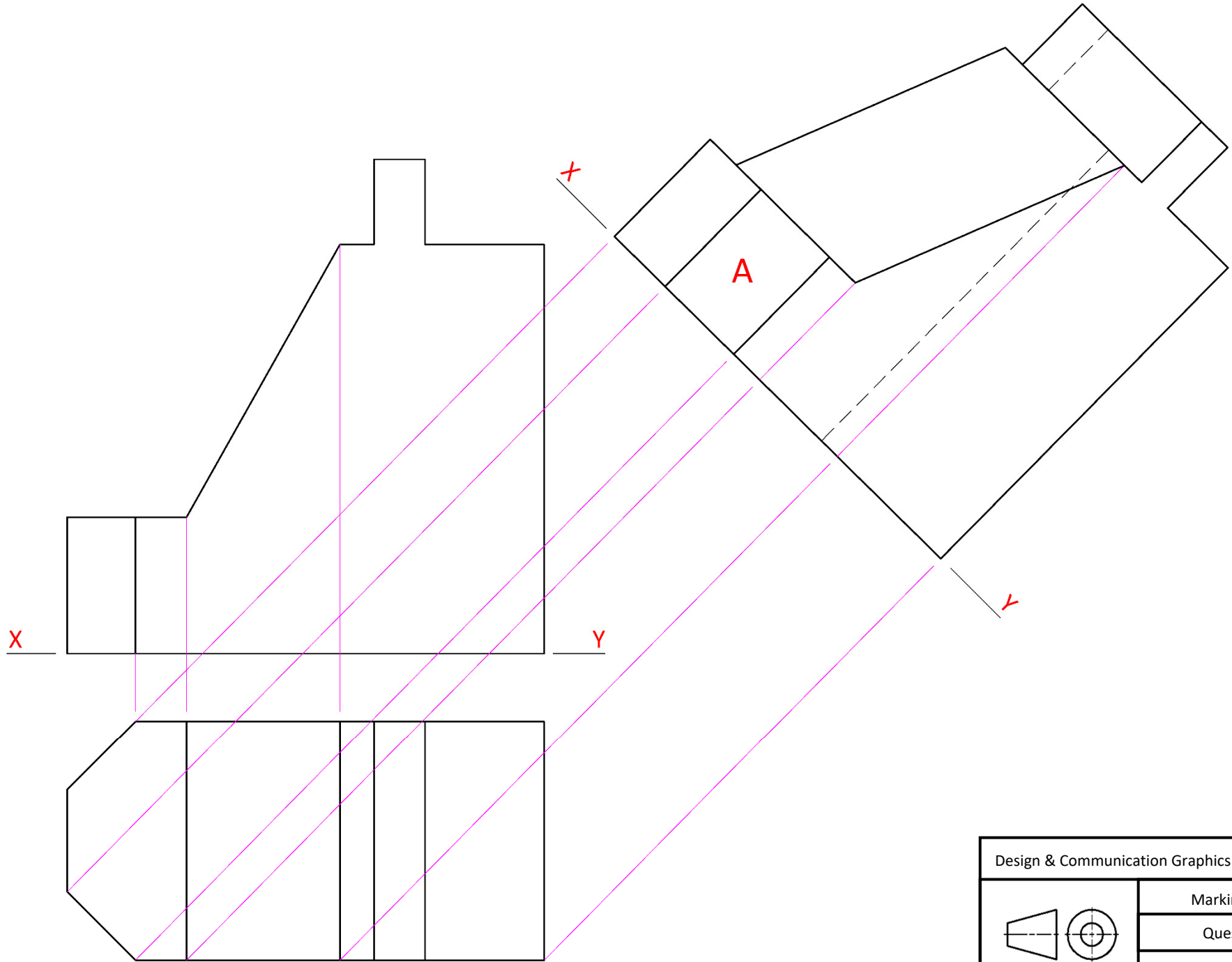




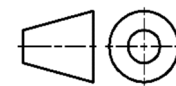
Design & Communication Graphics – Ordinary Level			
	Marking Scheme		
	Question B-1		
	Scale: n/a	June 2025	



Design & Communication Graphics – Ordinary Level		
	Marking Scheme	
	Question B-2	
	Scale: n/a	June 2025



Design & Communication Graphics –Ordinary Level

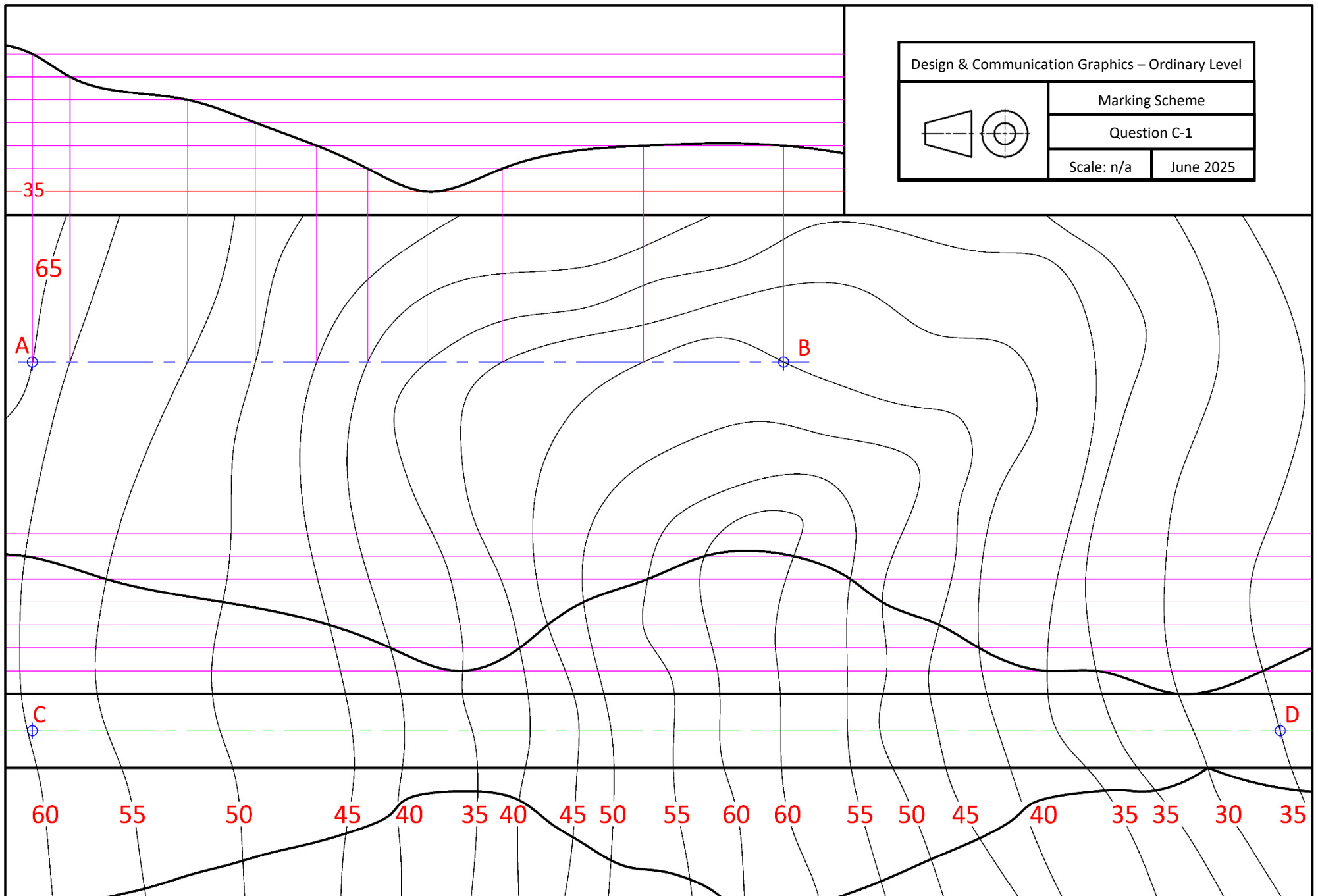
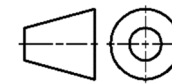


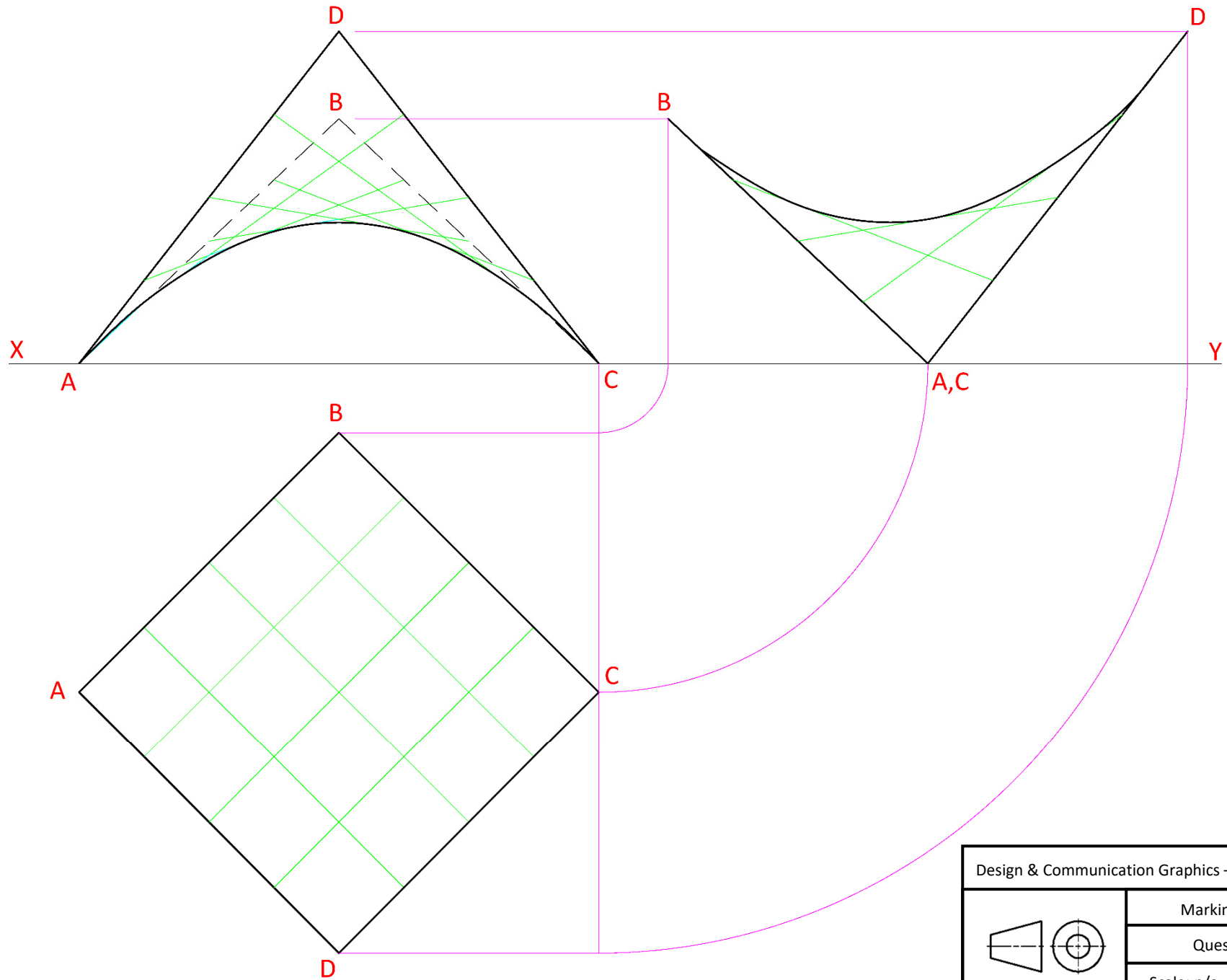
Marking Scheme

Question B-3

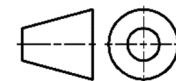
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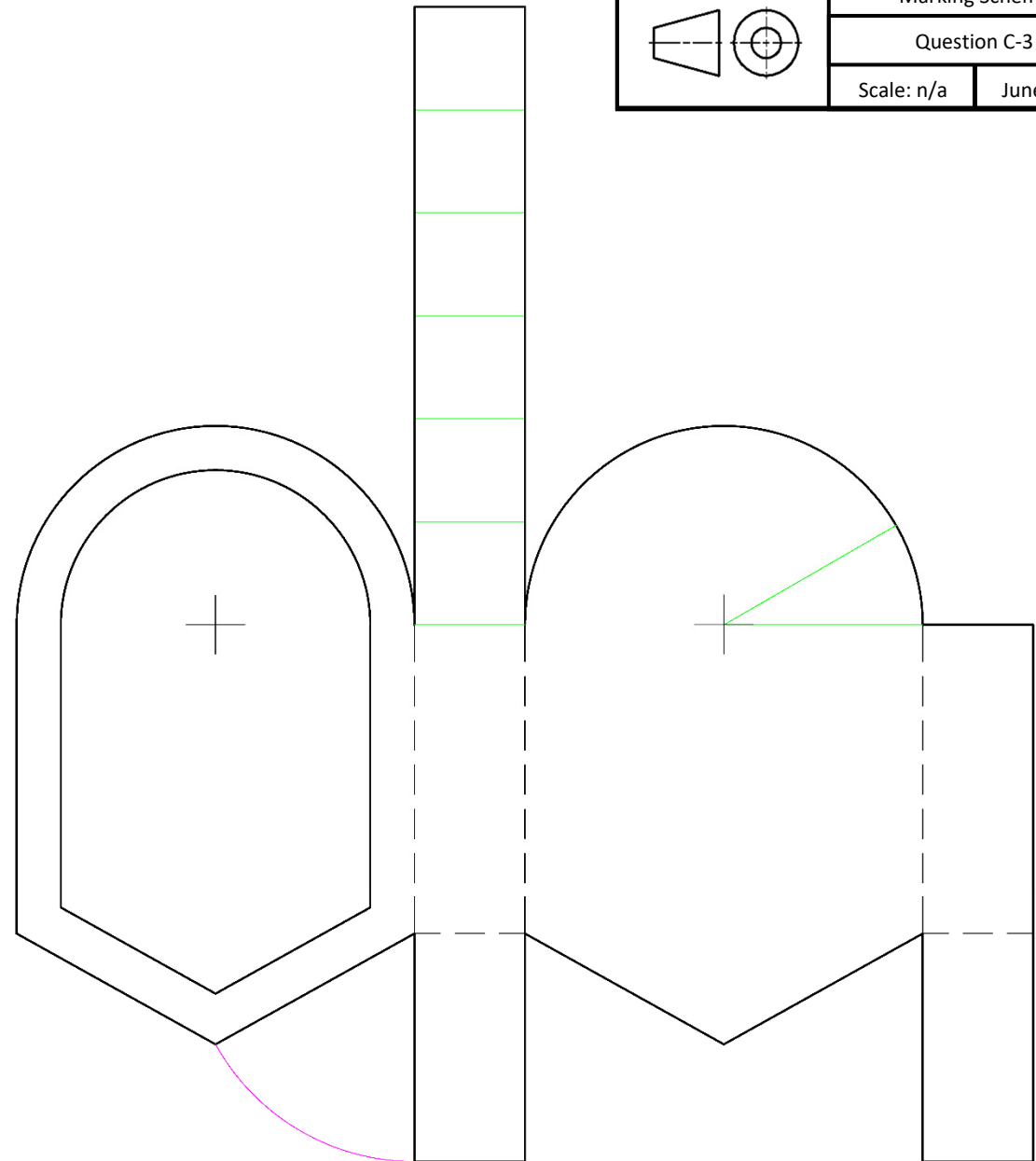
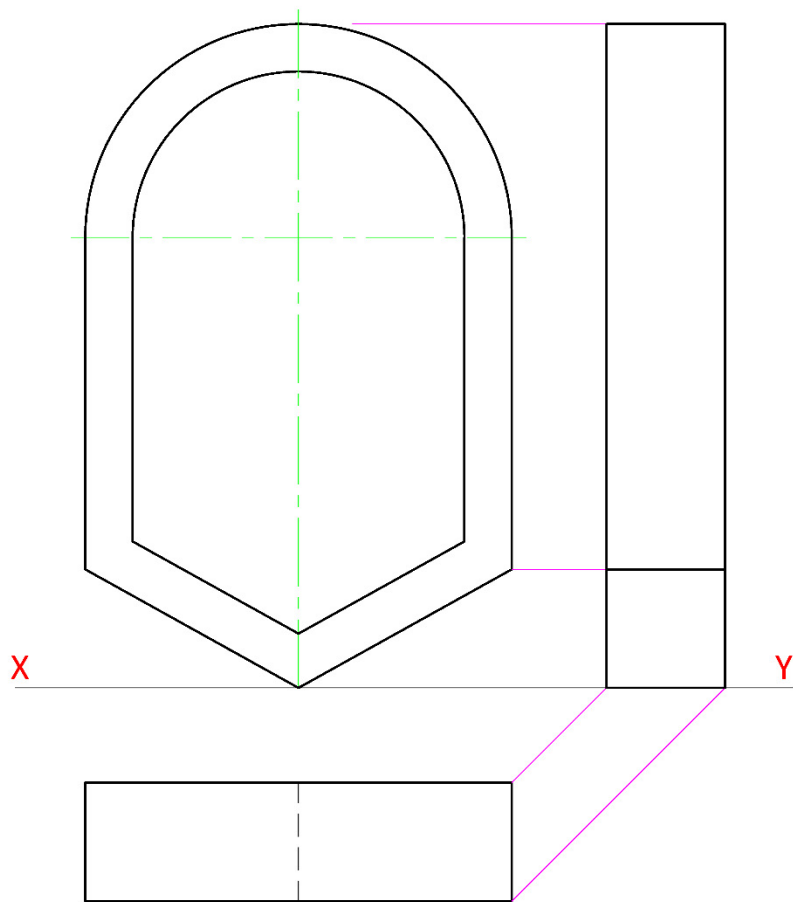
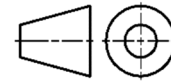


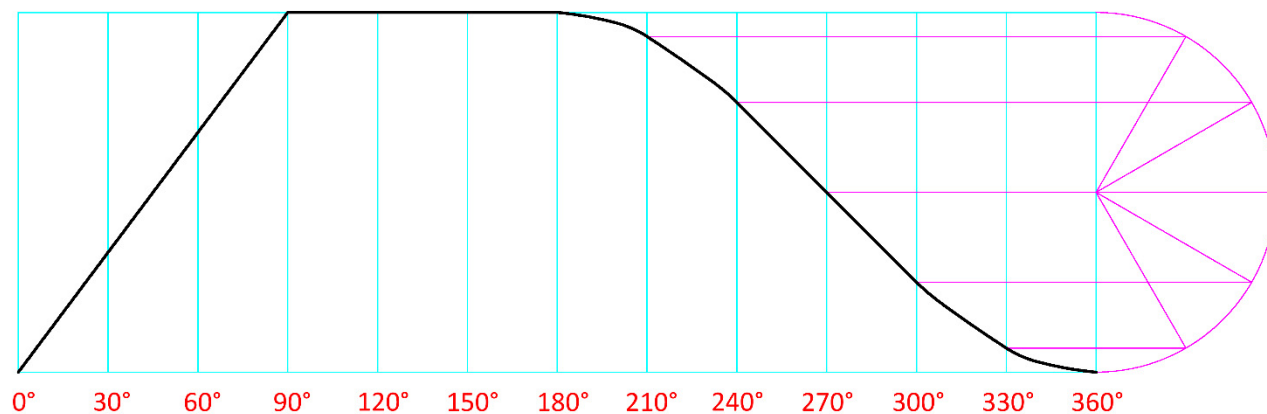
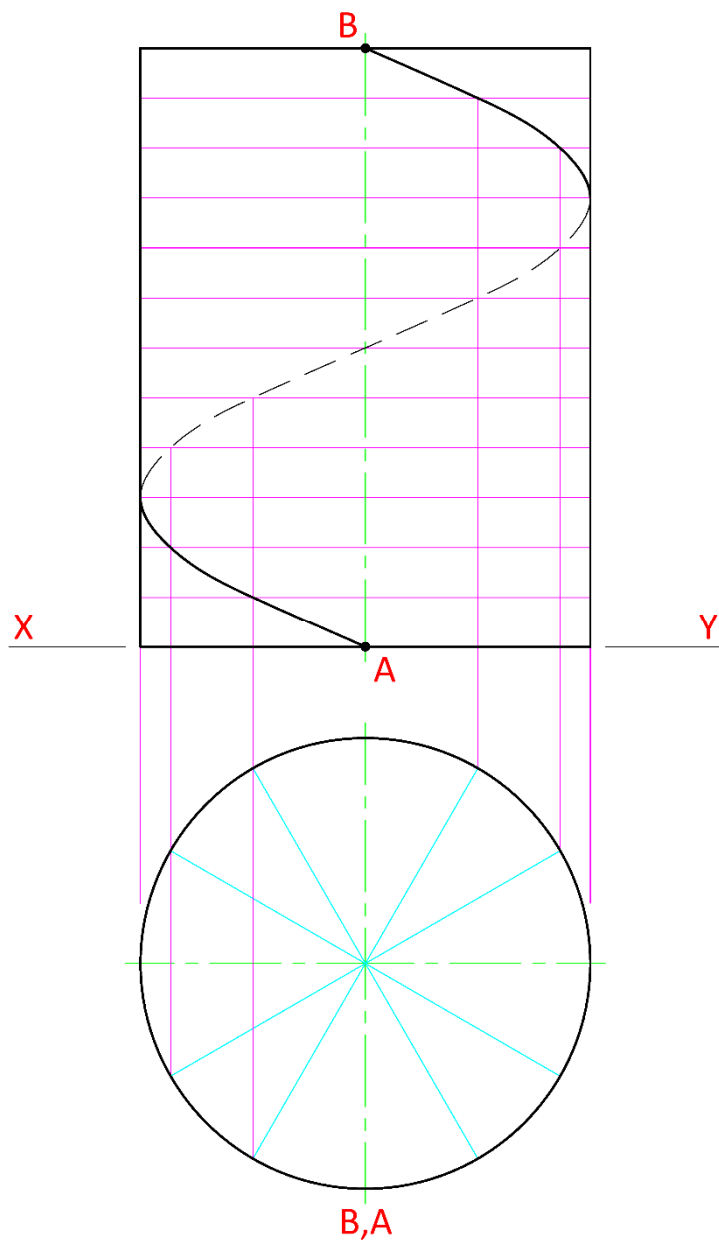
Marking Scheme

Question C-2

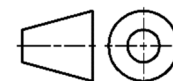
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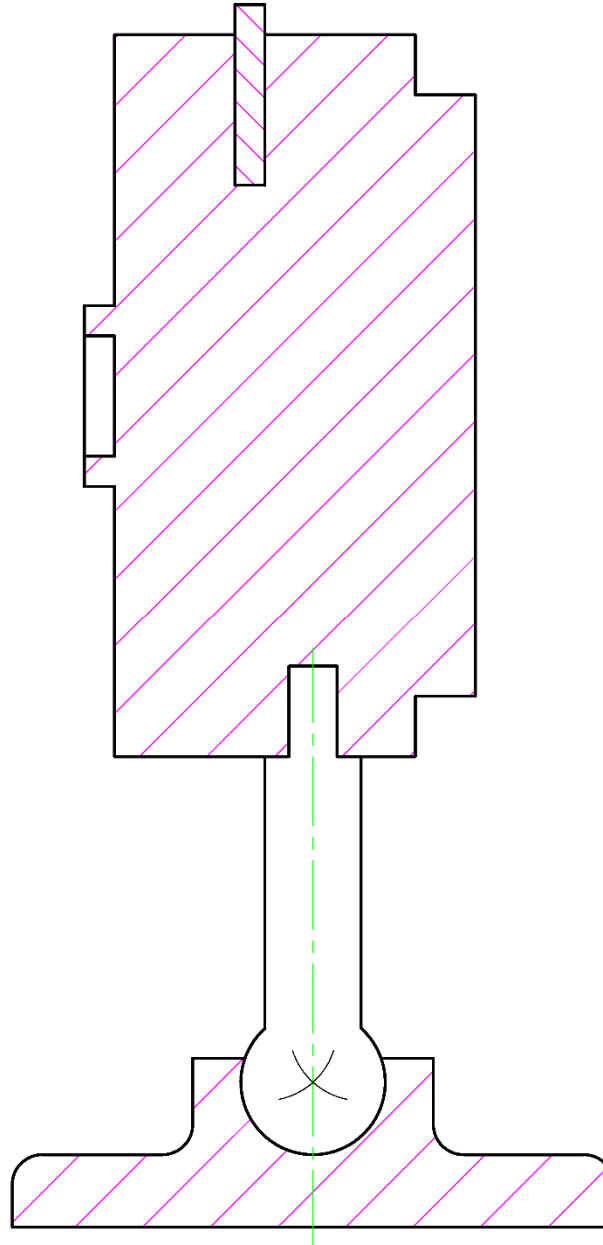


Marking Scheme

Question C-4

Scale: n/a

June 2025



Design & Communication Graphics – Ordinary Level		
	Marking Scheme	
	Question C-5	
	Scale: n/a	June 2025

Design and Communication Graphics
Student Assignment - Ordinary Level
Assessment Sheet 2025



Coimisiún na Scrúduithe Stáit
 State Examinations Commission

Candidate Examination No.

No.	Marking criteria				Marks
1	Design Research & Design Feature Comparison				
	Exploration of brief; Presentation of existing artefacts in graphic format; Select two artefacts; Illustrate and explain the main design features and dimensions of each; Compare and contrast the main design features; Effective use of freehand sketches and other presentation techniques; Effective layout and presentation of information.	30			
2	Freehand Graphical Representation				
	Detailed graphical presentation of the selected artefact; Rendered freehand presentation drawing in 3D format; Proportion/Form/Volume; Use of Tone/Line for effective rendering; Effective layout & presentation.	20			
3	SolidWorks Parts, Assembly, Drawing and eDrawing files				
	Adherence to required filing structure	35	4		
	Creation of a minimum of 3 Part files		6		
	Part models - Proficiency in the modelling of the SolidWorks parts; Selection of appropriate sketches and profiles; Use of relations; Sketches fully defined; Selection of appropriate features; Use of end conditions; Features renamed		14		
	Factor of difficulty/Design intent demonstrated in SolidWorks modelling		3		
	Assembly - Creation of Assembly from the parts modelled; Accuracy of parts to facilitate correct assembly; Correct and appropriate mating of parts; Application of appropriate appearances/materials/textures or colours		6		
	eDrawing of CAD model		2		
4	Hardcopy outputs from SolidWorks				
	Detailed orthographic views of the assembled artefact; Inclusion of main dimensions, notes and symbols; Rendered pictorial view of CAD Assembly; Exploded view of CAD Assembly; Section/Detail view(s) where appropriate; Effective layout scaling and presentation of Drawing sheet(s)	25			
5	Graphical exploration of design solutions				
	Analysis and exploration of possible modification(s) or concept design; Graphical development and progression of a chosen solution; Justification of the chosen solution; Use of appropriate sketches, images, graphics and annotations; Effective layout and presentation.	20			
6	Presentation of Modification/Concept Design				
	Detailed graphical presentation of the selected design Modification(s) / Concept Design; Rendered freehand presentation drawing in 3D format; Proportion/Form/Volume; Use of Tone/Line for effective rendering; Effective layout and presentation.	10			
7	SolidWorks files and Hardcopy output				
	Proficiency in the modelling of the SolidWorks part(s)/Assembly design solution; Design intent/factor of difficulty demonstrated in SolidWorks modelling	20	10		
	Detailed orthographic views of the design solution; Inclusion of main dimensions, notes and symbols; Rendered pictorial views of the Assembly; Effective layout, scaling and presentation of Drawing sheet(s).		10		
Sub-total					
Marks deducted for pages in excess of maximum					
Student Assignment Total					

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